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#### ASSOCIATE PROFESSOR Institute of Toxicology Chung Shan Medical & Dental College Taiwan, R.O.C.

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Applications and nominations will be treated in confidence. An application, including a résumé, and the names of three referees, or a nomination, should be submitted by August 1, 1995, to: Search Committee, c/o Gerard Martin, Department of Psychology, Memorial University of Newfoundland, St. John's, NF A1B 3X9. Telephone: 709-737-8495; FAX: 709-737-2430; Email: gmartin@play.psych.mun.ca.

In accordance with Canadian Immigration requirements, this advertisement is directed toward Canadian citizens and permanent residents of Canada. Memorial University is committed to employment equity.

ASSISTANT CHAIRPERSON: The Department of Biochemistry, Molecular Biology and Cell Biology, Northwestern University, Evanston, invites applications for the position of assistant chairperson. The successful candidate for this challenging and highly visible position will serve as the central coordinating strategist for designing and implementing a diverse life sciences research funding plan, overseeing the Department's expanding renovation and building projects, and coordinator for the minority research programs. Candidates with a Ph.D. degree in the life sciences who are interested in pursuing a career in academic administration are encouraged to apply. Northwestern University's diverse scientific community offers a unique collegial atmosphere that is internationally recognized for its excellence in academia and research. This non-tenure-track administrative position carries with it a lecturer appointment and an excellent benefits package. Interested individuals should send a curriculum vitae and arrange for three letters of reference to be sent to: Professor Neil E. Welker, Associate Chairperson, Department of Biochemistry, Molecular Biology and Cell Biology, Northwestern University, Evanston, IL 60208-3500. Deadline: June 9, 1995. Women and members of minority groups are especially encouraged to apply. Affirmative Action/Equal Opportunity Employer.

Zoologist: The Department of Zoology at North Carolina State University seeks applicants for a 12 month, tenure-track ASSISTANT PROFESSORSHIP with a strong commitment to teaching and the undergraduate program. Duties include undergraduate advising and development of a range of courses, including one in Vertebrate Zoology. Preference will be given to candidates with a research interest in physiological ecology. Candidates should hold a Ph.D. A letter of application, three letters of recommendation and a curriculum vitae including two additional references should be sent to: Dr. Phil Doerr, Physiological Ecology Search, Box 7617, Department of Zoology, North Carolina State University, Raleigh, NC 27695-7617. Applications will be accepted up to August 1, 1995, or until a suitable candidate is identified. We seek to diversify our faculty, and minorities and women are encouraged to apply. North Carolina State University is an Equal Opportunity/Affirmative Action Employer.

#### DEPARTMENT CHAIR

The School of Medicine at UC San Francisco seeks an outstanding individual to lead its Department of Obstetrics, Gynecology and Reproductive Sciences, one of the preeminent departments in the nation. The successful candidate will have exceptional administrative and organizational skills and a national reputation as a leader in academic medicine. The individual chosen will have major responsibilities in medical education and in the overall direction of the research activities of this distinguished department. In addition, he or she should be committed to strengthening and expanding its clinical program in the context of health care reform. Applicants must be qualified for appointment as a professor in the Department of Obstetrics, Gynecology and Reproductive Sciences. Applicants should send a curriculum vitae no later than July 1, 1995, to: Dr. Lloyd H. Smith, Jr., M.D., c/o Diana Naisby, Office of the Dean/School of Medicine, 513 Parnasus, Room S-224, San Francisco, CA 94143-0410. University of California, San Francisco is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are particularly encouraged to apply.

#### MOLECULAR REPRODUCTIVE BIOLOGIST

The University of Pittsburgh School of Medicine invites applications for a **TENURE-TRACK POSITION** in the Department of Cell Biology and Physiology. Preference will be given to individuals with training in molecular and cell biology with research interests in the hypothalmicpituitary-gonadal axis. The successful candidate will be expected to develop an independent research program and research collaborations with reproductive physiologists in the NIH-funded Center for the Study of Reproduction. Position, salary, laboratory space and start-up funds commensurate with level of experience.

The desired starting date is negotiable. Applications must be received by May 31, 1995. Applicants should have a Ph.D. and/or M.D. degree and postdoctoral experience. Send curriculum vitae, summary of research interests and names of three references to: Raymond A. Frizzell, Ph.D., c/o Byron E. Helms, Department of Cell Biology and Physiology, University of Pittsburgh School of Medicine, E1448 Biomedical Science Tower, Pittsburgh, PA 15261. The University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer.

#### NEUROBIOLOGY FACULTY POSITION

The Neurobiology Research Center at the University of Alabama at Birmingham (UAB) School of Medicine invites applications for a **TENURE-TRACK** or tenured faculty position. The Center is seeking an outstanding individual with a strong record of achievement using modern approaches to cellular or molecular neurobiology whose interests complement those of current members. Interests of the faculty include neuronal-glial ion channel function, synaptic transmission and plasticity, development of sensory systems, signal transduction and intracellular signaling. The Center has excellent research facilities and has recently been provided with new space in the Civitan International Research Complex on the UAB campus. The development of the Center is supported by funds from the UAB School of Medicine and the Lucille P. Markey Charitable Trust. An award from the W. M. Keck Foundation will support the establishment of new laboratories in cellular and molecular neurobiology and neural imaging.

lecular neurobiology and neural imaging. Send curriculum vitae and statement of research plans and have three letters of recommendation sent to: Michael J. Friedlander, Ph.D., Faculty Search Committee, Neurobiology Research Center, 1719 6th Avenue South, CIRC 516, University of Alabama at Birmingham, Birmingham, AL 35294-0021 by June 2, 1995. UAB is an Affirmative Action/Equal Opportunity Employer.

#### FACULTY POSITION EUKARYOTIC MOLECULAR BIOLOGY

The Department of Biochemistry, University of Rochester Medical Center is seeking applications for the position of ASSISTANT PROFESSOR. Applicants should be prepared to conduct active independent research, using biochemical and molecular genetic techniques to study cellular mechanisms and human disease. Considerable prior research experience is required. The University provides wide opportunities for collaboration with investigators in clinical and basic science departments, and in the Cancer Center. Send curriculum vitae and letters of recommendation to: Dr. Fred Sherman, Chair, Department of Biochemistry, University of Rochester, 601 Elmwood Avenue, Rochester, NY 14642. This University is an Equal Opportunity Employer.

#### **POSITIONS OPEN**

#### FACULTY POSITION, OCTOBER 1995 Tel-Aviv University, Israel Department of Molecular Microbiology and Biotechnology

The Department of Molecular Microbiology and Biotechnology at Tel-Aviv University is seeking candidates for a **TENURE-TRACK POSITION** in the areas of Prokaryotic Biology. Industrial and Applied Microbiology/Biochemical Engineering, Structural Biology, Molecular Basis of Microbial Pathogenicity and related areas. The position becomes available in October 1995. Interested parties are invited to send curriculum vitae, list of publications, names of three referees, and a brief outline of future research plans to: Professor G. Cohen, Chairman, Department of Molecular Microbiology and Biotechnology, Tel-Aviv University, Ramat Aviv, 69978 Israel. Telephone: +972-3-6409836; FAX: +972-3-6409407; Email: coheng@ccsg.tau.ac.il.

#### BIOLOGY POSITION Southwestern College in Winfield, Kansas

Southwestern College, a United Methodist institution, seeks outstanding teacher for a **TENURE-TRACK PO-SITION**. Ph.D. or ABD preferred, rank/salary open. Candidates willing and able to teach a broad range of courses with special interests in ecology, field biology or interdisciplinary interests. Credential review begins May 11, 1995, continuing until selection. Send curriculum vitae, three references, sample syllabus, graduate transcript, statement of teaching philosophy and evidence of teaching effectiveness to: David A. Nichols, Dean of Faculty, Southwestern College, Winfield, KS 67156. *Equal Employment Opportunity/Affimative Action Employer*.

INSTRUCTOR-level faculty position available in the Department of Psychiatry at the University of Maryland at Baltimore. Duties will include animal model research for human neuropsychiatric diseases. Applicant must have a Ph.D. degree and at least four years of postdoctoral experience in neuropharmacology and neurochemistry. Please mail résumés to: Dr. Robert Schwarcz, Maryland Psychiatric Research Center, P.O. Box 21247, Baltimore, MD 21228. Affimative Action/Equal Opportunity Employer.

#### POSTDOCTORAL RESEARCH FELLOWS HARVARD MEDICAL SCHOOL

Applications are invited for positions opening in July 1995 on projects examining the molecular biology of Alzheimer's disease, and the role of cerebral zinc metabolism in the disorder (*Science*, **265**:1464, 1994). Approaches involve studies of animal, human and cellular  $A\beta$ metabolism, synaptology, and the molecular consequences of environmental and genetic lesions. Candidates should hold a Ph.D. or M.D. degree. Please send curriculum vitae and names of three referees to: Dr. Ashley Bush and Dr. Rudolph Tanzi (Director), Genetics and Aging Unit, Massachusetts General Hospital East, Building 149, 13th Street, Charlestown, MA 02129. Equal Opportunity Employer.

A POSTDOCTORAL POSITION is available immediately in Enzymology/Molecular Biology/Crystallography/Bioorganic Chemistry to study the interrelationship between protein structure and function. Mutants of allosteric enzymes involved in metabolic control will be characterized by kinetics, NMR, UV and CD spectroscopy, as well as X-ray diffraction. Candidates with a Ph.D. degree in Enzymology, Molecular Biology, Crystallography or Bioorganic Chemistry who want to extend their experience to the other areas are particularly encouraged to apply. Send curriculum vitae, name and telephone numbers of three references to: Dr. Evan R. Kantrowitz, Department of Chemistry, Boston College, Chestnut Hill, MA 02167.

A POSTDOCTORAL POSITION is immediately available to study  $Ca^{2+}$  and  $K^+$  channel regulation by G-proteins and cyclic nucleotides in freshly dispersed and cultured vascular smooth muscle cells using whole cell, perforated patch, and single channel methods. Previous experience is desirable. Send description of interests and experience, curriculum vitae, and list of three references to: Robert H. Cox, Ph.D., Graduate Hospital, One Graduate Plaza, Philadelphia, PA 19146. An Equal Opportunity/Affirmative Action Employer.

### **DEPUTY DIRECTOR** Science & Technology

Lawrence Livermore National Laboratory (LLNL) is seeking an executive to implement the Laboratory's strategic science and technology plan and ensure quality of the scientific and technical programs. The selected applicant will also assist the Director in managing a \$975 million budget and staff of 8,000.

The qualified candidate must have a broad technical background related to global security, global ecology, and biosciences and a demonstrated leadership in institutional management in an R&D environment. Ph.D. in Physical Sciences or Engineering preferred.

LLNL, in Livermore, CA, offers a challenging environment and a competitive salary/benefits package. Interested candidates should submit resumes, in confidence, to: Dr. James C. Hess, Executive Vice President, The Diversified Search Companies, Dept. AJSC545BT, 2005 Market Street, Philadelphia, PA 19103. FAX: (215) 568-8399. EOE/AA. M/F/D/V.

University of California Lawrence Livermore National Laboratory

## **INDUSTRIAL MICROBIOLOGIST**

Rohm and Haas Company, a leading multinational chemical company, seeks a Ph.D. microbiologist, mycologist or microbial physiologist for new product development and applications research in Biocides. This position is at our Corporate Research Center in Spring House, PA, near Philadelphia. Typical applications of our industrial biocides include: paint, plastics, consumer products, wood, preservatives, water treatment (e.g., cooling towers, pulp & paper) and marine antifoulants.

We are looking for an inventive scientist with strong accomplishments in research and development of products for materials protection. The initial focus will be on establishing new products for the preservation of paints, plastics and marine antifoulants. Subsequent opportunities to develop other applications for biocides may be expected.

