

# Science

## PERSONNEL PLACEMENT

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Science Classified Advertising  
1333 H Street, N.W., Room 814  
Washington, DC 20005  
Telephone: 202-326-6555  
FAX: 202-682-0816

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Telephone: 202-326-6541

Janis Crowley, Recruitment  
Advertising Manager  
Telephone: 212-496-7704  
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## POSITIONS OPEN

### ASSISTANT PROFESSOR, ANATOMY

Applications are invited for a faculty position at the level of assistant professor in the Department of Anatomy. A Ph.D. degree and 1 to 2 years of postdoctoral training are required. Primary duties will include participating in teaching neuroscience to first-year medical students with secondary duties in gross anatomy. Research interests are open. Development of research program with eventual independent funding is strongly encouraged. Philadelphia College of Osteopathic Medicine (PCOM) is dedicated to teaching excellence. Please send a letter, curriculum vitae, and three references by 1 March 1992 to:

Tage N. Kvist, Ph.D.  
Professor and Chairman  
Department of Anatomy  
Philadelphia College of Osteopathic Medicine  
4150 City Avenue  
Philadelphia, PA 19131

Starting date, 1 July 1992. PCOM is an Equal Opportunity Employer.

### ASSISTANT PROFESSOR UNIVERSITY OF SOUTHERN CALIFORNIA LOS ANGELES

The University of Southern California invites applications for a tenure-track position at the assistant professor level. The candidate should have a Ph.D. in biochemistry and at least 3 years of postdoctoral training. The applicant should have a strong background in the biochemistry and molecular biology of signal transduction and protein phosphorylation. He/she will be expected to teach at the undergraduate and postgraduate level and to establish an independent externally funded research program in the area of neonatology and pediatric pulmonology.

Interested candidates should send curriculum vitae and a statement of research interests to:

Henry Forman, Ph.D.  
Assistant Division Head, Research  
Division of Neonatology and Pediatric Pulmonology  
Head, Cell Biology Group  
Childrens Hospital of Los Angeles  
4650 Sunset Boulevard  
Los Angeles, CA 90027

Childrens Hospital of Los Angeles and The University of Southern California are Equal Opportunity/Affirmative Action Employers.

The Department of Cellular and Structural Biology and the Cancer Center of the University of Colorado have a FACULTY POSITION available for a GLYCOCONJUGATE BIOCHEMIST. Qualified applicants should have an outstanding record in research on glycoconjugates in cancer and/or development; expertise in oligosaccharide chemistry is essential. The successful candidate is expected to pursue an independent research program, to participate in teaching, and to contribute otherwise to the scholarly activities of the institution. Applicants are sought primarily for the ASSISTANT PROFESSOR level (tenure track), but more senior candidates are encouraged to respond also. Applicants should have a Ph.D. or M.D. and appropriate postdoctoral training. An updated curriculum vitae and publication list, together with a one-page summary of current and future research, as well as the names of three referees, should be sent to: Dr. Karl H. Pfenninger, Professor and Chairman, Department of Cellular and Structural Biology, University of Colorado School of Medicine, 4200 East Ninth Avenue, B-111, Denver, CO 80262. Applications will be reviewed starting 1 March 1992.

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

**DEVELOPMENTAL BIOLOGY.** College of Notre Dame seeks applications for full-time ASSISTANT PROFESSOR for 1992-93 academic year. Teach developmental biology and vertebrate anatomy; allied health and general education anatomy/physiology courses. Some weekend teaching. Send application letter, curriculum vitae and three references to: Delia Dowling, Academic Dean, College of Notre Dame of Maryland, 4701 North Charles Street, Baltimore, MD 21210. Deadline: 17 February 1992. Minority applications encouraged. Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### FACULTY, BACTERIAL PATHOGENESIS

The Department of Immunology and Medical Microbiology invites applicants for a 12-month tenure-track research and teaching position to complement ongoing Programs in Bacterial Pathogenesis, Molecular Genetics, Virology and Immunology. The individual will be expected to develop an independent research program preferably in molecular pathogenesis of bacteria at the ASSISTANT PROFESSOR level, although the rank is negotiable. Well-qualified individuals with interests in closely related areas will also be considered. M.D. or Ph.D., plus postdoctoral experience. Send curriculum vitae, bibliography, brief description of research plans, and names and addresses of three references by 15 May 1992 to: Dr. James B. Flanagan, Box 100266 JHMH, University of Florida, Gainesville, FL 32610-0266.

Equal Opportunity/Affirmative Action Employer.

**BIOLOGY—SECONDARY EDUCATION BIOLOGY TEACHING SPECIALIST.** West Chester University of Pennsylvania has a tenure-track ASSISTANT PROFESSOR position beginning fall 1992. Requirements are an earned doctorate in biology or science education, and Pennsylvania teaching certification (or eligibility) in biology at the secondary level; teaching competence in secondary education science pedagogy, contemporary issues in biology teaching, and general biology lectures and laboratories. Active research/academic scholarship is also expected and experience in training and supervision of biology student teachers is preferred. Submit curriculum vitae, all undergraduate and graduate transcripts, proof of certification in biology secondary education, a letter describing career interests and educational philosophy, and three letters of recommendation, postmarked by 13 March 1992, to: Dr. S. Broitman, Biology Department, West Chester University, West Chester, PA 19383. Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

### DEPARTMENT OF BIOLOGY INDIANA UNIVERSITY

The Department of Biology seeks applications for a temporary ASSISTANT PROFESSOR in the general area of microbiology to teach courses in general microbiology and microbial physiology. This is a non-tenure-track position of 1 or 2 years duration, beginning in September 1992. Applicants should submit curriculum vitae and a description of prior teaching experience, and arrange to have three letters of recommendation sent to: Microbiology Search Committee, Department of Biology, Indiana University, Bloomington, IN 47405. To assure consideration, applications must be received by 1 March 1992. Indiana University is an Equal Opportunity/Affirmative Action Employer.

### BIOLOGY FACULTY POSITIONS

Two tenure-track positions at the ASSISTANT PROFESSOR level beginning fall of 1992.

(1) **ENVIRONMENTAL BIOLOGY.** Responsibilities involve participation in the undergraduate and graduate teaching activities of the department including environmental biology. Applicants with overlapping expertise in toxicology, molecular biology, biochemistry or genetics are strongly encouraged to apply. However, outstanding applications in other areas of environmental biology will be considered. Search Chairman: Dr. Roy M. Ventullo.

(2) **DEVELOPMENTAL BIOLOGY.** Responsibilities involve participation in the teaching activities of the department including developmental biology and an advanced graduate course in developmental biology. Applicants with overlapping expertise in molecular biology, biochemistry or genetics are strongly encouraged to apply. Search Chairman: Dr. Panagiotis Tsonis.

Successful candidates will be expected to actively participate in the departmental M.S./Ph.D. program and develop a strong extramurally funded research program that complements current research programs in the department. Applicants must have a Ph.D. degree and at least 2 years of postdoctoral research. Interested persons should submit curriculum vitae, a statement of future research plans and three letters of reference by 2 March 1992 to the appropriate search chairman at: Department of Biology, University of Dayton, 300 College Park, Dayton, OH 45469-2320. The University of Dayton is an Affirmative Action/Equal Opportunity Employer. Women and minorities are strongly encouraged to apply.

# Postdoctoral Opportunities.

Listed below are a few of the excellent opportunities for conducting research that are now available with leading scientists at the National Institutes of Health.

## **Molecular Endocrinology** **Bruce Weintraub, MD**

The transcriptional regulation of pituitary and hypothalamic hormone genes is currently being investigated. Various positive and negative hormone regulatory elements are being defined and novel transcription factors have been elucidated. Human models of aberrant transcriptional regulation, particularly thyroid hormone resistance, are being studied and various mutations of the thyroid hormone beta receptor have been defined. The functional effects of these mutations are being studied in cotransfection systems and in transgenic mice. Both tenure-track and term positions are available. Molecular and Cellular Endocrinology Branch (OE-6), NIDDK, Building 10, Room 8D14.

## **Control of DNA Replication** **Dhruba K. Chattoraj, PhD**

Mechanisms of initiation of DNA replication are being studied using plasmids of *E. coli* both *in vivo* and *in vitro*. Candidates should have an interest in DNA-protein interactions and in protein structure-function relations. A background in protein purification is desirable. Laboratory of Biochemistry (OE-6), NCI, Building 37, Room 4E15.

## **Molecular Biology of HIV** **Robert J. Crouch, PhD**

Molecular genetic studies of HIV ribonuclease H (RNase H) and cellular RNases H are underway to gain insight into their roles in cellular events such as DNA replication. We are attempting to determine if biochemical and physical properties of HIV RNase H and cellular RNases H differ in ways that can be exploited in the development of drug therapy for HIV. Applicants should have a background in molecular genetics. Laboratory of Molecular Genetics (OE-6), NICHD, Building 6B, Room 231.

## **Viral Vaccine Development/Evaluation** **Paul Albrecht, MD**

Research efforts seek to elucidate viral disease pathogenesis and to develop and evaluate new vaccines and involve the use of a full range of molecular technologies. Infections caused by retroviruses, especially HIV, and childhood diseases caused by poliovirus, measles, mumps, rubella and rotaviruses, are being

studied. Division of Virology (OE-6), CBER/FDA, MO46, Building 29, Room 104, 8800 Rockville Pike, Bethesda, MD 20892.

## **Mast Cell Physiology** **Parris R. Burd, PhD**

The transcriptional and biologic responses of mast cells to FcεRI-mediated stimuli and other signals are being studied. Approaches include the use of PCR-based subtractive cDNA cloning, detailed molecular analysis of selected genes, and functional analysis of selected gene products. Familiarity with molecular biology is essential. The position is renewable for up to three years. Laboratory of Clinical Investigation (OE-6), NIAID, Building 10, Room 11C208.

## **Biochemistry and Molecular Biology** **Rod Levine, MD**

The physiologic and pathologic effects of the oxidation of macromolecules, especially enzymes, are being studied as these oxidations have been implicated in the aging process, protein turnover, reperfusion injury, and oxygen toxicity. A second project focuses on the molecular characterization of the protease from the human immunodeficiency virus. Laboratory of Biochemistry (OE-6), NHLBI, Building 3, Room 106.

## **Additional Postdoctoral Fellowship Opportunities**

For an on-line listing of additional postdoctoral openings you may access the NIH EDNET Bulletin Board's POSTDOC conference via modem (1,3014922221). The settings for modem access are "7Even,1". When connected to NIH, type in "vt100" at the connect message, "F5E" at initial, and "AJL1" at account. Those interested in receiving a catalog featuring descriptions of NIH research laboratories and other postdoctoral opportunities may contact the Office of Education, Building 10, Room 1C129, Phone: 301-496-2427.

## **To Apply**

If you hold a PhD, MD, or equivalent degree 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

9000 Rockville Pike, Bethesda, MD 20892  
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## ENVIRONMENT, NATURAL RESOURCES AND ENERGY OFFICER

The Agency for International Development (A.I.D.) is currently seeking applications from qualified personnel to work on its environment, natural resource and energy (ENRE) programs in Washington and throughout less developed countries. The ENRE officer advises and assists senior A.I.D. management, staff and host government officials to identify and articulate environmental problems; designs and manages host country and regional natural resources programs; conceptualizes and participates in environmental project design and development; ensures environmental soundness of general development projects; and manages and evaluates ENRE programs.

Representative duties include: participating in Agency policy formulation and sector analysis; formulating policies and strategies in conjunction with host country officials and assisting them to institutionalize and implement ENRE programs; coordinating the flow of ENRE resources among a complex set of grantees, contractors, banks, federal agencies, host country entities and numerous other donors; performing and managing research studies; preparing project documentation, scopes of work, briefing, position and issues papers and congressional presentation materials; providing technical analysis and input for contract negotiation and grant agreements; evaluating urban environmental policy and planning problems including toxic, industrial or municipal waste management; monitoring and evaluating the progress of projects; assuring that U.S. and local environmental laws and procedures are respected; and analyzing the effects of proposed policies, legislation and other development projects on the environment.

Academic requirements include a graduate degree in an environmental, biological or related physical science (e.g. ecology or chemistry) or in an applied ecological science (e.g. environmental economics or management, forestry, fisheries, pest management or environmental engineering). Alternatively, any graduate degree with significant course work in one of the foregoing disciplines will also be considered.

In addition, a minimum of two years pertinent professional experience in one or more of the following areas is also required: planning, designing, managing and/or evaluating environment, natural resources management or energy programs and/or teaching (research) in one of these subject areas. Experience in environmental impact assessment, environmental policy and planning, environmental trade and investment issues, environmental nongovernmental organization development and operation, urban land use planning, air pollution and water use analysis and management, risk benefit analysis as well as overseas experience in a developing country and knowledge of a foreign language are highly desirable. Interested parties should send an Application for Federal Service (Standard Form 171) to the Recruitment Division, HRDM/RD, Room 50 SA-2, Agency for International Development, Washington, DC 20523-0222.

## TOXICOLOGY TECHNICAL DIRECTOR

One of America's leading life science laboratories is seeking a Ph.D with a preferred minimum of 5 years of experience in toxicology or related fields. Responsibilities include the technical direction of a testing and research program in areas of acute toxicology, sensitization, wound healing, and special pharmacologic models. Must be proficient in staff training, the direction of method and protocol development, data interpretation, risk assessment, and client consultation and development. E.O.E. Reply in confidence to Robert J. Priebe, The Hill Top Companies, P.O. Box 429501, Cincinnati, OH 45242.



## SENIOR ASSOCIATE PHARMACOLOGIST

At Burroughs Wellcome Co., you can discover your full potential for scientific research in an atmosphere where you will have access to world-renowned expertise. The result is an opportunity to extend the boundaries of knowledge, and enhance your skills. Discover your capabilities at Burroughs Wellcome Co.

The Pharmacology Division is seeking a Senior Associate Pharmacologist to design and implement research to detect and characterize macromolecular targets in CNS (e.g.: drug receptors and enzymes), and to participate on CNS drug discovery teams to use key research information in the discovery and development of novel therapeutic compounds for psychiatry and neurology.

Candidates must have a Ph.D. in pharmacology, biochemistry, or related field, plus one year of postdoctoral training or experience in research identifying macromolecular targets in CNS. Training in one or more quantitative approaches to ligand-protein binding, transmembrane flux or nucleic acid hybridization is essential. Such training should include experience in at least two of the following: radioligand binding, radioimmunoassay, uptake and release studies, enzyme assays and hybridization studies. Candidates selected for interview will take an on-site writing assessment.

We offer a competitive salary and comprehensive benefits. And our outstanding Research Triangle Park location is one of the most desirable areas of the country in which to work and live. Please send your resume, indicating position number in your cover letter, by **March 16, 1992**, to: **Burroughs Wellcome Co., Recruiting and Staffing, Pos. #63435-4, 3030 Cornwallis Road, Research Triangle Park, NC 27709.**

For information on other job opportunities with Burroughs Wellcome Co., call our Job Information Line at **(919) 248-8347.**



**BURROUGHS WELLCOME CO.**

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## MIT DEPARTMENT OF BRAIN AND COGNITIVE SCIENCES

The Department of Brain and Cognitive Sciences seeks candidates for a tenure track position in Cellular Neurobiology and Physiology including but not limited to neuronal signaling pathways, ion channels, membrane receptors; cellular and molecular aspects of neuronal plasticity. Candidates will be expected to develop a strong research program and to participate in the Neuroscience Teaching Program. There is opportunity for a joint appointment in the Department of Biology.

Applicants should submit a curriculum vitae and a summary of current and proposed research work, and should arrange to have three letters of recommendation sent to: **Chair, Neurobiology and Physiology Search Committee, Dept. of Brain and Cognitive Sciences, MIT, E25-406, 77 Mass. Avenue, Cambridge, MA 02139-4307.** Applications will be considered as soon as they are complete (including letters). Qualified women and minority candidates are especially encouraged to apply.

MIT is an Affirmative Action/Equal Opportunity Employer

**Massachusetts  
Institute of Technology**

# BRANCH CHIEF

The Behavioral Medicine Branch of the Division of Epidemiology and Clinical Applications, National Heart, Lung and Blood Institute, National Institutes of Health, PHS, seeks a Branch Chief for its Behavioral Medicine Branch in Bethesda, Maryland.

The Branch Chief will be responsible for supervision of all Branch scientific and administrative activities relevant to its mission of biobehavioral research. This includes providing leadership and coordination of all research activities involving biobehavioral approaches to the prevention, diagnosis, treatment of and rehabilitation from cardiovascular diseases; development of national conference and workshop initiatives; development of "state of science" reviews on topics of importance to the Branch's programs; collaborating with national and foreign research scientists for the development and exchange of research protocols, methodology, and data in relevant areas of biobehavioral research, and serving as the Institute's liaison to other components of the National Heart, Lung and Blood Institute, other Institutes, as well as public, private, and international organizations whose activities are related to the mission of the Institute.

Specific requirements are: a Ph.D. or M.D. degree or equivalent experience, plus experience in basic, clinical and/or public health research. Experience with multi-center clinical trials is desirable. Position is a GS-601/602-15 Health Scientist Administrator (Biological Sciences) /Medical Officer with a salary range of \$64,232 to \$86,059. In addition, candidates may be eligible for Physician's Comparability Allowance up to \$20,000. Candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service. U.S. Citizenship required.

For further information or to submit curriculum vitae, contact:

**Lawrence Friedman, M.D.**  
**Acting Director**  
**DECA/NHLBI**  
**Federal Building**  
**7550 Wisconsin Avenue**  
**Room 212**  
**Bethesda, MD 20892**  
**(301) 496-2533**



NIH is an Equal Opportunity Employer

Novo Nordisk



Novo Nordisk  
Biotech, Inc.

## SCIENTISTS: INDUSTRIAL BIOTECHNOLOGY

**N**ovo Nordisk Biotech, Inc. has been established as a wholly owned subsidiary of Novo Nordisk A/S, a major international Danish pharmaceutical and industrial biotechnology company. A new facility for Novo Nordisk Biotech, Inc. is under construction in Davis, California and the company is expecting to begin its operations in the summer of 1992. Novo Nordisk Biotech, Inc. will focus its research and development on the identification, characterization, cloning and expression of industrial enzymes. Novo Nordisk Biotech, Inc. in its first phase will employ about 30 employees and is seeking to recruit experienced professionals with the following qualifications:

### Group Managers/ Staff Scientists

#### FUNGAL MICROBIOLOGY/ MICROBIAL GENETICS

Ph.D. in microbiology/genetics with over seven years' research experience in microbial methods, including the genotypic and phenotypic characterization of filamentous fungi and yeast. Work in this group will cover all stages of R&D of novel strain development including classical mutagenesis, transformation methods and screening of transformants.

