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## Science Roll-up Sleeve T-shirt, Style #1501

### Features:

Super heavyweight 100% cotton jersey knit

Available in medium, large and extra large sizes

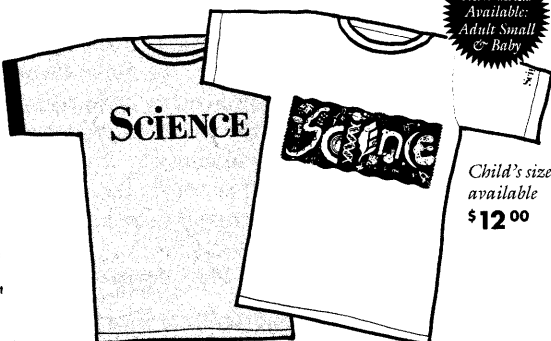
Ash shirt with blue trim roll-up sleeves

Crew neck & hemmed bottom

Oversized, relaxed fit

Made in the USA

Full front imprint of SCIENCE logo in blue



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AAAS Member Price. Includes shipping in U.S.  
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### Features:

White Hanes Beefy-T, super heavyweight 100% cotton jersey knit

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Crew neck & hemmed bottom

Slightly oversized fit

Made in the USA

Full front and left sleeve imprint in blue

Child's size available  
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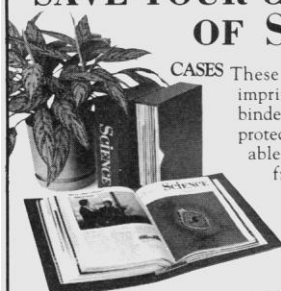
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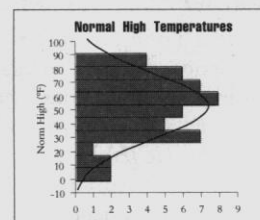
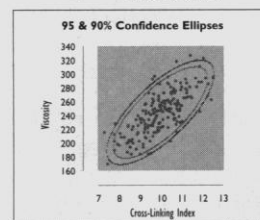
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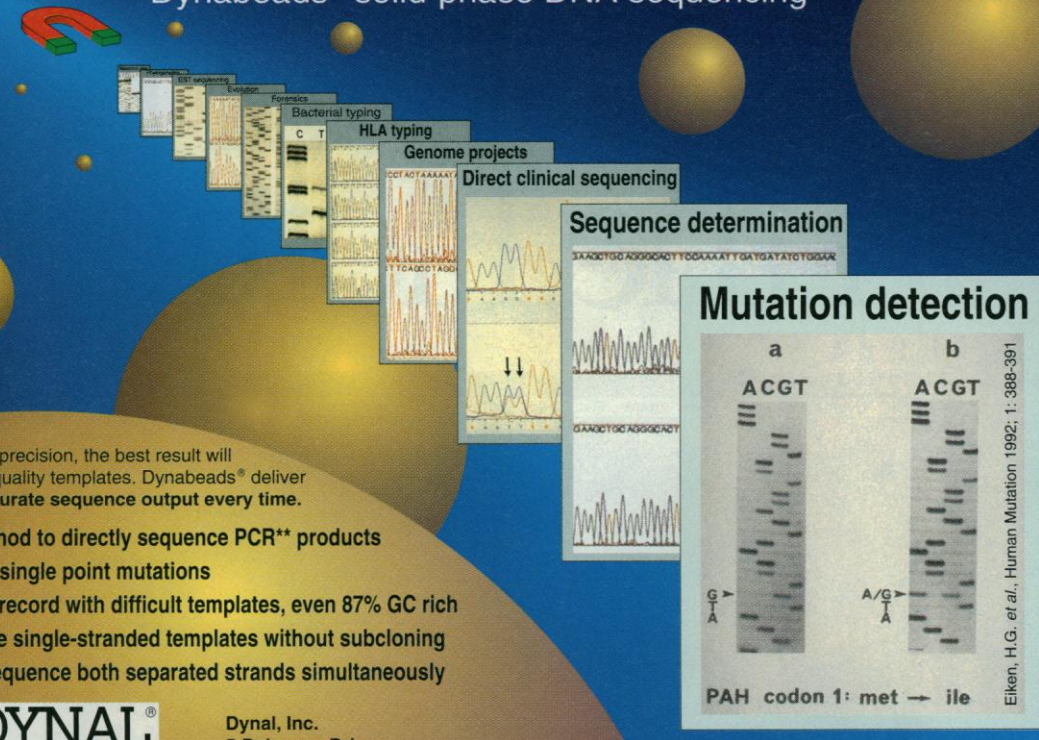
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- Differential Effects of Glycosphingolipids on Protein Kinase C Activity in PC12D Pheochromocytoma Cells: *Yu, R.K.; Ariga, T.; Yoshino, H.; Katoh-Semba, R.; Ren, S.*
- Role of Protein Phosphorylation in Regulation of Brain L-Glutamate Decarboxylase Activity: *Bao, J.; Nathan, B.; Hsu, C.C.; Zhang, Y.; Wu, R.; Wu, J.Y.*
- Mechanisms of Tax Regulation of Human T Cell Leukemia Virus Type I Gene Expression: *Franklin, A.A.; Nyborg, J.K.*
- Apolipoprotein E Genotyping in Turkish Myocardial Infarction Survivors and Healthy Controls: *Hergenc, G.; Taga, Y.; Emerk, K.; Cirakoglu, B.*
- Differential Effects of Corticotropin-Releasing Hormone on Central Dopaminergic and Noradrenergic Neurons: *Pan, J.T.; Lookingland, K.J.; Moore, K.E.*
- New Insights into the Structure and Function of the Thyroid Hormone Receptor: *Cheng, S.Y.*
- Structural Organization of the Spliced Immediate-Early Gene Complex that Encodes the Major Acidic Nuclear (IE1) and Transactivator (IE2) Proteins of African Green Monkey Cytomegalovirus: *Chang, Y.N.; Jeang, K.T.; Lietman, T.; Hayward, G.S.*

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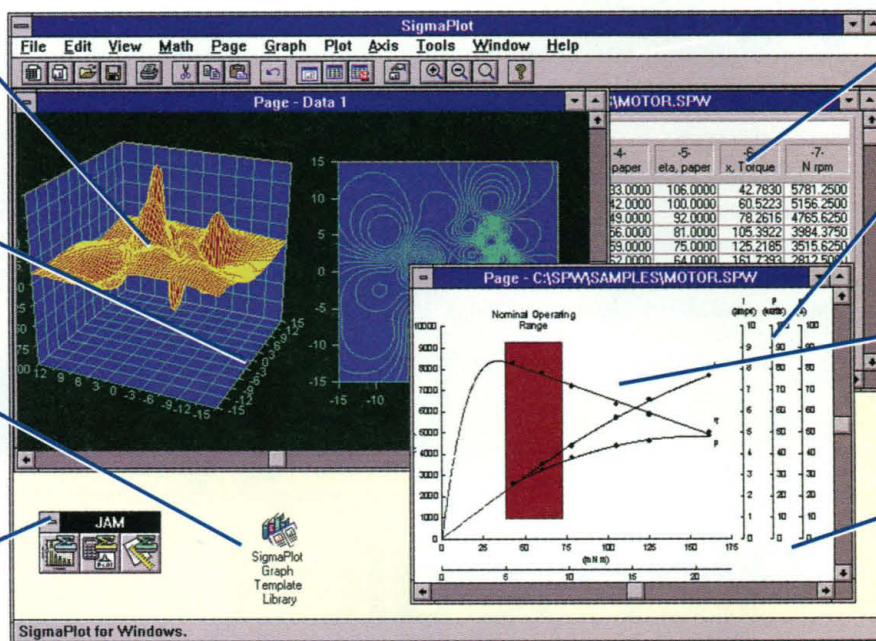
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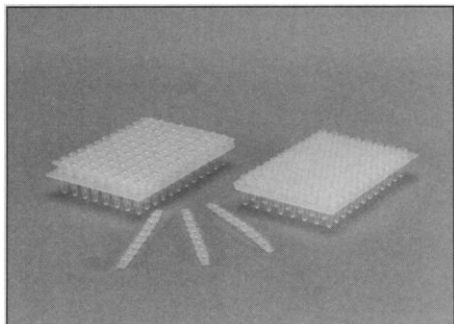
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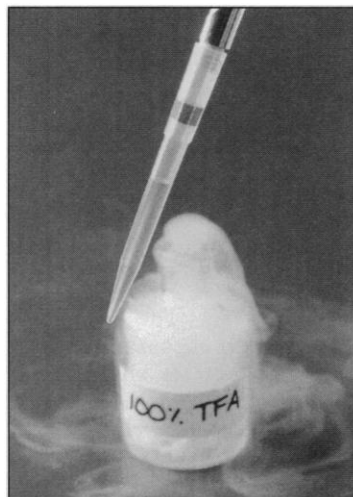
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### Literature

*Enzymes 95 Catalog* features more than 50 restriction endonucleases and DNA modifying enzymes. Clontech Laboratories. Circle 147.

*Oligonucleotide Synthesis Service* is a flyer on a service that includes enzyme labeling, support of antisense research, and bulk production of oligonucleotides. *Custom Services* highlights offerings including DNA manipulation, gene construction, and DNA sequencing. R&D Systems. Circle 148.

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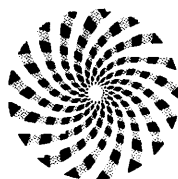
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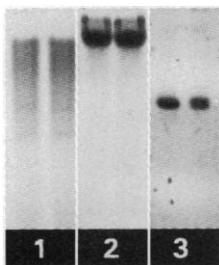
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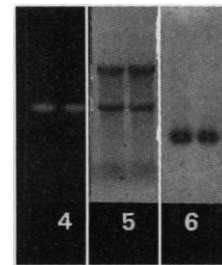
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## POSITIONS OPEN



### PHYSIOLOGY FACULTY Medical College of Ohio Toledo, Ohio

The Department of Physiology and Molecular Medicine at the Medical College of Ohio invites applications for a tenure-track position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. Candidates must have a Ph.D., M.D., or equivalent, postdoctoral research experience, and either funded grants or significant potential for developing independent funding. All candidates with a record of excellence in research and a commitment to graduate and medical education will be considered, but preference will be given to candidates conducting research in the areas of cardiovascular or renal physiology at any level of organization from molecular biology to integrative physiology. The successful candidate will join a diverse department with strengths in integrative physiology, molecular endocrinology, and the molecular biology/genetics of hypertension. To apply, send a curriculum vitae and the names of three references to: **Patricia J. Metting, Ph.D., Chairman, Physiology Search Committee, Department of Physiology & Molecular Medicine, Medical College of Ohio, P.O. Box 10008, Toledo, OH 43699-0008.** *The Medical College of Ohio is an Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT PROFESSOR PLANT CELL AND MOLECULAR BIOLOGY

This **TENURE-TRACK POSITION** (80% research and 20% teaching) is available on September 1, 1995. The successful candidate is expected to develop an independent research program on molecular and cellular responses of plants to abiotic stresses of importance to agriculture in the State of Arizona and throughout the southwestern United States. The research approach should integrate the application of molecular and cell biology to elucidate fundamental mechanisms regulating the response of plants to environmental stresses such as drought, high temperature, or salinity. Opportunities exist for research collaborations with faculty in the department and in related departments working at both the cellular and whole plant levels. The successful candidate will be expected to participate in undergraduate and graduate teaching, including development, of a graduate course in their area of specialization. The position requires a Ph.D. degree in plant biology or a closely related field with an emphasis in cell and molecular biology. Candidates must demonstrate excellence in research and the communication skills necessary to be an effective teacher. The individual must have postdoctoral experience with an ability to attract extramural funding. Send letter of application including statement on research and teaching, résumé and copies of transcripts, and have three letters of reference sent to: **Robert T. Leonard, Professor and Head, Department of Plant Sciences, The University of Arizona, Tucson, AZ 85721.** Application Deadline: June 1, 1995. *The University of Arizona is an Equal Employment Opportunity/Affirmative Action/ADA Employer. Women and minorities are encouraged to apply.*

### ASSOCIATE/ASSISTANT PROFESSOR OF MEDICINE

The Division of Hematologic Malignancies of the Dana-Farber Cancer Institute and Department of Medicine, Harvard Medical School, is inviting applications from individuals interested in the areas of the molecular characterization of leukemia or lymphoma oncogenes, hematopoietic stem cell biology, or the regulation of differentiation of hematopoietic cells. Applicants for this **TENURE-TRACK POSITION** should have an M.D. or M.D./Ph.D. degree and should have a particular interest in translational medical research. The new faculty member will be expected to develop an independent research program and participate in the teaching of medical and graduate students. Competitive laboratory space, salary, and start-up funds are available.

Applicants should submit their curriculum vitae, a description of research plans, and the names of three references to: **James D. Griffin, M.D., Division of Hematologic Malignancies, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.** *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR TOXICOLOGY/PHYSIOLOGY

Department of Entomology, Auburn University. 12-month, **TENURE-TRACK POSITION**; 75% Research, 25% Teaching. Responsibilities include teaching Insect Toxicology and Insect Physiology; developing strong research program in insect toxicology relating to mechanisms of resistance, physiological responses to toxicants, or other aspects of toxicology involving modern approaches and methodologies. Qualifications: Ph.D. in Entomology or related field, with experience in insect toxicology/physiology. Demonstrated success or potential for outstanding teaching and acquiring extramural funding for research. Postdoctoral experience desirable. Application deadline May 1, 1995. Send cover letter, curriculum vitae, statement of research interests, transcripts of all college/university course work, and names/addresses of three references to: **Dr. Gary R. Mullen, Chair, Toxicology Search Committee, Department of Entomology, Auburn University, AL 36849-5413.** Telephone: 334-844-2554; FAX: 334-844-5005. *Auburn University is an Equal Opportunity Employer.*

### THEORETICAL EVOLUTIONARY BIOLOGIST

Harvard University invites applications from theoretical biologists whose research addresses mathematical theories of population genetics, molecular evolution, or phylogenetic inference. The appointment will be in the Department of Organismic and Evolutionary Biology and may be at the level of either **ASSISTANT PROFESSOR**, **ASSOCIATE PROFESSOR**, or **TENURED PROFESSOR** according to the qualifications of the chosen candidate. Prior to August 1, 1995, applicants should submit a curriculum vitae, a statement of research interests and teaching experience, and the names and addresses of three references to: **Professor Daniel L. Hartl, Chairman, Theoretical Biology Search Committee, Department of Organismic and Evolutionary Biology, Harvard University, 16 Divinity Avenue, Cambridge, MA 02138.** *Harvard University is an Affirmative Action/Equal Opportunity Employer. We encourage applications from women and minority candidates.*

### TENURE-TRACK FACULTY POSITION HEMATOLOGY DIVISION DEPARTMENT OF MEDICINE

**ASSISTANT PROFESSOR** position open immediately to study hematopoietic cell growth and differentiation. Candidates should have a Ph.D. degree and should be experienced in cellular and/or molecular biology as shown by a solid publication record. Previous experience in hematopoietic cell culture desirable. Send curriculum vitae and names of three references to: **Dr. Sanford B. Krantz, Director of Hematology, C-3101 Medical Center North, Vanderbilt University Medical Center, Nashville, TN 37232.** FAX: 615-343-4589. *An Affirmative Action/Equal Opportunity Employer.*

### MOLECULAR/CELLULAR IMMUNOLOGIST

The Virginia Mason Research Center in Seattle, Washington, is recruiting an **ASSISTANT/ASSOCIATE PROFESSOR** level investigator to establish an independent research program in immunobiology. Preference will be given to applicants with expertise in molecular and cellular immunology, and whose interests interface with the highly interactive research environment at Virginia Mason Research Center, which emphasizes human immunogenetics and autoimmunity. Please reply by June 15, 1995, with curriculum vitae and statement of research interests to: **Gerald T. Nepom, M.D., Ph.D., Virginia Mason Research Center, 1000 Seneca Street, Seattle, WA 98101.** *An Affirmative Action/Equal Opportunity Employer.*

Fairmont State College: Anticipated undergraduate tenure-track **ASSISTANT PROFESSOR** position in Biology. Teaching responsibilities will include introductory biology, botany, field biology and plant physiology. Ph.D. preferred. Preference will be given to candidates with postdoctoral, teaching and computer experience. Review of applications will begin April 15, 1995. Send curriculum vitae and letter of application, which includes your personal philosophy of education, undergraduate and graduate transcripts, and arrange for three letters of recommendation to be sent to: **Dr. Albert Magro, Chair, Division of Science, Mathematics and Health Careers, Fairmont State College, Fairmont, WV 26554.** *Equal Opportunity/Affirmative Action Institution.*

## POSITIONS OPEN

### ADMINISTRATIVE VICE PRESIDENT THE ASPEN CENTER FOR PHYSICS

The Aspen Center for Physics is seeking candidates for the position of **ADMINISTRATIVE VICE PRESIDENT**. This is a twelve-month position providing administrative oversight for the Center, which functions primarily during the summer season from late May to early September, and during the month of January when several winter conferences are held. Duties include administrative oversight of admissions, the scientific programs, and housing; staff supervision; the preparation of grant proposals; and leadership for the educational outreach work of the Center. Candidates should hold a Ph.D. in physics and preferably have had some administrative experience. The appointment can begin as early as September 1995. To apply please submit an application including a curriculum vitae and publication list to: **Thomas Appelquist, President, The Aspen Center for Physics, 600 West Gillespie Street, Aspen, CO 81611.**

### CARDIOVASCULAR PHYSIOLOGIST

The University of Kansas Medical Center invites applications for a tenure-track position at the **ASSISTANT or ASSOCIATE PROFESSOR** level, to be filled as early as September 1, 1995. Primary appointment will be in the Department of Physiology, with a secondary appointment in the Division of Cardiology, Department of Medicine. We are seeking a person who can establish a strong research program with interactions between basic and clinical cardiovascular biology. An excellent salary and laboratory start-up package are available. Candidates should submit a letter of application, curriculum vitae, description of research interests and names of three references to: **Norberto C. Gonzalez, M.D., Search Committee, Department of Physiology, University of Kansas Medical Center, Kansas City, KS 66160-7401.** Initial screening of applicants will begin May 15, 1995. *An Equal Opportunity/Affirmative Action Employer.*

Molecular Biologist: **ASSISTANT PROFESSOR** at Montana State University-Billings. One-year, fixed-term faculty position (contingent on funding) to begin Fall Semester 1995 (August). Responsibilities include teaching Cell and Molecular Biology to biology majors, General Biology to non-science majors, and a specialty course in the incumbent's area of expertise, but preferably modern Developmental Biology. Appropriate terminal degree required in Molecular Biology (Ph.D. or comparable) and scholarly accomplishments (teaching and/or research). Review of applications to begin April 21, 1995. Position is open until filled. Send cover letter with statement of teaching philosophy and research interests, curriculum vitae, copies of transcripts and three letters of recommendation to: **Search No. 95-22, Chair, Molecular Biology Screening Committee, Human Resources/EEO-AA Office, Montana State University-Billings, 1500 North 30th Street, Billings, MT 59101-0298.** Telephone: 406-657-2278; FAX: 406-657-2120. *Affirmative Action/ADA/Equal Employment Opportunity Employer.*

The Division of Nephrology, Department of Medicine, University of California, Irvine (UCI), is seeking to recruit a **MANAGER** with M.D. and/or Ph.D. degree for its research laboratories. The qualified individual is expected to pursue and coordinate investigation of the cellular and molecular bases of hypertension and arteriosclerosis. The position is associated with a faculty appointment in the research or research professorial series. Salary is commensurate with experience and the level of appointment. Send curriculum vitae to: **N. D. Vaziri, M.D., Professor and Acting Chair, Department of Medicine, Chief, Division of Nephrology, University of California, Irvine, Medical Center, Building 53, Route 81, Room 213, Orange, CA 92668-3298.**

UCI: Rooted in Education, Enriched by Diversity.