The successful candidate will have a Ph.D. degree in mycology, microbiology, microbial ecology or microbial physiology, and a working knowledge of organic chemistry. Work experience in industrial microbiology — preferably in materials protection — is essential. Besides scientific excellence, you must also possess effective oral and written communicating skills and the ability to flourish in a multifunctional team environment.

Rohm and Haas offers a highly competitive salary and benefits program, including relocation assistance. We also provide many programs for the professional growth of our scientific staff. Candidates must be legally entitled to hold regular employment in the U.S.

Please forward your resume or c.v., including three professional references, to: Research Staffing #195, Rohm and Haas Research Laboratories B-70, 727 Norristown Road, Spring House, PA 19477-0904.



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RESEARCH

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Laboratory

#### CENTER FOR ENVIRONMENTAL RESEARCH AND CONSERVATION

#### **Columbia University**

An Associate Research Scientist position is available in conservation genetics. Research will focus on the population genetics and molecular systematics of endangered mammals. Substantial experience in molecular genetics and quantitative genetic methods is essential. Field collection experience is desirable. Salary is competitive and will be commensurate with experience. The position will begin July 1. 1995. Send curriculum vitae, statement of research experience and interests, and three letters of reference by June 1, 1995 to Dr. Don J. Melnick, Director, Center for Environmental Research and Conservation (CERC), Columbia University, 405 Low Memorial Library, New York, NY 10027.

An Equal Opportunity/Affirmative Action Employer.

## **RESEARCH OPPORTUNITY**

A scientific position is available as Project Leader for the Data Core of the Mouse Genome Database with the Mouse Genome Informatics Project at The Jackson Laboratory. The database contains experimentally generated genotypic data such as those from linkage crosses (haplotype data from individual typings) or from recombinant inbred strain experiments (strain distribution patterns); physical mapping data (+/ - hits gainst YACs and PIs, PFGE data); and comparative mapping data for 40 mammalian species. Other important data types include information about molecular reagents such as characteristics of probes or clones; genetic polymorphism data for strains such as visible, biochemical, RFLP or PCR variant polymorphisms; phenotypic data such as descriptions of genes, their mutations, and their function; and descriptions of inbred strains of mice for their unique quantitative characteristics. The successful applicant will be responsible for directing this core project, including overseeing acquisition and management of data; integration of genetic, physical and phenotypic data; and developing new approaches to managing these diverse types of data. Specific responsibilities will include supervision of personnel, data quality control, developing and carrying out ideas for managing and analyzing data, writing grants and

papers and other professional scientific duties. This individual will participate with other project leaders in planning and implementing decisions related to specific projects and the program project as a whole. Applicants must hold a Ph.D. in mammalian genetics, molecular genetics, or a closely related field. Experience with mammalian genetics, gene mapping, and physical mapping is important. Ability to deal successfully with day-to-day operations constructively and enthusiastically. The position requires careful attention to data details and understanding of how data are used by the genetics community. Good communication skills are essential.

> An Affirmative Action/ Equal Opportunity Employe

The Jackson Laboratory, located on the coast of Maine adjacent to Acadia National Park, is a world-renowned center and resource for mammalian biology and genetics.

Qualified candidates should send resume to: The Jackson Laboratory, Attn: Hook Wheeler, Human Resources, 600 Main Street, Bar Harbor, ME 04609. Phone: 207/288-3371, fax: 207/288-5079, email: hrw@jax.org

#### **POSITIONS OPEN**

#### POSTDOCTORAL POSITIONS Basic Research Center Samsung Biomedical Research Institute

Two **POSTDOCTORAL POSITIONS** are available immediately (1) to study molecular aspects of DNA metabolism or (2) to develop target-specific viral vectors for the treatment of cancer. Applicants should have training in molecular biology or nucleic acid biochemistry with experience in recombinant DNA and protein purification. The salary is commensurate with experience (U.S. \$30,000 to \$33,000 per year). Please send curriculum vitae and names of three references, along with copies of major publications to: Jin Hue Kang, Personnel Department, Samsung Biomedical Research Institute, 50 Ilwon-Dong, Kangnam-Ku, Seoul, 135-230, Korea. FAX: 82-2-3410-3608.

**POSTDOCTORAL SCIENTIST** needed to study serotonin receptor function and alcohol. The successful applicant will be intelligent and hardworking with experience in whole-animal pharmacology, wishing to develop molecular approaches to investigate physiology and behavior. The project involves cell culture, molecular techniques to study neurotransmitter expression, and pharmacology. Begins June 1, 1995, and is funded for three years. Salary is highly competitive and commensurate with experience. Mail/FAX curriculum vitae, cover letter, and list of three references to: Daniel E. Benjamin, Ph.D. and Larissa A. Pohorecky, Ph.D., Rutgers Center of Alcohol Studies, P.O. Box 969, Piscataway, NJ 08855-0969. FAX: 908 445-3500. Rutgers is an Equal Employment Opportunity/Affirmative Action Employer.

#### SIGNAL TRANSDUCTION

**POSTDOCTORAL POSITION** available to study signal transduction cross-talk. Current studies focus on genetic approaches to understanding the physiological significance of the various modes of regulating distinct isoforms of adenylyl cyclase. Applicants should possess a Ph.D. or M.D. with a strong background in molecular biology, genetics, or biochemistry. Submit curriculum vitae and two references to: Dr. Lonny R. Levin, Department of Pharmacology, Cornell University Medical College, 1300 York Avenue, New York, NY 10021. Equal Opportunity Employer.

**POSTDOCTORAL POSITION** to study the winged helix transcription factors (hepatocyte nuclear factor 3 and homologs) via transgenic mouse models and determine their embryonic expression patterns and roles in cell-specific gene expression (see *Dev. Biol.*, 166:195, 1994; *Mol. Cell. Biol.*, 15:1364, 1995). Preference will be given to applicants with knowledge of developmental biology and use of transgenic mouse technology. Please send curriculum vitae, names and telephone numbers of three references to: Dr. Robert Costa, University of Illinois at Chicago, College of Medicine, Department of Biochemistry (M/C 536), 1819 West Polk Street, Chicago, IL 60612-7334. FAX: 312-413-0364. University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available in summer or fall of 1995 to investigate the mechanism of protein folding. Mutation-induced changes in folding are studied by biophysical techniques such as stopped-flow and T-jump kinetics, scanning calorimetry, and hydrogen-deuterium exchange (HX). Please submit a curriculum vitae and arrange to have three letters of recommendation sent to: Dr. Barry T. Nall, Biochemistry, The University of Texas Health Science Center, San Antonio, TX 78284-7760. FAX: 210-567-6595; Email: nall@bioc01.uthscsa.edu. The University of Texas Health Science Center at San Antonio is an Equal Employment Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION** available June 1995 to study regulation of gene expression by plant hormones (see *Plant Physiol.*, **104**:161-170 and 505-513, 1994). Ph.D. in molecular biology or a plant science required with strong background in protoplast manipulation, RNA isolation and blotting techniques; or experience with plant transformation. Send curriculum vitae and names of three references to: Dr. Steve Clouse, Department of Horticultural Science, Box 7609, North Carolina State University, Raleigh, NC 27695. FAX: 919-515-2505; Email: steve\_clouse@ncsu.edu.

#### **POSITIONS OPEN**

#### UNIVERSITY OF MICHIGAN POSTDOCTORAL/LECTURER POSITION Cytochrome P450 Structure/Function/-Mechanism of Action

**POSTDOCTORAL POSITION** now available for Ph.D. in Chemistry, Biochemistry, or related field to study biological functions, structures, and mechanistic aspects of P450 isozymes. Desired: strong chemical background, research experience with publications on chemistry of membrane-bound enzymes, familiarity with analytical techniques, some experience in molecular genetics. Title of Lecturer possible for qualified candidates with previous postdoctoral experience. Send curriculum vitae and reference names, addresses, and telephone numbers to: Dr. M. J. Coon, Department of Biological Chemistry, Medical School, University of Michigan, Ann Arbor, MI 48109. FAX: 313-763-4581.

#### POSTDOCTORAL POSITION WASHINGTON UNIVERSITY

A POSTDOCTORAL POSITION is available immediately to study the regulation of matrix production during development and repair. The project involves *in vitro* and *in vivo* models and will focus on cis-elements in mRNA which confer post-transcriptional control. This position will allow for interactions with other groups and offers a highly competitive salary. Candidates should have a Ph.D. and experience in molecular and cell biology. Send curriculum vitae, names of references, and reprints to: Dr. William C. Parks, Department of Medicine, Jewish Hospital, Washington University, 216 South Kingshighway, St. Louis, MO 63110.

#### POSTDOCTORAL POSITION

Available immediately to study tumor suppressor gene function in a rat model of hereditary cancer. Experience in molecular and cell biology is required. Please send curriculum vitae and names of references to: Dr. Raymond Yeung, Division of Medical Science, c/o Human Resources Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.

POSTDOCTORAL POSITION in systems neurophysiology examining network properties of \$1 cortical neurons. Multi-electrode recording technology and cross-correlation methods are combined with extracellular iontophoresis to examine interactions among thalamocortical neurons and antidromically identified cortical efferent neurons. Experience with the above methods is desirable. Send curriculum vitae and letters of recommendation to: Dr. Harvey A. Swadlow, Department of Psychology, University of Connecticut, U-20, Storrs, CT 06269. UCONN encourages applications from minorities, women and people with disabilities.

POSTDOCTORAL POSITION available to investigate the role of cytoskeleton and kinesin related proteins of the sensory cilium in assembly and turnover of photosensitive membranes. Studies will involve biochemical, molecular and structural approaches using vertebrate photoreceptors. Candidate must have demonstrated ability to work independently. Send/FAX résumé and references to: Dr. Joseph C. Besharse, Department of Anatomy and Cell Biology, The University of Kansas Medical Center, Kansas City, KS 66160-7400. FAX: 913-588-2710.

**POSTDOCTORAL POSITION**—Immediate opening to work on an NIH-funded study of the role of interleukin 6 gene expression in the pathogenesis of multiple myeloma. Experience in molecular biology and/or cellular immunology is desirable but not required. Send a curriculum vitae, names and addresses of three references, and a short letter describing research experience to: Dr. Diane Jelinek, Department of Immunology, Mayo Clinic, 200 First Street SW, Rochester, MN 55905. Mayo Foundation is an Affinative Action and Equal Opportunity Educator and Employer.

POSTDOCTORAL POSITION is available for a recent Ph.D. with experience in cellular immunology and molecular biology to study T cell development and early thymocyte differentiation. Send curriculum vitae and names of three references to: Dr. J. C. Zúñiga-Pflücker, Department of Immunology, University of Toronto, Medical Sciences Building, Toronto, Ontario M5S 1A8, Canada. FAX: 416-978-1938. Equal Opportunity Employer.

#### **POSITIONS OPEN**

#### TERRAPIN TECHNOLOGIES, INC. POSTDOCTORAL FELLOW

POSTDOCTORAL POSITION available immediately to study unique aspects of signal transduction in T cells. Terrapin is a dynamic young organization with proprietary targets in intracellular signaling and a unique drug discovery technology. The position requires Ph.D. with a background in molecular and cellular biology and experience in cells of the immune system. Qualified scientists should send a letter of application, curriculum vitae, publication list and names of references to: Marvin I. Siegel, Ph.D., Vice President of Research and Development, Terrapin Technologies, Inc., 750-H Gateway Boulevard, South San Francisco, CA 94080. Equal Opportunity/Affirmative Action Employer.