#### PROTEIN CHEMISTRY/ ENZYMOLGY

Ph.D. in biochemistry or similar discipline with over seven years' research experience. A strong knowledge of protein chemistry and enzymology is essential. Work in this group will cover all stages of R&D of recombinant enzymes including purification, sequencing, characterization and enzymology. The group will also be involved in computer graphics and protein engineering.

These two senior level positions will each require a proven record of innovative research involving their respective disciplines, as well as demonstrative leadership skills, as evidenced by prior supervisory experience. Experience working in an international collaborative environment along with the ability to successfully manage technical interfaces is highly desirable. A key challenge in these positions will be in the recruitment and management of additional scientific staff members.

### Scientists Research Associates Research Assistants

**S**everal positions will be available for individuals with Ph.D., M.S. and B.S. degrees with research experience in the following disciplines:

**Molecular Biology:** Cloning and expression of recombinant proteins in heterologous systems, site-directed mutagenesis, DNA synthesis, DNA sequencing and data handling.

**Microbiology:** Facility with a variety of microorganisms especially eukaryotes, classical genetics, mutagenesis, screening (including robotics) and development of transformation methods.

**Microbial Physiology:** Studies of metabolism, regulation of expression, substrate optimization and lab scale fermentation methods.

**Protein Chemistry/  
Enzymology:** Protein purification, characterization, sequencing, enzyme kinetics and computer graphics.

We are seeking individuals who are innovative, well-organized and highly-motivated who would like the opportunity to join a start-up company supported by the strength and vision of a major international leader in biotechnology. Novo Nordisk Biotech, Inc. offers competitive compensation and a comprehensive benefits program. If you are interested in a challenging position and meet the above criteria, please send your curriculum vitae with a list of references for consideration, in confidence, to: **Dr. Glenn E. Nedwin, President, Novo Nordisk Biotech, Inc., 1477 Drew Avenue, Suite 105, Davis, CA 95616.** We are an equal opportunity employer.

**N**ovo Nordisk A/S is a major international biotechnology company leading in the manufacture of insulin and the treatment of Diabetes. The company is the world's largest producer of industrial enzymes and also manufactures a number of other pharmaceutical and bioindustrial products such as antibiotics and biopesticides. The company employs more than 9,000 people in 30 countries and has its headquarters in Denmark.

## POSITIONS OPEN

### DEVELOPMENT BIOLOGIST

Applications are invited for a tenure-track position at the ASSISTANT PROFESSOR rank in the Department of Biological Sciences at Mary Washington College beginning 15 August 1992. The primary responsibilities will be teaching anatomy, developmental biology and introductory biology. Experience and coursework in neurobiology are preferred. The department offers two majors: biology and environmental science. Students enrolling in the upper-level courses are biology majors as well as some students interested in allied health. Possibilities for developing other related advanced courses exist.

Ph.D. in-hand expected. Applicants must be motivated toward excellence in teaching with interest in involving undergraduates in basic research. Summer stipends and limited start-up funding are available for research.

Mary Washington College is a small, state-supported, liberal arts and sciences, coeducational institution located 50 miles south of Washington, D.C. *Mary Washington College is deeply committed to Affirmative Action and encourages minorities and women to apply.* Please send curriculum vitae, three letters of reference and transcripts to: Dr. Michael L. Bass, Chairperson, Department of Biological Sciences, P.O. Box 615, Mary Washington College, Fredericksburg, VA 22401-5358. Deadline for receipt of applications is 28 February 1992.

*Affirmative Action/Equal Opportunity Employer.*

**FISHERIES ASSISTANT PROFESSOR.** Tenure-track, 9-month appointment with summer salary supplement for first 3 years. Responsibilities include conducting research in freshwater fishery ecology/management, teaching a course in fisheries and wildlife management and one in area of special expertise, and university and public service. Research budget provided but grant acquisition is expected. Ph.D. and research and teaching experience in fisheries or related field are required at time of application. Send letter of interest, résumé, college transcripts, and addresses of four references (include telephone and FAX) to: Search Committee, Department of Fisheries and Wildlife, University of Minnesota, 1980 Folwell Avenue, St. Paul, MN 55108-6124 by 2 March 1992. *The University of Minnesota is an Equal Opportunity Educator and Employer.*

### ASSISTANT PROFESSOR, BIOCHEMISTRY

Western Michigan University seeks applications for a tenure-track assistant professor position in chemistry for fall 1992, pending budgetary approval. Position requires a Ph.D. degree in chemistry, or evidence of imminent award, with expertise in a field of biochemistry which is strongly related to aqueous environmental problems and the ability to use and teach experimental molecular biology techniques, and demonstrated potential for teaching, research and publication. Postdoctoral work in aqueous environmental problems is desirable. *Western Michigan University, a Carnegie Classification Doctoral I Institution, has embarked upon a vigorous Affirmative Action program and encourages applications from women and members of minority groups who are qualified for this position.* Send letter of application, curriculum vitae, academic transcripts and three letters of recommendation to: Michael McCarville, Chair, Chemistry Department, Western Michigan University, Kalamazoo, MI 49008. Review of applications will begin 24 February 1992 and continue until position is filled.

**ASSISTANT PROFESSOR, MEMBRANE BIOLOGY.** The Department of Biology, Syracuse University, invites applications for a faculty position in an area of the biology of cell membranes. The position will most likely be at the level of assistant professor (tenure track). Fields of interest and expertise to be considered include function of receptors or channels, mechanisms of transport, or mechanisms of signal transduction. Candidates should have a Ph.D. in one of the biological sciences and some postdoctoral experience. Applications received by 1 April 1992 will be given full consideration. The appointment can be made as early as 1 September 1992. Candidates should send curriculum vitae including a short description of research interests, and names of three references to: Dr. P. B. Dunham, Department of Biology, Syracuse University, Syracuse, NY 13244. *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR LAKE ECOLOGY

The Division of Biological Sciences of The University of Montana (UM) intends to fill an assistant professorship. The position is full-time at the Flathead Lake Biological Station, a very active biological field station located 90 miles north of the UM campus. Applicants must demonstrate ability to conduct exemplary research and attract external funding in limnology with specialization in analysis of food webs in freshwater lakes. Send letter of interest and curriculum vitae listing three references by 1 March 1992 to: Jack A. Stanford, Bierman Professor and Director, Flathead Lake Biological Station, University of Montana, 311 Bio Station Lane, Polson, MT 59860-9659. Telephone: 406-982-3301. *The University of Montana is an Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR OF MEDICINE/RHEUMATOLOGY.** The Section on Rheumatology, Bowman Gray School of Medicine, Wake Forest University, seeks a rheumatologist with a background in molecular immunology and research expertise in human T lymphocyte biology in health and autoimmune disorders. Applicants must hold M.D. or M.D./Ph.D. and be U.S. citizens or permanent residents. Please submit curriculum vitae, a letter summarizing background and research goals, and names/addresses of three references to: Gary M. Kammer, M.D., Section on Rheumatology, The Bowman Gray School of Medicine, Medical Center Boulevard, Winston-Salem, NC 27157-1058. *Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR-IN-RESIDENCE DEPARTMENTS OF PHARMACY AND PHARMACEUTICAL CHEMISTRY SCHOOL OF PHARMACY UNIVERSITY OF CALIFORNIA SAN FRANCISCO, CALIFORNIA

The School of Pharmacy invites applications for an assistant professor-in-residence position from scientists who can bridge several areas of strength in the school, notably mechanistic pharmacokinetics/pharmacodynamics investigation, pharmacokinetic/pharmacodynamic modeling, and other modern methods of data analysis. Preference will be given to candidates who have a strong background in the mathematical modeling of pharmacokinetic and pharmacodynamic systems (including compartmental, noncompartmental, linear and nonlinear systems theory and methodologies), together with a strong statistical background (with particular regard to non-parametric statistics and multivariate data analysis). Applicants will be expected to attract a substantial portion of the salary required for this non-tenure-track position through extramural grant support. Teaching responsibilities may include portions of the pharmacokinetics/pharmacodynamics sequence for professional students and elective and graduate courses in specialty areas.

Please send curriculum vitae, a summary of current research, a concise outline of future research plans, and three letters of reference by 31 March 1992 to: Robert A. Upton, Ph.D., Chairperson, Search Committee, School of Pharmacy, Box 0446, University of California, San Francisco, CA 94143-0446. *An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

### RENAL-EPITHELIAL PHYSIOLOGIST

The Department of Physiology at the University of Maryland School of Medicine invites applications for a tenure-track position at the ASSISTANT PROFESSOR level. Applicants must have a Ph.D. and/or M.D., and at least 2 years of postdoctoral training. We are seeking candidates with teaching and research expertise in renal-epithelial membrane transport mechanisms and the potential to develop an independently funded research program. *Women and minority candidates are strongly encouraged to apply.*

Applicants should send curriculum vitae, a detailed statement of past experience and future research plans and names of three professional references to: Dr. James B. Wade, Faculty Search Committee, Department of Physiology, University of Maryland School of Medicine, 655 West Baltimore Street, Baltimore, MD 21201. *The University of Maryland at Baltimore is an Affirmative Action/Equal Opportunity Employer, M/F/H/V.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR NEUROPHARMACOLOGY

Applications are invited for a tenure-track position available in 1992 at the assistant professor level in the Department of Pharmacology at the University of Rochester. We seek applicants who address fundamental questions in neuroscience and who have a special interest in neuropharmacology and neurodegenerative diseases. Applicants must have a Ph.D. or M.D. degree, or both, 2 years of postdoctoral experience, the potential to develop and maintain an independent research program, and an interest in professional and graduate education. Applicants should send their curriculum vitae, the names of at least three references, and a description of their present and future research interests to: Search Committee, Department of Pharmacology, University of Rochester, 601 Elmwood Avenue, Rochester, NY 14642. Applications will be received until 2 March 1992 or until the position is filled.

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

**NUTRITION POSITION AVAILABLE, ASSISTANT/ASSOCIATE PROFESSOR.** The Department of Nutrition Sciences, University of Alabama at Birmingham, is seeking qualified candidates as FACULTY MEMBER for the Division of Gastroenterology/Nutrition. This is a full-time, 12-month nontenure earning position. Candidates should have a Ph.D. degree with extensive experience in nutrition and lipoprotein metabolism, especially gene expression. Academic rank salary will be commensurate with qualifications. Interested persons should send curriculum vitae and a list of three references to: Frank Franklin, M.D., Department of Nutrition Sciences, Division of Gastroenterology/Nutrition, University of Alabama at Birmingham, UAB Station, Birmingham, AL 35294. *The University of Alabama at Birmingham administers its educational programs and activities, including admission, without regard to race, color, religion, sex, national origin, handicap or Vietnam era or disabled veteran status. (Title IX of the Educational Amendments of 1972 specifically prohibits discrimination on the basis of sex).* Direct inquiries to: UAB Affirmative Action Officer, The University of Alabama, UAB Station, Birmingham, AL 35294.

### ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology, Chicago College of Osteopathic Medicine, invites applications for a new tenure-track faculty position at the rank of assistant professor to start in the summer of 1992. Applicants must have a Ph.D., or equivalent, a minimum of 2 years of postdoctoral experience and the ability to teach human physiology to medical students, pharmacy students and students in the allied health professions. It is expected that the successful candidate will develop a vigorous, independent research program capable of attracting extramural funding, preferably in an area that complements ongoing programs in cardiovascular, diabetes and vascular smooth muscle research. Interested applicants should send their curriculum vitae, reprints of representative publications, a synopsis of research interests and future plans, and the names of three references to: Stephen J. Kopp, Ph.D., Chairman, Department of Physiology, Chicago College of Osteopathic Medicine, 555 31st Street, Downers Grove, IL 60515. *Affirmative Action/Equal Opportunity Employer.*

**CELLULAR/MOLECULAR CARDIOVASCULAR SCIENTISTS.** The Department of Physiology and Pharmacology at Bowman Gray School of Medicine has two tenure-track positions available at the ASSISTANT OR ASSOCIATE PROFESSOR level. Individuals with expertise in cellular/molecular approaches to investigation of vascular biology or CNS regulation of the circulation are encouraged to apply. Rank, salary and space will be commensurate with qualifications. Send curriculum vitae and names and addresses of three references to: Dr. David Busija, Search Committee, Department of Physiology and Pharmacology, Bowman Gray School of Medicine, Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27187-1083. Respond before 1 March 1992. *Affirmative Action/Equal Opportunity Employer.*

**ROCHE**

# MOLECULAR BIOLOGY

BS/MS ASSISTANT SCIENTISTS

Hoffmann-La Roche, an established leader in the research, development and manufacture of pharmaceutical products, has two opportunities for Assistant Scientists with a BS/MS in a relevant scientific discipline, to join the leading edge of molecular biology.

## GENE EXPRESSION

Working within the Biomolecular Structure Group, you will assist in the cloning and overexpression of proteins for structural determinations and participate in the elucidation of structure-activity relationships by mutational analysis. Proteins to be investigated include enzymes, effectors and receptors. Laboratory experience and skill in genetic engineering, as well as a working knowledge of the genetics and molecular biology of *E. coli* are required. Familiarity with molecular cloning, construction of cDNA libraries, Southern and Western blotting, DNA sequencing and site directed mutagenesis are highly desired; experience with yeast, mammalian or baculovirus expression systems would also be helpful, as would be the ability to operate a benchtop fermentor.

## IN SITU HYBRIDIZATION

Joining the Roche Institute of Molecular Biology, a basic research division, you will perform in situ hybridization analyses of animal tissues to study the gene expression in the brain. Qualifications include familiarity with all processes involved, including animal perfusion, fixation, cryo- and/or paraffin-sectioning, riboprobe synthesis, nucleic acid hybridization, histological staining and microscopic analysis. Experience with molecular biological techniques such as plasmid preparation, DNA sequencing, and Southern and Northern blot analysis desirable.

We offer competitive salaries, a generous bonus and benefits package and challenging, rewarding projects. For confidential consideration, please send your resume, indicating position of interest and salary history/requirements, to: Ms. Joanna Harrington, Staffing and Employee Services, Department JH12MB, Hoffmann-La Roche Inc., Nutley, New Jersey 07110. We are an equal opportunity employer.

**ROCHE**

**Hoffmann-La Roche**

# Pharmacological Opportunities

The Medical Research Division of American Cyanamid Company has several opportunities available for scientists to join the Central Nervous System Research Department of the Cardiovascular-Central Nervous System Disease Research Section.

## Senior Scientist - Behavioral Pharmacology

We are interested in a person with a strong background in the behavioral pharmacology of neurodegeneration and cognition. To qualify, the candidate must have a Ph.D. and postdoctoral training in psychology, pharmacology, neuroscience or a related field. Experience with rodent and primate models of cognitive function and neurodegeneration is required as is a demonstrated ability for independent research and problem solving. Interest in the biochemical and histological characterization of neurodegeneration would be desirable. (Dept. SSBP)

## Senior Scientist - Molecular Pharmacology

This staff position is available within our Molecular Pharmacology Group where we have a major interest in receptor mediated signal transduction. The successful candidate should have experience with recombinant DNA and biochemical pharmacology techniques to perform research on the cloning, expression and structure-

function relationships of cellular receptors. Experience in mass action and kinetic characterization of receptor-ligand interactions is also required. The candidate should possess a Ph.D. in Biochemistry, Molecular Biology or a related science and postdoctoral experience. (Dept. SSMP)

## Scientist - Biochemical Pharmacology

The BS/MS level scientist we seek will conduct research on the molecular aspects of receptor-ligand interactions and signal transduction mechanisms. The successful candidate should have experience in the biochemical characterization of receptor-ligand interactions and second messenger systems. Experience in cell culture techniques would be beneficial. A demonstrated ability for problem solving and independent research is desirable. (Dept. SBP)

Compensation includes a competitive salary along with an attractive benefits package and relocation assistance.

Our Discovery Research Labs are located in Rockland County on the 580 acre campus-like setting of Lederle Labs. The new Attleck Research Building was dedicated last month and houses our state-of-the-art research labs. We are 25 miles north of NYC which affords easy access to several excellent universities and medical schools.

If you are interested in one these positions, please send us a c.v. with salary requirements and indicate the Dept. code for the position of your choice, to: Professional Employment Dept., Lederle Laboratories, 401 N. Middletown Road, Pearl River, NY 10965. An Equal Opportunity Employer M/F.

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## Environmental BioScience Corporation

**Environmental BioScience Corporation (EBC)** is a growing Biotechnology company focused on developing innovative products and services for the fossil fuel industry. We are in the process of expanding our Research and Development efforts on a process for the microbial desulfurization of fossil fuels, at our new laboratories in The Woodlands, Texas. We are seeking both entry level and senior scientists and engineers to work as part of a multi-disciplinary team.

**Process Engineering.** B.S. (3 to 8 years experience), M.S. (2 to 5 years experience) or Ph.D. (0-5 years experience) in Chemical/Process Engineering. These individuals will participate in the design, scale-up and operation of bioprocessing systems for the microbial desulfurization of various fossil fuels. Experience with large scale applications of biological systems or with handling oil/water separations will be especially useful.

**Analytical Chemistry.** Ph.D. with 2 to 5 years experience in developing and utilizing analytical techniques for the analysis of water- and hydrocarbon-based systems. Experience with GC, GC/MS, HPLC, Ion Chromatography, X-ray fluorescence and ASTM methods for the analysis and characterization of fossil fuels. This individual will be responsible for establishing and maintaining an analytical chemistry group at our Texas lab to support our biochemistry and engineering efforts and to participate in basic research projects related to the biological processing of fossil fuels.

**Biotechnology/Bioprocessing.** Ph.D. in microbiology or biochemistry. 0-10 years postdoctoral experience. Background in the application of biotechnology principles to large scale fermentations, bioprocessing or bioremediation. This individual will participate in the scale up of a process for the microbial processing of petroleum and other fossil fuels, and engage in the application of basic research findings for new processes.