Biology Instructor. Truckee Meadows Community College seeks tenure-track, academic year (nine months) **INSTRUCTOR**. Minimum qualifications: M.S. in biological science (physiology/anatomy/cell-molecular biology or closely related field); two years of postsecondary teaching experience. For application packet: **TMCC Personnel, 7000 Dandini Boulevard, Reno, NV 89512.** Telephone: 702-673-7168; FAX: 702-674-7560. Application deadline: May 5, 1995. *Equal Opportunity Employer/Affirmative Action.*

## POSITIONS OPEN

### ENDOWED CHAIR IN NEUROSCIENCE

The Department of Neurology and the Center for Investigative Neuroscience is seeking an outstanding individual with a strong, well-established research program who is using cellular and molecular approaches for studying basic neurobiological mechanisms related to neuromuscular disorders. Areas of special interest include trophic/nutritional aspects, axonal growth and regeneration, synapse formation, and animal models of disease and gene therapy, including transgenics. The Bowman Gray School of Medicine of Wake Forest University offers a unique opportunity to interact with a broad range of neurobiologists with diverse interests that comprise part of a strong and active interdisciplinary Ph.D. program in Neuroscience with 25 graduate students and over 70 faculty. In addition, opportunities exist for interactions with many other faculty using cellular/molecular approaches in several departments including Neurobiology and Anatomy, Physiology/Pharmacology, Biochemistry, Molecular Genetics, Immunology and Cancer Biology. Please send a curriculum vitae, a statement of research interests, two recent representative publications and the names of three references to: **Dr. Donald Woodward, Director, Center for Investigative Neuroscience, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC 27157-1010.** *Affirmative Action/Equal Opportunity Employer.*

### HEAD Plant and Soil Science Department University of Tennessee, Knoxville

The **HEAD** is responsible for curriculum and academic affairs, research agendas, departmental personnel and facilities, financial matters, and for developing and maintaining strong working relationships with department faculty and staff, university administrators, other academic departments and extension sections, government agencies, industry and the private sector. The Head is expected to have those personal attributes necessary to positively challenge and decisively lead the department. An earned Ph.D. in plant or soil science or a closely related agronomic field and a record of professional accomplishments in teaching and research are required. Ability to provide progressive leadership and a commitment to the development of students, faculty and staff are desired.

Applicants should provide a letter of application, résumé, and names, addresses and telephone numbers of four references. Applications from women and minority candidates are especially encouraged. Screening of applicant credentials will begin on June 15, 1995, and continue until the position is filled. Submit application to: **Dr. Kelly R. Robbins, Chairman, Search Committee, The University of Tennessee, P.O. Box 1071, Knoxville, TN 37901-1071.** Telephone: 615-974-3130; FAX: 615-974-7297.

### DIRECTOR, PROGRAM IN DIABETES RESEARCH

Department of Medicine at Case Western Reserve University, University Hospitals of Cleveland, and the V.A. Medical Center seek an outstanding investigator (M.D. or Ph.D.) to develop and direct a Program in Diabetes Research. Adequate research space and resources to recruit three additional faculty will be available. Applicants should submit curriculum vitae and names of three references to: **F. Ismail-Beigi, M.D., Ph.D., Clinical and Molecular Endocrinology, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-4951.** *Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer. Applications from women and minority groups are encouraged.*

### BIOLOGY FACULTY POSITION

**ASSISTANT PROFESSOR.** The Biology Department of Mercyhurst College has a new non-tenure-track position to teach anatomy and physiology to allied health students. Applicants who teach microbiology and/or genetics will be considered preferentially. Independent research with biology majors will be encouraged. Ph.D. required. Send curriculum vitae, transcripts and names of three references to: **Dr. Lewis M. Lutton, Biology Department, Mercyhurst College, Erie, PA 16546.** Applicants will be evaluated when received. *Mercyhurst College is an Equal Opportunity/Affirmative Action Institution.*

## POSITIONS OPEN

### NON-CLINICAL LECTURESHIP PHYSIOLOGY The Queen's University of Belfast School of Biomedical Science

This is a newly created post, tenable from 1 June 1995 or such other date as may be agreed, to undertake research and teaching in physiology and related areas. It is expected that the appointee will make a small contribution to teaching during the first three years, but thereafter will make a full contribution to teaching of physiology to medical, dental, biomedical science and other students.

Applicants must have a medical degree or equivalent or BSc Hons or equivalent in a relevant subject; a Ph.D., M.D. or equivalent; research experience likely to attract funding from grant awarding bodies operating in the United Kingdom and a proven track record of good publications in quality journals. Teaching experience is desirable. Those close to submitting for a higher degree will also be considered.

Informal enquiries to: **Professor K. E. Carr, Director of School; telephone: 01232-335798.**

Salary scale: Lecturer Grade A: £14,756 to £19,326, or Grade B: £20,133 to £25,735 with eligibility for USS. Assistance with relocation as appropriate.

Further particulars are available from the **Personnel Officer, The Queen's University of Belfast, BT7 1NN Northern Ireland. Telephone: 01232-245133 ext. 3044/3246 or FAX: 01232-324944/310629.** Closing date: 19 May 1995.

*The University is a charity, established in 1845 to advance education. Committed to an Equal Opportunities policy and selection on merit, it welcomes applications from all sections of the community. Under its affirmative action programme it particularly welcomes applications from women for academic posts.*

### OREGON HEALTH SCIENCES UNIVERSITY (OHSU)

#### Center for Research on Occupational and Environmental Toxicology (CROET)

Growing multidisciplinary research institute focused on the brain and behavior invites applications for **FACULTY POSITIONS** in molecular toxicology or pharmacology. Interactive, team-oriented, independent scientists focused on chemical perturbations of gene expression in neurodegeneration, development or aging are sought. Start-up funds, competitive salaries (50% start-supported), and generous benefits package. Applications accepted until positions filled; reviews to begin May 1, 1995.

Send curriculum vitae, career goals, representative publications, and three references to: **Dr. P. S. Spencer, Center for Research on Occupational and Environmental Toxicology (L606), Oregon Health Sciences University, Portland, OR 97201-3098.** *OHSU is an Equal Opportunity/Affirmative Action Employer.*

University of Wisconsin-Madison. The Department of Psychiatry is seeking applicants for a position with significant responsibilities in the area of Neuro-imaging. Candidates must have an M.D. and/or Ph.D. for tenure-track appointment. Responsibilities include establishing an independent research program in the area of the functional neuroanatomy of emotional and cognitive processes related to psychopathology. Candidates should have appropriate experience to conduct research with PET and/or FMRI. Other duties include medical student and resident teaching, service on appropriate department and Medical School committees and participation in other departmental activities. Send curriculum vitae and cover letter to: **Dr. Ned Kalin, D6/250, Department of Psychiatry, University of Wisconsin Medical School, 600 Highland Avenue, Madison, WI 53792.** *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

The Creighton-Nebraska Department of Psychiatry is seeking an individual with a Ph.D. and postdoctoral training in neuropharmacology or a related discipline. The applicant should have achieved some recognition in research relevant to CNS function which is of potential application to the understanding and treatment of human psychopathology. It is expected that the successful candidate for this position will establish an independent research program capable of attracting external funding. **FACULTY** rank and salary commensurate with experience. Send curriculum vitae, statement of research interests, and three letters of reference to: **William Burke, M.D., Director of Research, Department of Psychiatry, 600 South 42nd Street, Omaha, NE 68198-5575.** *Women and minorities are encouraged to apply. Equal Opportunity/Affirmative Action Employer.*



# Tenure-Track And Postdoctoral Opportunities.

Listed below are some of the outstanding research training opportunities that are currently available at the National Institutes of Health.

## Tenure-Track Positions

### Assistant Professor Equivalent

#### Immunology

##### Stephen E. Straus, MD

A tenure-track position is available for an MD or MD/PhD scientist to develop an independent research program on the nature and regulation of mucosal immune responses to viruses or bacteria. A record of imaginative bench research is required. Subspecialty training in Allergy/Immunology or Infectious Diseases is desirable. Space, a technician, postdoctoral fellows, research budget, and competitive salary are committed. Applicants must be US citizens or permanent residents. A two-page statement of research interests and goals should be submitted in addition to three letters of recommendation. Laboratory of Clinical Investigation (OE-74), NIAID, Building 10, Room 11N228, 10 CENTER DR MSC 1888, BETHESDA MD 20892-1888.

#### Molecular Genetics

##### Clifton Bogardus, MD

A position is available in Phoenix, Arizona to develop an independent research program into the genetic causes of diabetes mellitus in the Pima Indians in Arizona. Candidates should have experience in human molecular genetics including PCR-based genotyping, physical mapping, gene isolation and identification, and gene expression. Support by a technician, postdoctoral fellow and a fully equipped laboratory (~600 sq. ft.) will be provided. A two-page statement of research interests and goals should be submitted in addition to three letters of recommendation. Clinical Diabetes and Nutrition Section (OE-74), NIDDK, 4212 North 16th Street, Phoenix, AZ 85016.

## Postdoctoral Positions

#### Immunology

##### Rachel R. Caspi, PhD

The research focuses on cellular and molecular mechanisms in T cell-mediated autoimmunity affecting the retina. The goal is to understand the normal development and the pathological breakdown of self-tolerance to retinal antigens, and to use this information to develop immunotherapeutic approaches to uveitis. Rodent models and clinical material are available. Applicants must have experience in cellular and/or molecular immunology. Laboratory of Immunology (OE-74), NEI, Building 10, Room 10N222, 10 CENTER DR MSC 1858, BETHESDA MD 20892-1858.

#### Signal Transduction and Oncogenesis

##### Jacalyn H. Pierce, PhD

The role of oncogenes, growth factors, growth factor receptors and "downstream" mitogenic signal transducing molecules in neoplastic and normal cell proliferation is being studied. Emphasis is placed on signaling pathways mediated through cytokine and tyrosine kinase-containing receptors. Candidates should have experience in molecular

and/or cellular biology techniques and less than five years of postdoctoral experience. Laboratory of Cellular and Molecular Biology (OE-74), NCI, Building 37, Room 1E24, 37 CONVENT DR MSC 4255, BETHESDA MD 20892-4255.

#### Structural and Molecular Biochemistry

##### Kiyoshi Mizuuchi, PhD

A position is available to work on a structural and molecular biochemical study of the mechanism of the transpositional recombination reaction of phag Mu. Candidates should have a strong background in X-ray crystallography, enzymology, or molecular biochemistry and have less than five years of postdoctoral experience. Laboratory of Molecular Biology (OE-74), NIDDK, Building 5, Room 237, 5 CENTER DR MSC 0540, BETHESDA MD 20892-0540.

#### Transcriptional Gene Regulation

##### Keiko Ozato, PhD

Mechanisms of action of transcription factors involved in gene regulation mediated by interferon/virus or by retinoids/vitamin are studied. Functional interactions of these factors with the basal transcriptional machinery are studied using *in vitro* transcription assays. Genomic footprinting is used to study promoter occupancy in cells with targeted gene disruption. Candidates should have less than five years of postdoctoral experience. Laboratory of Molecular Growth Regulation (OE-74), NICHD, Building 6, Room 2A01, 6 CENTER DR MSC 6753, BETHESDA MD 20892-6753.

#### Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings, you may access the NIH EDNET Bulletin Board POSTDOC conference via Internet ([wylbur.cu.nih.gov](http://wylbur.cu.nih.gov)) or modem (1,301-402-2221 or 1,800-358-2221) with parameters set at "7,Even,1". When connected to NIH, type in "vt100" for terminal emulation, "F5E" for initials, and "AJL1" for account number.

The Postdoctoral Research Fellowship Opportunities catalog, which describes intramural laboratories at the NIH, is also available by request. An electronic version of the catalog may be accessed via the Internet using either the Gopher Information System ([gopher.nih.gov](http://gopher.nih.gov)) or the World Wide Web (<http://www.nih.gov>). When connected, select *Research Opportunities at the NIH*. If you would like to request a catalog or have further questions, please contact the NIH Office of Education, Building 10, Room 1C129, 10 CENTER DR MSC 1158, BETHESDA MD 20892-1158, 301-402-1603, Fax 301-402-0483.

#### To Apply

If you hold a doctoral degree (e.g., PhD, MD/PhD, MD, DO, DDS, DMD or DVM) accompanied by previous laboratory research experience, and would like to be considered for one of these positions, please send a cover letter, *curriculum vitae*, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



# National Institutes Of Health

## Office of Education

The NIH is an Equal Opportunity Employer

## POSITIONS OPEN

Teaching Position—Ecologist/Environmental Scientist. The Department of Biology, Emory University, invites applications for a teaching position at the **ASSISTANT PROFESSOR** rank for a non-tenure-track, one-year term beginning in September 1995, with a possibility of renewal for up to three years. The successful applicant should have training in community/ecosystem ecology and environmental science, innovative interdisciplinary approaches in teaching environmental studies, expertise in computer use for teaching and communication, and strong evidence of excellent teaching. The position is assigned to the Human and Natural Ecology Program where responsibilities are teaching introductory and advanced courses in environmental studies and ecology, advising students and some administration. Send curriculum vitae, a statement addressing how you meet our criteria for a candidate, and three letters of recommendation to: **Dr. Harvey L. Ragsdale, Human and Natural Ecology Program, Emory University, Atlanta, GA 30322.** Review of applications will begin immediately and the position will remain open until filled. *Emory is an Equal Opportunity/Affirmative Action Employer.*

**BIOLOGY FACULTY POSITION:** The Minnesota Academy of Mathematics & Science invites applications for a biology faculty position available in July 1995. Applicants must be broadly trained biologists, specializing in environmental biology. The Academy is the nation's first private residential secondary institution offering an accelerated and enriched mathematics, science and technology program to motivated and talented students. The Academy is a member of The Minnesota Preparatory Schools education consortium composed of Cotter High School, The Academy, The Preparatory School for the Arts, De La Salle Language Institute and Saint Mary's College of Minnesota, located in Winona, Minnesota. The successful candidate will show exceptional promise to provide vision, focus, and innovation to the biology curriculum. Effective teaching and the ability to guide student research is essential. Ph.D. preferred. Please send a curriculum vitae, a brief description of teaching philosophy and scholarly interests, academic transcripts, and three letters of recommendation to: **Search Committee, The Academy, 1165 West Broadway, Winona, MN 55987.** The search committee will begin its evaluations on May 1, 1995. *The Academy is an Equal Opportunity/Affirmative Action Employer.*

### DEPARTMENT OF NUTRITION CASE WESTERN RESERVE UNIVERSITY

We seek a **FACULTY** member to conduct basic and clinical investigations in nutritional biochemistry and metabolism. We are particularly interested in (i) the intra- and inter-organ metabolism of nutrients, (ii) the use of stable isotope techniques for investigating these processes, and (iii) the design and testing of synthetic nutrients. The appointee will develop independent research programs and participate in the teaching and training of graduate and postgraduate students. Send curriculum vitae, representative reprints, outline of research program and names of three persons we could contact as references by May 1, 1995, to: **Dr. Henri Brunengraber, Chair, Department of Nutrition, Case Western Reserve University, Cleveland, OH 44106.** *Case Western Reserve University is an Equal Opportunity Employer and encourages applications from minorities and women.*

### MEMBRANE STRUCTURE/FUNCTION

**POSTDOCTORAL POSITION** available immediately supported by NIH grant to study the effect of omega-3 fatty acids on membrane structure/function. Interdisciplinary project will investigate the potential role of membrane-bound omega-3 fatty acids as anticancer agents. Experience in either immunology or membrane biophysics is preferred. Send (FAX preferred) curriculum vitae and three references to: **Dr. William Stillwell, Department of Biology, Indiana University, 723 West Michigan, Indianapolis, IN 46202-5132.** FAX: 317-274-2846.

### POSTDOCTORAL POSITION

To study molecular mechanisms of retinoid signal transduction in development and disease. Candidates with excellent achievements and knowledge in molecular biology should send their curricula vitae to: **Magnus Pfahl, Ph.D., San Diego Regional Cancer Center, 11099 North Torrey Pines Road, Suite 250, La Jolla, CA 92037.** FAX: 619-623-9628.

## POSITIONS OPEN



### Florida International University

**ASSISTANT PROFESSOR:** Comparative Vertebrate Anatomy. The Department of Biological Sciences has a tenure-track position available. Candidates must possess a Ph.D. degree and postdoctoral experience. Applicants with teaching experience in Human Anatomy will have preference. The candidate will establish an independent, productive research program and teach Human Gross Anatomy, and a specialty course to graduate students. To apply: send current curriculum vitae, statements of teaching and research interests, three letters of recommendation, and copies of representative publications to: **Dr. O. I. Weeks, Department of Biological Sciences, Florida International University, Miami, FL 33199.** April 30, 1995 is the deadline for receipt of applications. *Florida International University offers Equal Access/Equal Employment Opportunities to all qualified applicants.*

### VISION RESEARCH POSITION MOLECULAR AND CELL BIOLOGY

The Department of Ophthalmology, Duke University Medical Center, is seeking to fill a full-time, tenure-track, **ASSOCIATE PROFESSOR** position in genetic vision research. Applicants should have a Ph.D. and be an established, independent investigator with demonstrated ability to build a research program targeted toward gene therapy for ocular diseases. Applicants must also have extensive experience in molecular and cellular biology and a background in DNA delivery systems, especially those virally directed. Preference will be given to applicants with expertise in vision research and ophthalmic pharmacology, an interest in applying gene therapy to the disease of glaucoma, and a primary interest in the molecular biology of eye tissues. Qualified applicants should send curriculum vitae to: **David L. Epstein, M.D., Professor and Chairman, Duke University Eye Center, Box 3802, Durham, NC 27710-3802.** *Duke University is an Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available immediately to study the genetic and biochemical basis for targeting of effects of chemical carcinogen-induced DNA damage to inducible gene promoters (see *Mol. Carcinogen.*, 8:34-43, 1993; *Mol. Carcinogen.*, 10:189-198, 1994; *Ann. N.Y. Acad. Sci.*, 726:343-345, 1994). This position requires previous experience in molecular biology and cell culturing techniques. A strong background in the areas of chemical carcinogenesis, experimental therapeutics or molecular pharmacology/toxicology is highly desirable. Send a letter of application, curriculum vitae, and names of three references to: **Dr. Joshua W. Hamilton, Department of Pharmacology and Toxicology, 7650 Remsen, Dartmouth Medical School, Hanover, NH 03755-3835.** Email: [josh.hamilton@dartmouth.edu](mailto:josh.hamilton@dartmouth.edu).