#### POSTDOCTORAL POSITIONS

The Dana-Farber Cancer Institute seeks to fill **POST-DOCTORAL RESEARCH** positions to analyze signal transduction events leading to T-cell activation and apoptosis in murine systems. A background in analytical biochemistry and cellular transfection is preferred. A joint appointment will be held in an appropriate department of the Harvard Medical School. Immediate openings available. Send curriculum vize and three references to:

> Laboratory of Immunopathology Dana-Farber Cancer Institute 44 Binney Street, Boston, MA 02115 FAX: 617-632-4630

POSTDOCTORAL POSITION. NIH-funded fellowship, restricted to U.S. citizens or permanent residents, to study the genetic basis of large cell transformation in cutaneous T-cell lymphoma. Experience in molecular biology required. Send curriculum vitae and references to: Stuart R. Lessin, M.D., Department of Dermatology, University of Pennsylvania, 217 Clinical Research Building, 415 Curie Boulevard, Philadelphia, PA 19104. FAX: 215-898-0201. An Equal Opportunity Employer.

A POSTDOCTORAL POSITION for a Ph.D. is available immediately in the Department of Biochemistry, East Carolina University School of Medicine to work on the effects of diabetes and insulin resistance on various enzymes involved in lipid and lipoprotein metabolism. The post is supported by the NIH and is available for three to four years. Previous experience with lipoproteins and molecular techniques is desirable. Please submit a curriculum vitae and the names of three references to: Dr. Hisham Barakat, Department of Biochemistry, East Carolina University School of Medicine, Greenville, NC 27858. An Equal Employment Opportunity/Affirmative Action Employer. Accommodates individuals with disabilities. Immigration Reform and Control Act procedures followed.

**POSTDOCTORAL POSITION**, Gastrointestinal Cell/Molecular Biology, Mayo Clinic. Position available starting July 1995 to study control mechanisms of growth and malignant transformation in biliary epithelia. Experience in cell/molecular biologic techniques required. Applicants should have M.D. and/or Ph.D. degree and must be a U.S. citizen or permanent resident. Send curriculum vitae and letters of reference to: Dr. Nicholas F. LaRusso, Center for Basic Research in Digestive Diseases, 1701 Guggenheim, Mayo Clinic, Rochester, MN 55905. Mayo Foundation is an Affirmative Action and Equal Opportunity Educator and Employer.

**POSTDOCTORAL POSITIONS** are available to study the modulation of cytoskeletal dynamics by specific effectors during neuronal cell death, and the relationship of these processes to Alzheimer's disease. Previous research experience in molecular and cellular biology is preferred. Please send curriculum vitae and three letters of reference to: Dr. Gail V. W. Johnson, Department of Psychiatry, 1720 7th Avenue South, University of Alabama at Birmingham School of Medicine, Birmingham, AL 35294-0017. Only U.S. citizens or permanent residents please.

**POSTDOCTORAL** (one year renewable) available July 1, 1995, to conduct research on organic carbon and microbial dynamics in shallow groundwater ecosystems. Ph.D. in microbiology, soils, ecology, hydrology or related field required. Send application letter, curriculum vitae and three letters of reference by June 15, 1995, to: Dr. Peter Groffman, Institute of Ecosystem Studies, Box AB, Millbrook, NY 12545-0129. Email: capg@ vm.marist.edu.

## **HUMAN GENETICS & GENOMICS**

#### **POSTDOCTORAL POSITIONS**

The McDermott Center for Human Growth and Development is a new research unit of The UT Southwestern Medical School at Dallas focusing on human genetics, human disease genes, cancer genetics, genomics, physical and genetic mapping of the human genome, advanced technology and computational biology. Several postdoctoral positions will become available during 1995 in the research laboratories of McDermott Center faculty members. Postdoctoral fellows will also have the opportunity of interacting with the UTSW Genome Science and Technology Center focused on genomic mapping and sequencing. The faculty members and their research interests are as follows:

- Glen A. Evans, M.D., Ph.D. Cancer genetics, genome mapping and sequencing, biotechnology.
- Michael Lovett, Ph.D. Genetics of craniofacial disorders and chondrodysplasias. Transcription mapping of the human genome.
- Anne Bowcock, Ph.D. Genetic analysis of breast and ovarian cancer and psoriasis.
- Roger Schultz, Ph.D. Chromosome instability syndromes, somatic cell genetics.
- Harold (Skip) Garner, Ph.D. Nanostructure biology, automation, informatics.
- David Burbee, Ph.D. DNA sequencing, yeast genetics.
- Chris Davies, Ph.D. Biocomputing, informatics, yeast genetics.

Applicants should send curriculum vitae and names of references to faculty member(s) of interest c/o Susie Hayes, Administrative Services Officer, McDermott Center for Human Growth and Development, UT Southwestern Medical Center at Dallas, 5323 Harry Hines Blvd., Dallas, Texas 75235-8591. The University of Texas is an equal opportunity employer. Women and minorities are encouraged to apply.

### THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER AT DALLAS





At Lederle-Praxis Biologicals, we're pioneering the design, manufacture and marketing of vaccines so sophisticated, they're changing lives—right now.

Here, you'll help improve the quality of a lot of lives. Including your own. Our research facility, located in a suburb of Rochester, NY, is within easy reach of some of New York State's most attractive cultural, educational and recreational resources.

#### **RESEARCH SCIENTISTS**

We are seeking Ph.D's with a minimum of 3+ years' experience in clinical laboratory immunology and assay development. You will develop clinical and pre-clinical immunoassays and bioassays in support of viral and bacterial vaccine research.

The position requires a broad background in immunology and microbiology, with a solid base in serology. Experience in assay development and validation a must. Familiarity with Good Laboratory Practices is preferred.

At Lederle-Praxis, you'll enjoy a professional atmosphere and the kind of salary and benefits package you'd expect from an industry leader. Please send your resume to: Human Resources Department, Lederle-Praxis Biologicals, 211 Bailey Rd., West Henrietta, NY 14586-9728. An Equal Opportunity Employer M/F.

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Protecting Families Through Immunization®

## **BIOLOGIST**

The Upjohn Company is seeking a Biologist to participate in the discovery and characterization of novel anti-inflammatory agents.

Our ideal candidate will have a Bachelor's degree in biology, biochemistry, or a closely related scientific field and demonstrated experience in *in vitro* cell culture, molecular, cellular, biochemical, and pharmacological techniques. Experience with in vivo models of inflammation is highly desirable. We are seeking an individual with demonstrated problem-solving skills, the ability to conduct independent research, and strong interactive and communication skills. Applicants should have no history of atopic reactivity to common allergens.

Upjohn offers a stimulating, multidisciplinary research environment at our headquarters in Kalamazoo. An excellent salary and benefits package are provided. For confidential consideration, please send your curriculum vitae and a description of research experience to: The Upjohn Company, Corporate Recruiting, Position #272, 7000 Portage Road, Kalamazoo, MI 49001. We are

an equal opportunity employer with a commitment to workplace diversity.



#### **POSITIONS OPEN**

#### POSTDOCTORAL POSITIONS IN OPHTHALMIC LASER RESEARCH

One or two **POSTDOCTORAL RESEARCH** positions are available at the New England Eye Center, Tufts University School of Medicine, to conduct ophthalmic laser research and to develop novel techniques for optical tomography and laser surgery. Potential candidates should have a strong background in optics and lasers, good communication skills, and an ability to work closely with clinical investigators. A Ph.D. degree in biomedical engineering, biophysics, optics, or related field is preferred. Successful candidate will be encouraged to develop his or her own independent research program. Please send curriculum vitae and three letters of recommendation to: Carmen A. Puliafito, M.D., Director, New England Eye Center, 750 Washington Street, Boston, MA 02111. FAX: 617-636-4215.

#### POSTDOCTORAL POSITION

POSTDOCTORAL POSITION available immediately to study molecular mechanisms of apoptosis. A strong background in molecular and cellular immunology is desired. Please send or FAX curriculum vitae and three references to: Paul Anderson, M.D., Ph.D., Division of Tumor Immunology, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. FAX: 617-632-4569. Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to study the effect of catalase-overexpression on oxidative agents-induced cardiotoxicity in established transgenic mouse models. Experience in molecular biology, immunohistochemistry, cardiac ischemia-reperfusion, and cardio-physiology, -pathology, and -toxicology is preferred. Send curriculum vitae and names of three references to: Dr. Y. James Kang, Department of Pharmacology and Toxicology, University of North Dakota School of Medicine, Grand Forks, ND 58202-9037 USA. FAX: 701-777-6124. University of North Dakota is an Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITIONS** available immediately for the study of (1) biochemical and molecular mechanisms of an Rb-associated factor involved in regulation of transcription and cell cycle, (2) novel serum/ TPA response factors involved in regulation of junB expression. For review see: *MCB*, **14**:4380, 1994 and *JBC*, **268**:14482, 1993. Experience with recombinant DNA and protein chemistry are required. Please send curriculum vitae and names of references to: **Dr. Robert Chiu**, **University of California, Los Angeles, School of Med***icine*, **Division of Surgical Oncology**, **54**-140 CHS, **Los Angeles, CA 90095-1782. FAX: 310-206-3610.** *UCLA is an Equal Opportunity/Affirmative Action Employer.* 

**POSTDOCTORAL POSITIONS** to study mechanisms of dioxin action with particular emphasis on the role of arachidonate and cytochrome P450 in dioxin generated signal transduction events. Applicants should have experience in one or more of the following areas: (1) eukaryotic molecular biology, gene expression, PCR, *in situ* hybridization; (2) lipid analysis and biochemistry; (3) signal transduction, intracellular calcium, protein kinases; (4) cell culture, immunohistochemistry. The applicant must be a U.S. citizen or permanent resident. Send a letter of application, curriculum vitae and names and addresses of three references to: Dr. Arleen Rifkind, Department of Pharmacology, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.

**POSTDOCTORAL POSITION** is available in the Laboratory of Immunology, National Eye Institute, National Institutes of Health, Public Health Service. The position involves a research study on one of two ongoing projects: 1) Transcriptional regulation of gamma interferon ( $\gamma$ IFN)-response elements in transgenic rats and mice with ectopic lens-expression of  $\gamma$ IFN. 2) Analyses of T cell receptor variable region gene usage in human and rat intra-ocular autoimmune diseases. Experience in *in situ* PCR, gel-shift assays, molecular cloning, protein analysis tissue culture and immuno-histochemistry are desirable. Applicants must be U.S. citizens or permanent residents and have less than five years of postdoctoral training. Salary will range from \$25,000 to \$38,000 per year, depending upon applicant's background and experience. Send curriculum vitae and names of three references to: Charles E. Egwuagu, M.P.H., Ph.D., Building 10, Room 10B10, 10 Center Drive, MSC 1850, Bethesda, MD 20892-1850.

NIH is an Equal Opportunity Employer.

#### **POSITIONS OPEN**

POSTDOCTORAL POSITIONS are available immediately to study molecular mechanisms of lipoprotein assembly, and structure and function of protease receptors. Only recent Ph.D. or M.D. with cellular and molecular biology experience should apply. Send résumé and names of references to: Dr. M. Mahmood Hussain, Department of Pathology and Biochemistry, 2900 Queen Lane, Medical College of Pennsylvania, Philadelphia, PA 19129. FAX: 215-843-6471; Email: hussain@ef.medcolpa.edu.

**POSTDOCTORAL POSITION** in molecular biology: Available to study gene expression and oxidative stress. Candidates with experience in eukaryotic gene expression will be preferred. The position offers considerable independence and growth opportunities. Send curriculum vitae to: Dr. Sampath Parthasarathy, Department of Gynecology and Obstetrics, Emory University, P.O. Box 21246, Atlanta, GA 30322. Email: spartha@emory.edu. An Equal Opportunity/Affirmative Action Employer.

#### POSTDOCTORAL TRAINING IN CELLULAR AND INTEGRATIVE NEUROSCIENCE

The University of Maryland at Baltimore is recruiting **POSTDOCTORAL FELLOWS** for an NIH-sponsored interdepartmental training program. It emphasizes the central role of cell-cell communication from the molecular to the systemic level. Faculty from the Departments of Anatomy, Neurology, Pathology, Pharmacology, and Physiology are engaged in the study of cellular interactions at a variety of levels exploiting state-of-the-art techniques in electrophysiology, molecular biology, light, electron, and confocal microscopy. They examine the roles of signal molecules in activating cell-surface receptors,  $Ca^{2+}$ -dependent signal transduction, and the biology of glia in the functional and developmental plasticity of the nervous system.