All these positions will involve close collaboration with other industry and university scientists and engineers involved in the project, and the opportunity to participate in projects at the leading edge of bioprocessing technology. These positions will be filled at EBC's research laboratories in The Woodlands, Texas, a residential and commercial development north of Houston which offers the cultural and recreational amenities of a large city and the cost of living of a small town. EBC offers a competitive compensation package, including an employee Incentive Stock Option Program. Interested persons should send a resume (in confidence) to:

**Personnel Director  
Environmental BioScience Corporation  
1610 Woodstead Court  
Suite 460, Mail Drawer 17  
The Woodlands, TX 77380**

## ■ Senior Scientist ■ Postdoctoral Fellows

A new department of the Johnson and Johnson Company located within The R.W. Johnson Pharmaceutical Research Institute has immediate opportunities for senior scientists and postdoctoral fellows. The successful candidates will join a group of scientists in the Skin Biology Research Center investigating the basic mechanisms underlying the structural and molecular biology of hair growth. Scientists specifically interested in the problems of transduction mechanisms in biology and in reverse genetics are sought. Some post PhD experience with demonstrable productivity is highly desirable.

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

Ours is a smoke free workplace ideally located in central New Jersey ... midway between New York City and Philadelphia. Please submit your curriculum vitae with the names of 3 references to: P. Merski, Human Resources Dept. 2, R.W. Johnson Pharmaceutical Research Institute, P.O. Box 300, Raritan, NJ 08869-0602.

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PHARMACEUTICAL RESEARCH INSTITUTE  
a Johnson & Johnson company

## POSITIONS OPEN

### PLANT BIOLOGIST

The Department of Biology at Queen's University is seeking a plant biologist to fill a tenure-track position at the **ASSISTANT PROFESSOR** level. Candidates from all sub-disciplines within plant biology are encouraged to apply but the ideal candidate will enhance our current research strengths in plant physiology and/or plant ecology. Qualifications include a Ph.D. degree and published evidence of excellent research ability. The successful candidate will be expected to develop a vigorous research program and should be an enthusiastic and competent teacher. Expected date of appointment is 1 July 1992, or when a suitable candidate is found.

Applications (which should include curriculum vitae and statement of current and prospective research interests) plus three letters of reference should be sent to: **Dr. David T. Dennis, Head, Department of Biology, Queen's University, Kingston, Ontario, K7L 3N6, Canada.** Application deadline is 31 March 1992.

*In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Queen's University has an Employment Equity program and encourages applications from all qualified candidates, including women, aboriginal peoples, people with disabilities and visible minorities. (Queen's University is willing to help the spouse of a new appointee seek suitable employment.)*

### ASSISTANT PROFESSOR OF PLANT PATHOLOGY EXTENSION

#### RESEARCH PLANT PATHOLOGIST

The Department of Plant Pathology, University of Wisconsin-Madison, is seeking applicants for a full-time, 12-month, tenure-track faculty position at the assistant professor level: 75% extension, 25% research. Qualifications include a Ph.D. in plant pathology or a closely related field. The appointee will be expected to develop an innovative extension and research program with focus on diseases of economically important plants addressing issues such as integrated pest management, urban environmental concerns, sustainable agricultural production, pesticide use and food safety; to direct graduate students; and to participate in the overall educational program of the department. Opportunities exist for extension programs in the areas of turf, field and forage crops. The incumbent will also be expected to teach applied plant pathology offered in the technical curriculum for agricultural production through the College of Agricultural and Life Science Short Course programs.

A résumé, complete undergraduate and graduate transcripts, a statement of extension and research interests and at least three letters of recommendation should be sent to: **Dr. Walter R. Stevenson, Chair of the Search and Screen Committee, Department of Plant Pathology, 1630 Linden Drive, University of Wisconsin-Madison, Madison, WI 53706. Telephone: 608-262-6291. FAX: 608-263-2626.** Applications received by 15 March 1992 will be assured of consideration.

*The University of Wisconsin is an Equal Opportunity Employer and especially encourages women and minorities to apply.*

### DEPARTMENT OF PHARMACOLOGY THE UNIVERSITY OF ALABAMA AT BIRMINGHAM (UAB) ASSISTANT PROFESSOR PROTEIN CRYSTALLOGRAPHY

Applications are invited for this tenure-track position, available in July 1992. Priority will be given to candidates with research programs focused on receptors and receptor-binding proteins. The successful candidate is expected to develop a vigorous research program in structural biology, and to participate in UAB's graduate program in pharmaceutical design. He/she will hold a parallel appointment in the Center for Macromolecular Crystallography and in the Comprehensive Cancer Center. Salary for this 12-month appointment will be commensurate with the candidate's qualifications.

Applicants should submit curriculum vitae, a list of publications, a brief statement regarding future research plans, and at least three references to: **Charles E. Bugg, Center for Macromolecular Crystallography, University of Alabama at Birmingham, Box 791TH-UAB Station, Birmingham, AL 35294-0005. Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### VANDERBILT UNIVERSITY MEDICAL CENTER ASSISTANT PROFESSOR IN VASCULAR BIOLOGY

Two tenure-track positions are available in the Department of Pathology, effective fall of 1992. Candidates with expertise in molecular and cellular biology of vascular cells or lipid and lipoprotein metabolism are preferred, but other areas will be considered. Minimum qualifications include M.D. and/or Ph.D. degree and at least 2 years of postdoctoral experience. Successful candidates will be expected to establish an extramurally funded research program. They will join an interdepartmental group of faculty actively involved in cardiovascular research and will participate in medical and graduate student training. Send curriculum vitae, summary of research interests and names of three references to: **Dr. Richard L. Hoover, Department of Pathology, Vanderbilt University School of Medicine, Nashville, TN 37232-2561.** *Vanderbilt University is an Affirmative Action/Equal Opportunity Employer.*

### UNIVERSITY OF SOUTH CAROLINA (USC) COASTAL CAROLINA COLLEGE WETLANDS ECOLOGIST

The School of Natural and Applied Sciences at USC Coastal Carolina College is seeking an **ASSISTANT PROFESSOR**. Full-time tenure-track position available 16 August 1992. Ph.D. required. Preference given to candidates with teaching experience. Responsibilities include teaching introductory biology, and an appropriate upper level course. The successful candidate is expected to develop a research program which includes undergraduate majors. USC Coastal Carolina College, a 4-year campus in the University of South Carolina System, is located 9 miles west of Myrtle Beach and has approximately 4200 students. Each applicant should submit a letter of application, curriculum vitae, and names and telephone numbers of three references to: **Human Resources and Affirmative Action Office, USC Coastal Carolina College, P.O. Box 1954, Conway, SC 29526.** Screening of applications will begin immediately and will continue until position is filled. *USC Coastal Carolina College is an Equal Opportunity Employer/Affirmative Action Employer.*

### FACULTY POSITIONS IN MOLECULAR PHARMACOLOGY UNIVERSITY OF SOUTHERN CALIFORNIA (USC) SCHOOL OF PHARMACY

Two tenure-track **ASSISTANT/ASSOCIATE PROFESSOR** positions exist in the Department of Molecular Pharmacology and Toxicology. Candidates must have Ph.D. degree in pharmacology or related discipline, postdoctoral experience, and strong commitment to excellence in research and teaching in the professional and graduate programs. Preference will be given to candidates with demonstrated research accomplishment in neuropharmacology using biochemical and/or molecular approaches, and will be expected to maintain an independent, externally funded, research program. Interviews to begin in mid-February, to fill by July 1992. Send curriculum vitae, set of selected reprints, brief statement of research interests, and names of three references to:

**Dr. Timothy Chan, Chairman**  
Department of Molecular Pharmacology  
and Toxicology  
USC School of Pharmacy  
1985 Zonal Avenue, Los Angeles, CA 90033  
*Equal Opportunity Employer, M/F/H.*

**ASSISTANT OR ASSOCIATE PROFESSOR OF BIOLOGY** starting 15 August 1992, tenure track, postdoctoral experience desired. Position requires research experience in plant membrane-related functions. Candidate must develop a nationally competitive research program. Competitive start-up package available. Appointee will teach and advise undergraduate and graduate students (M.A. and Ph.D.). Submit curriculum vitae, copies of transcripts, statement of research program, and three letters of recommendation to: **Search, Biology Department, University of South Dakota, Vermillion, SD 57069-2390; telephone: 605-677-5211.** Screening begins 1 March 1992. *Equal Opportunity/Affirmative Action Employer; applications specifically invited from women and minorities.*

31 JANUARY 1992

# Research Professionals

Genentech, Inc., a leader in the biotechnology industry, has the following exceptional opportunities available in our Recovery Process Research & Development department.

## Scientist

You will be responsible for the purification and characterization of proteins, development/scale-up of recovery processes for production of recombinant proteins/peptides and the production of initial clinical-grade material following cGMP rules. Requires a PhD in Biochemistry or related field and at least two years' experience with state-of-the-art methods for protein purification.

## Postdoctoral Researcher

You will isolate and purify recombinant proteins in order to test them in vitro and in animal models for their therapeutic potential. Close collaboration with fermentation and other departments is essential. Requires a PhD in Biochemistry or related field and experience in the purification and characterization of proteins.

## Research Assistant/Associate

As part of our Recovery Process Research & Development department, you will perform protein purification and characterization as well as develop/scale up recovery processes for the production of recombinant proteins and peptides. Requires a BS/MS in Biochemistry or related work experience in the pharmaceutical industry, familiarity with most purification/characterization methods and the ability to work in a team environment.

Genentech offers an extensive benefits package which includes fully paid dental/medical/vision coverage for you and your dependents, child care facilities and free health club membership. For immediate consideration, please send your resume, indicating position of interest, to Genentech, Inc., Human Resources Dept. LPER, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity.

# Genentech, Inc.



## POSITIONS OPEN

### EUKARYOTIC MOLECULAR GENETICIST

Nontenure-track **RESEARCH ASSISTANT PROFESSOR** position available August 1992. Expertise in recombinant technology and DNA sequencing with interests in evolutionary, systematic or marine biology preferred. Responsibilities include teaching and research complementary to departmental efforts in the aforementioned areas. Facilities, including automated DNA sequencer, available for research in molecular biology. Send curriculum vitae, statement of research interests, and names of three references to: **Dr. Robert R. Christian, Department of Biology, East Carolina University, Greenbelt, NC 27858-4353.** Screening begins 1 March 1992. *East Carolina University is an Equal Opportunity/Affirmative Action Employer. Applicants must comply with the Immigration Reform and Control Act. Official transcripts are required upon employment.*

### FACULTY POSITION IN DEVELOPMENTAL BIOLOGY CHILDREN'S HOSPITAL RESEARCH FOUNDATION CINCINNATI, OHIO

The Basic Sciences Division has an opening for an **ASSISTANT/ASSOCIATE PROFESSOR** (tenure track) in the University of Cincinnati. The position will allow over 90% of time to be spent on research, with the remaining time spent in an active developmental biology graduate program. A new research building has recently been completed. Outstanding candidates with research interests in mammalian developmental genetics, neurobiology, transcription factors or homeobox genes are encouraged to apply.

Please send curriculum vitae, research plans, and the names and addresses of three references to: **Search Committee, Division of Basic Science Research—NRB 2013, Children's Hospital Research Foundation (CHRF), Elland and Bethesda Avenues, Cincinnati, OH 45229-2899.**

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

### MARINE BIOMEDICAL AND ENVIRONMENTAL SCIENCES MEDICAL UNIVERSITY OF SOUTH CAROLINA (MUSC)

Applications are invited for a tenure-track, **FACULTY POSITION** in Marine Biomedical and Environmental Sciences (MBES) at the rank of **ASSISTANT OR ASSOCIATE PROFESSOR**. Candidates should have an active molecular or cell biological research program using marine model systems to study medical or environmental problems as they relate to human health care. Still in an early phase of development, MBES will provide an unusual opportunity for the successful candidate to participate in the design of its research and graduate training program. Appointment is possible as soon as 1 July 1992. Office and laboratory space are available at the Fort Johnson campus of MUSC and joint appointment in a basic science department of the College of Medicine may also be offered. Curriculum vitae and three letters of recommendation should be forwarded by 15 March 1992 to: **D. R. DiBona, Ph.D., Director, Marine Biomedical and Environmental Sciences, Medical University of South Carolina, 221 Fort Johnson Road, Charleston, SC 29412.** *The Medical University of South Carolina is an Equal Opportunity/Affirmative Action Employer, M/F.*

### FACULTY POSITION NEUROBIOLOGY

The Vollum Institute invites applications for a faculty position at the **ASSISTANT, ASSOCIATE OR FULL PROFESSOR** level in the field of neurobiology. We are especially interested in candidates using biophysical/physiological approaches to understanding neuronal regulation, structure or function at the molecular and cellular level, but the quality of the research program and its relationship to existing strengths will be the most important considerations. Persons interested in this appointment should submit curriculum vitae and statement of research interests to: **Neurobiology Search Committee, Vollum Institute, L-474, Oregon Health Sciences University, 3181 S.W. Sam Jackson Park Road, Portland, OR 97201-3098.** *An Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR AND POSTDOCTORAL POSITION** is available to study molecular aspects of NK and T cell oncologic mechanism. Candidates with experience in these areas should send summary of current research, curriculum vitae, and the names of three references to: **Chief, Section of Natural Immunity, Department of General Surgery, The University of Texas, M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Box 18, Houston, TX 77030.** *We are an Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT/ASSOCIATE PROFESSOR.** The Children's Research Institute, Department of Pediatrics, George Washington University Medical Center, invites applications for a tenure-track position in the Center of Virology, Immunology and Infectious Disease at Children's National Medical Center. Applicants must have an M.D. or Ph.D. with demonstrated research expertise using a molecular approach to address problems in virology or immunology relating to infectious disease. The candidate is expected to develop a vigorous, independently funded research program and to participate in some aspect of collaborative projects currently being conducted in the center. Applicants should forward curriculum vitae, a description of research interests and plans, and three letters of recommendation by 2 March 1992 to: **Dr. Christie A. Holland, Director, Center for Virology, Immunology, and Infectious Disease, Children's National Medical Center, 111 Michigan Avenue, N.W., Washington, DC 20010.**

### ECOSYSTEM ECOLOGIST

The Department of Environmental Sciences and Engineering at the University of North Carolina at Chapel Hill invites applications or nominations for a currently available tenure-track faculty position at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. We seek an individual with postdoctoral and field experience in the experimental study of ecological systems and their response to anthropogenic impacts. While the traditional strength of the department has been in aquatic ecology, the search is open to individuals with other backgrounds or experience in other ecosystems. The abilities to teach wetland ecology, limnology, experimental ecology, and/or ecotoxicology, as well as to develop an extramurally funded research program in ecosystem ecology or related areas are important considerations in our selection of candidates. The search will continue until the position is filled, but potential candidates are encouraged to apply by March of 1992. Interested individuals should submit a complete résumé, including publication list, and names of three references. Respond to: **Dr. Frederic K. Pfander, Chair, Ecologist Search, Department of Environmental Sciences and Engineering, CB #7400, University of North Carolina, Chapel Hill, NC 27599-7400.** *The University of North Carolina at Chapel Hill is an Affirmative Action/Equal Opportunity Employer. Minority and female applicants are encouraged to identify themselves voluntarily.*

### ASSOCIATE PROFESSOR OR PROFESSOR

The Department of Pathobiology at the University of Washington in the School of Public Health and Community Medicine at the University of Washington announces an immediate faculty position opening at the associate professor or professor level. This position requires an M.D. or Ph.D. with an established record of independent research as demonstrated by peer-reviewed publications and/or competitive grant proposals.

We are seeking an individual with five or more years of postdoctoral experience in cell biology and virology. This individual will establish an independent research project analyzing viral and nonviral gene expression in influencing tumorigenesis and metastatic cell behavior, and participate in collaborative research projects to develop and evaluate new molecular diagnostics and antiviral agents. Experience in electron microscopy is essential.

The successful candidate is also expected to participate in teaching and precepting graduate students in the department. Applicants should send a letter of interest, curriculum vitae, and names and addresses of a minimum of four references to: **George J. Todaro, M.D., Chair, Search Committee, Department of Pathobiology, SC-38, University of Washington, Seattle, WA 98195.** The application deadline for this position is 3 March 1992.

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

## POSITIONS OPEN

**RESEARCH ASSOCIATE/ASSISTANT PROFESSOR.** The Department of Surgery of the University of Minnesota invites applications for two academic professional positions at the rank of associate professor/assistant professor (nontenure track). Candidates should have a Ph.D. or M.D. with experience in molecular biology or protein chemistry. The successful applicants will be expected to establish independent research programs and to collaborate with a multidisciplinary group in studying wound healing, regeneration and tumorigenesis. Preference will be given to individuals with interest in the regulation of cell growth, differentiation and transformation, the biochemistry and molecular biology of bioactive factors and matrix molecules, and mechanisms of gene regulation. Interested individuals should submit curriculum vitae, a brief statement of research interests and future plans and the names of three references by 15 April 1992 to:

**Rosalie Cihlar  
Executive Secretary  
Department of Surgery  
University of Minnesota  
Box 195 UMHC  
Minneapolis, MN 55455**

*The University of Minnesota is an Equal Opportunity Educator and Employer.*

### FACULTY POSITION: VISUAL SCIENCE

The Department of Ophthalmology and Visual Science, Yale University School of Medicine, is seeking to appoint an M.D. or Ph.D. vision scientist at the full **PROFESSOR** level working in the area of visual neurosciences. Experience in the pharmacology of visual system plasticity would be an advantage. Candidates should have an excellent scholarly record to have achieved international recognition, and to have significant administrative and editorial experience. Applications including curriculum vitae and the names of at least three references should be sent to: **Chair, Department of Ophthalmology and Visual Science, Yale University School of Medicine, 330 Cedar Street, New Haven, CT 06510, by 28 February 1992.** *An Equal Opportunity/Affirmative Action Employer.*

### Calendar of Upcoming Meetings

SCIENCE will be distributed to scientists attending the following meetings:

#### ASBMB

10 to 17 February 1992, Houston  
Issue date: 31 January 1992

#### Society of Toxicology

23 to 27 February 1992, Seattle  
Issue date: 14 February 1992

#### The Pittsburgh Conference

3 to 9 March 1992, New Orleans  
Issue date: 21 February 1992

#### FASEB

5 to 10 April 1992, Anaheim  
Issue date: 27 March 1992

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# Help us turn research into real solutions.