*U.S. citizenship or permanent residency is required. Dartmouth College is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### GEORGETOWN UNIVERSITY Molecular Neurosurgery Laboratory

Two **POSTDOCTORAL POSITIONS** (NIH-funded) are available immediately to study gene therapy in the brain using viral vectors. (1) Gene therapy for seizures in a rodent model requiring experience working with animal models, as well as neuro-anatomical and immunohistochemical techniques; and (2) Viral therapy for brain tumors requiring a background in virology and molecular biology. Send curriculum vitae and names and telephone numbers of three references to: **Dr. Samuel D. Rabkin, Department of Neurosurgery, Georgetown University Medical Center, 3800 Reservoir Road, NW, Washington, DC 20007.** FAX: 202-687-3744.

**POSTDOCTORAL POSITIONS** are available to study the regulation of virulence gene expression and the mechanisms of resistance to antimicrobial peptides in *Salmonella*. Experience in molecular biology, bacterial genetics or protein biochemistry is desirable. Send curriculum vitae, names, addresses and telephone numbers of three references to: **Dr. E. A. Groisman, Department of Molecular Microbiology, Washington University School of Medicine, 660 South Euclid Avenue, Campus Box 8230, St. Louis, MO 63110.** *The University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### TWO POSTDOCTORAL POSITIONS MEDICAL PARASITOLOGY

Two positions are immediately available at the Swiss Tropical Institute (funded for two years). (A) In Filariasis research to study the role of recombinant allergens in immunopathological processes. Candidates should have a strong background in immunology/pathology and experience with immunological and molecular techniques and animal models. (B) In Trypanosomiasis research to study the mechanisms of drug resistance. Candidates should have a strong background in molecular biology (gene cloning, gene expression, sequencing). Previous experience with drug-resistant parasites preferred but not essential.

Applicants should send their curriculum vitae, description of previous research and current research interests and the names of three references to: **Prof. Niklaus Weiss, Head, Department of Medical Parasitology, Swiss Tropical Institute, P.O. Box CH-4002 Basel.** FAX: +4161-2718654.

### UNIVERSITY OF PENNSYLVANIA POSTDOCTORAL POSITION

#### Molecular Biology/DNA Damage Repair

**POSTDOCTORAL POSITION** available September 1, 1995, in the Department of Radiation Oncology to study DNA damage and recombination. Highly motivated candidates with an interest in improving gene therapy are encouraged to apply. Experience required in molecular biology, tissue culture and cell transformation. Gene therapy experience or skills with *in situ* hybridization would be helpful. Send curriculum vitae and the names and addresses of three references by mail or Email to: **Dr. Craig Stevens, Department of Radiation Oncology, University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104.** Email: [stevens@msmail.xrt.upenn.edu](mailto:stevens@msmail.xrt.upenn.edu). *The University of Pennsylvania is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS:** Three postdoctoral positions are available July 1, 1995, to study cell-wall assembly in *Neurospora crassa*. Two projects involve isolating genes that complement individual (1,3) $\beta$ -glucan synthase-less mutants and three other cell-wall-less mutants. Another project involves purification of (1,3) $\beta$ -glucan synthase activity from *N. crassa*. Two positions require experience in fungal molecular biology; the third requires previous protein chemistry and purification experience. Send curriculum vitae and three references to: **Claude P. Selitrennikoff, University of Colorado Health Sciences Center, B-111, Denver, CO 80262.** Email: [claudes@essex.hsc.colorado.edu](mailto:claudes@essex.hsc.colorado.edu). *The University of Colorado Health Sciences Center is committed to Equal Opportunity and Affirmative Action.*

### POSTDOCTORAL POSITION Molecular and Cellular Tumor Immunology

To study molecular and gene therapy approaches to cancer immunotherapy in animal systems and in human translational research, available July 1995. Applicants must possess a Ph.D. and demonstrated experience in molecular and cellular immunology. Send curriculum vitae and arrange for three letters of recommendation to be sent to: **Jonathan J. Lewis, M.D., Ph.D., Immunology Program, Box 126, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.** FAX: 212-794-5847. *Memorial Sloan-Kettering Cancer Center is an Equal Opportunity Employer.*

### LAB RESEARCH ASSOCIATE

Hoag Cancer Center, the leading provider of cancer care in Orange County, is seeking a **RESEARCH ASSOCIATE** with experience in growing human lymphocytes for use in adoptive cellular therapy. The ideal candidate would also have experience with growing human tumor cells in tissue culture. Qualified candidate will possess a Bachelor's degree in biology with three to five years of experience in a cell biology laboratory or a Master's degree in biology with two to three years of experience in cell biology. Candidate is expected to work with minimum supervision, be able to supervise research assistants, and possess excellent verbal and written communication skills. Must be able to work closely with other members of the laboratory with some flexibility in work schedule to accommodate patient needs and R&D.

Hoag offers excellent benefits including paid time off (cash or time), a 401(k) plan, and health benefits. Send résumé to: **Teresa LeBeau, Human Resources, Hoag Hospital, 301 Newport Boulevard, Box 6100, Newport Beach, CA 92658-6100.** FAX: 714-760-5863. *Equal Opportunity Employer.*



# SCIENCE AND MEDICINE AT FOX CHASE:

## WHERE TODAY'S DISCOVERIES LEAD TO TOMORROW'S HOPE

Research conducted by scientists at Fox Chase Cancer Center has led to ground-breaking discoveries in cancer biology and medicine today. Past achievements include: discovery of tumor function in crystallography; demonstration of tumor cell growth; discovery of hepatitis viruses and their identification as cancer viruses; elaboration of the tumor-suppressor gene and discovery of the BCL2 mouse.

Current research interests of our faculty are wide-ranging and include gene expression; molecular aspects of oncogenesis; viral molecular biology and pathogenesis; molecular structure and function analysis; pharmacology and therapeutics; regulation and development of the immune system; cell cycle control; and human genetics, including the Human Genome Project.

An energizing environment with research as its major focus, the Center has more than 60 independent laboratories where investigators enjoy a unique advantage—to pursue their passion for discovery full-time, with minimal distractions by administrative or teaching responsibilities.

### **Tenure Track Faculty Positions:**

At this time we are welcoming applications from outstanding independent investigators to fill Assistant and Associate Professor-level positions in **genetics, cellular and developmental biology, and immunobiology.**

We are interested in people using model experimental systems capable of exploiting the exploding genetic data bases. Fox Chase offers excellent shared core facilities, such as transgenic mouse, hybridoma, tissue culture, cell sorting and electron microscopy facilities, and a wide range of biotechnology and computational support services.

As a new faculty member, you will receive a generous start-up package including funds for equipment, technical assistance and operating expenses. You will have the opportunity to recruit postdoctoral trainees from our intramural program and to obtain adjunct faculty positions at nearby medical and scientific centers.

Interested candidates should send a C.V., summary of research interests and at least three references to: Search Committee, c/o Dr. A.M. Skalka, Director, Institute for Cancer Research, Fox Chase Cancer Center, 7701 Burholme Ave., Philadelphia, PA 19111.

### **Postdoctoral Training:**

Fox Chase Cancer Center also offers competitive postdoctoral fellowships for advanced laboratory training in a variety of disciplines compatible with our faculty's broad research interests. Trainees have access to the Center's core facilities for specialized technical training and to faculty-directed specialized tutorials in topics reflecting a broad scope of biomedical research interests. For information and an application, contact Dr. C. Seeger, Postdoctoral Office, Fox Chase Cancer Center, 7701 Burholme Ave., Philadelphia, PA 19111.

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

**FOX CHASE**  
CANCER CENTER  
DISCOVERY & HOPE

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS

**POSTDOCTORAL POSITIONS** are available in the University of Medicine and Dentistry of New Jersey (UMDNJ), Department of Molecular Biology. The first area is under **Dr. S. Biswas**, Professor, and includes (1) the study of enzymes involved in chromosomal DNA replication and (2) the role(s) of estrogen receptor in the development of breast cancer. These projects will employ a variety of molecular and biochemical approaches.

The second area is under **Dr. K. Battaglia**, Assistant Professor. This position is available to study membrane fusion processes in photoreceptor cells. The project utilizes biophysical and biochemical approaches to study lipid and protein mediated regulation of membrane fusion.

The ideal candidate will be a trained and motivated individual with the ability to work independently as well as a part of a team. A strong background and publications in the relevant areas are required. UMDNJ offers an excellent research environment in a growing department with new laboratories and modern research facilities. Send curriculum vitae, description of past research accomplishments and research interests and three letters of reference to either of the above individuals at the **Department of Molecular Biology, University of Medicine and Dentistry of New Jersey, Two Medical Center Drive, Stratford, NJ 08084**. UMDNJ is an Affirmative Action/Equal Opportunity Employer, Minority/Female/Disabled/Veteran, and a member of the University Health System of New Jersey.

### POSTDOCTORAL POSITION PENN STATE

Position to study blood cell interaction and adhesion to endothelium in the microcirculation using techniques of intravital microscopy. Applicants should have a Ph.D. in bioengineering, physiology, or related disciplines and experience in working with anesthetized animals, microsurgical techniques and image processing. Send curriculum vitae and the names of three references, by May 1, 1995, to: **Dr. Herbert H. Lipowsky**, Department of Bioengineering, Pennsylvania State University, 233 Hall-lowell Building, University Park, PA 16802 or Email to: [hhlbio@engr.psu.edu](mailto:hhlbio@engr.psu.edu). An Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to apply.

### T-CELL TRAFFIC IN THE BRAIN

**POSTDOCTORAL POSITIONS** to study leukocyte motility in the nervous system. Available January 1996. Include brief, specific description of relevant experience, the basis for your interest, and fellowships for which you are eligible. Reply to: **Dr. L. Lampson**, Laboratory of CNS Immunology and Tumor Biology, Department of Neurology/LMRC 116, Brigham and Women's Hospital, Boston, MA 02115.

### UNIVERSITY OF WISCONSIN

**POSTDOCTORAL POSITIONS.** To study protein and phosphoinositide kinase regulation of the cell cycle or secretion/vesicular trafficking. See *JBC*, 270:2881; *Nature*, 374:173; *PNAS*, 89:9454. Send curriculum vitae and three letters of reference to: **Dr. Richard A. Anderson**, University of Wisconsin, Molecular and Cellular Pharmacology, 3710 MSC, 1300 University Avenue, Madison, WI 53706.

**POSTDOCTORAL POSITION** available to study mechanisms regulating the beginning of gene expression and the process of neural differentiation during mammalian embryonic development. Experience in molecular biology/developmental biology preferred. Send curriculum vitae and names of references to: **Sadhan Majumder**, Departments of Neuro-Oncology and Molecular Genetics, University of Texas M.D. Anderson Cancer Center, Box 316, 1515 Holcombe Boulevard, Houston, TX 77030. Telephone: 713-792-8920; FAX: 713-794-4999. Equal Opportunity Employer/non-smoking environment.

A **POSTDOCTORAL POSITION** is available immediately to study molecular mechanisms of protein damage by sugars in aging and diabetes. Candidates should have a Ph.D. in biochemistry or chemistry with protein chemistry background. Experience with <sup>1</sup>H-, <sup>13</sup>C-NMR and mass spectrometry desirable. Send curriculum vitae and three letters of recommendation to: **R. H. Nagaraj**, Ph.D., Department of Ophthalmology, Wearn Building, Room 637, Case Western Reserve University, Cleveland, OH 44106. Telephone: 216-844-1132; FAX: 216-844-8150; Email: [nhr@po.cwru.edu](mailto:nhr@po.cwru.edu).

## POSITIONS OPEN



### POSTDOCTORAL POSITIONS Molecular and Cellular Physiology

Positions are available on a NIH Training Grant in various areas of molecular and cellular physiology, including cardiovascular, vascular smooth muscle, endothelial cells, pulmonary, neurophysiology, renal, membrane transport, thrombosis mechanisms, reproductive endocrinology, signal transduction, and gene expression. A strong emphasis is placed on modern molecular biological approaches to investigations of physiological mechanisms in transgenic and "gene knockout" mice and cell systems. Applicants must be U.S. citizens or permanent residents. Send résumé to:

**Dr. David Millhorn**, Chairman  
Department of Molecular  
and Cellular Physiology  
College of Medicine  
University of Cincinnati  
Cincinnati, OH 45267-0576

### POSTDOCTORAL POSITION Department of Microbiology and Immunology University of British Columbia

**POSTDOCTORAL POSITION** available for studies on the role of the cell cycle in cell type determination in *Dictyostelium*. Experience with gene manipulation techniques is essential and experience with protein and immunological methodologies would be an asset. The position is available immediately but the exact starting date is negotiable.

Send curriculum vitae with names of references to: **G. Weeks**, Department of Microbiology and Immunology, University of British Columbia, Vancouver, BC V6T 1Z3. FAX: 604-822-6041; Email: [gweeks@unixg.ubc.ca](mailto:gweeks@unixg.ubc.ca).

### POSTDOCTORAL POSITION

A research position is available for an experimental hematologist to collaborate with a multidisciplinary team investigating the role of altered stem and progenitor cell regulation in drug- and chemical-induced bone marrow toxicity and leukemogenesis. A recent Ph.D. with experience investigating differentiation of hematopoietic stem and/or lineage-committed progenitor cells at cellular and molecular levels is required. Specific background and interest in signal transduction events and changes in gene expression in response to regulatory cytokines is preferred. Send résumé by April 27, 1995, to: **Dr. Richard D. Irons**, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Box C235, Denver, CO 80262. The University of Colorado is committed to Equal Employment Opportunity and Affirmative Action.

### POSTDOCTORAL POSITION

Available for purification and cloning of human aldehyde dehydrogenases. Recent graduates are encouraged to apply. Submit curriculum vitae and three letters of reference to:

**Dr. Regina Pietruszko**, Ph.D.  
Center for Alcohol Studies  
Rutgers University  
P.O. Box 969  
Piscataway, NJ 08855-0969

Rutgers University is an Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION**—Cerebral Vascular Biology. A two-year postdoctoral position is now available to use molecular approaches to identify and characterize nutrient transporters of the brain endothelial cell and to study transporter expression under pathophysiological conditions. A Ph.D. in biochemistry, molecular biology or related field is required. Send curriculum vitae and names of three references by April 26, 1995, to: **Dr. L. R. Drewes**, Biochemistry and Molecular Biology, School of Medicine, University of Minnesota, 10 University Drive, Duluth, MN 55812. An Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### POSTDOCTORAL POSITION SIGNAL TRANSDUCTION

A **POSTDOCTORAL POSITION** is available immediately to study: (1) role of transmembrane receptor-like protein tyrosine phosphatases in mammalian signal transduction; or (2) protein kinases and phosphatases in yeast signal transduction, with a major emphasis on the role of a two-component sensor-regulator in the activation of an MAP kinase cascade. Applicants should have a strong background in molecular biology and/or cell biology. For project two, knowledge in yeast genetics is essential. Submit curriculum vitae, brief research summary, and three letters of recommendation to: **Dr. Haruo Saito**, Division of Tumor Immunology, Dana-Farber Cancer Institute, Harvard Medical School, 44 Binney Street, Boston, MA 02115. FAX: 617-632-4569. An Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL ASSOCIATE POSITION

Available July 1, 1995 in the Section of Nephrology to study the cellular and molecular biology of the Na/Ca exchanger in kidney. Candidates must hold either an M.D. or Ph.D. degree, and have a strong background in cellular and molecular biology. Previous experience in the generation and testing of monoclonal and polyclonal antibodies is preferred. Salary negotiable depending on experience. Please send or FAX curriculum vitae and three letters of reference to: **Robert F. Reilly**, M.D., Yale University School of Medicine, Department of Internal Medicine, P.O. Box 208029, 333 Cedar Street, New Haven, CT 06520-8029. FAX: 203-937-4723; Email: [Reilly@biomed.med.yale.edu](mailto:Reilly@biomed.med.yale.edu). Yale University is an Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITIONS

**POSTDOCTORAL POSITIONS** are available immediately to investigate the recently discovered Kaposi's sarcoma associated herpes-like virus (*Science*, 266:1865, 1994). Ph.D. and/or M.D. virologists, molecular biologists and immunologists are needed to isolate, purify and characterize the virus, and investigate the mechanisms involved in transmissibility and oncogenesis.

Submit curriculum vitae and three references by mail or FAX to: **Dr. Daniel M. Knowles**, Professor and Chairman of Pathology, Cornell University Medical Center, 525 East 68th Street, New York, NY 10021. FAX: 212-746-8192. Equal Employment Opportunity/Affirmative Action/Minority/Female.

### PROTEIN CRYSTALLOGRAPHERS

**POSTDOCTORAL RESEARCH** projects on control of reactive oxygen species, DNA-repair, and cell cycle. Superb facilities and environment. Send curriculum vitae with names of three references to: **Dr. John Tainer**, Molecular Biology MB4, The Scripps Research Institute, La Jolla, CA 92037. Email: [jat@scripps.edu](mailto:jat@scripps.edu). Minority applicants encouraged.

**POSTDOCTORAL POSITION** available to investigate mechanical, biochemical, and physiological aspects of smooth muscle contraction. Studies include isolated contractile proteins, detergent and alpha-toxin permeabilized fibers, and intact tissues to examine Ca<sup>2+</sup> dependent regulation of contraction and G-protein dependent signal transduction pathways with an emphasis on kinase/phosphatase regulation, specifically MAP kinases and protein kinase C. Experience in muscle research desirable but not necessary. Please send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Robert S. Moreland**, Bockus Research Institute, Graduate Hospital, 415 South 19th Street, Philadelphia, PA 19146.