For further information, please contact: Dr. Danny Weinreich, Department of Pharmacology, University of Maryland, School of Medicine, 655 West Baltimore Street, Baltimore, MD 21201. Telephone: 410-706-5833; FAX: 410-706-0032; Email: dweinrei@ umabnet.ab.umd.edu. University of Maryland at Baltimore is an Affirmative Action/Equal Opportunity/ADA Employer. Minorities and women and encouraged to apply.

#### POSTDOCTORAL FELLOWSHIP Epigenetic Control of Gene Expression in Plants Waksman Institute, Rutgers University

A POSTDOCTORAL RESEARCH POSITION is available immediately to study on the genetic, molecular, and biochemical level how genes become epigenetically modified during plant reproduction and development. Particular emphasis is placed on allelic variants of genomic imprinting of tubulin genes (MGG, **246**:716-722, 1995) and epimutation of regulatory genes in maize (*The Plant Journal*, 7:797-807, 1995).

Applicants should have research experience in plant genetics and molecular biology. Send curriculum vitae and a cover letter detailing experience and have three letters of recommendation sent to: Dr. Joachim Messing, Waksman Institute, Rutgers University, P.O. Box 759, Piscataway, NJ 08855-0759. Rutgers University is an Equal Opportunity/Affirmative Action Employer.

#### POSTDOCTORAL FELLOWSHIPS Plant Signal Transduction Waksman Institute, Rutgers University

A POSTDOCTORAL RESEARCH position is available immediately to study signal transduction during induction of disease resistance to viral infections of tobacco and *Arabidopsis*. Particular emphasis is being placed on defining components of the salicylic acid signal transduction pathway(s) (*Plant Cell*, 4:359, 1992; *Plant J.*, 4:593, 1993) and characterization of the salicylic acid receptor (*PNAS*, 90:9533, 1993; *Science*, 262:1883, 1993; *PNAS*, 92: May 1995).

Applicants should have research experience in genetics (molecular biology or biochemistry acceptable). Send curriculum vitae and a cover letter detailing experience and have sent three letters of recommendation to: Dr. Daniel Klessig, Waksman Institute, Rutgers University, P.O. Box 759, Piscataway, NJ 08855. Rutgers University is an Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

#### POSTDOCTORAL FELLOWSHIP IN CELL BIOLOGY/YAC TRANSFER TECHNOLOGY

A position for a **POSTDOCTORAL FELLOW** is available in a project aimed to develop transfer of yeast artificial chromosomes into somatic cells as a general method for the analysis of control of gene expression during development and differentiation. As a model system, YACs containing the human  $\beta$  globin locus are used. The project involves development of methods for transfer of YACs into established cell lines and analysis of the effects of mutations of YAC regulatory sequences on gene expression. Prior background in cell biology, biochemistry, or molecular biology required. Send a statement of research interests with curriculum vitae and names of references to: Dr. George Stamatoyannopoulos, Markey Molecular Medicine Center, Box 357720, University of Washington, Seattle, WA 98195-7720.

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

#### POSTDOCTORAL FELLOW

Position available immediately to identify genes involved in mouse models of neurological disorders such as ataxia and epilepsy by positional cloning (PCR, YACs, mutational analysis of candidate genes). Laboratory is connected with the Department of Human Genetics and the Program in Neuroscience. Ph.D. or M.D. familiar with molecular genetic techniques and with a background in molecular genetic techniques and with a background ular neuroscience preferred. Send curriculum vitae and names and telephone numbers of references to: Margit Burmeister, Ph.D., Mental Health Research Institute, University of Michigan, 205 Zina Pitcher Place, Ann Arbor, MI 48109-0720. FAX: 313-747-4130.

The University of Michigan is an Equal Opportunity/Affirmative Action Employer and specifically encourages applications from qualified women and minorities.

Clinical Chemistry POSTDOCTORAL FELLOW-SHIPS at Mayo Clinic. Seeking applicants for two year ComACC-approved fellowship directed toward qualified individuals (Ph.D. or M.D. required) pursuing careers in clinical chemistry. Individuals completing the program are eligible for certification by the American Board of Clinical Chemistry. Applications on file by October 31, 1995, will be considered for appointment beginning in July 1996. Contact: Mary F. Burritt, Ph.D., Division of Clinical Biochemistry & Immunology, Mayo Clinic, Rochester, MN 55905, for more information. Mayo Foundation is an Affirmative Action and Equal Opportunity Educator and Employer.

#### RESEARCH ASSOCIATE

The Structural Biology NMR Facility at The University of Cincinnati, College of Medicine is seeking an NMR spectroscopist knowledgeable and experienced in the application of multidimensional and heteronuclear NMR experiments to biological problems. A Ph.D. degree and experience in protein structure determination is required. Experience in computer programming or technique development is preferred. The successful candidate will be responsible for the smooth day-to-day operation of the facility, routine instrument maintenance, and participation in the research activities of the facility. The individual will be responsible for two 600 Mhz and one 500 Mhz NMR spectrometers. Please submit résumé to: Paul Rosevear, Ph.D., Search Committee, University of Cincinnati, Department of Molecular Genetics, Biochemistry and Microbiology, 231 Bethesda Avenue, Cincinnati, OH 45267-0524.

Affirmative Action/Equal Opportunity Employer.

#### **RESEARCH ASSISTANT**

The University of Virginia Department of Medicine seeks a **RESEARCH ASSISTANT** for the Division of Endocrinology and Metabolism. Candidates should be able to independently conduct *in vivo* and *in vitro* experiments in rats (experimental design, surgical techniques, treatment, sampling methods), measure specific hormones in blood samples and mRNAs in the pituitary, prepare manuscripts and presentations to scientific meetings. Submit curriculum vitae and three letters of reference by June 1, 1995, to: Daniel J. Haisenleder, Ph.D., University of Virginia, Department of Medicine, **5041 MR-4 Building, Charlottesville, VA 22908.** The University of Virginia is an Equal Opportunity/Affirmative Action Employer. ICN Pharmaceuticals, a major international pharmaceutical and biomedical firm with one-half billion dollars in revenue has a key executive position available due to continued rapid growth and expansion. The position of Vice President **Research & Development** requires a seasoned scientist/physician with a strong scientific record. The successful candidate will have experience taking compounds from discovery to the clinic, and into the market. Experience taking science through the regulatory process along with knowledge of science at the chemistry, biology and cell levels is required. Additionally, this position requires an articulate scientific advocate and spokesperson with a record of attracting and developing top talent. This position is located at our world headquarters in Costa Mesa, California. We offer an outstanding compensation package including relocation assistance. ICN is an equal opportunity employer.

Please send your resume to:

ICN Pharmaceuticals, Inc.



Corporate Human Resources 3300 Hyland Avenue, Costa Mesa, CA 92626 or Fax your resume to: 714/ 641-7256

Research

#### POSTDOCTORAL TRAINING POSITIONS

The Dana-Farber Cancer Institute seeks to fill postdoctoral training positions in AIDS-related research. Background and/or experience in this area is preferred but not essential. Candidates must commit to a two-year training period. Training opportunities are available in the areas of immunology, retrovirology and cell biology/pharmacology with Training Faculty members listed below.

Harvey Cantor, MD Robert W. Finberg, MD Ellis Reinherz, MD Andre Rosowsky, PhD Ruth M. Ruprecht, MD, PhD Stuart Schlossman, MD Norman Letvin, MD Steven Burakoff, MD Arthur Pardee, PhD Kenneth Rock, MD Christopher Rudd, PhD Priscilla A. Schaffer, PhD Joseph Sodroski, MD Kenneth McIntosh, MD

A joint appointment will be held in an appropriate department of the Harvard Medical School. Please send CV and 3 references to:

> AIDS Postdoctoral Training Program Dana-Farber Cancer Institute 44 Binney Street, Room D730 Boston MA 02115 FAX: 617-632-4630



The Dana-Farber Cancer Institute is an Equal Opportunity Employer.

## Analytical Systems Administrator



classical as well as instrument analytical chemistry (i.e. HPLC, GC, UV, IR) and a basic knowledge of organic chemistry. Requires

familiarity with installation of a Beckman CALS LIMS on a Hewlett Packard HP9000/UX Platform in a cGMP environment or comparable experience. Responsibilities in designing, installing and managing the LIMS system. Requires a degree in chemistry, good communications skills and the ability to work with others.

We invite you to join us in Holland, Michigan, an area with fine schools, recreational opportunities and an excellent quality of life. We offer a very competitive salary and fringe benefit program. If you have qualifications which fit the requirements of the position listed above, apply in person or send a resume to Manager, Human Resources, PARKE-DAVIS/Division of Warner-Lambert, 188 Howard Avenue, Holland, M1 49424.



## Senior Program Officer/ Study Director

The National Research Council (NRC) is seeking a Senior Program Officer for its Board on Sustainable Development (BSD). Will also serve as the Study Director for Environment and Natural Resources. The recently formed Board has responsibility for a broad range of studies and activities relating to environment, natural resources, and sustainable development of natural resources and national and international economies. In addition, the Board oversees the activities of a number of NRC units relating to the US Global Change Research Program (USGCRP). The incumbent will report to the Director, NRC Board on Sustainable Development (BSD) and will be responsible for supporting the work of the Board and its standing committees, with particular emphasis on global change research studies and activities. Duties include writing, reviewing and editing background papers, meeting documents, and formal NRC reports; organizing and supporting meetings and study sessions; maintaining cognizance of key issues and identifying opportunities for new studies; conducting and reviewing scientific accessments; and accepting in maintaining and reviewing scientific assessments; and assisting in maintaining staff liaison with the federal Committee on Environment and Natural Resources with specific responsibility for global change research and observing system issues. Requirements include a Ph.D. or equivalent, preferably in an environmental, life, or social sciences related field; an exceptional breadth of substantive knowledge in environmental science and policy; at least four to five years of high-level experience in environmental science and policy issues; and

demonstrated ability to communicate effectively with policy-level officials in the executive and legislative branches. Applicants should send curriculum vitae and references to: **Board on Sustainable Development, National Research Council (FO2080-JP), 2101 Constitution Avenue, NW, Washington, DC 20418.** EOE.



#### **POSITIONS OPEN**

#### POSTDOCTORAL/RESEARCH ASSOCIATE

Established research program studying biochemistry and molecular genetics of glycoprotein degradation in lysosomes and associated human genetic diseases. Major research projects: 1) Glycosylasparaginase and Aspartylglucosaminuria (FASEB J., 7:1247, 1993); 2) Unique evolution of the lysosomal glycosidase Chitobiase (JBC, 267:19607, 1992; Molec. Cell. Biol., 12:1585, 1992). Dr. Nathan N. Aronson, Professor/Chair, Biochemistry & Molecular Biology, MSB 2146, College of Medicine, University of South Alabama, Mobile, AL 36688. FAX: 334:460-6127. An Equal Opportunity/Affimative Action Employer.

**POSTDOCTORAL RESEARCH ASSOCIATE** will design and conduct research to understand the molecular basis of the human response to bacterial polysaccharides using anti-idiotype reagents. Work will focus on the production, characterization and sequencing of human monoclonal antibodies and the production of antiidiotype reagents. Requires a Ph.D. in Immunology and experience in: (1) immunoassays, (2) cloning and sequencing of human Ig variable genes, (3) tissue culture and monoclonal antibody production, (4) EBV-transformation and maintenance of human B-cells and (5) flow cytometric analysis. Send/FAX résumé to: Dan Granoff, M.D./Robert E. Mandrell, Ph.D., Children's Hospital Oakland Research Institute, 747 52nd Street, Oakland, CA 94609. FAX: 510-428-3608. Equal Opportunity Employer.