## RESEARCH SCIENTISTS & ASSOCIATES, NEUROBIOLOGY

As an innovative and creative leader in the development of recombinant DNA-based human therapeutics based on the principles of cellular and molecular biology, Amgen is turning research into important clinical solutions. Because of the success of such breakthrough products as EPOGEN® (recombinant human Erythropoietin) and NEUPOGEN® (recombinant human G-CSF), we are expanding our research and strengthening our technological base. This continued commitment to research has created outstanding opportunities for Research Scientists and Associates in the following areas of our Neurobiology program:

### CNS CELLS CULTURE

RESEARCH SCIENTIST applicants must have a Ph.D. in Cell Biology or a related discipline and a minimum of 2 years post-doctoral experience in the establishment and culture of CNS derived neurons or motor neurons. A background in the biochemistry or molecular biology of neurotrophic factors is desirable.

RESEARCH ASSOCIATE applicants must have a BS or MS in a relevant field and at least 2 years of applicable experience in cell culture. Experience with the culture of neuronal cell lines is highly desirable but not essential.

### PROTEIN CHEMISTRY

Responsibilities for these positions will include the development of programs leading to the purification and characterization of neurotrophic factors from natural and recombinant sources.

RESEARCH SCIENTIST applicants must have a Ph.D. in Biochemistry or another relevant field with 2 years post-doctoral experience in the purification and characterization of neurotrophic factors or other cytokines.

RESEARCH ASSOCIATE applicants must have a BS or MS in Biochemistry and 2 years related experience in the purification and characterization of proteins. Familiarity with conventional chromatography, HPLC, and SDS PAGE is essential.

### MOLECULAR BIOLOGY

These positions will be focused on the development of strategies for the cloning and expression of neurotrophic factors in microbial and mammalian systems.

RESEARCH SCIENTIST applicants will have a Ph.D. in Molecular Biology and a minimum of two years experience in the cloning and expression of neurotrophic factors or other cytokines.

RESEARCH ASSOCIATE applicants must have a BS or MS in Molecular Biology and 2 years experience in basic gene cloning and expression techniques in both microbial and mammalian systems.

**Amgen offers a stimulating and challenging research environment** where scientists are given the resources and encouragement to achieve their best including opportunities for external collaborations and interactions with their peers in the academic community. Our commitment is further exemplified in our excellent compensation and benefits package, including a full relocation program. If you have the necessary qualifications, and would like to be a part of an organization that places its highest priorities on its human resources, please send a CV, in confidence, to: **Amgen Inc., Staffing Department, Code #S-625, Amgen Center, Thousand Oaks, CA 91320-1789.** Equal Opportunity Employer.

Principals only please.

The logo for Amgen, featuring the word "AMGEN" in a bold, sans-serif, uppercase font. A registered trademark symbol (®) is located to the upper right of the letter "N".

# Biopharmaceutical Research and Development

Genta, Incorporated, a dynamic leader in the development of antisense pharmaceutical applications of nucleic acids, focuses on the innovative technology that will lead our industry into the 21st century. As we continue to experience rapid growth, we are looking for professionals to join our San Diego research and development group.

**PROJECT MANAGERS.** Ph.D level Synthetic Chemist with 8-10 years' pharmaceutical experience in drug design. Must have experience managing biomedical R&D programs. Dept. SC/K.

Ph.D level Molecular Biologists with a minimum of 5 years' pharmaceutical experience plus experience in managing research programs. Dept. SC/M.

**CHEMISTRY.** Ph.D in Medicinal Chemistry with a strong biochemistry background and 5+ years' pharmaceutical experience in drug discovery. Dept. SC/K.

Ph.D level Hetrocyclic Chemist with at least 1 year post doc experience (nucleosides a plus). Dept. SC/K.

**MOLECULAR BIOLOGY.** Ph.D level Scientists with a background in Molecular Biology, Biochemistry or Immunology. Dept. SC/M.

**QUALITY CONTROL.** Ph.D or equivalent, 5+ years' experience and previous pharmaceutical QC background. HPLC experience a plus. Dept. SC/M.

**DIRECTOR OF REGULATORY AFFAIRS.** 5-10 years' experience in pharmaceutical industry in all aspects of regulatory affairs. Foreign experience desired. Dept. SC/M.

Genta, Incorporated offers a competitive compensation and benefits package which includes an equity position in the company. Send your resume and salary history, to: Genta, Inc., 3550 General Atomics Court, San Diego, CA 92121. Please reference Department number of position. Principals only. No phone calls please. Equal opportunity employer.



**RESEARCH SCIENTIST, OLFACTION.** EROX Corporation is seeking a researcher with a Ph.D. degree and postdoctoral training in Molecular Biology, Biochemistry or other Biological Sciences, and a strong background in recombinant DNA techniques and receptor biology to study and characterize mammalian olfactory and pheromone receptors and related genes. Experience and demonstrated accomplishment in cDNA cloning, subtractive hybridization, and protein 2-D gel analysis is preferred.

Must be capable of working independently and leading a small research group. The individual chosen will work at the company's Salt Lake City laboratories affiliated with the University of Utah and will have the opportunity to hold an Adjunct Faculty position at the University.

We offer a competitive salary, benefits, and relocation package, plus an excellent working environment and the opportunity for professional development.

Qualified individuals should respond to **Kevin McCarthy, Vice President and Chief Financial Officer, EROX Corporation, 535 Middlefield Road, #240, Menlo Park, CA 94025.** *EROX is an equal opportunity employer.*

**STAZIONE ZOOLOGICA 'ANTON DOHRN' DI NAPOLI**  
8th Course of the International School of the History of Biological Sciences

## FROM IMMUNITY TO CELLULAR AND MOLECULAR IMMUNOLOGY

History of Immunological Thought and of Discoveries in Immunology  
Ischia (Naples), Italy, 16-22 June 1992

Director of the 8th Course: G.J.V. Nossal (Melbourne, Australia)  
Director of the School: M.D. Grmek (Paris, France)

**Organizing Committee:** L. Cariello, B.A. Fantini, J.A. Gilder, G. Rossi, G. Salvatore

**Faculty:** B. Benacerraf (Boston), G.F. Bottazzo (London), L. Brent (London), G.R. Burgio (Pavia), G. Corbellini (Rome), J. Dausset (Paris), M.M. Davis (Stanford), B.A. Fantini (Rome), J.L. Gowans (Strasbourg), L. Hood (Pasadena), H. Judson (Baltimore), I.R. Mackay (Clayton), M.G. Masucci (Stockholm), P.M.H. Mazumdar (Toronto), J.F.A.P. Miller (Melbourne), C. Milstein (Cambridge), A. Mitchison (Berlin), A.M. Moulin (Paris), J.E. Murray (Boston), N.R. Rose (Baltimore), A.M. Silverstein (Baltimore), T. Söderqvist (Stanford), D.W. Talmage (Denver), A.I. Tauber (Boston), S. Tonegawa (Cambridge), O. Westphal (Montreux), D.C. Wiley (Cambridge), R. Zinkernagel (Zurich)

**The course, which is limited to 50 participants, is addressed to:** Scholars interested in the various aspects of the history and philosophy of immunology. The novelty of the course is that scientists meet with professional historians to analyse and discuss the events that have marked turning points in their field of interest. The emphasis will be placed on encouraging discussion and the exchange of ideas across disciplinary boundaries.

**Applications** should be sent by **30 April 1992** to: History of Science Unit, Stazione Zoologica di Napoli, Villa Comunale, I-80121 Napoli, Italy. Tel. +39 (0) 81 583 3215. Fax. +39 (0) 81 764 1355. Late applications will be considered. Please include a brief C.V. and a statement specifying your scientific and academic experience and interest in the topic of the course. A registration fee of Italian Lira 1,250,000 (approx. US\$1000) will be required to cover registration and board and lodging in Ischia.



## RESEARCH AND DEVELOPMENT

Calgon Vestal Laboratories, an integral division of Merck & Co., Inc., has been voted America's Most Admired Company by the nation's business leaders for 5 consecutive years. Opportunities currently exist in our Research and Development Department for:

### Healthcare Clinical Research Manager:

Responsibilities include planning, development, implementation and timely completion of clinical studies for new and existing products. Clinical studies will support product registration of dermatologicals and wound management products with FDA, as well as other countries' registration authorities, and marketing activities.

Required: 5+ years experience in clinical trials; 50% travel; international exchange with BritCair (Calgon Vestal's U.K. affiliate). Preferred: Post graduate scientific degree (MD acceptable); experience in dermatological skin care.

### Healthcare R&D Technical Director:

Responsibilities include direction of research and product development staff and professional information services staff activity. Developing Healthcare business growth through technical differentiation, you will also supervise projects in process, assist in product concept definition, coordinate product development with marketing and oversee the transition to commercialization and technical support for existing products.

Required: 5+ years experience in research and product development management. Preferred: Post graduate scientific degree; background in Healthcare industry.

As a Fortune 100 Company, we offer an excellent salary, attractive benefits and opportunities for career advancement. Send resume and salary requirements to:



**Human Resources — Placement**  
**Calgon Vestal Laboratories**  
**Division Of Calgon Corporation**  
**Subsidiary of Merck & Company, Inc.**  
**P.O. Box 147, St. Louis, MO 63166**  
**An Equal Opportunity Employer M/F/H/V**

## International Research Laboratories (IRL) CIBA-GEIGY (Japan) Ltd.

IRL is one of the research organizations of the CIBA-GEIGY Group. It was established in 1986 in Takarazuka, a town located between Osaka and Kobe. At present about 90 research scientists are engaged in the four Departments of Bio-organics Research, New Materials Research, Analytics & Informatics and Chemistry. Now IRL offers:

### One Postdoctoral Research Position in the field of Protein NMR for a period of one to two years

A position is available for a postdoctoral research fellow to work on the solution structures of proteins and protein-ligand complexes using NMR techniques. AMX-600 and 300 NMR spectrometers as well as IRIS and VAX computing facilities are available including several distance geometry software packages. Experience in acquisition and analysis of multidimensional NMR data on proteins is essential.

The post is available immediately for a period of one to two years. Salary will be offered, depending upon age and qualifications.

Applications should include curriculum vitae, publication list, description of research interests and the names and addresses of two referees and should be sent not later than 28th February 1992 to:

**M. Shiono, Planning & Coordination Office,**  
**International Research Laboratories**  
**CIBA-GEIGY (Japan) Limited**  
**P.O. Box 1, Takarazuka 665 Japan.**  
**Tel 0797-74-2458, Fax 0797-77-2717.**

## ANNOUNCEMENT

### World Congress on Tuberculosis

November 16-19, 1992

Bethesda, Maryland

The Fogarty International Center of the National Institutes of Health, and the Centers for Disease Control, in collaboration with the National Institute of Allergy and Infectious Diseases, the National Heart, Lung and Blood Institute, the Food and Drug Administration, the U.S. Agency for International Development, the World Bank, the World Health Organization and the International Union Against Tuberculosis and Lung Disease are pleased to announce that a World Congress on Tuberculosis will be held on November 16-19, 1992 in Bethesda, Maryland.

Participation is invited in the Congress by research scientists, tuberculosis control program officers, tuberculosis health care providers, and health officials including Ministers of Health.

The Congress will focus on the goal of global tuberculosis control through basic and applied research in the diagnosis, treatment and prevention of tuberculosis as well as behavioral and operational research. Program evaluation, quality assurance, and the epidemiologic, economic and social aspects of tuberculosis will be discussed. Problems of special significance, such as the impact of HIV and drug resistance, will be addressed.

The Congress will feature:

- Addresses by leading national and international health officials;
- Scientific presentations by leading investigators; and
- Scientific poster sessions dealing with topics such as:

Immunology, molecular biology, mycobacteriology, epidemiology, diagnosis, vaccine development, new drugs and therapy regimens, behavioral research, operational research, economic analyses, demonstrations/pilot projects, tuberculosis control programs and program evaluation.

For additional information, or to obtain an official abstract form for presenting a poster, please contact the:

## 1992 WORLD CONGRESS ON TUBERCULOSIS

**Fogarty International Center**  
**National Institutes of Health**  
**Building 31, Room B2C32**  
**Bethesda, Maryland 20892**  
**Telephone Number: (301) 496-2516**  
**Fax Number: (301) 402-2056**

# Research Scientist IMMUNOLOGIST

Wyeth-Ayerst Research is a major division of Fortune 100 American Home Products Corporation. We currently have an opportunity for a Research Scientist within the Biotechnology and Microbiology Division of our Radnor, PA headquarters.

You will be responsible for establishing a monoclonal antibody laboratory and assisting in the development of viral vaccines.

Our ideal candidate will have a Ph.D. and five or more years demonstrated experience in hybridoma production, serological assay development, and animal model work. Experience with basic virology techniques and viral immunology would be an asset.

Wyeth-Ayerst offers excellent compensation and benefits programs. For immediate consideration, forward your resume in confidence to: **WYETH-AYERST RESEARCH PERSONNEL, Position #14, P.O. Box 8299, Philadelphia, PA 19101.** Equal Opportunity Employer, M/F/D/V responses encouraged. Principals Only.



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## Biopharmaceutical Leader

Somatogen, a biopharmaceutical company currently engaged in the development and manufacture of a synthetic human blood substitute, has opportunities available in our R&D and Process Development Groups:

### Ph.D. Analytical Protein Chemist

Minimum 3 years experience beyond Ph.D. with automated protein sequencing (Edman degradation), and protein microchemical characterization methods (peptide mapping, amino acid analysis, mass spectrometry, etc.) and recombinant proteins.

### Research Associate, Purification

B.S. or M.S. with 2 - 5 years experience in protein purification, recovery process development and scale-up. Protein analytical skills desirable.

### Research Associate, Peptide Chemistry

M.S. in Chemistry or Biochemistry with a minimum of 3 years of experience with different methods of solid phase peptide synthesis and characterization, including manual and automated synthesis, and a background in organic chemistry. Experience in protein chemistry and protein-peptide interactions helpful.

### Research Associate, Protein Chemistry

An individual with hands on experience in protein sequencing using Edman degradation, protein purification/characterization using HPLC/FPLC and other microchemical techniques, amino acid analysis, and enzymic mapping. M.S. in chemistry, biochemistry or closely related field, and 2 years experience or B.S. with 3 years experience. Mass Spec experience helpful.

A competitive salary and benefits package complement this offer. Academic transcripts required upon interview. Qualified individuals may submit their confidential resume and cover letter to: **Nancy Borne, Manager of Professional Development**

## SOMATOGEN

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An Equal Opportunity Employer

## POSITIONS OPEN

### FACULTY POSITION CELLULAR PHYSIOLOGY

The Physiology Department at Tufts University School of Medicine is seeking two faculty members (ASSISTANT, ASSOCIATE, OR FULL PROFESSOR) in the area of cellular physiology. The individual should have an active, funded research program focusing on signal transduction, second messengers, and/or ion channels. The successful candidates will join an enthusiastic, interactive faculty. Letter and curriculum vitae should be sent to: **Irwin M. Arias, Department of Physiology, Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111.** Application deadline: 30 March 1992.

### PROFESSOR AND CHAIR DEPARTMENT OF WILDLIFE AND RANGE SCIENCES UNIVERSITY OF FLORIDA

Applications are invited for the position of Professor and Chair, Department of Wildlife and Range Sciences. Applicants should have a doctorate and outstanding record of scholarship in an appropriate natural resource or biological discipline; demonstrated ability to provide leadership in the continued growth of this department in the state, national, and international arenas; strong commitment to excellence and innovation in teaching, research, and extension; and an ability to attract extramural funding for the broad range of departmental programs which includes urban and human dimensions of wildlife management, forest/wildlife relations, wetlands ecology, range ecology, and a conservation biology program with a strong international component.

Please send cover letter, curriculum vitae, transcripts, and five letters of reference to: **Dr. George W. Tanner, Department of Wildlife and Range Sciences, University of Florida, Gainesville, FL 32611-0304.** Deadline 31 March 1992 or until the position is filled.

### CHAIRPERSON DEPARTMENT OF PHARMACOLOGY THE UNIVERSITY OF VIRGINIA HEALTH SCIENCES CENTER

Applications are invited for the position of professor and chairperson of the Department of Pharmacology at the University of Virginia Health Sciences Center. Candidates must have a distinguished record of scholarship and professional achievement, and proven leadership and administrative ability. Curriculum vitae and names and addresses of three or more references should be submitted to the Chairman of the search committee:

**Dr. G. Frederick Wooten**  
Department of Neurology  
Box 3941

University of Virginia Health Sciences Center  
Charlottesville, VA 22908

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



### DIVISION DIRECTOR HEALTH SERVICES RESEARCH EPIDEMIOLOGY-BIOMETRY

The University of Arkansas for Medical Sciences (UAMS) is seeking a Director for a new division that will have responsibility for teaching and research in epidemiology, health services research, and biometry in the five colleges at UAMS. The Director will be a senior investigator with credentials suitable for appointment at the associate professor or professor level and expertise in one or more of the areas listed above. Candidates should have a distinguished record of research productivity and extramural support, as well as an ability to work with health professionals at many levels. The Director will be expected to recruit additional faculty to fulfill the broad mission of the division. The Director will report directly to the Dean of the College of Medicine. Potential applicants should submit a letter of interest and current curriculum vitae to: **Dr. Donald E. McMillan, Chairman: Search Committee, Department of Pharmacology and Toxicology, Slot 611, University of Arkansas for Medical Sciences, 4301 West Markham Street, Little Rock, AR 72205.** UAMS is an Equal Opportunity Employer.