**POSTDOCTORAL POSITION:** Signaling by G-protein coupled receptors. Position available to study the molecular basis of specificity and signaling for the parathyroid hormone/glucagon subfamily of G-protein coupled receptors. Ph.D. or M.D. with experience in molecular biology, preferably including sequencing and mammalian cell expression. Please send curriculum vitae with the names and telephone numbers of three references to: **Robert A. Nissenson**, Ph.D., University of California, San Francisco, VAMC (111N), 4150 Clement Street, San Francisco, CA 94121. FAX: 415-750-6929; Email: [chicago@itsa.ucsf.edu](mailto:chicago@itsa.ucsf.edu). Equal Opportunity/Affirmative Action Employer.



### Extensive Growth — Exciting Opportunities

Advanced technologies, visionary management, a progressive approach: these are the strengths behind Procept's focus and the reason for our rapid growth. We are expanding our core technologies — T cell biology and receptor structure-based small molecule drug design — to create novel therapeutic compounds that enhance the clinical management of diseases involving the immune system. With intense activity in all phases of research, and accelerating pre-clinical/clinical studies, we are clearly adding to the momentum of our discovery. Take advantage of the resulting opportunity.



## PROTEIN BIOCHEMISTRY

### Senior Scientist - Biophysical Chemistry

You will interact with a structure-based drug design team to evaluate the binding of lead immunosuppressive compounds to target receptors. Includes determination of affinity, stoichiometry, specificity and effects on target receptor structure. Requires Ph.D. in Chemistry/Biochemistry with 2+ years postdoctoral experience studying ligand binding to proteins, preferably utilizing various spectroscopic techniques (fluorescence/CD/UV-VIS/BIA-core).

In addition to extensive business and academic affiliations, we offer state-of-the-art facilities, support for your continuing career development, and an outstanding compensation and benefits package that includes incentive stock options. Please send your curriculum vitae to: Director of Human Resources, Procept, Inc., 840 Memorial Drive, Cambridge, MA 02139. We are an equal opportunity employer.

# PROCEPT

## Tenure Track Position HUMAN AND ANIMAL GENETICS & MOLECULAR GENETICS OF DRUG ABUSE

George R. Uhl, M.D., Ph.D.

Tenure track position available to lead a research program that will extend and complement ongoing research in the Genetics and Molecular Genetics of Drug Abuse. Candidates should have experience in genetics and molecular genetics, with preference given to expertise in human genetics of nonMendelizing disorders. Support by senior fellows, technical staff, extensive laboratory and animal space for up to six years. The candidate will be evaluated for tenure within a period not to exceed six years. If you hold a doctoral degree(s) and would like to be considered for the position, please send a cover letter, a curriculum vitae with bibliography, statement of research interests and goals (not to exceed two pages), and three letters of recommendation to: **G.R. Uhl, M.D., Ph.D., Molecular Neurobiology Branch, Division of Intramural Research, National Institute on Drug Abuse, National Institutes of Health, Box 5180, Baltimore, Maryland 21224.** Competitive salary levels with full federal benefits - an equal opportunity employer. Candidates must be U.S. citizens or permanent residents.

## MOLECULAR APPROACHES TO THE CONTROL OF INFECTIOUS DISEASES

September 13 - 17, 1995



### Organized By:

**Fred Brown, USDA, Plum Island Animal Disease Center**  
**Dennis Burton, Scripps Research Institute**  
**John Collier, Harvard University**  
**John Mekalanos, Harvard University**  
**Erling Norrby, Karolinska Institute, Sweden**

### Topics Include:

**Virus-Antibody Interactions**, Tom Smith, *Purdue University*  
**Immunological Memory**, Peter Doherty, *St. Jude's Hospital*  
**Engineered Antibodies**, Carlos Barbas, *Scripps Research Institute*  
**Viral Vaccines**, Ron Desrosiers, *Harvard University*  
**Bacterial Vaccines**, John Mekalanos, *Harvard University*  
**Parasitic Vaccines**, Ruth Nussenzweig, *New York University*  
**DNA Immunization**, Lorne Babiuk, *University of Saskatchewan*  
**Mucosal Immunity / Delivery Systems**, Jerry McGhee, *University of Birmingham*  
**Cellular Immunity**

**Albert B. Sabin Vaccine Foundation's  
second annual lecture for outstanding  
achievements in the field of vaccination.**

Meeting Coordinator SM

## Cold Spring Harbor Laboratory

1 Bungtown Road, Cold Spring Harbor, N.Y. 11724-2213

Email: [meetings@cschl.org](mailto:meetings@cschl.org)

Fax: (516)367-8845 Phone: (516)367-8346

World Wide Web Site <http://www.cshl.org/>

## EARLE A CHILES RESEARCH INSTITUTE PORTLAND, OREGON



The Earle A. Chiles Research Institute, located at Providence Portland Medical Center and a member of the Oregon Cancer Center, is a not-for-profit, academic organization committed to translational research in biological cancer therapy. Research programs, under the direction of **Bernard A. Fox** and **Deric D. Schoof**, include basic human and animal tumor immunobiology, tumor vaccine development, clinical immunotherapy and gene therapy. Applications are being accepted for the following positions:

- **POSTDOCTORAL FELLOWSHIP IN CANCER IMMUNOLOGY** (2 positions available)  
Applicants must have a Ph.D. or M.D. degree with experience in cell culture, animal tumor models or molecular and cell biology.
- **GRADUATE TRAINING PROGRAM IN TUMOR IMMUNOLOGY**  
Applications are invited for a program of study leading to a Ph.D. from the Department of Molecular Microbiology and Immunology at Oregon Health Sciences University.

Salary is commensurate with experience. Please send curriculum vitae and the names of three references to: Research Staff Committee, Earle A. Chiles Research Institute, Providence Medical Center, 4805 NE Glisan Street, Portland, OR 97213, email: [kalezm@ohsu.edu](mailto:kalezm@ohsu.edu). An equal opportunity/affirmative action employer.

## POSITIONS OPEN

### POSTDOCTORAL RESEARCHER Molecular Evolution Museum of Natural Science

A **POSTDOCTORAL RESEARCHER** position in molecular evolution is anticipated at Louisiana State University starting after May 1, 1995, pending final approval. Required Qualifications: Ph.D. or equivalent degree in Biology, Zoology, Botany or related discipline. The successful candidate will work with one or more of the following investigators: **M. Blackwell** (fungus-insect associations), **R. Chapman** (phylogeny/bryology), and **D. Foltz** (population genetics), **D. Good** (herpetology), **M. Hafner** (host-parasite coevolution), **D. Pashley** (insect-plant interactions), **F. Sheldon** (avian systematics), **M. Stine** (forest genetics), **L. Urbatsch** (vascular plant systematics). Applications will be accepted until April 30, 1995, or until a candidate is selected. Interested persons should contact: **Fred Sheldon, Museum of Natural Science, Louisiana State University, Baton Rouge, LA 70803** to receive application information. Telephone: 504-388-2855; FAX: 504-388-3075; Email: fsheld@lsuvm.sncc.lsu.edu.

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

**POSTDOCTORAL POSITION** available to study signal transduction by integrins. Experiments focus on the role of a tyrosine kinase FAK in the process as well as the role of FAK/PI3K interactions in growth factor modulation of cytoskeleton and cell migration. Experiences in molecular biology, protein biochemistry, or signal transduction required. Please send curriculum vitae and names of three references to: **Dr. Jun-Lin Guan, 221 VRT, Cornell University, Ithaca, NY 14853** or Email at [jg19@cornell.edu](mailto:jg19@cornell.edu).

### POSTDOCTORAL/RESEARCH FACULTY Structural Biology

Two positions are available immediately to study (1) structural determinants of recognition in telomeric DNA complexes and (2) folding and assembly of prokaryotic viral proteins. Both positions will involve use of laser Raman and UVRR spectroscopies to probe biomolecular structures. Background in biochemistry/biophysics or molecular biology is preferred. English proficiency is required, as some supervision of graduate students is expected. Please send curriculum vitae and have three letters of reference forwarded to: **Dr. George J. Thomas, School of Biological Sciences, BSB-403, University of Missouri, Kansas City, MO 64110**. *University of Missouri Kansas City is an Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT SCIENTIST POSTDOCTORAL FELLOW Mammary Cancer Genetics

Two positions are available for research involving mapping, cloning and functionally characterizing genes involved in mammary cancer susceptibility. Candidates for the **ASSISTANT SCIENTIST** position should have at least two years of postdoctoral experience in the general area of this project. Applicants for the **POSTDOCTORAL** position should have experience in the area of molecular genetics. Refer to Position Vacancy Listing No. 23570. Please send résumé and names of three references to: **Michael N. Gould, Ph.D., University of Wisconsin, Department of Human Oncology, K4/332 Clinical Science Center, 600 Highland Avenue, Madison, WI 53792**. Telephone: 608-263-6615.

### POSTDOCTORAL FELLOW RESEARCH ASSOCIATE

The Department of Neurology, Columbia University offers a full-time laboratory-based research position for two years beginning July 1, 1995, in the neuroimmunology laboratory of **Norman Latov, M.D., Ph.D.** Applicants must have a Ph.D. or a M.D. with expertise in molecular biology and immunology. The candidate will be expected to participate in ongoing research efforts investigating immune mechanisms of peripheral and central nervous system demyelination with particular emphasis on the pathogenesis of multiple sclerosis. Send curriculum vitae with names of three referees to: **Saud A. Sadiq, M.D., Department of Neurology, Black Research Building, Room 3-323, 630 West 168th Street, New York, NY 10032**. *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### POSTDOCTORAL FELLOWSHIP

Available immediately to study mechanisms of dementia associated with subcortical stroke using FDG PET, MRI, and neuropsychological methods. A strong neuroscience background including training in neuroanatomy, research in disorders of cognitive function, and statistical and computer skills is required. Experience in image analysis techniques is desirable. Position is located at Lawrence Berkeley Laboratory. Send curriculum vitae and three letters of recommendation to: **Drs. Bruce R. Reed and William J. Jagust, UC Davis Alzheimer's Disease Center, Alta Bates Medical Center, 2001 Dwight Way, Berkeley, CA 94704**. Telephone: 510-204-4530. *Equal Opportunity Employer.*

**POSTDOCTORAL FELLOWSHIP** in Cartilage Biology and Aging. Position available starting July 1, 1995, to study the effects of aging and osteoarthritis on the chondrocyte response to IGF-1. This position is part of a multidisciplinary program on aging and is supported by a National Institute on Aging training grant. Experience in cell culture, biochemistry, and basic molecular biology is desired. Applicants must have a doctoral degree and U.S. citizenship or permanent resident status. Please send a curriculum vitae and three letters of reference to: **Dr. Richard Loefer, The Bowman Gray School of Medicine of Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157**. *Wake Forest University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

### POSTDOCTORAL FELLOW

Position available immediately to study new approaches to protein sequence analysis that use a combination of enzymatic proteolysis and mass spectrometry. Ph.D. in biochemistry or chemistry required. Background in enzymology with experience in enzyme kinetics, protein chemistry, and protein engineering preferred. Send curriculum vitae along with names and telephone numbers of three references to: **Professor Brian T. Chait, The Rockefeller University, 1230 York Avenue, New York, NY 10021**. FAX: 212-327-7547; Email: [chait@rockvax.rockefeller.edu](mailto:chait@rockvax.rockefeller.edu). *The Rockefeller University is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL FELLOWSHIP

Position available to study the mechanism of gene regulation by transcription factors belonging to the steroid-thyroid receptor superfamily. A strong background in molecular and cellular biology and familiarity with recombinant plasmid construction, gene transfection, DNA-protein interactions assays, and protein expression in bacteria are required. Send curriculum vitae and names and addresses of three references to: **Dr. Milan Bagchi, The Population Council, Center for Biomedical Research, 1230 York Avenue, Box 273, New York, NY 10021**.

**RESEARCH ASSOCIATE/POSTDOCTORAL POSITION** available to study the biochemical-molecular basis of DNA double-strand break repair in mammalian cells and its possible association with transcriptional and cell cycle regulation using *in vitro* repair systems and various repair deficient mutants (*JBC*, 269:15981, 1994). Applicants should have a strong background in biochemistry and molecular biology. The Lankenau Medical Research Center is located in the suburbs of Philadelphia in a newly constructed research facility equipped to support state-of-the-art biomedical research. Send curriculum vitae and three letters of recommendation to: **Thomas D. Stamato, Ph.D., The Lankenau Medical Research Center, 100 Lancaster Avenue, Wynnewood, PA 19096**, or call 610-645-2888. *Equal Opportunity Employer.*

### BIOCHEMISTRY/MOLECULAR BIOLOGY HENRY FORD HEALTH SYSTEM

Biochemist/Molecular Biologist. A **STAFF OPENING** exists for a biochemist and/or molecular biologist to perform disease-oriented research on proteolytic enzymes and their inhibitors including, but not limited to, those involved in hemostasis. A doctoral degree and a minimum of three years of postdoctoral experience is required but more senior candidates will be considered. Please send curriculum vitae and a brief summary of research interests to: **Dr. J. D. Shore, Henry Ford Health System, Division of Biochemical Research, One Ford Place-5D, Detroit, MI 48202**. *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### McGILL UNIVERSITY ROYAL VICTORIA HOSPITAL MOLECULAR ONCOLOGY GROUP

The Molecular Oncology Group, Royal Victoria Hospital and McGill University, is looking for a highly motivated, innovative scientist with a strong background in one of the following areas: signal transduction, oncogenes and tumor suppressor genes, control of gene expression or developmental biology. The position is **TENURE-TRACK** in the Department of Oncology and the Department of Medicine. The Molecular Oncology Group occupies recently renovated laboratories with excellent facilities for transgenic animals. The successful candidate will establish his/her independent research program and be responsible for obtaining external research funding. Start-up support is available. Please submit a curriculum vitae, list of publications, outline of current research interests and names, addresses and telephone numbers of three references before June 1, 1995, to: **Dr. Vincent Giguère, Director, Molecular Oncology Group, Royal Victoria Hospital, 687 Pine Avenue West, Montréal H3A 1A1 Canada**. *In keeping with Canadian immigration requirements, preference will be given to Canadian citizens and permanent residents of Canada. However, others are encouraged to apply. McGill University is committed to equity in employment.*

### ALFRED I. duPONT INSTITUTE RESEARCH ASSISTANT POSTDOCTORAL RESEARCH FELLOWSHIP Cell Biology/Biochemistry

A full-time **RESEARCH ASSISTANT** is sought by the Laboratory of Epithelial Cell Biology in the Department of Medical Cell Biology of the Nemours Research Programs.

Candidates should have an M.S. degree in cell biology or biochemistry, a B.S. and at least two years of laboratory experience, a Ph.D. in chemistry/cell biology, or an M.D. with research experience. Appointment at the postdoctoral level will be considered. Current studies focusing on the biochemical defects in cystic fibrosis involve the use and development of transfected mammalian cell lines, and radiochemical assays of channel activity and *in vivo* protein phosphorylation. Experience in mammalian cell culture, the use of radiolabeled compounds, experience with tissue culture, and electrophysiology would be especially helpful.

The department is located at the Alfred I. duPont Institute in Wilmington, Delaware. We offer competitive salaries and a full benefits package. For consideration please send a résumé to: **Dr. William Reenstra, Department of Medical Cell Biology, Nemours Research Programs, P.O. Box 269, Wilmington, DE 19899**. *Equal Opportunity Employer/Minority/Female.*

**RESEARCH ASSOCIATE** to collect clinical and basic science data on growth factor induced angiogenesis in breast carcinoma (cancer) patients and specimens. Interact with Surgeons and Anatomic Pathologists to obtain suitable tissue specimens for research studies. Perform molecular and cell biology experiments, including but not limited to: cloning, DNA sequencing, *in situ* hybridization, polymerase chain reaction (PCR), DNA and RNA extraction and analysis, immunohistochemistry, tissue culture and characterization of cell lines, radioisotope use and disposal, and confocal microscopy. Use computer resources to enter, manipulate, and store data for relational database uses, confocal microscopy, and presentation. Collection, organization, and interpretation of relevant clinical data. Gross and microscopic histopathologic evaluation of tissue to be incorporated into the *in vitro* culture system. Requirements: M.D. or foreign equivalency or Doctor of Osteopathy. Ability to work occasionally in the evening and on the weekends. Experience: two years in the job offered or two years as a Physician or D.O. Two years must include one year of accredited experience in Anatomic Pathology, including six months of surgical pathology, involving gross and microscopic anatomic pathology, and immunohistochemistry. Three months of experience in molecular biology, including PCR, DNA sequencing, tissue culture and characterization of cell lines. 40 hours, 8:00 a.m. to 5:00 p.m. (work occasionally in the evening and on the weekends), \$29,500 per year. Send résumés in duplicate (no calls) to **D. Gehl, JOB No. 956, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216**. Must have proof of legal authority to work indefinitely in the United States.

## SENIOR SCIENTIST Strain Improvement Program

For over 116 years, scientists at Eli Lilly and Company have been developing novel, high quality pharmaceutical products. With a current yearly investment of over \$900 million in R&D programs, our continued success in reducing the time required to get new drug candidates to market requires the finest scientific talent available.

The Senior Scientist we seek will be part of a team charged with providing improved fermentation processes and microbial strains, and will have responsibility for the successful operation of an automated empirical screen for microbial gain mutants. This requires expertise in microbial physiology and genetics, as well as reasonable proficiency in process statistics, robotics, and fermentation development. The successful candidate will serve as a scientific mentor to those who drive and carry out the screen and will supervise up to 10 associates and technicians. The ability to envision and drive multiple complex processes and scientific rationales that have different and demanding customers is required. Additionally, the individual will participate on other efforts within the Strain Improvement Team, specifically the rational screen and process development laboratories.

Qualified candidates should submit a letter of application along with their curriculum vitae to: Ms. Sally Runyon, Corporate Recruitment SM/495, Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285.

Eli Lilly and Company is an equal opportunity employer committed to diversity in the workplace.



## COME TO NIH AND HELP SHAPE THE FUTURE OF NEUROSCIENCE!

### HEALTH SCIENTIST ADMINISTRATOR

The National Institute of Neurological Disorders and Stroke (NINDS), located in Bethesda, Maryland, seeks a science administrator in the Division of Fundamental Neurosciences. The person holding this position will advise and assist NINDS grantees doing fundamental research related to neurological diseases, and will be responsible for evaluating and planning the extramural research program of the Institute in this scientific area. Applicants are expected to have broad knowledge of, and interest in, contemporary neurobiological research. Successful applicants must possess a Ph.D. or M.D. (or equivalent degree) with postdoctoral training in research. Experience as head of a research laboratory with evidence of independent achievement is highly desirable, but not required.