**POSTDOCTORAL RESEARCH SCIENTIST.** Two-year position available July 1, 1995, for a Marine Chemist or Geochemist to study the sediment geochemistry, paleoceanography and paleoclimatological impact of global ocean nutrient cycles (N, P, Si). Applicants must have a recent Ph.D. in Chemical Oceanography or a related field with a background in stable isotope, trace element and/or nutrient geochemistry. Send résumé, statement of research interests and the names and addresses of three references to: Dr. Philip N. Froelich, Director, School of Earth and Atmospheric Sciences, Georgia Institute of Technology, Atlanta, GA 30332-0340. *An Equal Opportunity/Affirmative Action Employer.* 

**POSTDOCTORAL RESEARCH ASSOCIATE** positions available in the area of gene therapy for metabolic, cardiovascular and endocrine disorders in animal models. Ph.D. and/or M.D. applicants with previous training in vector development for gene transfer and expression are preferred. Interested individuals should send an updated curriculum vitae and bibliography to: Dr. Savio L. C. Woo, Director, Center for Gene Therapy, Baylor College of Medicine, One Baylor Plaza, Room T721, Houston, TX 77030. Baylor College of Medicine is an Equal Opportunity/Equal Access/Affinnative Action Employer.

**POSTDOCTORAL RESEARCH** position available to study the mechanism by which integrin mediated cell adhesion generates signals which control myogenic cell differentiation and/or v-src oncogene initiated cell proliferation. Interested candidates should send curriculum vitae and names of three references to: David Boettiger, BRB 1, Room 409C, 422 Curie Boulevard, University of Pennsylvania, Philadelphia, PA 19104-6069. Email: Boettiger@mail.med.upenn.edu. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

#### RESEARCH SCIENTIST/PH.D. University of Virginia School of Medicine Department of Surgery

The University of Virginia seeks a **RESEARCH SCI-ENTIST** with a background in molecular biology. The capacity to develop and maintain a grant-supported research program and to participate in collaborative research within the Department is critical. Start-up funds are available. Research is particularly active in the areas of heart and lung transplantation. The appointment is at the research assistant professor level with the possibility of a co-appointment in the Basic Sciences Department. Individuals should have an outstanding record of research productivity. Send your curriculum vitae along with three letters of recommendation to the address given below.

Irving L. Kron, M.D., University of Virginia Health Sciences Center, Surgery Research, MR4 Building Box 3111, Charlottesville, VA 22908. The University of Virginia is an Equal Opportunity Educator and Employer.

#### **POSITIONS OPEN**

#### RESEARCH ASSOCIATE

Two-year position to conduct research on the effects of freshwater discharge on biotic communities in a South Florida estuary. A Ph.D. in marine biology or related discipline, with a demonstrated publication record is required. Preference given to applicants with a strong background in seagrass ecology and salinity-related research experience. Send cover letter, curriculum vitae, salary history, and three recommendation letters to: **Personnel Services, Harbor Branch Oceanographic Institution, 5600 U.S. 1 North, Ft. Pierce, FL 34946**. Closing date May 31, 1995. Affirmative Action Program/Equal Employment Opportunity.

#### RESEARCH SCIENTIST

The Division of Biochemical Toxicology of FDA's National Center for Toxicological Research (NCTR) has an opening for a **RESEARCH SCIENTIST**. Ongoing research in the division is centered around biochemical and molecular markers of cancer, toxicities associated with implanted materials, and toxicological assessments in support of the National Toxicology Program. NCTR is seeking an individual with research interests in these areas. The opening is a civil service research scientist position at the GS-12/13/14 (\$42,641 to \$77,893) level. Specific coursework in the field of study and professional experience is required. A Ph.D. or equivalent is desired. The candidate will have to undergo a peer review of qualifications and accomplishments for determination of grade level. Please send a résumé, including an outline of research interests to: **Frederick A. Beland**, **Director of Biochemical Toxicology, NCTR, Jefferson, AR 72079-9502**. U.S. citizenship is required. Applications must be postmarked by July 1, 1995. *DHHS/PHS/FDA/ NCTR is an Equal Opportunity/Affirmative Action Employer. FDA is a smoke-free environment*.

#### MIT

#### **RESEARCH SCIENTIST/EMBRYOLOGIST**

**INVESTIGATOR** at Ph.D. or advanced M.S. level needed to organize and maintain a murine oocyte/blastocyst injection facility for a laboratory within the MIT Department of Biology. Previous experience in generating transgenic or knockout mice essential. Position entails daily interaction with a large laboratory group whose primary focus is immune system function and the possibility of co-authorship with this group.

Interested candidates should submit two copies of both cover letter and résumé referencing Job No. 95-0265R to: Kenneth Hewitt, MIT Personnel Office, Building E19-239, 77 Massachusetts Avenue, Cambridge, MA 02139-4307. MIT is an Equal Opportunity/Affirmative Action Employer. MIT is a non-snoking environment.

The University of Florida College of Medicine, Department of Otolaryngology, invites applications for an immediately available position of ASSISTANT SCIEN-TIST in the field of head and neck squamous cell carcinoma. The position is a non-tenure-accruing position. The successful candidate is expected to have a Ph.D. and several years of postdoctoral experience. Evidence of research productivity will be considered, particularly with use of current molecular biology techniques. The candidate is expected to develop an independent research program and begin to compete for external funding. The salary will be commensurate with experience. Send curriculum vitae with a brief statement of research interest, then follow with three letters of reference forwarded to: Scott P. Stringer, M.D., Box 100264, JHMHC, Gainesville, FL 32610-0264. Deadline: May 30, 1995. Anticipating starting date, July 1, 1995. Equal Opportunity/ Affirmative Action Employer.

**POSTGRADUATE RESEARCH** Molecular Biologist. A full-time position exists at the postdoctoral level for an individual studying the biochemistry of the neuron. Individual must have Ph.D. degree and be an expert in enzyme chemistry, molecular biology, DNA sequencing, and be informed about PCR methodology and tissue culture expertise. Knowledge of neural literature would also be expected. Salary range: \$26,220 to \$31,212 per annum, depending on experience and qualifications. Send résumé, description of research experience, and bibliography by June 5, 1995, to: Dr. Daniel E. Koshland, Jr., University of California, Department of Molecular and Cell Biology, c/o 229 Stanley Hall, Berkeley, CA 94720. The University of California is an Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

#### MAGNETIC RESONANCE SPECTROSCOPIST

Princeton University has an immediate opening for a Ph.D. level magnetic resonance spectroscopist knowledgeable in, e.g., EPR/ENDOR or solid state NMR or high resolution NMR spectroscopy. Primary duties involve maintenance of related instrumentation (hardware) and associated peripherals, including all spectrometer components, workstations, cryostats, probes, cavities, resonators and plotters; special projects in hardware design, electronic fabrication, training of new users on basic as well as advanced techniques; scheduling and bookkeeping of multi-user instruments, educating students and faculty in new magnetic resonance methods and instructor for lectures on the theory of instrument operation; drafting of instrumentation proposals. The spectroscopist will fill one of two Professional Staff positions with complementary skills and overlapping instrument responsibilities in growing NMR/EPR facility (five NMR's, three EPR's, one ENDOR). Send résumé to: **Prof. Charles Dismukes, Operations Committee, Department of Chemistry, Princeton University, Princeton, NJ 08544. Princeton University is an Equal Opportunity/Affirmative Action Employer.** 

#### BIOLOGIST/MICROSCOPIST

The Division of Intramural Research of the National Institute of Dental Research is inviting applications for a permanent biologist position at the GS 12-13 level. The successful candidate will maintain and supervise a core microscopy/imaging facility and will provide technical support and training for intramural researchers and technical staff. Should the need arise in the future, the employee will hire and supervise a technician. Applicants should have experience with light and electron microscopy, histological techniques, photography and darkroom techniques, data analysis, and protocol development. Applicants should also understand the basic principles of cell biology and microbiology. A knowledge of confocal microscopy, PC based computers, and digitized image processing would be advantageous. Deadline for applications is May 22, 1995. Please provide curriculum vitae and three letters of recommendation to: NIDR Personnel, **Building 31, Room 2C23, 31 Center Drive MSC 2290, Bethesda, MD 20892-2290.** For further information contact NIDR Personnel Office, **Telephone: 301-496-6971.** NIH is an Equal Opportunity Employer.

STAFF SCIENTIST or POSTDOCTORAL POSI-TION is available to study the mechanism of apoptosis. Applicant should have a background in cell biology and biochemistry, with some experience in molecular biology a plus. Areas of research include signal transduction pathways, lipid second messengers, growth factor receptors, purification and cDNA cloning of novel proteins mediating apoptosis, and development of therapeutics aimed at modulation of apoptosis. Send curriculum vitae and names of three references to: Dr. Susan C. Wright, Palo Alto Institute of Molecular Medicine, 2462 Wyandotte Street, Mountain View, CA 94043.

**MOLECULAR BIOLOGIST.** Recent Ph.D. with experience in recombinant protein production and fermentation technology required. Knowledge of yeast systems desirable. This person will spend one to two years in Department of Medical Biochemistry, University of Oulu, Finland and would have possibility of subsequent employment in biotechnology company in California. Send curriculum vitae with bibliography and summary of research interests to: FGI, 772 Lucerne Drive, Sunnyvale, CA 94086. Equal Opportunity Employer.

#### PH.D. SYNTHETIC CHEMIST PEPTIDES

Advanced protein research workstations with "biology intuitive" software, will soon be ready for testing and final development in world class laboratories. These powerful new systems promise to revolutionize the conduct of biology and gene research worldwide. We seek a Ph.D. **CHEMIST**, experienced in Peptide Synthesis to assist our Palo Alto, California based development team by working on immobilizing enzymes, special substrates, nucleic acid chemistry, synthetic peptide synthesis, etc. Competitive cash compensation enhanced by stock options is offered. Please FAX résumé and cover letter to: **Hockett Associates**, **415-941-8817** or mail to **P.O. Box 1765, Los Altos, CA 94023**.

## 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.

#### Cell Adhesion in Metastasis

Kenneth Olden, PhD/John D. Roberts, PhD

The molecular mechanisms by which cancer cells metastasize are being studied, focusing on the roles of cell surface receptors and cell adhesion. Special interests include the effects of swainsonine, or inhibitor of protein glycosylation, on tumor cells and the hematopoietic system. Candidates should have expertise in cancer biology, molecular biology and biochemistry, and less than five years of postdoctoral training. Laboratory of Molecular Carcinogenesis (OE-78), NIEHS, Mail Drop C2-14, P.O. Box 12233, Research Triangle Park, NC 27709.

#### Epitope Mapping Kenneth Tomer, PhD

Mass spectrometry combined with proteolytic foot printing is being used to determine conformational epitopes of recombinant HIV proteins towards monoclonal antibodies. Candidates should have primary experience in protein chemistry, including affinity techniques and proteolytic techniques and have less than five years of postdoctoral experience. Laboratory of Molecular Biophysics (OE-78), NIEHS, P.O. Box 12233, Mail Drop 6-01, Research Triangle Park, NC 27709.

#### Mechanism of Activated Transcription David J. Clark, PhD

Two positions are available to study the mechanism of activated transcription using yeast minichromosomes as a model system: a physiologically active gene can be isolated with its transcriptional apparatus intact and in its natural context of chromatin. Experience in protein purification or nucleic acid-protein interactions would be an advantage. Applicants must have less than five years of postdoctoral experience. Laboratory of Cellular and Developmental Biology (OE-78), NIDDK, Building 6, Room B1-12, 6 CENTER DR MSC 2715, BETHESDA MD 20892-2715.

#### Molecular Biology and Fatty Acid Biochemistry Darryl C. Zeldin, MD

Novel human cytochrome P450 enzymes that metabolize fatty acids are cloned and expressed, and the catalytic properties of the recombinant proteins are evaluated by HPLC. Regulation of gene expression is studied using Northern blot analysis, RT-PCR and protein immunoblotting. Applicants should have a strong background in cell and molecular biology and have less than five years of postdoctoral experience. Laboratory of Pulmonary Pathobiology (OE-78), NIEHS, P.O. Box 12233, Mail Drop D2-01, Research Triangle Park, NC 27709.