## POSITIONS OPEN

### ASSOCIATE/FULL MEMBER MEMORIAL SLOAN-KETTERING CANCER CENTER

The Program in Molecular Biology, Sloan-Kettering Institute (SKI), Memorial Sloan-Kettering Cancer Center (MSKCC), invites applications for a position as **ASSOCIATE MEMBER** or **FULL MEMBER**. The successful candidate will have an outstanding record of research accomplishment and will be using a combination of modern biochemical, cell biological, or molecular genetic approaches to study the regulation of cellular growth processes in higher eukaryotes. Areas of interest include: genome structure and function, cellular signaling mechanisms, replication, transcription, translation, oncogenesis, and developmental control mechanisms. Applications should include curriculum vitae, a summary of current research activities and future research plans, and the names, addresses, and telephone numbers of at least four references. Please send applications, which we would appreciate receiving by 31 March 1992 to:

**Dr. Kenneth J. Mariani**  
Chairman

Program in Molecular Biology  
Sloan-Kettering Institute  
Memorial Sloan-Kettering Cancer Center  
1275 York Avenue  
New York, NY 10021

*SKI/MSKCC is an Equal Opportunity Employer.*



### DIRECTOR BELTSVILLE HUMAN NUTRITION RESEARCH CENTER

The Agricultural Research Service (ARS) is seeking outstanding applicants for the position of Director of the Beltsville Human Nutrition Research Center, located at Beltsville, Maryland (a suburb of Washington, D.C.). The center conducts a comprehensive program of research to determine human nutrient requirements, develop diet patterns that reduce risks for major chronic diseases, and improve methods of measuring nutrient composition of foods that constitute the American diet. The Director administers and manages scientific programs of national and international importance. The Director is responsible for 130 federal employees and approximately 50 other cooperators and visiting scientists working in five research laboratories. Responsibility also includes a Human Study Facility with a staff responsible for the design, preparation, and feeding of experimental diets for human studies.

This is a Civil Service position in the Senior Executive Service with a salary range of \$90,000 to \$112,000 per annum, commensurate with education (Ph.D. or M.D. desired) and experience. Interested candidates should contact Mr. Lee Triplett or Mrs. Gwen Donovan at 301-344-4622 by 6 March 1992, for a copy of the official announcement and applicant's packet. The completed packet must be marked **ARS-SES:92-1** and received at the address listed in the announcement no later than the closing date of 20 March 1992. *ARS is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### THE UNIVERSITY OF MICHIGAN CHAIR OF MICROBIOLOGY AND IMMUNOLOGY

The University of Michigan Medical School is seeking an academic leader to direct the research, teaching, and service programs of its Department of Microbiology and Immunology. Qualifications include: an M.D. or Ph.D. degree in microbiology and immunology, or a related field; national stature as an investigator in an area of microbiology and immunology; commitment to teaching; and administrative ability. Please respond by 28 February 1992 to: Thomas Gelehrter, M.D., Chair, Microbiology and Immunology Search Committee, c/o Nili Tannenbaum, Staff Associate, The University of Michigan Medical School, 7321 Medical Science I Building, Ann Arbor, MI 48109-0624.

*The University of Michigan is a nondiscriminatory Affirmative Action Employer.*

31 JANUARY 1992



### RESEARCH ASSOCIATES FOOT-AND-MOUTH DISEASE VIRUS RESEARCH UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH SERVICE PLUM ISLAND ANIMAL DISEASE CENTER

Three Postdoctoral Research Associate positions are currently available to work on various aspects of the replication of foot-and-mouth disease virus (FMDV).

The first position (#2N014) involves the expression of FMDV capsid protein genes in various systems, including bacteria and recombinant baculovirus. The objective is to produce capsid protein vaccines which lack nucleic acid.

The second position (#2N015) is concerned with the use of protease inhibitors which block the activity of one of the virus encoded proteases. The work will focus on the assay of inhibitors in tissue culture and animal model systems, and the expression, biochemical characterization and mutagenesis of the viral protease.

The third position (#2N016) involves the identification and isolation of the FMDV receptor from susceptible cells using biochemical and immunological methods. The objective will be to clone and express receptor genes to learn more about their function and to pursue antiviral strategies based on interference with viral reception.

The Center has strong base funding, and is well equipped, including facilities for electron microscopy and large and small animal work. A Structural Biology Unit, with facilities for X-ray crystallography has recently become operational. The center is located off the northeast tip of Long Island, NY. USDA ferry services from Orient Point, NY or Old Saybrook, CT offer a choice of living on Long Island or in Connecticut.

Appointments, which are available immediately, are for two or three years and are funded at \$35,017 to \$41,970, based on qualifications. Successful candidates must have obtained a Ph.D., in a relevant discipline, within the last four years. Applicants should send a curriculum vitae along with the names and addresses of three references to:

**Dr. M. J. Grubman (#2N014 or #2N015)**  
or

**Dr. B. Baxt (#2N016)**  
USDA, ARS, NAA  
Plum Island Animal Disease Center  
PO Box 848  
Greenport, NY 11944  
FAX (516) 323-2507

—ARS IS AN EQUAL OPPORTUNITY EMPLOYER—  
—WOMEN AND MINORITIES ARE ENCOURAGED TO APPLY—

## WORLD HEALTH ORGANIZATION

### INTERNATIONAL AGENCY FOR RESEARCH ON CANCER LYON, FRANCE

Unit of Descriptive Epidemiology  
is looking for an:

### EPIDEMIOLOGIST

The I.A.R.C. conducts a broad range of studies in the fields of cancer cause and prevention. There are a large number of epidemiological projects in collaboration with investigators throughout the world, and an extensive experimental programme. The Unit of Descriptive Epidemiology conducts research in three fields: (1) surveillance of cancer incidence and mortality worldwide, (2) assisting in the implementation of appropriate aetiological studies suggested by (1), and (3) of the evaluation of the effectiveness of cancer prevention. The major role of the successful applicant will be to assist in the development of the programme related to research on the prevention of cancer and its consequences, including intervention studies and the evaluation of existing programmes. In addition he/she will be expected to assist in the acquisition of data on cancer incidence and mortality and its analysis in terms of trends and differentials. Both tasks involve the establishment of contacts with researchers throughout the world, and the coordination of collaborative projects. The applicants should have a postgraduate degree or equivalent in epidemiology/public health or in biostatistics, at least 5 years' postdoctoral experience and demonstrated ability to conduct research in the epidemiology of non-infectious disease. Expertise in computing, and experience in cancer epidemiology are both considered advantages.

Salary level is US \$37 101 plus a cost of living element which is currently US \$19 367 p.a. for a staff member without dependents, and US \$39 952 plus a cost of living element of US \$20 855 for a staff member with dependents. Salaries are net of tax.

A recruitment is expected in the second half of 1992 for an initial period of 2 years, with possibility of renewal. Those interested should write enclosing a brief curriculum vitae to:

Personnel Office  
I.A.R.C.  
150, Cours Albert Thomas  
69372 Lyon Cedex 08  
France  
FAX no 72.73.85.75

Candidates will be contacted only if they are under serious consideration.



## POSITIONS OPEN

### ENTOMOLOGY DEPARTMENT CHAIR IOWA STATE UNIVERSITY

We seek a scientist/administrator to provide leadership in a department of 20 faculty which emphasizes teaching, research, and extension. Candidates should have a Ph.D. in entomology or related discipline and a record of achievement in academia, government service or industry. The appointment is initially for 5 years, on a full-time (12-month) basis, and is renewable. The position is available 1 July 1992. Screening of applications will begin after 28 February 1992 and continue until the position is filled. Applications should include a letter, curriculum vitae, and names, addresses and telephone numbers of five references. Send nominations or applications to:

**Dr. Bruce W. Menzel, Chair**  
Entomology Search Committee  
124 Science II, Iowa State University  
Ames, IA 50011

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

### DIRECTOR BEHAVIOURAL RESEARCH PROGRAMME

The National Cancer Institute of Canada is seeking an experienced investigator to coordinate, stimulate and, in part, conduct a new initiative in behavioural research and programme evaluation. The mandate of the Director will include development of an independent behavioural research programme, responsibility to address the needs of the Canadian Cancer Society in priority areas, creation of a network of collaborating centres throughout Canada and contributing to evaluation of programmes conducted at various levels within the Canadian Cancer Society.

It is expected that the Director will have an outstanding track record in a related area of research and will be capable of developing a research programme that meets the highest standards as assessed by peer review. Opportunities will exist to obtain an academic cross appointment and to foster a programme for the development of junior investigators. The appointee will report to the Chief Executive Officer of the Society/Institute and will be located in the National Office of the two organizations in Toronto. The salary will be commensurate with qualifications and experience.

*The National Cancer Institute of Canada is an Equal Opportunity Employer. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.*

Applications should be submitted to:

**Executive Director**  
National Cancer Institute of Canada  
10 Alcorn Avenue, Suite 200  
Toronto, Ontario M4V 3B1, Canada

### NEUROANATOMY BIOCHEMISTRY/PHYSIOLOGY

The American University of the Caribbean, School of Medicine, in Montserrat, West Indies, seeks to fill teaching positions in the above areas. Excellent salary and benefits. Send résumé to: 901 Ponce de Leon Boulevard, Suite 201, Coral Gables, FL 33134.

### HEAD—DEPARTMENT OF HORTICULTURE OREGON STATE UNIVERSITY (OSU)

Responsibilities include leadership and administration of research, teaching and extension. Demonstrated professional excellence in at least one of these areas and a Ph.D. in horticulture or closely related field required. Superior leadership and administrative abilities desired. Applicants need only submit complete curriculum vitae. Applications will be held in confidence throughout the initial screening process; thereafter additional information may be requested. Applications will be accepted until 31 March 1992. Applications and inquiries should be addressed to: **Dr. L. J. Koong, Head, Department of Animal Sciences, Chair, Search Committee, 112 Withycombe Hall, Oregon State University, Corvallis, OR 97331-6702.** OSU is an Affirmative Action/Equal Employment Opportunity Employer and is responsive to dual-career needs.

## POSITIONS OPEN

**VICE CHAIRPERSON.** The Department of Pathology at Wayne State University invites applications for a Vice Chairperson to direct an experimental pathology section. The position includes teaching pathology residents, directing a graduate program and involvement with second-year medical students organizing the medical student teaching program. The individual will also be charged with building a cancer-related research group. Wayne State University Medical Center is a comprehensive cancer center, which is comprised of six hospitals with 45 pathologists and 20 Ph.D.'s. Interested applicants should submit their curriculum vitae and references to: **John D. Crissman, M.D., Professor and Chair, Department of Pathology, Harper Hospital, 3990 John R, Detroit, MI 48201.** An Equal Opportunity/Affirmative Action Employer, M/F.

### MOLECULAR BIOLOGY OF THE KIDNEY TULANE UNIVERSITY MEDICAL SCHOOL

The Department of Medicine, Section of Nephrology, is seeking a Ph.D. **FACULTY MEMBER** in the area of the molecular biology of the kidney. Area of interest can include transport, hormonal regulation of gene expression, metabolism or hypertensive-related research. Associate professor/professor level individual with track record of publications and funding preferred. Interested applicants should send curriculum vitae, statement of research interests and names of three references to: **Jules L. Puschett, M.D., Chairman, Department of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112-2699.** Tulane University is an Affirmative Action/Equal Opportunity Employer.

### ASSISTANT MEMBER MEMORIAL SLOAN-KETTERING CANCER CENTER

The Program in Molecular Biology, Sloan-Kettering Institute (SKI), Memorial Sloan-Kettering Cancer Center (MSKCC), invites applications for a position as **ASSISTANT MEMBER.** The successful candidate will have demonstrated outstanding potential for a research career and will be using a combination of modern biochemical, cell biological, or molecular genetic approaches to study the regulation of cellular growth processes in higher eukaryotes. Areas of interest include: genome structure and function, cellular signaling mechanisms, replication, transcription, translation, oncogenesis, and developmental control mechanisms. Applications should include curriculum vitae, a summary of current research activities and future research plans, and three letters of references. Please send applications, which we would appreciate receiving by 31 March 1992, to:

**Dr. Kenneth J. Marians**  
Chairman

Program in Molecular Biology  
Sloan-Kettering Institute  
Memorial Sloan-Kettering Cancer Center  
1275 York Avenue  
New York, NY 10021

*SKI/MSKCC is an Equal Opportunity Employer.*

### FACULTY POSITION UNIVERSITY OF PITTSBURGH

The Department of Behavioral Neuroscience is seeking candidates for a tenure-track position available July 1992. The successful candidate will be required to establish a research program in one of two areas: (1) in vivo hippocampal electrophysiology, preferably with behavioral expertise in memory and learning, and (2) synaptic physiology, preferably in the area of physiology and biophysics of synaptic transmission in the vertebrate brain. Applicants should have a Ph.D. or M.D. degree and postdoctoral experience. Faculty rank, salary, space, and seed money will be commensurate with experience. Please send curriculum vitae, a one-page statement of research goals, name of three references, and three representative publications to:

**Dr. German Barrionuevo**  
Search Committee Chairperson  
Department of Behavioral Neuroscience  
446 Crawford Hall  
University of Pittsburgh  
Pittsburgh, PA 15260

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

## POSITIONS OPEN

### FACULTY POSITION

Instructor in Otolaryngology—Head and Neck Survey. Nontenured research appointment at the University of Texas Health Science Center, San Antonio, Texas. To develop independent research on development of the amphibian inner ear. To present results of research at national scientific meetings and publish results. To teach anatomical and research methods to medical and graduate students and residents of otolaryngology—head and neck surgery. To supervise students to ensure they learn the techniques needed to study inner-ear tissue. To instruct students in histological techniques as well as light and electron microscopy. Requires Ph.D. with major field of study in neuroscience and 1 year of related occupation experience as cochlear anatomist. Must have three publications in refereed journals dealing with fine structure of inner-ear tissue and three published abstracts of presentations of similar material. To apply submit curriculum vitae and three letters to: **Texas Employment Commission, Texas Employment Commission Building, Austin, TX 78778** or apply in person to: **The Texas Employment Commission, San Antonio, Texas. Refer to J.O. # 6521717.** Ad paid for by an Affirmative Action/Equal Employment Opportunity Employer.

A position is available for an experienced **ELECTROPHYSIOLOGIST OR-BIOPHYSICIST** to work on structural and functional aspects of ion channels, particularly voltage-gated potassium channels. The laboratory uses the *Xenopus* oocyte expression system as an assay in channel cloning and site-directed mutagenesis for structure-function analysis. The successful candidate, who will be responsible for the electrophysiological and biophysical analysis of cloned ion channels, will collaborate closely with a dynamic team of molecular biologists and biochemists. Depending upon previous experience, the individual chosen will receive the position and salary of **ASSISTANT INSTRUCTOR** or **RESEARCH-TRACK INSTRUCTOR.** Those interested should send curriculum vitae including three references to:

**Dr. Rolf H. Joho**  
Department of Cell Biology and Neuroscience  
University of Texas Southwestern Medical Center  
5323 Harry Hines Boulevard  
Dallas, TX 75235-9039  
Telephone: 214-688-2224

*The University of Texas Southwestern Medical Center is an Equal Opportunity/Affirmative Action Employer.*

Mansfield University of Pennsylvania seeks to fill two full-time, tenure-track **FACULTY POSITIONS** in the Biology Department. Position F-126: Immunology, microbiology, and genetics. Position F-128: Vertebrate anatomy, ecology, and ichthyology. Both positions could also involve work in lower division general biology courses. Dedication to teaching is of paramount importance. Participation in department, university and committee activities is also expected. A Ph.D. is required for tenure. College teaching experience is preferred. Rank at appointment, and salary, are commensurate with qualifications and experience—in accordance with the APS-CUF contract. Applications will be accepted until 13 March 1992. A letter of interest, résumé, transcripts of undergraduate/graduate study, and three current (1991-92) letters of recommendation are required to be submitted to: **Human Resources Department, G-1 Alumni Hall, Mansfield University, Mansfield, PA 16933.** Please refer to the appropriate position number. *Mansfield University is an Affirmative Action Employer and encourages the applications of women, minorities, and the handicapped.*

### POSTDOCTORAL POSITION

A position is available to join a cellular neurobiology research laboratory to study cellular and molecular mechanisms of nonpeptide neurotransmitter release from neurons and endocrine cells. A background in cell biology is required and solid experience in molecular biology is preferred. Please send curriculum vitae, a brief summary of professional experience including technical skills, and the names and addresses of two professional references to: **Pietro De Camilli, M.D., Boyer Center for Molecular Medicine and Department of Cell Biology, Yale University School of Medicine, P.O. Box 9812, New Haven, CT 06536-0812.** An Equal Opportunity Employer.

# CERTAIN CHALLENGES CAN ONLY BE MET BY A SELECT FEW.

## With Pride We Announce Our Distinguished Engineers And Scientists Program

Be part of our highest echelon of technical expertise and join the U.S. Nuclear Regulatory Commission as a distinguished engineer or scientist.

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You're one of a select few. Now select the NRC for some intriguing challenges that only

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### Advanced Instrumentation & Control Systems

You'll review, evaluate and provide advice and recommendations on the computer science/engineering aspects of the advanced instrumentation, control, and information systems needed for safe operation and shutdown of nuclear facilities.

### Nuclear Process Engineer - Criticality

You'll propose agency policy and develop regulatory guidance in the area of criticality safety. Your advice will be applied to the regulation of uranium enrichment, nuclear fuel fabrication, irradiated fuel handling or storage, and fuel transportation.

### Seismic Engineer/Scientist for Geosciences

You'll define the problems, identify the logisti-

cal support needed, and determine the end product desired in an effort to help resolve complex and substantial public health and safety issues related to the siting and seismic design of nuclear power plants and waste repositories.

For more information on these distinguished opportunities and application procedures with the NRC, call Kristin O'Donnell on 1-800-368-5642, ext. 24684. An equal opportunity employer M/F/H/V. U.S. citizenship is required.



**U.S. NUCLEAR  
REGULATORY  
COMMISSION**

## Biotechnology R&D

Interferon Sciences (ISI) is a leading biopharmaceutical company, located at the heart of the pharmaceutical industry in central New Jersey. ISI focuses on the development of therapeutic products using biopharmaceutical technology. ISI is currently manufacturing natural human leukocyte interferon, approved by the FDA in 1989. The Research & Development Department has four primary areas of focus: molecular genetics, cell biology, protein biochemistry and dosage formulation. Positions are opened immediately in all four areas and at all levels (Ph.D., MS or BS).