This is a GS-13/14 Civil Service Position with a salary range of \$51,557 to \$79,200 per year for Ph.D.s and \$60,281 to \$84,710 for M.D.s. Physicians may additionally be eligible for a Physician's Comparability Allowance.

Applicants should submit a curriculum vitae, bibliography and a brief statement of your career plans to: **Ms. Christine Steyer, National Institutes of Health, NINDS Personnel Office, Building 31, Room 8A23, 31 Center Dr., MSC 2540, Bethesda, MD 20892-2540**, or you may fax your application to (301) 402-2818. For more information on the position or qualifications requirements, contact Ms. Steyer at (301) 496-6334. U.S. citizenship is required.

*Applications must be submitted by May 1, 1995.*

National Institutes of Health / Public Health Service  
Department of Health and Human Services

NIH is an Equal Opportunity Employer



### FACULTY POSITION BEIRNE B. CARTER CENTER FOR IMMUNOLOGY RESEARCH UNIVERSITY OF VIRGINIA

The Beirne B. Carter Center for Immunology Research seeks applicants for a tenure track junior faculty position in immunobiology. We seek candidates with expertise and interest in the cell and molecular biology of cytokine expression and cytokine receptor signaling, cell adhesion molecules, or in lymphocyte development. Applicants should have postdoctoral experience and are expected to develop a strong independent research program. Some teaching in graduate and medical courses will also be expected.

Current areas of research interest among Beirne B. Carter Center for Immunology Research faculty include Antigen Processing and Presentation, MHC and Antigen Receptor Structure, Lymphocyte Activation, Autoimmunity and Allergy, and the Immunology of Infectious Diseases. The University of Virginia provides excellent research facilities in an exceptional locale. Centers for research in Cancer Biology, Molecular Biology and Cell Signaling, Retrovirus and AIDS, and Cardiovascular Physiology are present on campus. Beirne B. Carter Center for Immunology Research faculty are actively encouraged to collaborate with faculty in these related disciplines.

Applicants should send a curriculum vitae, a summary of present and future research interests, and the names of 3 referees. Completed applications should be sent to:

**Dr. Thomas J. Braciale**  
c/o Administrator

**Beirne B. Carter Center for Immunology Research  
University of Virginia  
MR4/Box 4012 Health Sciences Center  
Charlottesville, VA 22908**

*The University of Virginia is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.*



### THE RUSSELL AND BURCH AWARD

The Humane Society of the United States announces its fifth annual award to scientists who have made outstanding contributions to the advancement of alternative methods in biomedical research, testing, or higher education. Alternative methods are those that can replace or reduce the use of animals in specific procedures, or refine procedures so animals experience less pain or suffering. The award carries a monetary prize of \$5,000.

Ideal candidates are scientists who: (1) have made an outstanding contribution toward developing or validating alternative methods, (2) were motivated -- at least in part -- by humaneness, and (3) have a history of laboratory work that is above reproach on humane grounds.

Send applications/nominations by **June 1** to Laboratory Animals Section, The HSUS, 2100 L Street, NW, Washington, DC 20037, USA (tel. 202-452-1100). No special forms are necessary. Persons nominating themselves should include a curriculum vitae and relevant publications. Persons nominating others should arrange to have such documents forwarded.



### REQUEST FOR PROPOSALS

#### RETINAL CELL RESCUE AND TRANSPLANTATION

**THE FOUNDATION FIGHTING BLINDNESS** invites proposals for new and/or continuing initiatives directed toward retinal cell rescue and transplantation. Preservation of sight and/or restoration of sight lost due to retinal degeneration, including retinitis pigmentosa and allied disorders, Usher syndrome and macular degeneration, are the twin goals of this program. A fuller statement of identified research needs is available upon request.

All applications will be reviewed for program relevance and scientific merit by a special panel of consultants to The Foundation. Awards will average \$80,000 per year for up to three years. Significantly larger budgets must be carefully justified.

Applicants should submit a letter of intent. In it, briefly summarize the proposed research and background of the laboratory, and give an approximate budget. A curriculum vitae of the principal investigator(s) should be included. Following a preliminary review, detailed proposals will be requested from a limited number of applicants. Deadline for letters of intent is June 1, 1995, for applications September 1, 1995. Awards will begin January 1, 1996.

Address letters of intent to: **Jeanette S. Felix Ph.D., Director of Science, The Foundation Fighting Blindness, 1401 Mt. Royal Avenue, Baltimore, MD 21217. Telephone: 410-225-9400.**



The University of North Carolina at Chapel Hill  
**CAROLINA WORKSHOP COURSES**

**RANDOM PEPTIDE LIBRARIES**

May 14 - 26, 1995

This hands-on Workshop will feature the use of both biologically generated and synthetic random peptide libraries for identifying peptide ligands to target molecules. Participants will learn how to construct and screen M13 bacteriophage-displayed random peptide libraries as well as methods for characterizing binding phage and peptides. Participants will also learn how to generate and screen synthetic 96 pin-format peptide libraries. The various libraries will be screened with antibodies and cellular proteins. Additionally, participants are encouraged to bring their own targets for screening. The course will provide detailed protocols for all relevant techniques and will be accompanied by lectures from invited speakers.

**Tuition is \$ 2,150.00 Deadline: April 28, 1995**

**Instructors:** Brian K. Kay, Department of Biology, University of North Carolina, N. Joe Maeji, & Jeanick Pascal, Chiron Mimotopes Peptide Systems, Melbourne, Australia & San Diego, California

**LIGHT MICROSCOPY  
FOR THE BIOMEDICAL SCIENCES**

July 9-July 14, 1995

An introduction to the basic concepts and practical applications of light microscopy. Students will have opportunities for extensive hands-on experience with state-of-the-art equipment for optical imaging, video recording and digital image processing guided by experienced academic and commercial staff. Lectures and laboratory exercises will include: geometric and wave optics of image formation; microscope alignment; phase contrast, reflection interference contrast, polarization, and differential interference contrast microscopy; fluorescent microscopy and fluorescent probes; video imaging and contrast enhancement by analog and digital image processing; imaging of calcium and other ions in cells; and laser scanning confocal microscopy. Students are encouraged to bring their own specimens for analysis.

**Tuition is \$950.00 Deadline: May 12, 1995**

**Instructors:** Edward Salmon, Ph.D., Brian Herman, Ph.D., and John Lemasters, M.D., Ph.D., UNC-CH

**GENE TARGETING IN ES CELLS  
AND TRANSGENIC MICE**

July 23 - August 4, 1995

Students will be introduced to the mouse as a developmental system, and will learn molecular genetic manipulations of this mammal. Specific techniques include embryonic stem cell culture, electroporation and selection, blastocyst injection, ES Cell aggregation, embryo isolation and microinjection, embryo culture and transfer, oviduct and uterine transfer operations, vasectomies, and expression analysis. These tools are the bases for generation and analysis of mutant mice via microinjection and embryonic stem cell manipulation and transfer. We will discuss the uses of these technologies in studies of mammalian development and in generating animal models of disease. A seminar series on the application of gene targeting and transgenics in various research areas will also be given concurrently with the course.

**Tuition is \$2,500.00 Deadline: May 29, 1995**

**Instructors:** Ron Shehee, Glaxo Research Institute, Paula Oliver, Kathy Mohr, and Victoria Bautch, University of North Carolina at Chapel Hill, Andrew Reaume, Cephalon

**CAROLINA WORKSHOPS** are intensive hands-on laboratory courses designed to teach cutting edge methods in molecular biology and biotechnology. Four or five courses on different topics are offered each year. Most applicants to the Carolina Workshops already hold M.D. or Ph.D. degrees, or are advanced pre-doctoral students. The courses are designed for novice as well as experienced molecular biologists. All participants benefit from in-depth interaction with the instructors.

**TO APPLY,** send a curriculum vitae and a brief letter describing your research interests. Full consideration will be given to applications received by the stated deadline. For further information or to apply, contact:

Dr. Wayne Litaker, Facility Director  
The University of North Carolina at Chapel Hill  
Program in Molecular Biology & Biotechnology  
Chapel Hill, North Carolina 27599-7100

TELEPHONE (919) 966-1730 FAX (919) 966-6821

**Northwestern University  
Medical School and Institute for Neuroscience**

**Three tenure-track faculty positions for outstanding neuroscientists** in the areas of Molecular Biology, Neuromorphology, and Neurophysiology are now open, with joint appointments in the intercampus Northwestern University Institute for Neuroscience (NUIN) and in the Medical School in downtown Chicago. These new positions represent an increased commitment by the University to the neuroscience program and complement three additional positions in the Department of Neurobiology and Physiology on the Evanston campus. We are especially interested in young neuroscientists at the Assistant Professor level with significant postdoctoral experience, although senior candidates will be considered in exceptional circumstances. The appointees will ideally bridge basic science and clinical Departments and Centers through research and training endeavors related to neurobiology of disease, development, and regeneration. Appointees are expected to have a Ph.D., M.D. or equivalent degree and participate in the teaching of health science and graduate students. (Search 1).

The Institute also invites applications for **two non-tenure track positions:**

**Assistant Director.** Duties include initiation and development of Institute strategies for seeking funds for academic and research programs, project management, responsibility for upkeep and renewal of facilities, computer assisted administrative procedures, linkage with other Centers and Programs, editing a newsletter for the NUIN faculty and sustaining members, and coordination of activities on the Evanston and Chicago campuses. Candidates must have a Ph.D. degree in the life sciences and previous successful experience in writing research grant proposals. Academic administrative experience is preferable but not required. **Research Assistant Professor.** Duties primarily include management of the Director's laboratory. Candidates must have a Ph.D. degree in the life sciences and rigorous postdoctoral training. Candidates with experience in experimental neuroanatomy, immunocytochemistry, advanced electronmicroscopic techniques, and image analysis systems are particularly encouraged to apply. (Search 2).

Screening of applications and nominations will begin June 1, and continue until the positions are filled. The positions are available July 1. In the cover letter please specify the position requested; include curriculum vitae with a statement of research interests, list of publications, and 3-5 representative reprints; indicate funding history; and arrange for three references to be sent to: **NUIN Search, c/o Enrico Mugnaini, M.D., Ward 5-305, 303 E. Chicago Ave., Chicago IL 60611.** Women and members of minority groups are encouraged to apply. Northwestern University is an AA/EOE Employer. For informal inquiries: e-mail- nuin@nwu.edu

**DIRECTOR OF NEUROSCIENCE  
RESEARCH**

The Aitken Neuroscience Institute invites applications from Ph.D. or M.D. scientists. Individuals may qualify for an academic position at Cornell University Medical College. The Aitken Neuroscience Institute is a nonprofit organization which combines a neuroscience research laboratory, the Brain Trauma Foundation and clinical neurosurgeons and neurologists from Cornell-New York Hospital Medical Center in one location on the upper eastside of Manhattan. Through basic science, clinical research, patient care and public education, the institute's mission is to improve the outcome of patients with neurological injury. The Aitken Laboratory has developed expertise in studying the cerebral microcirculatory response to traumatic brain injury as well as the role of inflammatory mediators in delayed cell death using astrocyte culture models. Current research efforts are toward understanding the mechanism of secondary damage following ischemic and traumatic cerebral injury.

The successful candidate will continue and expand on the current scientific investigation and supervise postdoctoral fellows, residents, medical students and technicians. The candidate must have a strong record of scientific achievement, funding and effective communication skills. Please send curriculum vitae and three letters of recommendation to Mr. Peter Quinn, Executive Director of the Aitken Neuroscience Institute and the Brain Trauma Foundation, Suite 2001, 555 Madison Avenue, New York, N.Y. 10022; fax #(212) 753-0149.

## Research Positions Molecular Neurobiology of Drug Abuse

George R. Uhl, M.D., Ph.D.

Fellow and senior fellow positions are available to pursue the molecular neurobiology and genetics of drug abuse. Candidates should have expertise in molecular biology and/or molecular genetics, with preference given to experience in neuropharmacology. Ongoing work examines the structure and function of the dopamine transporter/cocaine receptor,  $\mu$  opiate receptor/heroin receptor, genes regulated by abused drugs, and genes important for interindividual differences in substance abuse vulnerability in animal models and humans. If you hold a doctoral degree(s) and would like to be considered for a position, please send a cover letter, curriculum vitae with bibliography, statement of research interests and goals (not to exceed two pages), and three letters of recommendation to:

G.R. Uhl, M.D., Ph.D.  
Molecular Neurobiology Branch  
Division of Intramural Research  
National Institute on Drug Abuse  
National Institutes of Health, Box 5180  
Baltimore, Maryland 21224

Competitive salary levels will full federal benefits - an equal opportunity employer. Candidates must be U.S. citizens or permanent residents.

## ASSISTANT VICE PRESIDENT RESEARCH ADMINISTRATION

Saint Louis University Health Sciences Center, a division of Saint Louis University, invites nominations and applications for the position, Assistant Vice President for Research Administration. As the chief research officer reporting directly to the Vice President for the Health Sciences Center, this individual will provide resources throughout the Health Sciences Center to encourage and promote research activities; will coordinate the exchange of information across departmental boundaries; will provide advice and counsel to the Institutional Review Board and the Animal Care Committee; and will foster collaboration among researchers. Also, this position will be responsible for overseeing research programs with specific responsibilities in the following areas: use of human and animal subjects in research; research laboratory safety issues; coordinator of patient activities, intellectual property rights, royalty agreements and copyrights; conflict of interest issues and material transfer agreements. This Assistant Vice President will develop and monitor research policies which will comply with both University and statutory regulations and provide leadership to the Health Sciences Center Research Administration Office.

The Health Sciences Center is seeking an individual who has a proven record in collaboration and success in a complex academic research environment. Relevant experience with NIH, NSF, AHCPR, VA HSR&D or with other research sponsors will be an important consideration. Proven success is essential in developing effective working relationships with financial officers, government and community representatives, legal counsel, as well as researcher/investigators.

Candidates will be required to possess an earned doctorate (Ph.D., M.D./Ph.D., or the equivalent) in science medicine, dentistry, nursing, allied health professions, public health, health services, research or a related discipline. Several years of relevant health-sciences research is important with experience in university level research administration. Effective interpersonal and management skills will be important for success in this key position.

Send resume to Search Committee, Assistant Vice President for Research Administration:

c/o Janette Taaffe, Recruitment Supervisor  
Saint Louis University  
Health Sciences Center  
3635 Vista at Grand  
P.O. Box 15250  
St. Louis, Mo. 63110-0250

*Equal Opportunity Employer.*

## ANNOUNCEMENT

### GRANT PROGRAM

Molecular Devices Corporation offers a limited number of equipment grants to both U.S. and International academic/government institutions performing basic research in mammalian cell biology. The intent of this grant program is to provide academic/government researchers access to the Cytosensor® Microphysiometer technology at a substantially reduced cost, thereby providing them an opportunity to make novel discoveries using the Cytosensor System, with the ultimate goal of publication.

Briefly, the Cytosensor System is the latest tool for studying the physiological consequences of receptor activation; it has been shown to be particularly useful for drug discovery and signal transduction research. The System can monitor receptor-mediated responses from living cells in minutes, providing functional dose responses in just a few hours. Receptor activation can be studied even without previous knowledge of the signal transduction pathway.

For a comprehensive information package including guidelines for grant submittal scientific publications, Application Notes, Technical Bulletins and a Reference Guide please contact:



Molecular Devices Corp.  
1311 Orleans Drive  
Sunnyvale, CA 94089  
PH: (408) 747-3545  
FX: (408) 747-3602

**Deadline for Grant Submission is June 1, 1995**

## COURSES • COURSES • COURSES

### Techniques for Characterization of Complex Carbohydrates Laboratory Courses

Four courses will be offered at the Complex Carbohydrate Research Center (CCRC) of the University of Georgia. **Course 1** (August 7 - 11, 1995), "Separation and Characterization of Glycoprotein Oligosaccharides", is intended for scientists with little experience in carbohydrate analysis. **Course 2** (August 14 - 18, 1995), "Structural Analysis of Oligosaccharides", is intended for scientists with some experience with glycoconjugates or for those who have completed the first course, and will focus on techniques of composition and linkage analysis. Experience with basic biochemical techniques is a prerequisite for participation in the courses. **Course 3** (July 31 - August 4, 1995) "MS and MS/MS Analysis of Glycoconjugates" is intended for scientists with an interest in MS and some experience with glycoconjugates. Experience with MS is beneficial but is not required. **Course 4** (September 11 - 15, 1995) "NMR of Carbohydrates" will focus on  $^1\text{H}$  and  $^{13}\text{C}$ , one and two-dimensional NMR spectroscopy as applied to carbohydrates. Some basic skills in operating an NMR spectrometer are required. All courses will consist of hands-on laboratory work, demonstrations and lectures; a laboratory manual including selected analytical techniques and references will be provided. Each course is limited to 10 participants. The cost of registration per course is \$500 for individuals from non-profit institutions, \$1,100 for others. Registration includes lunch but not lodging and travel expenses.

The courses are supported jointly by the Department of Energy Plant and Microbial Carbohydrate Center, and the NIH Biomedical Carbohydrate Resource Center of the CCRC. For further information or to apply for the courses contact: Dr. Roberta K. Merkle, Technical Director for Biomedical Carbohydrates, Complex Carbohydrate Research Center, 220 Riverbend Road, The University of Georgia, Athens, Georgia 30602-4712. Phone: 706-542-4402. Facsimile: 706-542-4412.

## HEALTH SCIENTIST ADMINISTRATOR/ MEDICAL OFFICER

GS-601/602-12/13/14

The Pharmacological and Physiological Sciences Branch of the National Institute of General Medical Sciences, National Institutes of Health is seeking a Health Scientist Administrator and/or Medical Officer to serve as a staff specialist responsible for stimulating, planning, advising, directing, and evaluating program activities for a portfolio of research grants covering basic and clinical investigations in areas of physiology, immunology, biochemistry, and medicine and surgery as they relate to trauma and burn research, including systemic trauma and burn injury sequelae and a portfolio of institutional postdoctoral training grants in the area of trauma and burn.

Applicants interested in applying must have a knowledge of trauma and burn injury and sequelae with expertise in one or more of the following areas: physiology, immunology, biochemistry, or medicine and surgery; ability to write about complex scientific topics for both scientific and non-scientific audiences; and ability to work effectively as part of a team or organization.

For interested and qualified individuals, the opportunity exists to also participate in the administration of the Medical Scientist Training Program, which provides support to individuals seeking the combined M.D./Ph.D. degree.