#### Neurotransmission Ted Usdin, MD, PhD

Current projects center on the study of several newly identified Gprotein coupled receptors. Cloning, mutagenesis, *in vitro* expression, and anatomical techniques are being used to address molecular mechanisms and biological roles of these receptors. Candidates must have have less than five years of postdoctoral experience. Laboratory of Cell Biology (OE-78), NIMH, Building 36, Room 3A17, 36 CONVENT DR MSC 4090, BETHESDA MD 20892-4090 (Phone: 301/402-4161, Fax: 301/402-1748, E-Mail: usdin@codon.nih.gov).

#### RNA Binding Proteins Susan R. Haynes, PhD

A position is available to study the roles of RNA binding proteins in the post-transcriptional regulation of *Drosophila* development. Studies are focused on determining the mechanism of action and on identifying the RNAs and proteins that interact with the RNA binding proteins. Applicants must have experience in molecular biology, genetics or biochemistry, and have less than five years of postdoctoral experience. Laboratory of Molecular Genetics (OE-78), NICHD, Building 6B, Room 3B331, 6 CENTER DR MSC 2785, BETHESDA MD 20892-2785.

#### Synaptic Transmission Chris J. McBain, PhD

A position is available to study mechanisms underlying synaptic transmission and plasticity in hippocampal interneurons using patch clamp techniques. Whole-cell and outside-out recordings will be made from visually identified interneurons in a variety of subfields maintained in the hippocampal slice under both physiological and pathophysiological conditions. A strong background in electrophysiology is preferred. Applicants should have less than five years of postdoctoral experience. Laboratory of Cellular and Molecular Neurophysiology (OE-78), NICHD, Building 49, Room 5A72, 49 CONVENT DR MSC 4495, BETHESDA MD 20892-4495.

#### 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) 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) 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

#### NATIONAL INSTITUTES OF HEALTH NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES, RESEARCH TRIANGLE PARK, NORTH CAROLINA

### **RESEARCH POSITION**

MISSION - The mission of the National Institute of Environmental Health Sciences (NIEHS) is to characterize the chemical, physical, and biologic factors in the environment that can adversely affect human health.

**TOXICOLOGIST, GS-415-13** - A Toxicologist is sought to provide technical authority in the area of toxicokinetics for the Chemistry Branch in the Environmental Toxicology Program and the Division of Intramural Research. Duties will include both research and support in the area of toxicokinetics. The incumbent will formulate and direct plans for the conduct of original laboratory research in the area of kinetics describing the fate and toxicity of chemicals of interest to the National Toxicology Program. The incumbent will also work closely with other Program scientists to plan, direct and interpret toxicokinetic studies of chemicals studied under contract. As such, the incumbent may also serve as Project Officer for one or more contracts in the area of bioanalytical chemistry and/or toxicokinetics. Results from toxicokinetic studies conducted inhouse or under contract will be used to determine the effects of dose, age, sex and route of administration on the toxicity of subject chemicals and the significance of findings to human health. The incumbent should thus be well versed in the significance of toxicokinetic parameters to the toxicology of chemicals and in the use of such data to predict risks to human health.

Salary and resources will be determined by the qualifications of the candidate. The appointment has excellent compensation and benefit packages.

**GENERAL REQUIREMENTS** - All applicants must possess a Ph.D., D.V.M., Sc.D., M.D. degree or equivalent experience in toxicokinetics, pharmacokinetics, or a closely related field. U.S. citizenship is required for permanent positions.

For prompt consideration, send a cover letter within thirty days indicating area of interest, Curriculum Vitae, and three letters of reference to: Mrs. Norma L. Daye (HNV284), NIEHS Personnel Office, P. O. Box 12233, Research Triangle Park, North Carolina 27709.

NIH is an Equal Opportunity Employer / NIH is a Smoke-Free Environment

## Research Scientist

Bio-Rad Laboratories is a world leader in the fields of life science research products, clinical diagnostics and analytical instruments. Our continued growth has created a need for a dynamic scientific professional to work in our Lab Products Division.

The successful candidate will have a BS/MS or equivalent in a biological science with 2+ years laboratory experience. Must have good working knowledge of current methods of electrophoresis, chromatography and associated techniques including the analysis and purification of proteins and nucleic acids and isoelectric focusing.

For consideration, please send your resume to: Bio-Rad Laboratories, 2000 Alfred Nobel Dr., Dept. 328, Hercules, CA 94547. An EEO/AA Employer.



Physicist/GS-1310-13 (\$51,688-\$67,192). Position may be filled at GS-1310-14 level (\$61,081-\$79,402)

The Space Influences on Terrestrial Environment Branch of the Space Environment Laboratory (SEL) of NOAA's Environmental Research Laboratories invites applications for a Physicist specializing in solar spectral irradiance observations, data reduction and analysis, and the atmospheric responses to solar radiative inputs. The position is located in Boulder, Colorado.

The incumbent must have experience and demonstrated skills in the acquisition, reduction, analysis, and interpretation of solar spectral radiative observations gathered by instruments in space and in scientific research utilizing such data to address the atmospheric responses to solar radiative inputs. Knowledge and skills in using computers and computer software to reduce, analyze, and display large scientific data sets is essential. Knowledge in the design, construction, calibration, and operation of satellite instrumentation, especially spectrographs, photometers, or total radiance sensors is desirable.

The incumbent will be responsible for conducting a research program that acquires and analyzes observations of solar radiance made from instruments on board NOAA operational satellites and determines the atmospheric responses to variations in solar photon radiation at all wavelengths. This research program also encompasses determining the sources of solar radiative variations and development of models both describing those variations and the atmospheric responses. Copies of the vacancy announcement listing qualifications, selective and quality ranking factors, and instructions on how and where to apply may be obtained by calling the DOC Jobline at 303-497-6332. For the hearing impaired telephone 303-497-3014. Please reference the vacancy announcement number: MASC/NOAA 95-114LR.

Completed applications must be received in the Personnel office at U.S. Department of Commerce, NOAA/ Personnel Division, MC24, 325 Broadway, Boulder CO 80303-3328 by the close of business June 30, 1995.

The U.S. Department of Commerce is an equal opportunity employer. U.S. citizenship is required.

#### ASSISTANT PROFESSOR OF MICROBIOLOGY

The Department of Veterinary & Microbio-logical Sciences at North Dakota State University invites applications for two tenure-track faculty positions in microbiology at the assistant professor level. The successful candidates will be expected to teach an undergraduate course in microbiology, develop a graduate-level course in his/her area of expertise, supervise graduate students, and establish an active, independent research program using contemporary approaches to study infectious disease pathogenesis that will complement existing programs in bacteriology, immunology, and virology. Opportunities also exist to participate in veterinary diagnostic microbiology. Candidates must have a Ph.D. degree in microbiology or related field, research experience in pathogenesis of infectious disease, evidence of recent research accomplishments, and demonstrate good oral and written communication skills. Postdoctoral research experience, teaching experience, evidence of grantsmanship ability and diagnostic microbiology experience are preferred. Review of applications will begin June 1, 1995 and will continue until the positions are filled. Send curriculum vitae, a statement of research interests, and the names, addresses and telephone numbers of at least three references to: Eugene S. Berry, Ph.D., Chair, Search Committee, Department of Veterinary & Microbiological Sciences, North Dakota State University, Fargo, ND 58105, TEL 701-231-7520, FAX 701-231-7514. email berry@plains.nodak.edu. North Dakota State University is an Equal Opportunity Institution.

#### 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 enabling them 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 Molecular Sunnyvale, CA 94089 PH: (408) 747-3545 FX: (408) 747-3602

Deadline for Grant Submission is August 1, 1995

## **Research Positions**

Pioneer Hi-Bred International Inc. is a world leader in agricultural genetics. Founded in 1926, we are a publicly held corporation with research, production, and sales organizations worldwide. Our Research and Product Development Division near Des Moines, Iowa has immediate opportunities for:

#### **Research Associate**

Research Associate – Nucleic Acid Analysis. This position will join a lab which is responsible for analyzing transgenic plants. The successful candidate will interact with several research groups and will participate in planning and con-ducting experiments. Required skills include proficiency in nucleic acid preparation and analysis (including Southems, RCR and DM. achimical. d RNA analysis.)

Education/Experience: BS degree in molecular biology, biochemistry, or related field (or equivalent), plus 2 years relevant experience, or MS degree. Excellent communication skills and computer experience are essential. Experi-ence with analytical support is preferred. Position #1386M.

#### Senior Research Associate

Senior Research Associate - Nucleic Acid Analysis. Primary responsibilities of this position will be to interact exten-Well with other researchers to being and conduct nucleic acid analysis for transgenic plant projects. This person will conduct analyses, supervise researchers to design and conduct nucleic acid analysis for transgenic plant projects. This person will conduct analyses, supervise research associates involved in the same types of analysis, and communicate the re-sults. Troubleshooting and development/testing of new techniques are also important.

Education/Experience: MS degree or equivalent in molecular biology, biochemistry, or related field plus 2 years of relevant research experience are required. Applicants should have experience in nucleic acid analysis (Southerns, PCR, RNA analysis), along with computer and statistical analysis experience. Strong communication skills are essen-tial. Supervisory experience and analytical support experience are preferred. Position #1386–J.

#### Senior Research Associate

Senior Research Associate – Crop Protection. Work as a member of an interdisciplinary team in the development of transgenic maize products using genes for herbicide, insect, and disease resistance. Requires BS and 6 years of directly related lab experience, or MS and 4 years of such experience, with strong knowledge of monocot lissue culture and transformation techniques. Specialized skills in cell biology or botany preferred. Team leadership, com-munication, and project management skills will be important. Position #1361-A.

#### **Research Associate**

Research Associate – Specialty Grain Traits. Participate in design and construction of plasmid vectors. Requires BS degree with 4 years of directly related experience, or MS with 2 years of such experience. Applicants must have thorough knowledge of recombinant DNA methods (including DNA/RNA purification, sequencing, cloning, restriction enzyme analysis, PCR, and bactenial transformation), and experience with computer analysis programs. Good organi-zational skills, ability to interact effectively in a broad multidisciplinary environment will be important. Position #1054.

Verofier an excellent salary/benefits program, career growth potential, excellent facilities, and a cooperative research environment. Please send resume with both cover letter and envelope indicating job name and number by June 2 to Cindy Letizia, Ploneer Hi-Bred International, Inc., 7300 NW 62nd Avenue, Box 1004, Johnston, IA 50131-1004. Applications after this date will be reviewed if a candidate has not been identified. We are an Equal Opportunity Employer.

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PIONEER HI-BRED INTERNATIONAL, INC.

## **Discover A Unique** Approach

Amgen Inc. is the world's largest independent biotechnology company. We currently have the following opportunities available for our Southern California headquarters.

### MANAGER, RESEARCH COMPUTING SERVICES

This individual will lead a group whose function will be to ensure that the Amgen Research staff receives ample computing support in a desktop and centralized computing environment. Candidates must have a BS in Life or Computer Science or equivalent combination of education and/or experience. This position typically requires 10 years' computer experience; 5 years' UNIX, VMS, DECnet and TCP/IP experience; 2 years in programming; 5 years' experience managing computer operations in a biological research environment; 5 years' management experience; and thorough knowledge of biological laboratory computing requirements. A Ph.D. and hands-on research experience in a life science laboratory are preferred. (Job Code: OXP-SC-2193)

### **RESEARCH ASSOCIATE**

#### Protein Structure

This position requires either 5 years' experience (with a BS) or 2 years' experience (with a MS) in broad aspects of Protein Chemistry, specifically in protein identification and characterization. Candidates must demonstrate ability in electrophoresis (both 1D- and 2D-PAGE) and related techniques, HPLC, and amino acid sequence analysis of proteins. (Job Code: OXP-SC-1876)

At Amgen, you'll find our approach as rewarding as it is effective. We offer a highly competitive compensation and benefits package. Please mail or fax your resume to: Amgen Inc., Staffing, Job Code: (see above), Amgen Center, Thousand Oaks, CA 91320-1789. Fax: (805) 499-9981. Principals only, please. EEO-Affirmative Action Employer M/F/D/V. We recognize that diverse perspectives are a key factor in the process of discovery.