Interferon Sciences offers an excellent compensation and benefit packages. Qualified candidates should send his or her resume, with the appropriate position code, to:

**Personnel Department  
INTERFERON SCIENCES, INC.  
783 Jersey Avenue  
New Brunswick, NJ 08901  
An Equal Opportunity Employer**

### Molecular Genetics

Molecular biologists with experience in PCR, DNA synthesis, DNA sequencing, DNA detection, subcloning, cDNA cloning, gene expression, and yeast or bacterial fermentation. (RD-92MG)

### Cell Biology

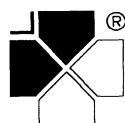
Biologists with experience in mammalian cell culture, cytokine bioassay, immunoassay, production and purification of antibodies, receptor technology and virology. (RD-92CB)

### Protein Biochemistry

Biochemists with experience in characterization and purification of proteins, protein chemistry, amino acid sequencing, compositional analysis and peptide mapping. (RD-92PB)

### Dosage Formulation

Pharmaceutical scientists with experience in development of parenteral, topical and oral dosage formulations, stability studies and assay development. (RD-92DF)



**INTERFERON SCIENCES, INC.**

## RESEARCH SCIENTISTS MOLECULAR BIOLOGY/MICROBIOLOGY

Our major Midwest medical center with a premier Oncology Program has two excellent opportunities for Research Scientists. These positions are vital to continuing our state-of-the-art cancer care to our patients. One position will be responsible for continuing research in our Immunotherapy Laboratory, and a second position will be responsible for Gene Transfer research.

To qualify for these positions, candidates must possess:

- Ph.D. in a relevant field, preferably molecular biology/microbiology.
- The Molecular Biologist must have three to five years' research experience with a majority of experience in retroviral vectors and gene transfer into mammalian cells (preferably normal human cells.) Familiarity with state-of-the-art methods in gene regulation and molecular biological methods is strongly preferred.
- The Microbiologist must have three to five years experience exploring the cellular phase of the immune system as it relates to current and future trends in adoptive immunotherapy and cytokines.
- A proven publication record including a recent (one year or less) publication.
- A proven ability to independently initiate and conduct research activities, and participate in collaborative clinical research.

Our environment includes one of the country's largest adoptive immunotherapy programs with technically advanced clinical labs, endowed salaries, and research support funds for each Ph.D., assistant, and statistician. A new research facility is scheduled for construction this year. Our attractive Midwestern location offers all the amenities of big city living in an atmosphere of small town friendliness. For immediate consideration, please submit your curriculum vitae to: Science, Box 14, 1333 H Street, Room 814, Washington, DC 20005.

An Equal Opportunity Employer  
M/F/H/V

## Niagara University ASSISTANT PROFESSORS OF BIOLOGY

The Department of Biology of Niagara University invites applications for three (3) nine month tenure track positions available beginning August 1992. Teaching and postdoctoral experience is desirable for all positions.

(1) **Biochemistry/Developmental Biology.** Ph.D. in Biochemistry is required with ability to teach courses in biochemistry developmental embryology, molecular/general genetics and eukaryotic laboratory techniques.

(2) **Vertebrate Physiologist.** Ph.D. and ability to teach human, vertebrate and animal physiology, histology and pathology required.

(3) **Environmental Microbiologist.** Ph.D. in Microbiology with ability to teach microbiology, bacteriology, environmental biologies and familiarity with bioremediation required.

The Department of Biology is committed to excellence in undergraduate education and teaching at the introductory and advanced levels is expected. In addition, the candidate(s) are expected to develop individual research programs involving both undergraduate and Masters (MS) students. Opportunities are also available for the development of collaborations with local research and industry groups (and are encouraged). Startup funds release time and Departmental laboratory and research resources are available for successful candidates. Salary is negotiable and will be commensurate with the experience. Applicant should demonstrate exceptional abilities in teaching and research and should include curriculum vita, three (3) letters of reference and a summary of current and future teaching and research in their application package. Applications should be mailed directly to:

Chairperson  
Department of Biology  
College of Arts & Science  
Niagara University  
P.O. Box 205  
Niagara University, NY 14109

Niagara University is an Equal Opportunity, Affirmative Action Employer. Women and minorities are encouraged to apply.

# SYSTEMIX



## Research Opportunities

SyStemix, an expanding new biotechnology company, is developing revolutionary technology for the study of human disease processes and treatments. To further our breakthroughs, we are seeking the following research professionals.

### Transplantation Biologist

You will provide management and project direction for our Transplantation Biology group. This involves participation in multi-disciplinary research and development and contract research programs. Duties will include developing GLP compliance and supervising antibody and histology efforts. You should have a PhD, and/or DVM, and 3+ years' post-doctoral experience, including skills in transplantation biology, histopathology and immunochemistry. Job Code: 22.

### Research Scientist

You'll be responsible for the design, development, and implementation of cellular pharmacology studies. You'll develop techniques for in vivo diagnostic imaging of minor cell populations and assist in the design of in vivo models.

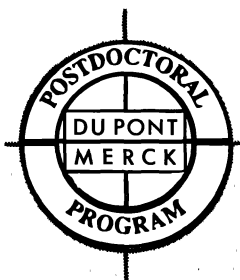
You should have a PhD and 3+ years' experience, including trace labelling of cells and proteins and in vivo biodistribution studies of labelled compounds. Job Code: 23.

### Research Scientist

You'll develop in vivo model and in vitro functional assays for human Hematopoietic Stem Cells (HSC), isolate human HSC, execute experiments studying HSC functions and supervise research associates.

A PhD, or equivalent job experience, is required, along with 3+ years' experience, including cell biology with emphasis on hematopoiesis or development biology. Job Code: 24.

We offer a stimulating environment and a very attractive compensation and benefits package. Please send or fax your resume, indicating appropriate Job Code, to SyStemix, Inc., Human Resources, 3400 W. Bayshore Road, Palo Alto, CA 94303; (415) 856-4919. EOE.



The advantages of a **TWO-YEAR** Postdoctoral position at the DuPont Merck Pharmaceutical Company are impressive. That's because this new joint-venture pharmaceutical company puts the resources and expertise of two powerful leaders in research and development within your grasp.

As a postdoctoral fellow, you will have the rare prospect of experiencing and impacting the stimulating world of modern pharmaceutical research. Postdoctoral fellows will receive a comprehensive package including a novel and exciting training environment, competitive salaries and medical benefits. In addition, postdoctoral fellows are encouraged to publish, attend and present their work at scientific meetings. Move with us into the future as we bring our mission of hope to the world community.

## POSTDOCTORAL FELLOWSHIP PROGRAM

### Merging Strengths... Emerging Opportunities

*If you are an experienced scientific professional who qualifies for any of the following Two-Year Postdoctoral Positions, then be part of the future at DuPont Merck:*

#### INFLAMMATORY DISEASES RESEARCH

Apply your expertise in cell biology, biochemistry or molecular biology to investigate the involvement of cell adhesion molecules and integrins in the regulation of cartilage matrix metabolism. This is a challenging opportunity for a motivated individual with experience in cell adhesion, matrix protein biosynthesis, integrin expression or cartilage biochemistry to work as a member of our interdisciplinary Inflammatory Diseases Research group.

#### RADIOPHARMACEUTICAL ACCUMULATION RESEARCH

This fellowship is available for research of the mechanisms of radiopharmaceutical accumulation in solid tumors. This project will utilize radionuclide imaging technologies as well as biochemical and cell culture procedures. The successful candidate will have a recent MD or PhD in molecular biology, biochemistry or a related discipline. This position is based at the Radiopharmaceutical Research facilities of DuPont Merck in Billerica, MA.

#### BIOTECHNOLOGY RESEARCH

This exciting two-year fellowship offers the opportunity to do cutting-edge work in the design of genetic selection methods for identifying and studying protein: protein interactions. If you have a background in genetics and molecular biology, we encourage you to apply.

#### CANCER RESEARCH

Enhance your expertise as a member of our multidisciplinary Cancer Research group to combine molecular biology, genetics, and drug development. To qualify, you must have a PhD, demonstrated expertise in molecular biology techniques, and a strong interest in the molecular genetics of cancer or drug metabolism.

#### CARDIOVASCULAR DISEASE RESEARCH

This is a challenging opportunity for an individual to contribute to drug discovery in our multidisciplinary Thrombosis Research Group. To qualify, you must have a strong background in synthetic organic chemistry. Experience in molecular modeling, peptide chemistry and/or peptidomimetics is a plus.

#### GASTROINTESTINAL PHYSIOLOGY

Apply your expertise in gastrointestinal physiology contributing to a team assessing the barriers to gastrointestinal absorption of poorly absorbed compounds, including peptide analogs, as well as evaluating formulation of structural modification approaches to improving absorption. In vitro, in situ and in vivo models will be used. Proficiency in membrane transport, formulation, or absorption models is desired.

#### RENAL BIOLOGY

This fellowship is ideal for a highly motivated researcher trained in the area of renal biology or physiology. Expertise in cell isolation/culture, receptor-ligand

binding, signal transduction pathways, gene expression and general molecular biological techniques is required. Experience in the renin-angiotensin system is strongly desired.

#### NEUROSCIENCE

The following three positions are available in the CNS Diseases Research group to study the mechanism of action of novel therapeutic agents for the treatment of Alzheimer's disease or schizophrenia.

#### IN VITRO ELECTROPHYSIOLOGY

This is a challenging opportunity to study pre- and post-synaptic mechanisms modulating neurotransmitter release. To qualify, you must have experience recording electrical activity in slices from various brain regions using either single electrode voltage clamp or whole cell patch clamp techniques. Familiarity with personal computer-based data acquisition and analysis is desirable.

#### MOLECULAR NEUROBIOLOGY

This is an ideal opportunity for an individual with experience in cDNA cloning and a strong background in recombinant DNA technology. A background in expression cloning, molecular biology of receptors or membrane proteins, and/or neuroscience is desired.

#### PEPTIDE BIOCHEMISTRY/ NEUROCHEMISTRY

Apply your expertise and surgical abilities to examine peptidergic systems using in vivo dialysis. To qualify, you must have demonstrated surgical abilities and anatomic knowledge of rat brain. Research experience with HPLC, capillary electrophoresis or radioenzymatic assays is desired.

**F**or prompt confidential consideration, forward a CV and statement of research interests and career goals to: **Administrator, Postdoctoral Fellowship Program, The DuPont Merck Pharmaceutical Company, Dept. SCI-40, P.O. Box 80328, Wilmington, DE 19880-0328. EOE**

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS

Available to study the structure and function of the cystic fibrosis gene product (CFTR). Successful applicants will join a multidisciplinary research program applying molecular, biochemical, optical and electrophysiological techniques to characterize the mechanisms by which CFTR regulates Cl-conductance and vesicle trafficking in epithelial cells and defects in these mechanisms in cystic fibrosis. Individuals with an M.D. or Ph.D. in physiology, biochemistry, cell biology or a related discipline are invited to submit their curriculum vitae to: **Dr. R. A. Frizzell, Department of Physiology and Biophysics, University of Alabama at Birmingham (UAB), 1918 University Boulevard (BHSB 798), UAB Station, Birmingham, AL 35294-0005. UAB is an Affirmative Action/Equal Opportunity Employer.**

### POSTDOCTORAL POSITION X-RAY CRYSTALLOGRAPHIC STUDIES OF EUKARYOTIC TRANSCRIPTION

Postdoctoral position available immediately for a recent biochemistry Ph.D. to study eukaryotic transcription using protein crystallography and complementary biophysical and biochemical methods. Candidates must demonstrate experience in protein expression and purification. (No prior crystallographic experience is required.) Please send curriculum vitae and the names of three references to: **Stephen K. Burley, D.Phil., M.D., Laboratories of Molecular Biophysics, The Rockefeller University, 1230 York Avenue, New York, NY 10021-6399. An Equal Opportunity Employer.**

University of California, Irvine (UCI), **POSTDOCTORAL TRAINING POSITIONS, NEUROBIOLOGY OF AGING.** The University of California, Irvine, is recruiting postdoctoral research positions with the UCI Alzheimer's Disease Research Center under the direction of Dr. Ira Lott and Dr. Carl Cotman to specialize in interdisciplinary studies focusing on Down syndrome. Position will be funded through the Division of Pediatric Neurology at the UCI Medical Center in Orange, California. Those with an interest in Down syndrome and background in neuropsychology, brain imaging or neuroanatomical research are encouraged to apply. Salaries commensurate with education and experience. *Applicants must be a U.S. citizen or permanent resident and possess a Ph.D. (proof of final degree required).* Address inquiries and curriculum vitae to: **Ira T. Lott, M.D., Department of Pediatrics, 101 The City Drive, Building 27, Route 81, UCI Medical Center, Orange, CA 92668. The University of California is an Equal Opportunity/Affirmative Action Employer. The department encourages female and minority applicants.**

**POSTDOCTORAL POSITION.** NIH-funded position is available for a biophysicist to study the mechanism of viral spike glycoprotein-mediated membrane fusion. Receptor binding, membrane insertion and structural transitions or viral fusion proteins—at various stages of fusion—will be investigated by FTIR, FRAP and other microscopic fluorescence techniques, in model systems and single cells. Please send curriculum vitae, a brief description of research interests and two letters of recommendation to: **Dr. Lukas K. Tamm, Department of Physiology, University of Virginia School of Medicine, Box 449, Charlottesville, VA 22908.**

**POSTDOCTORAL POSITION.** Brookdale Center for Molecular Biology and Molecular Medicine Division, Department of Medicine, Mount Sinai School of Medicine. Candidates with training in cellular electrophysiology are invited to apply for a postdoctoral position to work on the functional characterization of cloned expressed calcium channels including the skeletal muscle ryanodine receptor, the IP3 receptor from smooth muscle and the dihydropyridine receptor. Candidates should submit curriculum vitae, a brief statement of research interests and letters from three references. Send all materials to: **Dr. Andrew R. Marks, Brookdale Center for Molecular Biology, Molecular Medicine Division, The Mount Sinai School of Medicine, Box 1126, One Gustave L. Levy Place, New York, NY 10029-6574. Telephone: 212-241-0309; FAX: 212-860-9279. Mount Sinai is an Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

**POSTDOCTORAL POSITIONS.** University of California, San Diego (UCSD). Available immediately to study the cellular and molecular aspects of the regulation of the immune response. Projects include (1) the regulation of individual immunoglobulin heavy chain V gene expression and its possible role in the regulation of an autoimmune response, (2) the role of CD8<sup>+</sup> T cells and class I MHC in the regulation of the B cell response to antigen and (3) the regulation of helper T cell subsets.

Candidates should have experience in cellular immunology and/or molecular biology. Reply with curriculum vitae and three references to: **Dr. Richard W. Dutton or Dr. Susan L. Swain, Department of Biology, Mailcode 0063, UCSD, 9500 Gilman Drive, La Jolla, CA 92093. An Equal Opportunity/Affirmative Action Employer. Telephone: 619-534-4183; FAX: 619-534-5792.**

**POSTDOCTORAL POSITION** available to study the expression of cell interaction molecules within lymphoid tissue. Candidates should be experienced with ultrastructure of lymphoid tissue and/or ultrastructural immunohistochemistry. Please send curriculum vitae to: **Andrew Farr, Department of Biological Structure SM-20, University of Washington, Seattle, WA 98195.**

### POSTDOCTORAL AND STAFF POSITIONS MOLECULAR BIOLOGY

Postdoctoral position available immediately to study Class I HLA polymorphism. Ph.D. and/or M.D. required. Experience in molecular biology preferred.

Staff position in DNA diagnostics available for development of specialty tests for service laboratories. Expertise in cancer diagnostics, genetics, and molecular biology desirable. Ph.D. and/or M.D. preferred.

Send curriculum vitae, names and telephone numbers of three references to: **Dr. Baxter-Lowe, The Blood Center of Southeastern Wisconsin, 1701 West Wisconsin Avenue, Milwaukee, WI 53233. Equal Opportunity Employer, M/F/D/V. Smoke-free workplace.**

**POSTDOCTORAL ASSOCIATE** position available in well-established, interactive and productive laboratory to examine the transcriptional regulation of genes (transplantation and cytokine) important in the immune system. Experience in protein characterization/isolation, molecular biology or immunology highly desirable. Recent graduates preferred. Contact: **Dr. Jenny Ting, Telephone: 919-966-5538; FAX: 919-966-3015, Lineberger Comprehensive Cancer Center, CB 7295, University of North Carolina, Chapel Hill, NC 27599-7295.**

### ASSOCIATE/POSTDOCTORAL

Immediate position available to study the retina using molecular biology approaches. We are currently making structure/function studies of cyclic nucleotide-gated ion channels by combining electrophysiology and protein mutagenesis. We are also interested in cloning other retinal proteins involved in signaling and/or development.

Candidate should have a Ph.D. degree and strong experience in molecular biology.