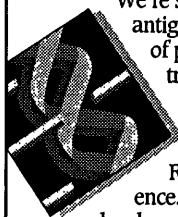
For application package, qualification requirements and additional position information contact: **National Institute of General Medical Sciences, Personnel Office, 45 Center Drive - MSC 6200, Bethesda, MD 20892-6200; (301) 594-2749. TDD (301) 402-6327**

Closing date May 1, 1995. U.S. Citizenship is required.

NIH is an Equal Opportunity Employer

## SCIENTIST/SENIOR SCIENTIST

Genentech is a pace-setting international biotechnology company that discovers, develops, manufactures and markets pharmaceuticals for significant unmet medical needs.



We're seeking a Scientist to apply existing multi-antigen immunoassay methods for purity analysis of protein pharmaceutical products for clinical trials. In addition, you'll develop new methods and technologies for direct assay of impurities/contaminants.

Requires a PhD and 3+ years' relevant experience. Must have experience with immunoassay development and protein analytical methods (HPLC, electrophoresis, immunoblotting, affinity chromatography, etc). Immunochromatography methods development will be helpful. Familiarity with the biotech industry (preferably purification and/or characterization) highly desired.

Genentech offers an excellent salary and benefits package which includes child care resources, free health club membership and fully paid medical, dental and vision coverage. For immediate consideration, please send your resume to: Genentech, Inc., Human Resources, Dept. CSAJ, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

**Genentech, Inc.**

## POSTDOCTORAL SCIENTIST (Biocatalysis)

For more than 116 years, scientists at Eli Lilly and Company have been developing novel, high-quality pharmaceutical products. With a current yearly investment of over \$900 million in research and development programs, our continued success in reducing the time required to get new drug candidates to market requires the finest scientific talent available.

As a postdoctoral scientist, you will gain in-depth research training and experience while becoming acquainted with the pharmaceutical industry. You will provide creative input and actively participate in program design. In addition, you are encouraged to publish, attend at least one major conference a year, and interact with other Lilly scientists through our seminar series and informal meetings.

The program involves using enzymes in process chemical development. The goal of the program is to fully characterize enzymes that are currently being used in large-scale chemical processing. It is anticipated that discovery of new catalysts and application of known catalysts will also be part of the assignments. Responsibilities include enzyme purification and characterization, enzyme kinetics, some chemical synthesis and enzyme immobilization. A background in biocatalysis with some molecular biology is highly desired.

The position is for one year, renewable for second, third and fourth years upon mutual agreement. Eli Lilly and Company offers a competitive compensation and benefits package and a highly professional environment. Candidates with no more than one previous postdoctoral position are encouraged to send a CV to: Ms. Sally Runyon, Corporate Recruitment MZ495, Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285.

For further information about the program, contact Dr. Milton Zmijewski at [zmijew@lilly.com](mailto:zmijew@lilly.com). Eli Lilly and Company is an equal opportunity employer committed to diversity in the workplace.



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**Gordon Clark**  
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or fax +44 01223 302 068



# MICROBIOLOGIST

The Upjohn Company, Fermentation Production, has a full-time position available for a Microbiologist in the Fermentation Technical Support Unit. We seek an individual who will oversee many aspects of production-scale antibiotic fermentations and steroid bioconversions; monitor and analyze key variables related to process performance of seeds and fermentations. The incumbent will also participate with Bioprocess Research and Development personnel in process scale-up and experimental programs. The position requires periodic holiday and weekend duty in support of the continuous operation of Fermentation Production.

We seek individuals with a minimum of a Bachelor's Degree in biological science, preferably Microbiology, and at least three years of related experience; or an MS in Microbiology and a minimum of one year of relevant experience.

This position offers the opportunity for a challenging career in a dynamic industry and includes a competitive salary package, a comprehensive benefits program and relocation assistance. The Upjohn Company is located in Kalamazoo, Michigan, a medium-sized university city midway between Chicago and Detroit with varied cultural and athletic activities and a moderate cost of living.

For confidential consideration, please send your resume to: **The Upjohn Company, Corporate Recruiting, Position #260, 7000 Portage Road, Kalamazoo, MI 49001.**

We are an equal opportunity employer with a commitment to workplace diversity.

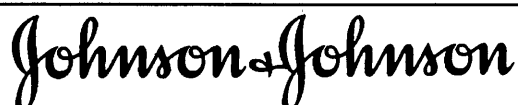


## SENIOR RESEARCH MANAGER

Avid Corporation, which is comprised of Quality Biotech Inc. (a world leader in contract research and biosafety testing for the biopharmaceutical industry) and Avid Therapeutics Inc. (an anti-viral drug discovery and development company) seeks a Senior Research Manager with a Ph.D in the Life Sciences (Virology, Microbiology or Molecular Biology). A minimum 5-8 years relevant experience managing a laboratory staff, a record of independent scientific leadership and excellent communication skills are essential. Familiarity with FDA regulations and biotech drug development process is desirable.

Avid Corporation offers excellent opportunities for professional growth, a competitive salary, relocation assistance, health benefits, 401 (k) and Flexible Benefit plans. Please send resume and salary requirements to: Avid Corporation, Human Resources-SC1, 3401 Market St., Suite 300, Phila., PA 19104. EOE

**Avid Corporation**



## Clinical Diagnostics

### Research Scientists

Johnson & Johnson Clinical Diagnostics, formerly a division of Eastman Kodak Company, has recently joined the Johnson & Johnson family of healthcare companies. The Nucleic Acid Diagnostics program is an expanding business directed at developing automated *in vitro* diagnostic assays for human infectious disease, genetic disease, and oncology based upon nucleic acid amplification and nonisotopic detection. The Chemistry Research and Development group, located in Rochester, NY, is currently seeking Research and Development Scientists to fill the following positions:

#### Nucleic Acid Diagnostics Scientist

The successful candidate will function across several multifunctional teams in assessing and developing technology useful for nucleic acid diagnostics including sample preparation, amplification, and detection. The position requires a Ph.D (or equivalent experience) in Molecular Biology, Chemistry, Biochemistry, Microbiology, or a related field. Preference will be given to candidates with experience in PCR or other amplification technologies including RT-PCR and/or quantitation, nonisotopic detection formats, and DNA/RNA isolation. Excellent communication skills and ability to interact with colleagues in a team environment are required. The individual must be flexible and willing to accept new challenges.

#### Clinical Microbiologist/Molecular Biologist

The successful candidate will work as part of a team to develop practical methods for nucleic acid extraction from a variety of clinical specimens for PCR. The position requires a degree (B.S., M.S. or Ph.D.) in Microbiology, Molecular Biology, Biology, Biochemistry, Chemistry or related field with 4+ years experience in all aspects of a clinical microbiology laboratory including virology and mycobacteriology and 2+ years experience in molecular biology including nucleic acid amplification and hybridization techniques. Also desired are excellent problem-solving abilities, communications, and computer skills, and the ability to function as part of a team in a changing environment.

JJCD offers an excellent compensation package which includes generous life and health insurance benefits and a company-matched 401(k) plan. If you are interested in becoming part of a highly motivated, product-oriented team, submit your resume, a cover letter, and a list of references to:

**John Findlay**  
**Manager, Technology Platform**  
**Nucleic Acid Diagnostics**  
**Johnson & Johnson Clinical Diagnostics**  
**Bldg. 82, 4th Floor**  
**Rochester, NY 14650-2117**

*JJCD is an equal opportunity employer.*



## Chief, Comparative Pathology Laboratory

### Division of Comparative Medicine

The Chief of the Comparative Pathology Laboratory, under the supervision of the Director, will have a primary role in the Division's research, diagnostic, and training activities. Duties include pursuing independent research in area(s) of expertise and/or collaborative research focusing on the pathogenesis of bacterial infections, securing extramural funding for research activities and salary support, overseeing the operation of the DCM Comparative Pathology Laboratory, supervising laboratory personnel, overseeing the development of new diagnostic tests, providing diagnostic pathology services, and participating in the training and education of the Division's postdoctoral fellows.

**Requirements:** DVM and/or PhD; ACVP board certification or eligibility or other applicable board certification. Demonstrated research ability and skills with molecular techniques. Ability to generate research funding. Ability to supervise laboratory staff.

Interested candidates should send two copies of both cover letter and resume referencing **Job No. 95-0228C** to: **Ramona Allen, MIT Personnel Office, Bldg. E19-239, 77 Massachusetts Avenue, Cambridge, MA 02139-4307.**

MIT is an Equal Opportunity/Affirmative Action Employer  
MIT is a non-smoking environment

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

## Scientist

### Serum-Free Medium Optimization

BioWhittaker has achieved world-wide prominence by developing, refining, and marketing superior medical research and diagnostic products. Our company has experienced significant growth in recent years and expects this trend to continue.

Right now, we're seeking a professional experienced in serum-free medium optimization in bio-reactors for growth and expression of insect and mammalian cell types. Qualifications also include a Ph.D., at least 2 years' experience with bio-reactors (both fermentors and hollow fiber), and an understanding of *in-vitro* cell requirements. You should also have the ability to design optimization experiments, monitor proliferative and expression responses, plus design and implement a bio-reactor laboratory. Industrial experience would be desirable. Initially, this project will focus on optimization of CHO cells and insect cells media in high density cultures, as part of the serum-free development program presently underway in R&D with emphasis on custom-designed formulations.

We offer an environment conducive to professional and personal growth, a competitive salary, and a comprehensive benefits package. For confidential consideration, please forward your resume to: **Human Resources Dept.-C08, BioWhittaker, 8830 Biggs Ford Road, Walkersville, Maryland 21793.** We are an equal opportunity employer m/f/h/v — offering a smoke free/drug free environment.

**BIO WHITTAKER, INC.**

## First Annual Conference on Minority Recruitment

### *"Unlocking Opportunities: Fostering Diversity in the Scientific Workforce in the Pharmaceutical and Biomedical Industries"*

**26 - 27 October 1995**

This is a unique opportunity to be part of an exciting forum where professionals from industry, government, universities and associations will discuss and share strategies related to the recruitment, retention and professional development of minority scientists.

**Sponsored By:** The American Association for the Advancement of Science  
**Location:** Washington D.C. (Crystal City Marriott, Arlington, Virginia)

**Cost\*:**

- \$260 per person pre-registration fee (register by 31 March).
- \$210 per person registration for organizations that have more than one person attending.
- \$395 after pre-registration deadline.

Price includes full conference, opening cocktail reception, continental breakfast and lunch.  
(\*Does not include hotel accommodations).

**For information call:** Janis Crowley (212) 496-7704

The conference is supported by a grant from the DeWitt Wallace-Reader's Digest Fund.

## Nothing Short of Brilliant.

**IDEXX, a leader in the development of advanced biotechnology-based detection systems for animal health and food and environmental applications, currently has the following opportunity available:**

### Research Scientist

The successful candidate will be responsible for developing microbiological applications of ATP-based tests. To qualify, you must have a Ph.D. in Biochemistry or Enzymology, 2+ years of experience in studying luciferase reaction mechanisms, development of ATP-based hygiene tests or application of ATP-based tests.

Interested candidates should send a resume with references to: **IDEXX Laboratories, Inc., Human Resources, Code SCI-RS, 1 IDEXX Drive, Westbrook, ME 04092.** We are an equal opportunity employer M/F/D/V.

**IDEXX**

## Research Assistant/Associate

The R. W. Johnson Pharmaceutical Research Institute (RWJPRI) is a worldwide research and development organization within Johnson & Johnson, the world's largest and most comprehensive provider of health care products. RWJPRI performs R&D activities for the Johnson & Johnson companies ... Cilag, Ortho Biotech and Orth-McNeil Pharmaceutical.

We have a high-visibility position immediately available at our campus-like facility in central New Jersey for a candidate with a BS/MS in pharmacy or related area and at least three years' experience developing parenteral formulations, including viscosity measurement. A knowledge of protein/peptide chemistry is desired. Computer literacy is required.

The successful candidate will develop parenteral formulations including stability studies and drug interaction testing, as well as write the development sections of INDs and NDAs. Excellent written and verbal communication skills are required. Good interpersonal skills are needed to train and supervise junior personnel.

To apply for this opening and/or to be considered for future opportunities with Johnson & Johnson companies, please forward a copy of your resume, suitable for scanning into our database (i.e., clean/clear, no graphics and preferably unfolded). Send to: Dept. 253, Johnson & Johnson Recruiting, P. O. Box 16597, New Brunswick, NJ 08906-6597.

We are an equal opportunity employer and support diversity in the workplace.



THE R.W. JOHNSON  
PHARMACEUTICAL RESEARCH INSTITUTE  
a Johnson & Johnson company

## Chairperson of Biochemistry and Molecular Biology

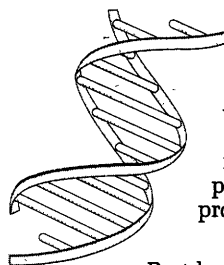
Applications and nominations are invited for the Chair of the Department of Biochemistry and Molecular Biology at the University of Massachusetts Medical School in Worcester. We seek a candidate with an internationally recognized research program, a record of academic leadership, a desire to foster the development of strong research programs, and a commitment to graduate and medical education. Researchers in the fields of biochemistry or molecular, cellular or structural biology will be considered. The Department of Biochemistry and Molecular Biology currently has a well-funded research program and an active graduate program.

Candidates should include a curriculum vitae, description of research interests, and the names of three references. Letters of application or nomination should be sent to: Edward Bresnick, Ph.D., Vice Chancellor for Research, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester, MA 01655

Women and minorities are encouraged to apply. The University of Massachusetts is an Equal Opportunity/Affirmative Action employer.



## POSTDOCTORAL RESEARCH



Drug discovery at Isis Pharmaceuticals exploits two fundamental technologies. One focus is on antisense technology, the inhibition of gene expression by modified oligonucleotides. The second and complementary technology at Isis is combinatorial drug discovery. We seek 3 Scientists at the postdoctoral level to participate in these innovative discovery programs.

### MOLECULAR PHARMACOLOGY

Postdoctoral positions are available to do innovative research on the molecular pharmacology of antisense oligonucleotides. Our research programs relate to RNA structure, processing translation and the identification of novel therapeutic targets for antisense oligonucleotides within these processes. (Code 204)

### PNA

The selected candidate will design, synthesize and analyze Peptic Nucleic Acids (PNAs) as part of the Isis antisense research program on novel oligonucleotides. Experience in the synthesis, purification and conjugation of peptides or oligonucleotides is highly desirable. (Code 201)

### COMBINATORIAL CHEMISTRY

Positions are available on a team working on synthesis and characterization of combinatorial libraries, and require innovative implementation of new chemistries and techniques with strong emphasis on synthetic chemistry. Experience in synthesis and characterization of small molecules required; experience in solid-phase synthesis highly desired. (Code 202)

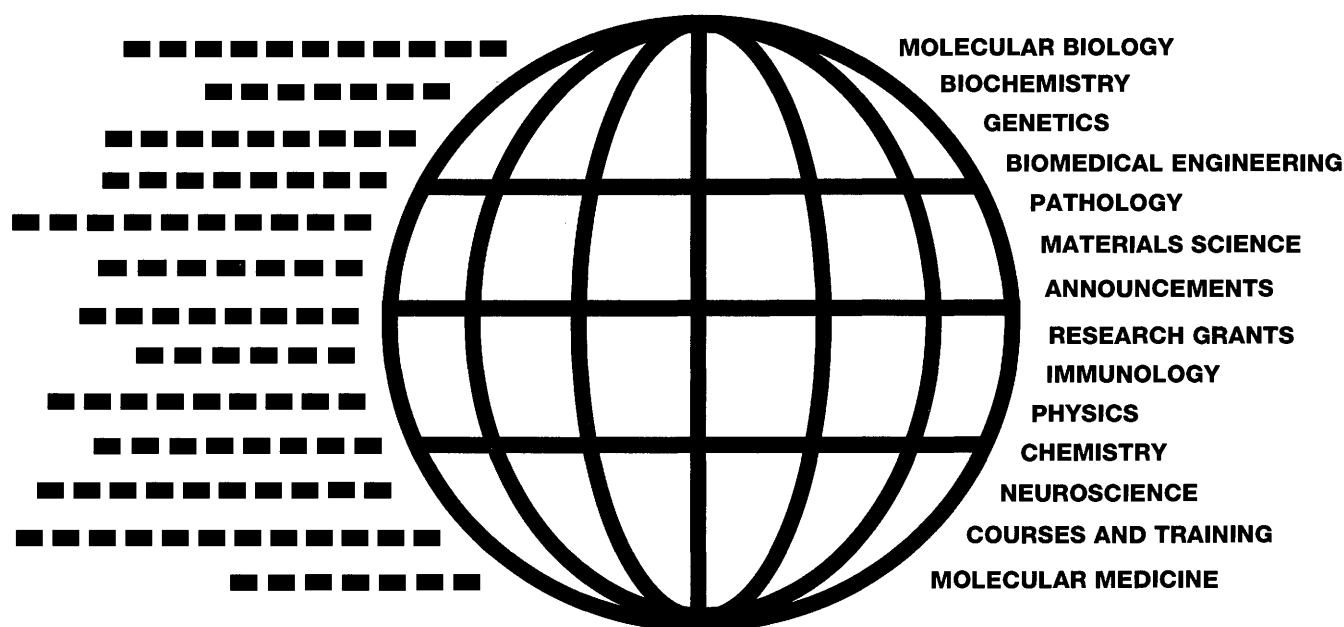
Based in north San Diego County, Isis offers competitive salaries, excellent benefits and equity participation. Please send cover letter and c.v. to: Isis Pharmaceuticals, HR Dept., Code (see above), 2292 Faraday Ave., Carlsbad, CA 92008. EOE.



**ISIS PHARMACEUTICALS**



**New from SCIENCE:**  
**JOBNET**  
**Classified Advertising On-line!**



**JOBNET: A new on-line service listing the best scientific career opportunities and more...Only from SCIENCE!**

JOBNET offers you an on-line connection to the same comprehensive listing of positions open, meetings and courses that appears in SCIENCE every week. The JOBNET service delivers the most up-to-date science job directory because new listings appear each week.

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**Gopher:** <gopher.aaas.org>

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**JOBNET address: <gopher.aaas.org>**

**SCIENCE**

*If you need help getting to our Gopher, your computer systems department at your company or institution is the best source for help. Send Internet inquiries regarding JOBNET or accessing the AAAS gopher to: [JOBNET@aaas.org](mailto:JOBNET@aaas.org).*

# Postdoctoral Opportunities In The Biomedical Sciences.

Listed below are some of the outstanding research training opportunities that are currently available at the National Institutes of Health.