### POSTDOCTORAL FELLOWS

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#### PHARMACEUTICAL RESEARCH INSTITUTE

The R. W. Johnson Pharmaceutical Research Institute conducts pharmaceutical research in therapeutic areas including anti-infectives, CNS, dermatology, hematology/ oncology, immunology/inflammation, and women's health for the Johnson & Johnson companies...Cilag, Ortho Biotech, Ortho Dermatological and Ortho-McNeil Pharmaceutical.

#### The Skin Biology Research Center

seeks candidates to join a group of scientists investigating the basic mechanisms underlying the structural and molecular biology of skin, scarring and hair growth. Scientists interested in the biology of growth and development at a molecular level are encouraged to apply. In the planned experiments, the approaches of positional cloning and differential gene screening will be taken. (Dept. 270)

#### The Bioprocess Development Department

seeks candidates with a Ph.D. in Biochemistry/Chemistry and specialization in protein and carbohydrate chemistry/purification/analysis. You will study novel methods for modification of amino acids/carbohydrate residues to increase stability and potency of recombinant biomolecules. (Dept. 271)

#### The Physical Pharmacy Department

seeks candidates with a Ph.D. in Pharmaceutical Sciences, Pharmaceutical Chemistry or related field and 0-2 years postdoctoral experience including *in vitro* cell culture permeation studies (i.e., CACO-2). Experience in drug formulations desired. Working knowledge of analytical methods such as HPLC, TLC and UV spectroscopy. Proficiency in word processing, spreadsheets and graphical computer software packages. You will conduct basic research on the influence of drugs and formulations on cell culture permeation. Monitor growth and differentiation of cell cultures, conduct *in vitro* cell culture permeation studies and perform analysis of samples. (Dept. 272)

These positions provide liberal research support, excellent library facilities, and a good benefits package. Although outside grant support is not required, publication of experimental results is strongly encouraged.

Ours is a smoke-free workplace in a campus-like setting ideally located in central New Jersey, near Princeton and midway between New York City and Philadelphia. To apply, send your CV suitable for scanning into our database (i.e., clean/clear, no graphics, and preferably unfolded) to: Dept # indicated above for the position of your interest, Johnson & Johnson Recruiting, P. O. Box 16597, New Brunswick, NJ 08906-6597.

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

Johnson Johnson "Leadership Beyond Compliance"

### Postdoctoral Scientists Enzyme Biochemistry

For over 118 years, scientists at Eli Lilly and Company have been developing novel, high-quality pharmaceutical products. With a current yearly investment of approx. \$840 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.

We are seeking two enzyme biochemists to study (1) cell-cycle regulation and (2) rhinovirus replication. The goal of each program is to identify novel therapeutics for cancer or rhinoviruses, respectively, using mechanism-based approaches. Responsibilities include enzyme/substrate purification, characterization, assay, kinetics, and active site elucidation. A strong background in biochemistry, working knowledge in molecular biology and a publication record in enzymology are desired.

Candidates with no more than one previous postdoctoral experience are encouraged to send a CV and at least two letters of recommendation by 5/31/95 to: Sally Runyon, Corporate Recruitment WK/595, 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.



### FACULTY POSITIONS Human and Molecular Genetics

The recently established Department of Human Genetics at the Mount Sinai School of Medicine is seeking faculty at all professiorial levels whose research is focused in the areas



of: (1) gene discovery for Mendelian and complex traits; (2) novel molecular mechanisms of human disease; (3) murine models of human disease by gene-targeting strategies; and (4) gene therapy including novel vectors and gene delivery strategies. In addition to developing an active and competitive research program,

the successful candidates will be expected to participate in teaching of medical and graduate students and postdoctoral fellows. Departmental laboratory and office space will be in a new state-of-the-science building on the Mount Sinai Campus. Rank and salary dependent on qualifications and experience. Candidates with independent research funding will be given priority. Candidates should send curriculum vitae, research goals, and the names of three references to: **Robert J. Desnick, Ph.D., M.D., Professor and Chairman, Department of Human Genetics, Mount Sinai School of Medicine, Box 1203, One Gustave L. Levy Place, New York, NY 10029-6574.** An equal opportunity employer.

The Mount Sinai Medical Center of New York

#### WEYERHAEUSER COMPANY **DEVELOPMENTAL** BIOLOGIST

Weyerhaeuser Strategic Biological Sciences is looking for a Developmental Biologist for its Tacoma, WA. Technology Center.

Requirements. Ph.D. in developmental biology / botany or related scientific discipline with emphasis on plant propagation via tissue culture techniques. Lab experience essential with exposure to the development of somatic embryogenesis methods. Strong written and oral technical communication skills. Demonstrated ability to plan experiments. Able to work effectively in a team environment. Computer literacy and ability to work accurately with research data. Committed to working safely at all times. Experience using immunochemical methods to evaluate protocol or developmental changes. Desire: Experience planning and analyzing experiments with SAS software.

Send cover letter and resume no later than May 19, 1995 to Weyerhaeuser Technology Center-Staffing Coordinator WTC 1G42 (reference Job # 8400-1034) Tacoma, WA. 98477. Equal Opportunity Employer

#### University of Newcastle upon Tyne

#### CHAIR OF AGRICULTURAL & ENVIRONMENTAL SYSTEMS **MODELLING & DIRECTOR OF THE CENTRE FOR LAND USE** AND WATER RESOURCES RESEARCH

Applications are invited from persons of high academic standing and proven expertise in the area of Integrated Systems Modelling and especially in Multi-disciplinary Quantitative Modelling of Land and Water Systems. The person appointed will probably be an engineer or physical scientist with a strong record of interaction with industry. Applicants should have expertise in formulating research proposals, in presenting them to funding agencies, in managing research programmes and in delivering the programmes to time and budget. They will also be capable of developing strategic multi-disciplinary research plans integrating the expertise of engineers with that of physical scientists, biologists, ecologists and social scientists and of developing workable networks of European research teams.

The post is a permanent appointment located in the Department of Agricultural & Environmental Science and is initially linked for five years to the Directorship of the Centre for Land Use and Water Resources Research (CLUWRR). The present holder of the Chair and Director of CLUWRR is Professor J.R. O'Callaghan who retires on 30th September 1995. CLUWRR is an independent Research Centre with a high capacity for inter-disciplinary research which the appointee must be capable of harnessing to maximise collaborative research through modelling complex systems. The Departments

of Agricultural and Environmental Science (AES), Agricultural Economics & Food Marketing (AEFM) and Civil Engineering (CE) are the three major stakeholders of CLUWRR, with AES being the lead department.

Salary will be at an appropriate point in the Professorial salary range

Further particulars may be obtained from Miss J M Kidd, Deputy Registrar, The University of Newcastle, 6 Kensington Terrace, Newcastle upon Tyne, NE1 7RU with whom applications, giving the names and addresses of three referees, should be lodged not later than 16 June 1995. Please quote ref: 4737/S



Committed to equal opportunities Dedicated to excellence in teaching and research

#### THE INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE (ILRI) POSITION ANNOUNCEMENT ADVERTISEMENT- IMMUNOLOGIST SC/95/1

The International Livestock Research Institute (ILRI) has a global mandate for research to enhance the role of livestock in sustainable agricultural production systems in Africa, Asia and the Latin American/Caribbean region. ILRI is (CGIAR), which supports sixteen agricultural research centres world-wide. ILRI is incorporates the resources of the International Laboratory for Research on Animal Diseases (ILRAD) and the International Laboratory for Research on Animal Diseases (ILRAD) and the International Livestock Centre for Africa (ILCA). ILRI is recruiting a highly motivated individual for a senior scientific position which offers excellent leadership and research opportunities in a development-oriented, science-based international research organization.

#### Immunologist - SC/95/1

An Experienced Immunologist is required for a senior position in the Trypanosomiasis Programme. The successful candidate will provide leadership to a group of scientists and their technical support staff, with active projects on regulation of bovine immune cell functions, as they relate to control of paraitatemia and genetically mediated disease resistance. The group is able to capitalise on the opportunities provided by comparisons of responses to infection in cattle of resistant and susceptible types, and also in a crossbred tryanotolerance resource population segregating disease resistance.

The successful applicant will have a first degree in an appropriate biological science and a Ph.D. in an area of contemporary immunology.

Experience in molecular immunology, particularly in terms of cytokine function, is essential. Experience in immunology of haemoprotozoan infections of mammals would be an advantage.

#### **Conditions for appointments:**

Initial contracts will be for three years and may be renewed. ILRI offers internationally competitive terms of service. The salary is paid in US dollars. Relocation, housing, annual leave travel, and education allowances are provided in addition to generous pension and insurance benefits.

#### Applications

Applicants should send a statement of research interests, curriculum vitae and and names and addresses of three referees to: Chief Personnel Officer, ILRI, P.O. Box 30709, Nairobi, Kenya. Informal inquiries may be addressed to Dr. Alan Teale, tel. +254-2-630743, fax +254-2-631499, E-mail: **A. TEALE@CGNET.COM** 

Applications should be received before 31st May, 1995 and only applicants who reach the final shortlist will be contacted.

ILRI is an equal opportunity employer.

A major French pharmaceutical Company wishes to recruit for its Research Center located west of Paris

## HEAD OF THE DEPARTMENT of diabetic complications

This new department will be integrated into our Division of Diabetes and Metabolic Diseases, which runs overall research projects in Diabetes in close collaboration

with other research teams both inhouse and outside.

You will be responsible for the creation of this department and the direction of its investigators. Your team will focus on novel pharmacological approaches to the treatment of diabetic complications.

The ideal candidate will be a medical doctor or pharmacist, with a PhD and post-doctoral experience, proferably in an industrial setting. With a thourough knowledge of metabolic biochemistry and/or neuro-endocrinology, your research work should have been in areas such as microcirculation (eye, nerves, etc) adhesion or growth factors, angiogenesis, etc.

The successful candidate should also have a good ability for interpersonal relationships and team motivation and, ideally, speak French.

If you are interested in this post, please submit your CV with a photo and a letter stating your salary requirements to **PUBLIVAL/4053** - 27 Route des Gardes 92190 MEUDON (FRANCE).



#### STOCKHOLM UNIVERSITY NATURAL RESOURCE MANAGEMENT

Applications are invited for a position as Full

Professor of Natural Resource Management, open from January 1, 1997. The subject of the Chair has been defined as: Natural Resource Management deals with the sustainable use and development of natural resources, using a problem definition based on natural science, but including also social, political, legal and technical aspects. Applicants should have an outstanding record of research and teaching achievements in this field.

The position is located in the Department of Systems Ecology. Salary is negotiable. The salary range for full professors within the Faculty of Mathematics and Natural Sciences is 330 000 - 420 000 Swedish Crowns/year. Applications from women are encouraged, since most professors in the Faculty are men.

Informal enquiries may be made to Professor Ragnar Elmgren, Tel +46-8164016, fax +46-8158417. The University attaches great importance to excellence in teaching, and applicants are recommended to order instructions on how to document teaching experience from Mr. Ulf Lindgren of the Staff Management Division, fax +46-86125960.

Applications, quoting reference number 611-0764/95, should reach the Registrar, Staff Management Division, Stockholm University, S-10691 Stockholm, Sweden, no later than 16 June, 1995.