Send curriculum vitae and names of references to: **K. W. Yau, Johns Hopkins University School of Medicine, Baltimore, MD 21205. An Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** to study the genetic and molecular bases for resistance to anticancer agents in mammalian tumor cells. Studies focus on identifying new genes and gene products associated with membrane transport changes and intracellular mechanisms for multidrug resistance. **Dr. Stuart Levy, Tufts Medical School, 136 Harrison Avenue, Boston, MA 02111. Equal Opportunity Employer/Affirmative Action.**

**POSTDOCTORAL POSITION** available to characterize and clone novel cell interaction molecules expressed within lymphoid tissue using molecular and biochemical approaches. Applicants should have a strong background in molecular biology. Please send curriculum vitae to: **Andrew Farr and Alejandro Aruffo, Department of Biological Structure SM-20, University of Washington, Seattle, WA 98195.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Department of Medicine, Harvard Medical School. Opening available for postdoctoral fellow with strong background in molecular biology and/or molecular immunology to study the transcriptional regulation of gene expression. Send curriculum vitae, three letters of recommendation and a statement of research interest to: **Dr. Patricia Finn, Enders Research Laboratories, Room 126, 320 Longwood Avenue, Boston, MA 02115. FAX: 617-730-0422.**

**POSTDOCTORAL POSITION** available immediately to study transcriptional responses induced by genotoxic stress in mammalian cells. Studies will focus on the regulation of HIV-1 expression by genotoxic stress and on HIV-1 regulatory features shared with cellular stress-response genes. Salary is \$25,000 to \$28,000 per year. Experience in molecular biology preferred. Send curriculum vitae and names of three references to: **Dr. A. J. Fornace, Jr., Laboratory of Molecular Pharmacology, Building 37/Room 5C09, National Institutes of Health, Bethesda, MD 20892. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available to study mechanisms of down-regulation of hepatic cytochrome P450 genes by inflammatory agents, with emphasis on gene transcription. Experience with cell culture and/or recombinant DNA methodology will be useful. Send curriculum vitae and names of two references by 15 March 1992 to: **Dr. E. Morgan, Department of Pharmacology, Emory University School of Medicine, Atlanta, GA 30322. Emory University is an Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL POSITION—IMMUNOLOGY

Study the molecular and cellular mechanisms of autoimmunity [e.g., *Proc. Natl. Acad. Sci. USA* **88**, 11271 (1991) and **87**, 7002 (1990)]. NIH-funded research involves structure, specificities and regulation of autoimmune T cell receptors and transgenic mice with autoantibody V genes. Experience in molecular biology, cellular immunology and immunochemistry required. Send résumé and names of three references to: **Dr. Syamal K. Datta, Professor of Medicine, Box 52, Tufts University—New England Medical Center, 750 Washington Street, Boston, MA 02111.**

**POSTDOCTORAL POSITION IN DEPARTMENT OF DERMATOLOGY.** NIH-funded fellowship, restricted to American citizens or permanent residents, involves the molecular detection of malignant T-cells in cutaneous T-cell lymphoma with the development of new therapeutic strategies targeting the T-cell receptor as a tumor-specific antigen. Experience in molecular biology preferred. Send curriculum vitae and references to: **Stuart Lessin, M.D., Department of Dermatology, University of Pennsylvania, 238 Clinical Research Building, 422 Curie Boulevard, Philadelphia, PA 19104. FAX: 215-573-2033. An Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available for research on regulation of expression of DNA repair enzymes in mammalian cells. Preference will be given to applicants with a background in molecular biology. Candidates should submit curriculum vitae and three letters of reference to: **Dr. Conwell Anderson, Department of Anatomy and Cell Biology, University of Illinois at Chicago, P.O. Box 6998, Chicago, IL 60612. The University of Illinois is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION.** Research involves the study of genetic alterations that occur in human cancer and their underlying mechanisms. Research will utilize a molecular approach to analyze spontaneous occurring mutations in the EGF receptor and determine the role of signal transduction proteins in tumorigenesis. Familiarity with the methods of molecular biology preferred. Submit résumé and names of three references to: **Dr. Albert Wong, 1002A BLSB, Thomas Jefferson University, Jefferson Cancer Institute, 1020 Walnut Street, Philadelphia, PA 19107. Smoke-free environment. Equal Opportunity Employer.**

## TRANSPLANTATION BIOLOGISTS/ IMMUNOLOGISTS

A rapidly growing leader in the field of cellular transplantation for the treatment of diabetes, located on the **West Coast**, seeks experienced, innovative, problem solving Transplantation Biologists and Immunologists to join their dynamic team.

The heads of transplantation biology and immunology will design and carry out programs to improve methods for islet cell separation and purification, study islet survival and function, assess the response of the immune system of recipient animals, assess the biocompatibility of transplant materials, and to answer related questions concerning the safety and efficacy of this treatment modality.

Qualified candidates will be Senior Scientists with a Ph.D in anatomy/cell biology or cellular immunology with several years' post-doctoral or equivalent experience in academia or the biotechnology or pharmaceutical industries.

These positions offer competitive salaries and benefits, and an opportunity to participate in the growth of an exciting young organization. Please mail or FAX your Curriculum Vitae to **Steven P. Hochberg, CALIBER ASSOCIATES, 175 Strafford Avenue, Suite 1, Wayne, PA 19087; FAX (215) 687-7791.**

## Research Scientist in Molecular Genetics

Pfizer Inc, a dynamic leader in the healthcare industry, is committed to continuing its remarkable growth in research. Our Molecular Genetics Research Department currently has an opening for a Research Scientist in the area of cDNA cloning.

We are seeking to expand our efforts in the area of identifying novel genes which represent new targets for drug discovery. Research efforts will be directed toward the preparation and screening of cDNA libraries including the identification/characterization of novel and disease specific gene sequences. This position requires a blend of skills and experience in contemporary molecular biology including demonstrated expertise in library construction, gene/cDNA cloning, PCR using degenerate primers, DNA sequencing and computational analysis of sequence information. Candidates must have a PhD plus 2-4 years of postdoctoral experience in molecular biology and a publication record demonstrating accomplishments in research. The ideal candidate will have previous experience with differential cloning techniques and the ABI 373 automated sequencer.

We offer competitive salaries and a full range of benefits including medical and dental insurance, paid holidays and vacations, educational assistance, savings investment and pension plans, relocation assistance, and more. For immediate consideration, send your resume and the names of three references to: Mr. Kym Goddu, Employee Resources, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340. An equal opportunity employer.



**Central Research**  
Bringing science to life.

## PROTEIN CHEMISTRY RESEARCH ASSISTANT

Regeneron Pharmaceuticals is committed to the research of neuronal growth factors and developing these proteins for the treatment of nervous system disorders.

We are seeking a Protein Chemist (BS or MS) experienced in protein purification and characterization. The work will involve purification and refolding of recombinant proteins, analysis of protein conformation and studies of protein-protein interactions. Familiarity with circular dichroism and fluorescence spectroscopy would be advantageous.

Regeneron's modern facility is located on an expansive wooded campus 25 miles north of Manhattan. The highly collaborative and supportive Regeneron community offers considerable scientific and professional growth potential.

Please send your resume and a cover letter indicating your research experience and interests, immediate career goals, desired starting date, salary expectations, and the names of two or more references to: Human Resources, Dept. Bin PC, Regeneron Pharmaceuticals, 777 Old Saw Mill River Road, Tarrytown, NY 10591-6707. Equal Opportunity Employer m/f.

**REGENERON**  
Pharmaceuticals, Inc.

## Director Center for Computational Science Oak Ridge National Laboratory

Oak Ridge National Laboratory (ORNL) has recently established a Center for Computational Science (CCS) to conduct grand challenge-scale research, to manage and operate the required high performance computing systems, and to support educational initiatives. ORNL is seeking an individual of national stature to direct this Center. As the initial Director, this individual will play a significant role in defining the CCS. The Director will report to an ORNL Associate Director.

### Primary responsibilities:

- Provide leadership in computational science on a national level
- Provide overall management and/or coordination of the activities under the Partnership in Computational Science, consisting of several national laboratories, universities, and industrial affiliates
- Serve as principal contact for CCS activities related to the Federal High Performance Computing and Communications Program

### Desirable qualifications:

- Scientist with PhD or equivalent with demonstrated expertise in solving large-scale computational science problems
- Senior level manager with proven ability to lead and manage a diverse, multidisciplinary research activity in computational science
- Knowledge of federal and industrial programs, initiatives, and policies

A search committee for this position will be established to identify appropriate candidates and review applications. Applications should be sent to:

Dr. Bill R. Appleton, Oak Ridge National Laboratory, P.O. Box 2008 Oak Ridge, TN 37831-6240

ORNL is a multi-program laboratory, managed by Martin Marietta Energy Systems, Inc. for the US Department of Energy. ORNL is an Affirmative Action/Equal Opportunity Employer. ORNL provides a smoke-free environment.

**ornl**



## POSITIONS OPEN

**THREE POSTDOCTORAL POSITIONS** are open in the Department of Nutrition of Case Western Reserve University. Two are with Drs. Henri Brunengraber and Kou-Yi Tsang: Investigations with stable isotopes on regulation of ketone body, glucose, fatty acid [*Journal of Biological Chemistry* 266, 1574 (1991); *American Journal of Physiology* 258, E519 (1990)] and unsaturated fatty acid metabolism [*Journal of Biological Chemistry* 266, 11614 (1991)]. Experience in gas or liquid chromatography/mass spectrometry preferable. The third is with Dr. R. S. Ochs: Investigations of hormone mechanisms—especially insulin and epidermal factor—in isolated hepatocytes [e.g., *Journal of Biological Chemistry* 265, 20931 (1990); *Biochimica Biophysica Acta* 1095, 161 (1991)]. Methods include enzyme endpoint, rate and immunoassay, fluorescence, HPLC, and tracers.

Send curriculum vitae and three letters of reference to: **Dr. Henri Brunengraber, Chairman, Department of Nutrition, Case Western Reserve University, Cleveland, OH 44106. Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available immediately to study organization of cell division proteins in the inner membrane of *E. coli* (see *J. Bact.* 170, 3660 and 171, 5680 for an introduction). Protein purification, cloning, and genetic manipulations are required to characterize this heterogeneous membrane substructure. Submit curriculum vitae, research history and interests, and names of three references to: **Kevin D. Young, Department of Microbiology, University of North Dakota School of Medicine, Grand Forks, ND 58202; telephone: 701-777-2624.**

## ASSOCIATE POSTDOCTORAL POSITION

University of Texas Southwestern Medical Center at Dallas.

Applications are invited for a postdoctoral position as an associate to work in the laboratory of Dr. Masashi Yanagisawa, whose current research involves studies of molecular and cellular mechanisms of cardiovascular control, in special reference to the endothelins/endothelin receptor system and other endothelium-derived protein/peptide mediators.

Qualified candidates should possess either an M.D. or Ph.D. in an appropriate area of the life sciences. Previous experience in protein biochemistry, recombinant DNA and/or histological (immunohistochemistry and in situ hybridization) techniques is preferred.

Please forward your curriculum vitae and three letters of recommendation to: **Dr. Masashi Yanagisawa, Howard Hughes Medical Institute, University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9050. We are an Equal Opportunity Employer.**

## LEUKOCYTE RECEPTOR FELLOWSHIP

Applications are being accepted for a **POSTDOCTORAL FELLOW** to study human leukocyte receptors for inflammatory mediators. Ph.D. or M.D./Ph.D. with at least 2 years of experience in molecular biology and a working knowledge of cellular biology and receptor science. Competitive salary. Send résumé and references to: **Edward J. Goetzl, M.D., Microbiology and Immunology, P.O. Box 0724, University of California, San Francisco, CA 94143-0724. The University of California is an Affirmative Action, Equal Opportunity Employer.**

## POSTDOCTORAL FELLOWSHIP FISHERIES OCEANOGRAPHY POPULATION DYNAMICS

A 2-year position is available in the Fisheries Centre, University of British Columbia, to work on the integration of physical oceanographic and larval life history models for prediction of recruitment variation in marine fishes. Only applicants with strong backgrounds in oceanography, population modeling, and fisheries ecology will be considered. Position is part of a multidisciplinary team working across Canada through the Ocean Production Enhancement Network. Preference will be given to Canadian citizens and immigrants. Send letter and curriculum vitae by 1 May 1992 to: **Carl Walters, Fisheries Centre, 2204 Main Mall, University of British Columbia, Vancouver, BC, V6T 1W5 Canada.**

## POSITIONS OPEN

### POSTDOCTORAL FELLOWSHIP

Ecology and Evolutionary Biology seeks a postdoctoral fellow to assist in a one-semester course in human morphology for medical students. Experience with cadaver-based human gross anatomy required. Second semester is free for research in evolutionary morphology. Applicants should submit a résumé with teaching experience, research interest, publications and the names of three referees. Applications by 1 March 1992, to: **Dr. G. E. Goslow, Jr., Box G-B210, Brown University, Providence, RI 02912. Brown University is an Affirmative Action/Equal Opportunity Employer.**

### POSTDOCTORAL FELLOWSHIP IMMUNOLOGY/CYTOKINES

Applications for position to study regional immune response and influence of cytokines in an in vivo murine model of UV-B-induced herpes simplex reactivation, with resultant recurrent herpes simplex keratitis. Background in immunology required. Please send curriculum vitae and three references to: **Jay S. Pepose, M.D., Ph.D., Washington University School of Medicine, Department of Ophthalmology—Box 8096, 660 South Euclid Avenue, St. Louis, MO 63110.**

*Washington University is an Equal Opportunity/Affirmative Action Employer, M/F/H/V.*

A limited number of **POSTDOCTORAL FELLOWSHIPS** are available in 1992 in marine sciences, aquaculture, coastal and environmental sciences, biomedical marine research and ocean engineering. Deadline for application is 15 April 1992. Stipends are \$22,540 for the annual appointment. Specify area of interest with request for information brochure and application packet from: **Kathy Morton, Postdoctoral Program, Harbor Branch Institution, Inc., 5600 Old Dixie Highway, Fort Pierce, FL 34946. An Equal Opportunity Employer.**

### POSTDOCTORAL FELLOW

Position open to study membrane lipid peroxidation and the turnover of phospholipids. Studies emphasize phospholipase kinetics and phospholipid metabolism as well as role of intercellular calcium flux following free radical-induced peroxidation in cultured cells and model liposomes. Salary is negotiable. Position is for up to 2 years of support. Send curriculum vitae, personal statement and list of references to: **Dr. Alex Sevanian, University of Southern California, Institute for Toxicology, 1985 Zonal Avenue, Los Angeles, CA 90033. An Affirmative Action/Equal Opportunity Employer.**

## ATTENTION SCIENCE ADVERTISERS \$40 SPECIAL

Place your classified ad in any January 1992 or February 1992 issue of *SCIENCE* and we'll give you double exposure. We'll display the same position announcement at the **Employment Exchange** during the **AAAS Annual Meeting** for only \$40 more. That's less than the cost of one additional line.

Hurry—place your ads now! The **Employment Exchange** will take place at the **AAAS Annual Meeting**, 7 to 10 February 1992, at the Hyatt Regency Hotel in Chicago, Illinois. Thousands of scientists in various disciplines have been invited to participate. Act fast and you can reach this unique pool of candidates.

When you place your classified ad in *SCIENCE*, simply let us know that you want to take advantage of the \$40 Special and we'll do the rest.

For more information on how you can interview candidates on-site contact **Jacquelyn Roberts** at (202) 326-6737.

## POSITIONS OPEN

### CORNELL UNIVERSITY L. H. BAILEY HORTORIUM FELLOWSHIPS IN SYSTEMATIC BOTANY

The L. H. Bailey Hortorium is initiating a synthetic program for basic contemporary graduate student training (Ph.D. level) in systematic botany beginning in fall 1992. Graduate fellows will each be trained in the fundamentals of systematic theory, molecular systematics, traditional approaches to systematics (structure-based), and angiosperm paleobotany. During their first 2 years they will take coursework in each of these areas of systematics. They will also rotate through four laboratories representing each of these elements of systematic botany where they will be expected to learn state-of-the-art techniques and participate directly in each laboratory's research program. Fellows will be free to access any of these laboratories or any other laboratory in the Hortorium as dictated by their particular thesis projects during the remainder of their graduate careers. Graduate students participating in this program will have full fellowships, including a stipend, fees, and tuition for 5 years in addition to field and research support. This initiative is supported by the A. W. Mellon Foundation. Applicants should apply directly to: **Cornell University Graduate School, 100 Sage Graduate Center, Ithaca, NY 14850** and send a separate letter indicating their interest in being Fellows in Systematic Botany to:

**William L. Crepet, Professor and Chair  
Cornell University  
L. H. Bailey Hortorium  
462B Mann Library  
Ithaca, NY 14853**

### POSTDOCTORAL FELLOW/IMMUNOLOGY

Two positions are immediately available for scientists with a Ph.D. or M.D. or equivalent with strong interest in molecular and cellular immunology to study the molecular and cellular mechanisms of T-B cell interaction, T cell activation and tolerance. Please send curriculum vitae along with names and telephone numbers of three referees to: **Dr. Yang Liu, Division of Immunology, Department of Pathology, New York University Medical Center, 550 First Avenue, New York, NY 10016. FAX: 212-263-8179.**

### ARNOLD RESEARCH FELLOWSHIPS

The Arnold Arboretum of Harvard University announces the availability of fellowship appointments (Putnam or Mercer Fellowships or Arnold Arboretum Associate positions) of variable, renewal duration for specific research projects utilizing the landscapes (335 acres) or the library (250,000 volumes), herbarium (2,600,000 specimens) and living (5,000 taxa) collections of the Arnold Arboretum. The number of awards each year will depend upon the availability of funds. Applications should include a letter of introduction briefly describing the proposed project and prior contacts with Harvard staff or faculty, and a résumé listing three references. Send by 1 March 1992 to: **Dr. Robert E. Cook, Director, Arnold Arboretum, 125 Arborway, Jamaica Plain, MA 02130. For brochure, call: 617-524-1718.**

**POSTDOCTORAL RESEARCH FELLOWSHIP.** A position is immediately available to study the molecular biology of human thromboxane A<sub>2</sub> receptors. Recombinant DNA technology, protein purification and ligand binding techniques are used. A background in molecular biology and/or protein chemistry is desired. Send curriculum vitae to: **Perry V. Halushka, Ph.D., M.D., Department of Pharmacology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425. Equal Opportunity Employer.**

**MOLECULAR BIOLOGIST OR BIOCHEMICAL TOXICOLOGIST—UTAH.** Postdoctoral fellows or research associates to conduct research in the cloning and sequencing of pulmonary cytochrome P450s or in the chemical mechanisms of bioactivation of pneumotoxins. Requires Ph.D. in molecular biology, toxicology, chemistry or related area. Experience in molecular biology is desired for one position. Send curriculum vitae and three letters of recommendation to: **Dr. Garold S. Yost, Department of Pharmacology and Toxicology, University of Utah, Salt Lake City, UT 84112. An Equal Opportunity/Affirmative Action Employer.**

## Biomedical Research

Organon Teknika/Biotechnology Research Institute conducts research for the Pharma Division of Akzo, N.V., a multinational pharmaceutical and diagnostics company. An immediate opportunity now exists for a Ph.D. in Biochemistry, Clinical Chemistry or Immunology with experience in immunoassay development. Experience in the development of plasma calibrators and controls for immunoassays is highly desirable. One to three years' postdoctoral experience in the development of commercial immunoassays is preferable.

BRI offers competitive salaries and an excellent fringe benefit plan including health and dental insurance, partially matched savings program, retirement fund, as well as opportunities for professional growth in science. Send resume to: **Organon Teknika Corporation, Biotechnology Research Institute, 1330-A Piccard Drive, Rockville, MD 20850. EOE M/F/H/V**



**GENSIA PHARMACEUTICALS, INC.** is an emerging leader in the research and development of drugs for treatment of disease in the areas of cardiovascular, central nervous system, diabetes, stroke and epilepsy. We are seeking exceptionally talented scientists for our multi-disciplinary group involved in the rational design of drugs targeted at enzymes important in metabolism.

### Associate Director, Biochemistry

The successful candidate will have a minimum of 5 years experience in a pharmaceutical company and a strong record of scientific accomplishment in the areas of protein biochemistry and enzyme kinetics. Experience in molecular biology, good communication skills and the ability to lead a group of scientists is required.

### Central Nervous System Research

Positions are available at the BS/MS and PhD level with degree in physiology, pharmacology, biochemistry or related field and 2 - 5 years of experience in one of the following areas: stroke models, cerebrovascular pharmacology, seizure models or anticonvulsant pharmacology.