## **Adipocyte Metabolism** **Constantine Londos, PhD**

Cell biology, biochemistry, and molecular biology of adipocyte metabolism in normal and pathophysiological states is being studied. Areas of concentration include cloning, expression, and function of genes and proteins involved in lipid metabolism, hormone signalling, and enzyme trafficking. A background in molecular biology/biochemistry is desirable. Applicants must have less than five years postdoctoral experience. Laboratory of Cellular and Developmental Biology (OE-75), NIDDK, Building 6, Room B1-15, 6 CENTER DR MSC 2715, BETHESDA MD 20892-2715.

## **Behavioral Genetics** **Jacqueline N. Crawley, PhD**

A position is available to conduct behavioral analyses of transgenic and knock-out mice, and of rodent strains with rare genotypes, relevant to neuropsychiatric disorders. Opportunities exist for collaborations with investigators from several NIH Institutes on the Bethesda campus to test new mutations in neurotransmitters, receptors, developmental, and structural genes. Experience in behavioral genetics and behavioral neuropharmacology are required. Section on Behavioral Neuropharmacology (OE-75), NIMH, Building 10, Room 4N212, 10 CENTER DR MSC 1380, BETHESDA MD 20892-1380.

## **Gene Transfer** **Bruce J. Baum, DMD, PhD**

A position is available to study mechanisms facilitating cell type-specific expression of transferred genes. Target tissues are absorptive and secretory epithelia using *in vitro* and *in vivo* models. Clinical applications are to gene therapy (biological repair of damaged-salivary glands) and gene therapeutics (secretion of biopharmaceuticals). Applicants should have a strong background in molecular and cell biology and must have less than five years of postdoctoral experience. Clinical Investigations and Patient Care Branch (OE-75), NIDR, Building 10, Room 1N113, 10 CENTER DR MSC 1190, BETHESDA MD 20892-1190.

## **Human Cardiac Physiology and Magnetic Resonance** **Steven Wolff, MD, PhD**

Magnetic resonance imaging and spectroscopy at 4 Tesla are being used to investigate human cardiac physiology. The project will mainly focus on pulse sequence development to study cardiac perfusion. Although prior experience in NMR imaging is not necessary, applicants should have training in basic NMR spin physics and have less than five years of postdoctoral experience. Laboratory of Cardiac Energetics (OE-75), NHLBI, Building 10, Room B1D161, 1 CENTER DR MSC 0105, BETHESDA MD 20891-0105.

## **Molecular Genetics** **Pablo V. Gejman, MD**

A position is available for the study of genetics of schizophrenia and pharmacogenetic traits. Opportunities exist for participation in a clinical collection of affected sibpairs with schizophrenia for systematic genome scan and mutational analysis of candidate genes. Applicants

must have experience or education in genetics and/or molecular biology and have less than five years of postdoctoral experience. Unit on Molecular Clinical Investigation, Clinical Neurogenetics Branch (OE-75), NIMH, Building 10, Room 4N320, 10 CENTER DR MSC 1274, BETHESDA MD, 20892-1274.

## **Molecular Immunology** **Charles E. Egwuagu, MPH, PhD**

A position is available to participate in one of two projects:  
1) transcriptional regulation of gamma interferon ( $\gamma$ IFN)-response elements in transgenic rats with ectopic  $\gamma$ IFN-expression in the lens;  
2) analyses of T cell receptor V-gene usage in human and rat intraocular autoimmune diseases. A strong background in molecular biology and/or immunology is required. Applicants must be US citizens or permanent residents and have less than five years of postdoctoral experience. Laboratory of Immunology (OE-75), NEI, Building 10, Room 10B10, 10 CENTER DR MSC 1850, BETHESDA MD 20892-1850.

## **Regulation of Nitric Oxide Synthesis in CNS** **Sheldon Milstien, PhD**

Production of catecholamines, serotonin, and nitric oxide all require tetrahydrobiopterin for activity. The co-regulation of both nitric oxide and tetrahydrobiopterin synthesis is being examined in glial cells and neurons and in animal models of inflammatory neurological diseases, such as sepsis and AIDS. Experience in cell biology, molecular biology, and neurochemistry is preferred. Applicants must have less than five years of postdoctoral experience. Laboratory of Neurochemistry (OE-75), NIMH, Building 36, Room 3D30, 36 CONVENT DRIVE MSC 4096, BETHESDA MD 20892-4096.

## **Additional Postdoctoral Fellowship Opportunities**

For an on-line listing of additional postdoctoral openings, you may access the NIH EDNET Bulletin Board POSTDOC conference via Internet ([wylbur.cu.nih.gov](http://wylbur.cu.nih.gov)) or modem (1,301-402-2221 or 1,800-358-2221) with parameters set at "7,Even,1". When connected to NIH, type in "vt100" for terminal emulation, "F5E" for initials, and "AJL1" for account number.

The Postdoctoral Research Fellowship Opportunities catalog, which describes intramural laboratories at the NIH, is also available by request. An electronic version of the catalog may be accessed via the Internet using either the Gopher Information System ([gopher.nih.gov](http://gopher.nih.gov)) or the World Wide Web (<http://www.nih.gov/>). When connected, select *Research Opportunities at the NIH*. If you would like to request a catalog or have further questions, please contact the NIH Office of Education, Building 10, Room 1C129, 10 CENTER DR MSC 1158, BETHESDA MD 20892-1158, 301-402-1603, Fax 301-402-0483.

## **To Apply**

If you hold a doctoral degree (e.g., PhD, MD/PhD, MD, DO, DDS, DMD or DVM) accompanied by previous laboratory research experience, and would like to be considered for one of these positions, please send a cover letter, *curriculum vitae*, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



# National Institutes Of Health

## Office of Education

The NIH is an Equal Opportunity Employer



*Pioneer Hi-Bred International, Inc., is a worldwide leader in agricultural genetics. Founded in 1926, we are a publicly-held corporation with research, production, and sales organizations worldwide. Our dynamic RESEARCH and PRODUCT DEVELOPMENT DIVISION is currently seeking motivated and experienced professionals to join us in our on-going program of crop improvement.*

#### **RESEARCH ASSOCIATE Protein Biochemistry Job #1044**

This person will join a laboratory that is responsible for analysis of transgenic plants. The individual will use protein biochemistry methods to characterize and purify proteins in seeds of transgenic plants. Additional experience in molecular biology techniques would be beneficial. Good data organization and interpersonal skills are necessary. Solid knowledge of basic protein analytical methods with additional background in protein purification, FPLC or enzymology are essential. **EDUCATION/EXPERIENCE:** MS degree or equivalent in biochemistry, molecular biology, or related field OR a BS degree plus 2 years of relevant research experience is required. Experience in protein biochemistry analysis is desired. Strong communication skills are also essential.

Applications received by May 5, 1995 will be assured of consideration. However, applications will be considered until the position is filled. Please send cover letter indicating job name and job number, two complete sets of resumes/application information to: **Jon Day, Pioneer Hi-Bred International, Inc., 6800 Pioneer Parkway, Box 212, Johnston, IA 50131-0212.**

#### **SENIOR RESEARCH ASSOCIATE**

#### **Molecular Biology and Protein Biochemistry Job #1049**

The successful applicant will participate in a state of the art research program on seed specific protein expression and on proteins critical for nutritional enhancement. The individual will use modern molecular biology and protein biochemistry methods to analyze and isolate proteins and their respective genes, to express these genes in seeds of transgenic plants, and to study the fate of expressed proteins in plant cells. Requirements include an MS in Biochemistry, Molecular Biology or a related field, plus four years directly-related lab experience; or a BS with equivalent experience. The candidate must be knowledgeable in both molecular biology and protein purification techniques. An additional background in cell biology, eukaryotic protein expression or enzymology is desired. Excellent interpersonal skills and ability to independently plan and conduct research in a team environment are essential.

Application deadline is May 5, 1995. Please send cover letter indicating Job #1049 and C.V. to: **Cindy Letizia, Specialty Grain Traits, Pioneer Hi-Bred International, Inc., P.O. Box 1004-7200 Northwest 62nd Avenue, Johnston, Iowa 50131-1004.** Pioneer Hi-Bred International, Inc. is an Equal Opportunity Employer.



**PIONEER®**

**PIONEER HI-BRED INTERNATIONAL, INC.**

#### **8th Chicago Signal Transduction Symposium**

Thorne Hall,  
Northwestern University  
Chicago, IL.

May 16, 1995, 8:30 AM - 6 PM

Jeremy Thorner,  
University of California @ Berkeley

Roel Nusse, Stanford University

Martin Chalfie, Columbia University

Michael Karin,  
University of California @ San Diego

Lee Linbird, Vanderbilt University

Thomas Michel,  
Harvard Medical School

Martin Rodbell, NIEHS

Poster session (limited to 30)  
To register, by May 9th, send name,  
address and registration fee  
(make check payable to  
Northwestern University) to:

**STS Secretary,  
Dept. of Molecular Pharmacology  
and Biological Chemistry  
303 E. Chicago Ave - S215,  
Chicago, IL 60611**

## **Health Care Research: Women**

*Publishing 11 August 1995*

Every year, **SCIENCE** has devoted an issue to women in science. On 11 August 1995, we will take an in-depth look at a topic that has received a lot of attention: women's health. In this important cover story, **SCIENCE** goes beyond the popular myths and the rhetoric to examine questions such as:

- are women included in major research studies less frequently than men?
- has women's health been ignored by the medical establishment?
- what kind of research needs to be done to improve women's health?
- what are the health problems of women in developing countries?

This is an excellent opportunity to showcase your company as an ideal work environment for women and to confirm your company's commitment to women's health care research by placing a full page recruitment advertisement in this issue.

**For advertising information, please call  
Janis Crowley at (212) 496-7704  
or fax to (202) 682-0816.**

Full page advertisements will receive extra visibility by being listed on an index attached to the covers of the issues distributed to the Association for Women in Science. In addition, full page recruitment ads will be grouped together in the issue and highlighted by an advertisement listing all of the full page advertisers and saluting industry efforts to promote women in science and women's health care issues.

Don't miss this outstanding opportunity to feature your company's recruitment message in this once-a-year special issue!

**Women's Health Care Research publishes:  
11 August 1995.**

**Recruitment advertising space reservation deadline:  
25 July 1995.**

**SCIENCE**  
COVERS THE WORLD



## THE AMERICAN ASSOCIATION FOR CANCER RESEARCH PRESENTS



*An Important Educational Opportunity for  
Predoctoral and Postdoctoral Fellows  
Contemplating Careers in Basic Cancer Research*

### HISTOPATHOBIOLOGY OF NEOPLASIA

*The Edward A. Smuckler Memorial Workshop  
Supported by a Generous Grant from the National Cancer Institute*

Keystone Conference Center  
Keystone, Colorado  
July 9 - July 16, 1995

- Intensive training in the histopathology and biology of neoplasia.
- Twenty-eight hours of hands-on laboratory exercises directed by distinguished pathologists.
- An outstanding series of lectures on rapidly developing areas of cancer research by laboratory directors and other prominent investigators.
- Extensive written course materials that will serve as valuable references in the future.
- Full funding of participants' lodging and subsistence expenses during the workshop.

### LABORATORY AND LECTURING FACULTY

Gary J. Miller\*, University of Colorado School of Medicine, Denver, CO **Course Director**  
Stephen Baird\*, Veterans Administration Medical Center, San Diego, CA  
Edward Bresnick, University of Massachusetts Medical Center, Worcester, MA  
Arthur R. Brothman, University of Utah, Salt Lake City, UT  
Betty DeMasters, University of Colorado School of Medicine, Denver, CO  
Helen Feiner\*, New York University School of Medicine, New York, NY  
Isaiah J. Fidler, UT M.D. Anderson Cancer Center, Houston, TX  
Mark A. Israel, University of California, San Francisco, CA  
John H. Lehman\*, Albany College of Medicine, Albany, NY  
Michael W. Lieberman, Baylor College of Medicine, Albany, NY

Reuben Lotan, UT M.D. Anderson Cancer Center, Houston, TX  
Robert Low\*, University of Colorado School of Medicine, Denver, CO  
Harold L. Moses, Vanderbilt University School of Medicine, Nashville, TN  
G. Barry Pierce, University of Colorado School of Medicine, Denver, CO  
Timothy L. Ratliff, Washington University School of Medicine, St. Louis, MO  
Stewart Sell, University of Texas Medical School, Houston, TX  
Patricia Thomas, University of Iowa Hospital and Clinics, Iowa City, IA  
Ann D. Thor, University of Vermont at Burlington, Burlington, VT  
Frederick Waldman, University of California, San Francisco, CA

Additional Faculty to be Announced

*\*Member of the Workshop Executive Committee*

### **APPLICATION DEADLINE: MAY 5, 1995**

Further Information: American Association for Cancer Research • Public Ledger Building  
150 S. Independence Mall West • Suite 816 • Philadelphia, PA 19106-3483  
Telephone: (215) 440-9300 • FAX: (215) 440-9313

### **The Monsanto Plant Science Technology Group**

has an immediate opening for highly motivated individuals to conduct research in the area of plant biochemistry and modification through genetic engineering. Successful candidates will have a BS with at least three years of research experience or MS degree with at least one year of research experience, in biochemistry and/or molecular biology. Experience in membrane protein biochemistry and enzymology is a plus. The ability and willingness to work in a multidisciplinary research team environment is required.

The Monsanto Plant Science Technology group is a world class organization with strong commitment to the discovery of novel traits for crop plants using biotechnology. The qualified individuals will join scientists with expertise in gene expression, plant development, plant growth regulators, plant transformation, molecular biology, and biochemistry to contribute to research to develop products that provide value to agriculture worldwide.

Monsanto is an equal opportunity employer. Minority/Female/Disabled/Veteran. We provide reasonable accommodations upon request.

For consideration, please forward your resume to:

Michael Fromm, AA2G  
Monsanto Agricultural Group  
700 Chesterfield Village Parkway  
Chesterfield, MO 63198  
FAX: (314) 537-6759  
Email: mefrom@ccmail.monsanto.com

### **POSTDOCTORAL TRAINING PROGRAM IN THE BIOCHEMISTRY AND PHYSIOLOGY OF ARTERIOSCLEROSIS**

Advanced research training positions are available to join an established group studying lipid and lipoprotein metabolism, and cardiovascular physiology. The projects emphasize problems relevant to atherosclerosis and heart disease. The approach is multidisciplinary and collaborative, drawing from cell biology, molecular biology, enzymology, physical biochemistry, protein chemistry and vascular physiology. Areas of investigation under the direction of 10 preceptors include: APOLIPOPROTEIN STRUCTURE AND FUNCTION, LIPOPROTEIN BIOSYNTHESIS, APOLIPOPROTEIN GENE EXPRESSION, CELL BIOLOGY AND ENZYMOLOGY OF CHOLESTEROL METABOLISM, TRANSPORT AND FUNCTION OF LIPID ANTIOXIDANTS, CHOLESTEROL AND ARTERIAL WALL FUNCTION. *Candidates should be U.S. citizens or permanent residents, committed to a career in research and hold a Ph.D. or M.D. degree. Appointments to begin as early as JUNE 1, 1995 are normally for 2 years with starting annual salaries in the range \$25,000 to \$29,000. Send curriculum vitae, a short summary of research experience and future research objectives, and names of 3 references to Dr. Michael C. Phillips, Department of Biochemistry, Medical College of Pennsylvania and Hahnemann University, 2900 Queen Lane, Philadelphia, PA 19129. The Medical College of Pennsylvania and Hahnemann University is an affirmative action/equal opportunity employer.*

**MEDICAL  
COLLEGE  
OF PENNSYLVANIA**



### **FUNCTIONAL IMAGING SCIENTIST**

**University of Pennsylvania Department of Radiology** is seeking a clinical scientist with major research and clinical interest in cognitive and functional imaging to work in a large academic department. Research resources include two PET cameras, 20 MeV cyclotron, and 3 full-time research MR whole body scanners one of which operates at 4 Tesla. Also available are two animal MR scanners operating at 2.0 and 4.7 Tesla. Applicants must have M.D. or M.D./Ph.D. degree and be fully qualified at level of tenure track Associate Professor or Professor. Individuals should also have track record of previous research funding. Apply to Stanley Baum, M.D., Chairman, Department of Radiology, Hospital of the University of Pennsylvania, 3400 Spruce Street, Phila., PA 19104. *The University of Pennsylvania is an equal opportunity affirmative action employer. Female and minority applicants are encouraged.*

## **Special Advertising Supplement**

# **MEETING THE CHALLENGES:**

## **Careers in Biotechnology and Pharmaceuticals for Scientists with Disabilities**

On 23 June, SCIENCE will publish a special advertising section devoted to career opportunities for scientists with disabilities. This section will examine the steps being taken by companies and institutions in the biopharmaceutical industry to make their work environments accessible to all scientists.

- What are companies and institutions doing to create barrier-free buildings and work stations?
- How do companies and institutions utilize the thousands of devices designed to accommodate people with special needs?

By advertising in this special section, your company or institution can send a recruitment message and show support for hiring scientists with disabilities.

**Meeting the Challenges publishes: 23 June 1995.**

**Advertising space reservation deadline: 6 June 1995.**

# **SCIENCE**

### **Bonus Distribution**

This issue will be distributed, along with a letter highlighting the special career section and recruitment advertisements, to the AAAS Resource Group of Scientists and Engineers with Disabilities.

### **Benefits of Full Page Advertisements**

This issue is an excellent opportunity for full page advertisers to get extra attention:

- Full page recruitment advertisements will receive placement throughout the career-related special advertising section.
- A directory of full page recruitment advertisements will be published in this issue referring readers to your ad in the special section by listing your company name and the corresponding page number on which your ad appears.
- Names of the full page recruitment advertisers will be listed on an index affixed to the covers of the magazines being mailed to the AAAS Resource Group of Scientists and Engineers with Disabilities.

**To advertise call Janis Crowley  
at (212) 496-7704 or fax to (202) 682-0816.**



**DEPARTMENT OF BRAIN AND COGNITIVE SCIENCES  
FACULTY POSITION IN  
EXPERIMENTAL NEUROPSYCHOLOGY**

The Dept. of Brain and Cognitive Sciences at the Massachusetts Institute of Technology intends to make a faculty appointment at the Assistant Professor level in experimental neuropsychology. Applicants should have a strong experimental research program, and should be knowledgeable about the effects of brain lesions on motor, sensory, and cognitive functions. The person filling this position will be expected to maintain an active research program and to participate in the Department's educational programs at the undergraduate and graduate levels.