Application should include four copies of the following:

1. Curriculum vitae, with photocopies of relevant graduation diplomas

2. The applicant's full publication list

3. A brief (5-10 pages) description of the applicant's scientific achievements and teaching and leadership experience.

4. The applicant's 20 most relevant scientific publications, numbered as in 2 above.

Items 1 and 2 should reach the University before the end of the application period, Item 3 and one copy of item 4 should arrive no later 7 July. Three additional copies of item 4 are to be sent later, on request, directly to the three expert members of the search committee.

#### DIRECTOR

#### International Institute for Applied Systems Analysis (IIASA) Laxenburg (Austria)

The Executive Council of the International Institute for Applied Systems Analysis (IIASA) invites nominations and applications for the position of Director. IIASA is an international nongovernmental research organization, located in Laxenburg near Vienna (Austria) and supported by seventeen countries. The Director supervises 85 professionals and approximately 100 support staff with an annual budget of \$15 million. He or she plans and oversees a broad range of programs concerned with global environmental change, develops and recommends policies for the execution of research programs, determines the effectiveness of current programs, and develops new and revised programs.

The applicant should be capable of providing an imaginative leadership in developing the potential role of an institution such as IIASA, should have a track record of general management experience in a scientific- preferably international -research institution and should have recognized experience with interdisciplinary research. He or she should have an excellent command of English, the working language of the Institute. Knowledge of at least one other major European language is desirable (preferably Russian or German).

Nominations and applications should be sent to:

Professor K.L. KOMAREK The Director's Search Committee IIASA-Schloss Laxenburg A-2361 Laxenburg Austria

Applications should be accompanied by a current curriculum vitae, a bibliography, and a cover letter that addresses the qualifications of the position. Salary commensurate with experience. Review of applications will begin on July 1st, 1995.



KAROLINSKA INSTITUTET Department of Bioscience at Novum

Center for Structural Biochemistry Research assistant/Postdoctoral fellow Electron microscopy in structural biology

The position is available within the Unit for Electron Microscopy with placement at the Center for Structural Biochemistry (CSB) within the Department of Bioscience, CSB is situated at the South Campus of the Karolinska Institutet encompassing the NOVUM Research Park in Huddinge, about 20 km south of the center of Stockholm. The CSB has a staff of about 40 researchers and includes units for X-ray Crystallography, Molecular Modelling, Electron Microscopy and NMR spectroscopy. The NOVUM Research Park provides an excellent environment with over 400 researchers within various biomedical disciplines.

The research within the Unit for Electron Microscopy includes structural studies of biological macromolecules. The main focus is on membrane proteins. The research group is equipped with modern facilities for electron cryomicroscopy and extensive computing resources.

Applicants should preferably have a background in structural biology. Previous experience of electron crystallography and electron cryomicroscopy would be an advantage. However, applications are also invited from biochemists/biophysicists who wish to move into this field. The position is available for four years with an initial limitation of one or two years.

For further information contact Dr. Hans Hebert (phone +46-8 608 92 19, e-mail Hans.Hebert@csb.ki.se) for questions regarding qualifications etc and Ingwar Lennerfors for administrative questions (phone +46-8 608 92 33).

Applications should be sent to Karolinska Institutet, Department of Bioscience at Novum, S-141 57 HUDDINGE, SWEDEN together with CV, relevant publications, a short description of research interests and two recommendation letters. Please quote reference no 53021/5 and note that we want your application in 1 original and 1 copy.

Closing date: June 2, 1995

#### DEPARTMENT OF CHEMISTRY UNIVERSITY OF AARHUS DENMARK PROFESSORSHIP IN CHEMISTRY

A position as full professor at the Department of Chemistry is open from January 1, 1996.

Applications are invited from chemists with documented experience in experimental inorganic chemistry. Research at the Department of Inorganic chemistry is primarily in the field of inorganic solid state chemistry, in particular preparative inorganic chemistry and crystallographic structure analysis. An applicant with documented experience in one or several of the following topics: preparative inorganic chemistry, materials chemistry, metal-organic chemistry, or catalysis, will be preferred.

The appointee will be expected to participate in teaching on the same basis as that of the institute staff.

The annual salary is approximately DKK 460,000, including retirement contribution.

The application (3 copies) should include a curriculum vitae and give evidence on which the evaluation of the applicant's scientific and teaching qualifications can be based, a complete list of publications together with 3 copies of each of those publications which the applicant selects as the most relevant for the application. Other supportive material including a description of the applicants future research plans should also be submitted in triplicate.

The selection committee may include further material from the list of publications in its evaluation of the applicant. In that case the applicant must, upon request, submit the material to the selection committee.

The selection committee's written evaluation of the applicants will be sent in full to all applicants.

Applications should be addressed to The Faculty of Sciences, University of Aarhus, Ny Munkegade, Building 520, DK-8000 Aarhus C, and marked 211/5-1. The deadline for the receipt of all application material is August 22, 1995, at twelve noon.

For further information on salary, research and teaching duties, staff, laboratory and other facilities, please contact: **Finn Krebs Larsen**, the **Department of Chemistry, Phone +45 8942 3333, Fax +45 8619 6199.** 

#### **POSITIONS OPEN**

IMMUNOLOGIST required in San Francisco for research program on neurodegenerative diseases to develop monoclonal and polyclonal antibodies, perform immuno-logical assays, and maintain cell lines. Requires at least two years of experience of all aspects of antibody development ELISA and Western blotting, and cell culture. Must be energetic and work independently. Must have B.S./M.S. in immunology or a closely related discipline. FAX résumé to: **415-476-6968**. Affirmative Action/Equal Opportunity Employer/Minority/Female/Disabled/Veteran.

Science WRITER for dental reviews (language English or German) required. Reply to: Box 58 Thomas House 14 George IV Street

Cambridge, CB2 1HH, UK.

#### ACOUISITION EDITORS

Academic Press is seeking EDITORS in life and biomedical science. Candidates should have an advanced degree in a basic science. Previous publishing experience not required. Must have strong interpersonal skills, and be familiar with scientific literature. Please send brief cover letter and succinct résumé to: Academic Press, Human Resources Department, 525 B Street, Suite 1900, San Diego, CA 92101. Equal Opportunity Employer.

#### MEDICAL WRITER

Strong general biomedical background; flair for writing; able to evaluate scientific literature and learn new subjects quickly. Pharmaceutical communications: write journal articles, lecture scripts, pharmaceutical product overviews. Send résumé to: Project House, 1 University Plaza, Suite 210, Hackensack, NJ 07601

Company needs a PRODUCT SPECIALIST to design new electrochemical equipment, to market instru-ments and provide service for technical sales, to develop spectroelectrochemical experiments for research and devel opment in sensor applications and to produce user manuals and software documentation for battery testing instruments and impedance spectroscopy. Applicant must have a M.S. degree in Chemistry; emphasized study in electro-chemistry; must have done research in the area of battery/ fuel cell and corrosion fields; must know how to use comnuel cell and corrosion helds; must know how to use com-puter language C and implement computer interface; and have one year of experience in chemical equipment mar-keting and sales. 40 hours per week, \$38,650 per year. Applicant must have proof of legal authority to work in the United States. Submit your résumé and proof of qualifica-tions in person to your local Kansas Job Service or send résumé to: Department of Human Resources KS5302819, Att: Don Bruner, 401 S.W. Topeka Bou-levard, Topeka, KS 66603-3182.

#### **ANNOUNCEMENTS**

The Johnson Space Center VISITING SCIENTIST PROGRAM in Space Biomedicine supports up to six months of on-site research and additional follow-on research at the Visiting Scientist's home institution. Sponsor-ing laboratories offer research projects in the following discipline areas: 1) Balance function modeling; 2) Radiation biophysics; 3) Biotechnology; 4) Cellular immunolo-gy; 5) Cellular physiology of muscle; 6) Water quality; 7) Biomechanics of bone; and 8) Psychology and behavior. For additional information or application materials, con-tact: Barbara Railsback (S), USRA, Division of Space Life Sciences, 3600 Bay Area Boulevard, Houston, TX 77058. Telephone: 713-244-2009; FAX: 713-244-2006.

#### **REQUEST FOR PROPOSALS TO TEST** RADIOFREQUENCY RADIATION USING THE SINGLE CELL GEL/DNA ASSAY

Wireless Technology Research, L.L.C. is soliciting proposals from investigators to perform tests on radiofre-quency radiation using the single cell gel/DNA assay on human lymphocytes in vitro. Applicants are required to demonstrate previous experience and to consider specific elements which are detailed in the full RFP document. Deadline for proposals is June 15, 1995. For full RFP write to: Wireless Technology Research, L.L.C., 1711 N Street N.W., Suite 200, Washington, DC 20036. FAX: 202-833-2801.

#### **POSITIONS OPEN**

#### PROTEIN BIOCHEMIST

South Florida emerging pharmaceutical/biotechnolo-gy company seeking Ph.D. or M.S. with research lab/ industry experience for product development. Back-ground in areas of protein and peptide purification and analysis. Ability to work in small, collaborative, multidisciplinary environment. Excellent salary and relocation package. Call Joy Ross at 1-800-706-2378 or FAX curriculum vitae to 305-923-8721. Confidentiality respected, Equal Opportunity Employer.

CONSULTANT (full-time) for dynamic, established firm advising biotechnology, pharmaceutical and venture capital companies. Diverse projects require strong techni-cal background (M.D. or Ph.D.), excellent written and verbal skills, and an ability to assimilate and apply complex scientific and business information quickly. Projects cover broad range of therapeutic categories, diagnostics and healthcare services. Send résumé, letter and names of three references to BHG, Science Box No. 57, 1333 H Street NW, Room 814, Washington, DC 20008.

#### **COURSES AND TRAINING**

TRACER METHODOLOGY COURSE. Principles and Practice of Tracer Methodology in Metabolism, Dr. Robert Wolfe, course director. A combination of didactic and interactive sessions will address theoretical and practical aspects of tracer methodology in metabolism. Emphasis on the application of stable isotopic tracers in metabolic studies, but principles of use of radioactive tracers also covered. October 29 to November 3, 1995, in Galveston, Texas. To receive informa-tion, Telephone: 409-770-6605 or FAX: 409-770-6825.

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#### **Oligonucleotide Design Software** ☆ HYBsimulator<sup>™</sup> ☆

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## **Resources for** Genome Research

MAPPARIS<sup>TM</sup>: Research Genetics offers over 14,000 genetic markers which are useful in linkage and kinship studies. These highly polymorphic microsatellite markers<sup>†</sup> are available for a number of species and are scored using PCR<sup>‡</sup>. Linkage maps based on these markers are available for the human, mouse and rat genomes and other maps are under development.

#### **Microdissection Based Mapping:**

Research Genetics is pleased to announce a new microdissection based mapping service for microsatellite markers. Starting at the telomers, the appropriate chromosome will be dissected band by band. Each band will be tested for the presence or absence of the markers. Band assignment is guaranteed.

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STSs: The human YAC STS content map now contains over 10,000 STSs, most of wheich have been placed into contigs. The number of STSs is growing and the number of contigs is shrinking. All of the STSs are available from Research Genetics as well as most of the YACs. More information is available via the internet at:

http://www.genome.wi.mit.edu.

#### **Hybrids:** Radiation

Radiation hybrid (RH) mapping is a somatic cell hybrid technique that was developed to construct high-resolution, contiguous maps of mammalian chromosomes. RH mapping orders DNA markers spanning millions of basepairs of DNA at a resolution not easily obtained by other mapping Research methods. Genetics currently offers both the DNA from RH cell lines and also a fine mapping service.

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Foote, S., D. Vollrath, A. Hilton, D. Page (1992) Science 258, 60-66.
Meyers, R.M., and D.R. Cox, personal communications
 † The use of microsatellite markers for genetic analysis is covered by United States and foreign patents licensed to Research Genetics. Purchasing these markers from Research Genetics or one of its agents automatically grants the user a license for all applications. except clinical diagnostics. For information about how to obtain a license for clinical application, contact Research Genetics, USA 205-553-4363.

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