Applications should include a brief cover letter stating the candidate's research and teaching interests and experience, a curriculum vitae, and at least three letters of recommendation; representative reprints may be included. Please send applications to **Professor Suzanne Corkin, Department of Brain and Cognitive Sciences, E10-003A, MIT, 77 Massachusetts Avenue, Cambridge, MA 02139-4307.**

Qualified women and minority candidates are encouraged to apply.  
MIT is an Affirmative Action/Equal Opportunity Employer.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

**PROGRAM DIRECTORS FOR DIABETES  
HEALTH SCIENCE ADMINISTRATORS**

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) is seeking applicants for two positions:

The Director for the Non-Insulin-Dependent Diabetes Mellitus (NIDDM) Research program is responsible for a multimillion dollar portfolio of basic and clinical research grants and contracts related to NIDDM, encompassing insulin resistance, glucose metabolism, the mechanism of insulin action, and the genetic and environmental basis of NIDDM. The position involves program planning and development, close interaction with the scientific community, and the opportunity to organize scientific meetings.

The Director for the Insulin-Dependent Diabetes Mellitus (IDDM) Clinical Trials Program is responsible for multicenter clinical trials on IDDM and its complications, supported under research grants, cooperative agreements and contracts. Duties include formulating solicitations and budgets; participating in trial design; monitoring and coordinating activities of clinical and coordinating centers and central resource units; and convening external monitoring committees.

Applicants should be scientists (Ph.D., M.D. or an equivalent combination of education and experience), with a record of biomedical research accomplishment relevant to the responsibilities described above, and with strong interpersonal and written communications skills. The salary range for these permanent, full-time positions (GS-12-13-14) is \$43,300 to \$84,700 per annum commensurate with qualifications. Physicians may be eligible for a Physician Comparability Allowance of up to \$20,000 per year. **The deadline for applications is May 31, 1995.** For position descriptions and requirements, and to apply, contact:

**Mr. Ronald Sleyo, Personnel Officer  
NIDDK-NIH  
Building 31, Room 9A34, Bethesda, MD 20892  
(301) 496-4231**

U.S. Citizenship Required / NIH is an Equal Opportunity Employer  
Minority and Women applicants are encouraged to apply.

**AmCell Corporation**, a new biotechnology company in the San Francisco Bay area, was founded to commercialize medical applications of the magnetic cell separation technology (MACS) developed by Miltenyi Biotec. The company, which has a major collaboration with Amgen Inc., has several outstanding opportunities for motivated scientists.

**Scientist.** You will evaluate and develop new methods for isolating and characterizing tumor cells. A Ph.D. in cell biology or related disciplines, 2-3 years postdoctoral experience in cancer biology and publication in peer reviewed journals are required. Experience with tumor cell markers, histology, tumor cell culture and flow cytometry is desired. Contact: Aaron Kantor, Ph.D.

**Postdoctoral scientist(s).** You will focus on developmental aspects of the human hematopoietic system, including the evaluation of new monoclonal antibodies. A Ph.D. in immunology, molecular biology or related disciplines is required. Experience with flow cytometry, cloning technology, and in vitro cellular differentiation assays is preferred. Contact: Aaron Kantor, Ph.D.

**Physical organic chemist.** You will develop and improve methods for producing small magnetic particles and coupling these particles to antibodies specific for cell surface antigens. Candidates for this position should have a Ph.D. and will ideally have experience in polymer chemistry. Excellent communication skills are essential. Contact: Ian Gibbons, Ph.D.

Please send C.V. to the appropriate contact person at AmCell Corporation, 1190 Bordeaux Dr., Sunnyvale, CA 94089 (or FAX 408-752-1212).

**AmCell**  
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**BIOCHEMICAL TOXICOLOGIST**

With a current research investment of over \$900 million in R&D programs, Eli Lilly and Company is making a significant commitment to the development of pharmaceuticals, biotechnology products and products for animal health. And nowhere is that investment more evident than in the Lilly Toxicology division, a part of Lilly Research Laboratories.

We seek an investigative toxicologist to head-up the hepatotoxicology laboratory. This is a senior scientist position which reports to the Head of Biochemical Toxicology. This individual will have responsibility for conducting and directing mechanistic research to support drug discovery and drug development with principal focus on hepatotoxicity. He or she will be expected to use state-of-the-art methodologies to generate scientific perspective to aid in human risk assessment and speed selection of novel therapeutic candidates for preclinical development. Supervision of a group of associates is also involved.

The successful candidate will have a Ph.D. in toxicology with post-doctoral experience in investigating mechanisms of toxicity. Additional academic and/or industrial experience is desired. Expertise in addressing issues of hepatotoxicity is essential.

Located in a campus-like setting in Greenfield, Indiana (a suburb of Indianapolis), our Toxicology facility is one of the largest and more modern of its kind in the world. Qualified candidates should submit a letter of application along with their curriculum vitae to:

Ms. Sally Runyon, Corporate Recruitment  
TOX/495, Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285.

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# KUWAIT UNIVERSITY

## Faculty of Science

Faculty of Science at Kuwait University seeks qualified candidates in Botany and Microbiology (Applied Microbiology - with experience in environmental aspects, Molecular Biology - with research experience in microorganisms, Microbial Genetics - molecular genetics of Eukaryotic microorganisms, Plant Pathology - fungal/plant diseases and host parasite relationships, Plant fine structure and Anatomy, Phycology, Plant Ecology - vegetation ecology, Plant Physiology - growth hormones and regulators) with a strong commitment to high quality teaching and research for appointment at the positions of Associate Professor and Assistant Professor.

**Required Qualifications:** Ph.D. or its equivalent, in the required area; research experience and publications, University teaching experience; excellent knowledge of English.

**Kuwait University offers:** TAX FREE Salary (approximate ranges: Associate Professor - KD 875-1035 and Assistant Professor - KD 680-840) depending on years of experience and number of accompanying dependents (spouse and children under 18). [ 1 KD equivalent to approximately US \$3.5]. Fringe benefits include: furnished air-conditioned accommodation, annual air-tickets, free National Health Medical Care, paid mid-term holidays and summer vacations and gratuity, New appointees can apply for financial support for research projects. Excellent academic environment.

Contracts effective from September, 1995, for a two year initial period.

**Application should be accompanied by:** A complete C.V. including: mailing address including phone, fax, and e-mail; academic qualifications, teaching, research and professional/work experience, and list of publications in professional journals; names and addresses of three persons well-acquainted with the academic and professional work of the applicant. An English translation of all documents in other languages should be enclosed. For appointment to the position of Assistant Professor, a very good performance in the B.Sc. is required (minimum GPA 3 points out of 4). Please send copies of all transcripts.

Applications may be obtained from Kuwait University Office, 3500 International Dr., NW, Washington, DC 20008, phone (202) 363-8055.

Applications should be sent by express mail/courier service to:

**The Dean, Faculty of Science  
Kuwait University, P.O. Box 5969  
Safat, 13060, KUWAIT**

For inquiries use: Fax: (965) 4836127; E-Mail: SINNO@KUC01.KUNIV.EDU.KW

**Closing date for receipt of applications: April 30, 1995.**



**Howard Florey Institute of  
Experimental Physiology and Medicine  
Melbourne, Australia**

# DIRECTOR

The Howard Florey Institute is an independent medical research institute of international standing, affiliated to the University of Melbourne. The Institute is one of only five Australian institutes block-funded by the National Health and Medical Research Council.

The Institute intends to build on its strong historic foundation in integrative physiology and endocrinology and to consolidate its current strengths in the neuro-sciences, molecular and developmental biology.

The Institute is seeking to appoint a successor to Professor John Coghlan, Director, with effect from 1 January 1997.

The Director is the chief executive officer and scientific leader of the Institute's research effort and is responsible to the Board of Directors. With the approval of the University, the Director may be accorded the Title, "R Douglas Wright Professor of Experimental Physiology and Medicine".

The appointment offers an opportunity for an outstanding individual with research leadership and management skills to head one of Australia's leading medical research institutes, with extensive international relations.

An attractive remuneration package commensurate with skills and experience of the successful candidate will be negotiated on the basis of a seven-year contract of appointment with a review by the end of the fifth year.

The President of the Board would welcome enquiries about the position or expressions of interest from potential applicants. Written applications including a full curriculum vitae and the names and addresses of three professional referees, should be marked "Private and Confidential", and forwarded by no later than 30 June 1995 to:

**Mr Baillieu Myer, A.C.  
President of the Board  
Howard Florey Institute  
C/- Level 45, 55 Collins Street  
Melbourne, Victoria, Australia 3000.**

am8072



## Queensland Institute of Medical Research POSTDOCTORAL FELLOW

The Liver Unit at QIMR has a vacancy for a scientist with a major interest in cell and molecular biology. The successful applicant will join an active group working in iron and ferritin metabolism and will be responsible for developing research strategies which include the cloning and expression of genes involved in metal ion transport across membranes.

The Liver Unit is a large Research Unit at the Institute. It is part of the Joint Liver Program with the Department of Medicine at The University of Queensland which includes both clinical and basic scientists.

Applicants should have a PhD or equivalent and an excellent record in research appropriate to the field, with particular experience in molecular biology and gene cloning. The position is available immediately for an initial term of five (5) years and will be renewable on review. The level of appointment, which will depend on qualifications and experience, is negotiable in the range \$37,345 to \$40,087 per annum. For further information on the position please contact Professor June Halliday, Head Liver Unit, ph. (61 7) 362 0170 or fax (61 7) 362 0191.

Applications including curriculum vitae, copy of academic record and the names of three (3) referees familiar with the applicant's work should be forwarded to:

**Mr Michael Barry, Secretary  
Queensland Institute of Medical Research  
PO Royal Brisbane Hospital Qld 4029  
Australia**

Closing date for receipt of applications is 20 May 1995 (QIMR ref. 05/95).

8665/68



**THE UNIVERSITY  
OF ADELAIDE**

AUSTRALIA

THE UNIVERSITY OF ADELAIDE SOUTH AUSTRALIA invites applications from both women and men for a Tenurable Lectureship in Plant Biology available from 1 July 1995 in the DEPARTMENT OF CROP PROTECTION, WAITE CAMPUS. The successful applicant will be expected to supervise postgraduate research students and participate in teaching at undergraduate and postgraduate level. The successful applicant will interact with a team of researchers involved in the development of new strategies on plant ecology and plant molecular biology as part of a newly funded Collaborative Research Centre in Weeds Management. Applicants must have a PhD or equivalent. Preference will be given to candidates who are familiar with modern technologies in plant ecology, plant molecular biology or a combination of both. Further information concerning the duties of the position, including selection criteria, may be obtained from Professor Otto Schmidt, Head, Department of Crop Protection, telephone (61 8) 303 7269, facsimile (61 8) 379 4095. Annual Salaries: Senior Lecturer (Level C): \$A51,692 - \$A59,605, Lecturer (Level B): \$A42,198 - \$A50,111. It is University policy to encourage women to apply for appointment to tenurable academic appointments. Holders of full-time tenured or tenurable academic appointments have the opportunity to take leave without pay on a half-time basis for a specific period of up to 10 years where this is necessary for the care of children. **APPLICATIONS, IN DUPLICATE**, quoting reference number 4530 and giving full personal particulars (including whether candidates hold Australian permanent residency status), details of academic qualifications and names and addresses of three referees should reach the Director, Personnel Services, University of Adelaide, South Australia 5005, no later than 12 May 1995.

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# MRC

Medical Research Council

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### MOLECULAR BIOLOGY of HIV

A postdoctoral position is available in the group headed by Drs J Karn and MJ Gait at the Laboratory of Molecular Biology, Cambridge. The work of the group focuses on the HIV regulatory proteins Tat and Rev. Ongoing projects range from structural studies of the complexes formed between Tat and Rev and their RNA-recognition sites to biochemical and genetic studies of the mechanisms of action of Tat and Rev (see Trends Biochem Sci., 18, 255-259, 1993 and Trends in Genetics, 8, 365-368, 1992 for reviews). The successful applicant will study how Tat activates transcription elongation in cell free transcription systems. Experience will be preferred in the biochemistry of transcription, molecular virology and/or gene expression in mammalian cells.

Depending upon age and experience, a starting salary of between £16,191 - £25,735 per annum is envisaged. The post is available in October 1995 for an initial period of 12 months with the possibility of further extension up to 3 years. Further information can be obtained from Dr. J Karn, Tel: (01223) 402376, or Fax (01223) 412282.

Applications including two copies of a full CV, a list of publications, reprints of no more than three papers and the names and addresses of three professional referees should be sent by 31 May 1995 quoting reference PNAC/AIDS to: Dr. Rosie Ward, Personnel Manager, MRC Centre, Hills Road, Cambridge CB2 2QH

Applications from overseas are welcome

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## POSITIONS OPEN

The Laboratory of Structural Biology Research of the National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Public Health Service, is seeking an outstanding **COMPUTATIONAL BIOLOGIST** to carry out structural studies of proteins and higher-order supramolecular assemblies by three-dimensional image analysis and sequence-based structural prediction. The candidate must have a doctoral degree in a relevant academic discipline, several years of postdoctoral training and a record of accomplishment demonstrated by major publications in the designated field of research. The candidate should combine a thorough background in advanced computational skills including algorithm design and implementation; three-dimensional reconstruction of electron micrographs; electron image acquisition and display; system and network management; and parallel programming, with working familiarity of sequence analysis algorithms and structure prediction methods; the physical chemistry of proteins and viruses; and electron microscopy. In addition to primary research activity, the appointee will be expected to assume responsibility for computer system management, maintenance, and renewal, and the guidance of trainees. Starting salary in the range of \$40,000 to \$50,000 per annum, depending on qualifications. Interested candidates, U.S. citizen only, should respond within 30 days of date of advertisement by submitting curriculum vitae, three relevant reprints, summary of research interests, and names of three references to: **Ms. Lyn Eyre, NIAMS/IRP, Building 6, Room 408, 6 Center Drive, MSC 2751, Bethesda, MD 20892-2751. NIH is an Equal Opportunity Employer.**

## INFORMATION SYSTEMS MANAGER

Harvard University is seeking an Information Systems (IS) **MANAGER** to provide strategic planning, system analysis and leadership for the development and maintenance of information systems for the University's botanical and zoological collections. The IS Manager should have a strong background in academic and/or museum computing with detailed operating knowledge of relevant Internet applications. The individual will have oversight responsibility for server systems management including high-level diagnosis and resolution of hardware and software failure. The individual will supervise a Microcomputer Systems Specialist who would provide direct technical support for collections' staff. The IS Manager will participate in collections' community collaborative projects, including major involvement in institutional proposals for extramural funding of such projects. Requirements: Higher degree in biological or computer science with biological orientation. Preference includes experience with biological databases and network operations at the post-graduate or postdoctoral levels. Four to eight years of experience depending upon education and experience with system administration of a Novell network and/or a Unix network. Send inquiries or letter of application, résumé and three references to: **Dr. Robert E. Cook, Harvard University Herbaria, 22 Divinity Avenue, Cambridge, MA 02138. Telephone: 617-524-1718 ext 102; Email: bcook@arnarb.harvard.edu.**

**NMR MANAGER**—Washington State University has a NMR Manager opening for its Center for NMR Spectroscopy. The Center houses a Varian VXR-500 solutions NMR, a Chemagnetics CMX-400 solids NMR, and a Bruker AMX-300 solutions NMR. A 600 MHz machine will be added as soon as funds become available. The NMR Manager will be responsible for day-to-day operation, user training and instruction, data interpretation, scheduling of instruments, and provision of some service spectra. Some limited opportunities for collaborative research available, although this role is secondary. Demonstrated knowledge of current multidimensional NMR methods is essential, and some experience with solid-state NMR desirable. Good customer service attitude and interpersonal skills are desirable. A Ph.D. degree in Chemistry, Biochemistry or related field is preferred. Salary is competitive and commensurate with experience. Send letter of application, curriculum vitae, and three names of references to: **Prof. Jeremy Evans, Director, Center for NMR Spectroscopy, Department of Biochemistry and Biophysics, Washington State University, Pullman, WA 99164-4660. Applications must be received before May 19, 1995. Washington State University is an Equal Opportunity/Affirmative Action Educator and Employer. Protected group members are encouraged to apply.**

## POSITIONS OPEN

### BEHAVIORAL SCIENTIST

Established, independent but team-oriented **INVESTIGATOR** in Behavioral Neurotoxicology or Behavioral Pharmacology/Behavioral Genetics with research emphasis on toxic mechanisms relevant to occupational health is sought by growing multidisciplinary research institute focused on the brain and behavior. Start-up funds, competitive salaries (50% state-supported), and generous benefits package. Applications accepted until position filled; reviews to begin May 1, 1995.

Send curriculum vitae, references, and a statement of research interests to: **W. Kent Anger, Chair, Behavioral Scientist Search Committee, Center for Research on Occupational and Environmental Toxicology L606, Oregon Health Sciences University, 3181 SW Sam Jackson Park Road, Portland, OR 97201. Oregon Health Sciences University is an Equal Opportunity/Affirmative Action Employer.**

## ANNOUNCEMENTS



### American Institute for Cancer Research

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### RESEARCH INQUIRIES INVITED

The Smokeless Tobacco Research Council, Inc. invites inquiries regarding grant applications.

The Council sponsors independent research into questions of smokeless tobacco and health. Research support is through a program of grants-in-aid.

Grant applications are evaluated by the Scientific Advisory Board to the Council and will be judged solely on the basis of scientific merit and relevance.

Deadlines for submission of grant applications are December 31 for July 1 funding and June 30 for January 1 funding. Address inquiries or requests for applications to:

**The Smokeless Tobacco Research Council, Inc.**  
420 Lexington Avenue  
New York, NY 10170  
Telephone: 212-697-3485

**PRE-PROPOSALS**—Deadline: 1 July 1995. International Foundation for Ethical Research (IFER) has grants available for research into alternatives to the use of live animals in research, testing and teaching. Projects must take into account the three R's: Refinement, Reduction, and Replacement plus a fourth R: Responsibility. For information and format write: **IFER, 53 West Jackson Boulevard, Department J, Chicago, IL 60604, or call: 312-427-6025.**

## COURSES AND TRAINING

### COURSE IN INTERDISCIPLINARY PHYSICS July 11-August 5, 1995

La Jolla International School of Physics, The Institute for Advanced Physics Studies, La Jolla, California, Graduate School for Interdisciplinary Physics is offering a Course in Interdisciplinary Physics July 11-August 5, 1995. Topics: Laser Neurophysics; Laser Biophysics; Molecular Psychology and Psychiatry; Physics of DNA. A one month condensed course, to be given by world renowned researchers, is designed for advanced graduates and active researchers interested in pursuing careers in interdisciplinary physics. Write: **Secretary, La Jolla International School of Physics, 7825 Fay Avenue, Suite 350, La Jolla, CA 92037. Telephone: 619-456-5737; FAX: 619-454-2679.**

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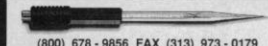
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