Gensia is a rapidly growing biopharmaceutical company that offers an exciting research environment with competitive salaries and generous benefits, including a stock option plan. Please send CV to: Human Resources ME/LM, Gensia Pharmaceuticals, Inc., 11025 Roselle St., San Diego, CA 92121-1204 EOE.



## Research Assistant/ Associate Professor Director of Core Facility In Molecular Genetics

SUNY Health Science Center at Brooklyn is seeking a candidate to perform independent research and to direct and supervise laboratory facilities which operate in support of molecular genetics. The applicant should have 2-3 years postdoctoral experience and should be willing to work on a collaborative basis with other investigators in the Health Science Center. The facility is equipped with two DNA synthesizers, HPLC, x-ray processor, darkroom, etc. A technician is available to assist in the operation of the laboratory. Attractive start-up funding, which includes technical support, is available. The Director will have the academic rank of Research Assistant/Associate Professor, depending upon the qualifications and experience. The applicant is expected to develop an externally funded research program, and to become actively involved in graduate education. Please respond to:



**Dr. William T. McAllister, Chairman**  
Department of Microbiology  
and Immunology  
State University of New York  
Health Science Center at Brooklyn  
450 Clarkson Avenue, Box 44  
Brooklyn, NY 11203-2098

EO/AA Employer

DMC#C0375

## ROCHE

## POSTDOCTORAL FELLOWS

### DEPARTMENT OF VIROLOGY

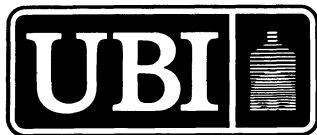
Hoffmann-La Roche, a research-intensive pharmaceutical company, is seeking postdoctoral fellows to join the Department of Virology.

The successful candidate will have the opportunity to carry out basic research while interacting with colleagues skilled in translating relevant findings into therapeutic approaches. Regulation of viral gene expression (herpes simplex virus, hepatitis B virus, and human immunodeficiency virus), interferon induction of cellular gene expression and virus-related cellular transformation are areas of interest. Publication of basic research findings is encouraged.

Qualifications include a PhD in Molecular Virology and relevant research training. Hoffmann-La Roche offers a stimulating research environment, competitive stipends and excellent benefits, at a convenient suburban New Jersey location 12 miles from New York City. For consideration, please send your curriculum vitae and the names of three references to: **Mrs. Helen Hipkins, Infectious Disease Research, Hoffmann-La Roche, 340 Kingsland Street, Nutley, New Jersey 07110.** We are an equal opportunity employer.



## Hoffmann-La Roche



UPSTATE BIOTECHNOLOGY, INC

PRODUCTS FOR BIOLOGICAL RESEARCH

## POSTDOCTORAL SCIENTIST/GROUP LEADER

Upstate Biotechnology, Inc., a rapidly growing supplier of quality products for biological research, currently has an opening for a Postdoctoral Scientist to serve as Group Leader in Cell Biology. The Group Leader will supervise 2-4 technicians in the production and testing of growth factors, signal transduction reagents and antibodies. There will also be an opportunity to be involved in new product development.

The position requires a Ph.D. in Cell Biology and experience or familiarity with cell biology techniques including cell culture, immunocytochemistry, antibody production in cell culture and protein purification.

The position is intended to be a two year position, although the appointment may be extended. UBI offers a competitive salary, moving expenses and excellent benefits.

UBI is located in beautiful Lake Placid, New York, a year-round center for outdoor recreation in the heart of the Adirondack Mountains. UBI's affiliation with the W. Alton Jones Cell Science Center, also located in Lake Placid, provides a stimulating scientific environment. A position with UBI will provide the successful applicant with a diversity of experiences including an excellent introduction to industry in a relaxed, yet challenging, environment.

Send curriculum vitae and three letters of reference to:

**Dr. Robert E. Wagner, Jr.**  
**Upstate Biotechnology, Inc.**  
**89 Saranac Avenue**  
**Lake Placid, New York 12946.**

*Equal Opportunity Employer*

# TULARIK

*TULARIK is a new pharmaceutical company that applies promising new approaches in the field of transcription regulation to the development of human therapeutic products. We are currently assembling a diversified team of expert scientists and have immediate opportunities for individuals trained in the following areas:*

## Assay Development Biochemist

*As a member of a multi-disciplinary team this individual will be responsible for the design and refinement of sensitive, high throughput biochemical assays for use in screening libraries of small molecules. Candidates for this position must have a Ph.D. in Chemistry, Biochemistry or a related field and proven expertise in assay development. Experience in the design and utilization of robotic systems is desirable.*

## Peptide Chemist

*Candidates should have expertise in protein sequencing, peptide synthesis, protein separation and computerized protein modeling. Candidates for this position must have a Ph.D. in Chemistry or Biochemistry and a minimum of two years experience in relevant areas.*

*In addition to a challenging and stimulating research environment in the San Francisco Bay area, Tularik offers equity participation and competitive salaries and benefits. For consideration, please submit curriculum vitae to: DSE Confidential Reply Service, Box # 327, 651 Gateway Blvd., Ste. # 850, South San Francisco, CA 94080. EOE.*

## Established Investigator Position in Molecular Carcinogenesis

The Eppley Institute for Research in Cancer and Allied Diseases seeks an established investigator for a tenure leading faculty position to establish a nationally recognized research program in molecular carcinogenesis. The Eppley Institute has a strong program for the study of carcinogen metabolism and activation, and DNA modification. It is planned to expand this program to include the study of events occurring as an immediate consequence of the initial DNA damage. Areas of research specialization could include, but are not limited to, mechanisms and regulation of DNA replication or repair, DNA structure and its relationship to mutagenesis and repair, biochemistry and regulation of DNA recombination.

It is anticipated that this individual will have experience in directing an independent research program and be nationally recognized in their field of research. Substantial new laboratory space and access to state-of-the-art core facilities in structural and molecular biology are available.

The Eppley Institute is an NCI-designated Laboratory Cancer Research Center and has a Cancer Biology Training Program that supports predoctoral and postdoctoral fellows. All Faculty are expected to have joint appointments in an academic department at UNMC. Appointment at the rank of Full or Associate Professor will be sought for this position, depending on qualifications. Applicants should have a Ph.D., M.D., or equivalent degree along with the experience described above.

Submit curriculum vitae, statement of research plan, and names of at least three references to:

Raymond W. Ruddon, M.D., Ph.D.  
Director

The Eppley Institute for Research in Cancer and Allied Diseases  
University of Nebraska Medical Center  
600 South 42nd Street  
Omaha, Nebraska 68198-6805

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

Minorities and women are encouraged to apply.



University  
of Nebraska  
Medical Center

## GRADUATE AND POSTDOCTORAL RESEARCH OPPORTUNITIES IN PROTEIN STRUCTURE, FUNCTION, AND MUTAGENESIS

The recently established Protein Structure/Function-Mutagenesis group at Wake Forest University consists of eleven new and established faculty from the Departments of Chemistry and Biochemistry and the Molecular Genetics Program. Postdoctoral research positions are currently available in four of these laboratories, as described below.

**Drs. Al Claiborne and Derek Parsonage**—Mechanistic enzymology. A postdoctoral position is available for studies of the unique FAD-containing NADH peroxidase and NADH oxidase of *Streptococcus faecalis*, using biophysical and kinetic approaches including NMR and rapid reaction techniques. Both genes have been cloned and overexpressed (e.g., J. Mol. Biol. 221: 857-871 (1991)), a refined 2.16-Å structure for the peroxidase is now available (see J. Mol. Biol. 221:1325-1344 (1991)), and several mutant proteins are currently under investigation.

**Dr. Mark O. Lively**—Limited proteolysis of newly synthesized proteins. Studies will establish a heterologous expression system for enzymatically active microsomal signal peptidase to permit detailed investigation of its structure and mechanism of action. Experience with techniques of molecular cloning, cDNA expression, and site directed mutagenesis are desired.

**Dr. Fred Perrino**—Mechanisms of DNA replication fidelity. Projects focus on DNA polymerase-exonuclease interactions and fidelity at the DNA replication fork. Enzymological and kinetic approaches are used with model DNA templates and nucleotide analogues to probe DNA polymerase mechanism.

**Dr. Leslie Poole**—Functional and structural aspects of the *Escherichia coli* antioxidant enzyme system alkyl hydroperoxide reductase are under investigation. This system of two polypeptides is part of the OxyR regulon involved in protection against oxidative stress. Experimental approaches include enzymological and protein chemical studies of the flavin- and cysteine-linked chemistry, NMR-based structural studies, and targeted mutagenesis studies.

Please address your application to the appropriate investigator at the following address: **Department of Biochemistry, Wake Forest University Medical Center, Medical Center Boulevard, Winston-Salem, NC 27157-1016.** Applications should include a statement of research interests, an up-to-date curriculum vitae, and names and phone numbers of three references. Telephone inquiries may be directed to **Ms. Lonna Gee at (919) 748-4373.** AA/EOE

# CHEMIST

Salary Range:  
\$26,798 to \$33,504

**Qualifications:** Research Assistant with Analytical skills, able to do quantitative measurements, use chemical instrumentation, willing to work with low levels of Carbon-14. Experience in routine chemical synthesis also desirable. Work entails assisting in the preparation of metal chelate linked monoclonal antibodies for use in tumor therapy. Candidate must have a Bachelor's Degree and two years experience or a Master's Degree with one year experience in doing chemistry.

Send Curriculum Vitae or, for further information contact:

**Dr. Otto A. Gansow**  
**National Cancer Institute**  
**National Institutes of Health**  
**Building 10, Room B3B69**  
**9000 Rockville Pike**  
**Bethesda, MD 20892**  
**(301) 496-5936**

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## Opportunities with Monsanto Company

# Research Immunology

Today's Monsanto is a company with an exciting future in high-value, high-performance products. We have the following opportunities available in our Immunology Department of Monsanto Corporate Research Laboratories to work in the areas of antigen processing/presentation, T cell recognition, T cell activation and gene transcription:

### Immunologist/Research Scientist

We are seeking an individual to lead a team of four to seven scientists working to develop a research program leading to new products for autoimmune diseases.

Qualifications include a M.D. or Ph.D. degree and three to five years of postdoctoral experience in either academia or industry, providing in-depth technical knowledge and a proven track record in molecular or cellular immunology. Problem-solving skills and experience in supervising research activities and leading a group research effort are required.

### Postdoctoral Positions

This is an opportunity for qualified candidates in the areas of IL-4 physiology, HLA class II structure-function relationships, development of *in vivo* models of autoimmunity, intracellular trafficking, mechanisms of cellular activation, mechanisms of tolerance, receptor biology, bone resorption and osteoclast function and differentiation. Cellular or molecular immunology/biology experience is desirable.

Please send your résumé with references to: Monsanto Company, Mail Zone BB5B-BS, Attn: Dr. Ben Schwartz, 700 Chesterfield Village Parkway, St. Louis, MO 63198. We're an equal opportunity employer. M/F/H/V.

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*We've got it down to a science.*

# Monsanto

## RESEARCH ASSOCIATE

Coulter Corporation is a world leader in the field of Biomedical Instrumentation and Automated Hematology. The Immunology Division has an immediate opening for a Research Associate to participate in the research and development of hematology, oncology and infectious disease reagents.

We are seeking a BS with extensive experience in tissue culture including viral cultures, monoclonal antibody production and characterization. Additional experience is required in performing ELISA assays and Western blot analysis. Experience in flow cytometry is desired.

Coulter is located in Hialeah, Florida, north of Miami. We offer excellent salary and benefits. Please send resume to: **Barbara Viamonte, Personnel Department, Coulter Corporation, 650 West 20th Street, Hialeah, FL 33010.** Equal Opportunity Employer.



## RESEARCH SCIENTIST POSTDOCTORAL SCIENTIST Experimental Pathology/Tissue Repair

As a leader in the development of recombinant DNA-based human therapeutics, Amgen is turning advanced research into important life-improving solutions. We have developed such breakthrough products as EPOGEN® (recombinant human Erythropoietin) and NEUPOGEN® (recombinant human G-CSF). We are also involved in the expression of important tissue growth factors which have exciting potential. You can make a strong impact on our vital work as a Research Scientist or Postdoctoral Scientist in our Department of Experimental Pathology.

The department has a long-standing interest in mechanisms underlying growth factor-mediated tissue repair and wound healing, and is a recognized leader in this field. Successful candidates will develop new projects and expand existing projects in the areas of dermal and epidermal repair, and organ repair and regeneration, including developing new models and transgenic systems.

Qualified applicants should have a PhD or MD in a relevant discipline. Research scientist applicants should have a minimum 2 years post doctoral experience. Experience in *in vitro* and *in vivo* methodologies to analyze growth factors, their receptors and their targets at the molecular and cellular levels is desirable.

**Amgen offers a stimulating and challenging research environment** where scientists are provided the resources and encouragement necessary to do their best work. This commitment is reflected in an excellent compensation and benefits package as well as a complete relocation program. If you have the necessary skills and would like to be a part of an organization that places its highest priorities on its human resources, please send a resume or CV, in confidence, to: **Amgen Inc., Staffing Department, Code #S-627, Amgen Center, Thousand Oaks, CA 91320-1789.** Equal Opportunity Employer

# AMGEN®

Principals only, please





The College Of  
**WILLIAM & MARY**

**School of Marine Science**  
**Virginia Institute of Marine Science**

## DEAN OF GRADUATE STUDIES

The Virginia Institute of Marine Science at the College of William and Mary invites applications for the position of Dean of Graduate Studies in the School of Marine Science.

The Dean of Graduate Studies reports to the Dean of the School of Marine Science, and is the senior faculty member and principal academic officer for the graduate program. The Dean of Graduate Studies is responsible for developing and administering the graduate degree programs of the School of Marine Science, preparation of the academic budget, evaluation of faculty and monitoring staff within the program, and providing the necessary leadership to assure the highest standards for curriculum, teaching and student qualifications.

The successful applicant must have an understanding of and commitment to graduate education in the ocean sciences, and should possess a distinguished record of teaching and research in the field of oceanography or related field appropriate to marine science.

A letter of application, curriculum vitae and the names of four references should be sent to:

**Dr. L. Donelson Wright, Search Chair**  
**School of Marine Science**  
**Virginia Institute of Marine Science**  
**Gloucester Point, VA 23062**

Review of applications will begin on February 17, and will continue until the position is filled. To ensure full consideration, letters of application and nomination should be received by the close of business on that date. Nominations for the position are also invited. Women and minorities are especially encouraged to apply. The position will be available on July 1, 1992.

*The College of William and Mary is an Affirmative Action, Equal Opportunity Employer.*

## PRELIMINARY NOTICE

## PROTEIN ENGINEERING—1992

Symposium to be held  
June 8–9, 1992

Ramada Renaissance du Parc  
Montreal, Quebec

**FORMAT:** The Symposium will consist of a number of lectures on protein engineering. Registrants are invited to submit abstracts for a poster session.

**June 8 A.M.** Protein Stability & Energetics  
P.M. Structure/Function Studies of Protein

**June 9 A.M.** Protein Construction and Interactions  
P.M. Protein/Peptide Design & Structure

### PROGRAM ORGANIZERS

H. Schachter	University of Toronto
G. D. Brayer	University Of British Columbia
C. M. Kay	University of Alberta

### FOR FURTHER INFORMATION:

May McKee, Administrator  
PENGE Conference Office  
c/o University of British Columbia  
Room 345-2125 East Mall  
Vancouver, B.C., Canada, V6T 1Z4  
Telephone: (604) 822-6821  
Fax: (604) 822-2005

ABSTRACT DEADLINE: March 31, 1992  
REGISTRATION DEADLINE: March 31, 1992

## THE NATIONAL INSTITUTE ON DEAFNESS AND OTHER COMMUNICATION DISORDERS

Announces an  
International Conference

### Development, Growth and Senescence in the Chemical Senses

March 2 - 3, 1992  
Masur Auditorium  
National Institutes of Health  
Bethesda, Maryland

For more information call or write:

National Institute on Deafness and  
Other Communication Disorders  
National Institutes of Health  
Building 31, Room 3C-35  
Bethesda, MD 20892  
(301) 496-7243  
TDD: 402-0252

## FACULTY POSITIONS IN THE PHARMACEUTICAL SCIENCES

The Department of Pharmaceutical Sciences at the Idaho State University College of Pharmacy anticipates funding for two 12-month, tenure track positions. These appointments are intended to be at the junior level, but applicants at more senior levels will be considered. Any area of research expertise appropriate to a department of pharmaceutical sciences will be considered, although individuals applying molecular biology approaches will receive special consideration. Applicants should have either a Ph.D. degree with postdoctoral research training or a Pharm.D. degree with appropriate experience. In addition to instructing Pharm.D. and Ph.D. students, the successful candidates will be expected to develop active and extramurally funded research programs, and participate in College, University, and professional activities. The search closes April 30, 1992.

The Department has 15 full-time faculty and 10 adjunct/affiliate faculty located both on the ISU campus in Pocatello and at the Veterans Affairs Medical Center in Boise. Currently, one position is designated for Pocatello and the other for Boise. The College of Pharmacy has approximately \$1,000,000 in extramural support from diverse sources including the NIH and DOE. ISU has been designated as the lead institution for the health sciences by the State of Idaho, and the College of Pharmacy is aggressively expanding its research efforts.

The University is in a community of approximately 60,000 and located in the Intermountain West close to Salt Lake City, the Grand Tetons, Sun Valley, and West Yellowstone. Abundant outdoor recreational opportunities are available.

Interested candidates are invited to send curriculum vitae, three letters of reference, and statements of their research interests to:

Dana L. Diedrich, Ph.D.  
Professor and Chair  
Department of Pharmaceutical Sciences  
Campus Box 8334  
Idaho State University College of Pharmacy  
Pocatello, ID 83209-8334

*ISU is an AA/EO Employer and encourages applications from women, minorities, and members of underrepresented groups.*



## POSITIONS OPEN

### POSTDOCTORAL RESEARCH FELLOW

A position is now available in an NIH-funded program to study the biology of lung development and the response of the developing lung to injury. Emphasis is on mechanisms by which oxidant stress influences functional lung proteins and lung structure function relationships. Experience in use of cell biological and molecular biological techniques preferred. Send curriculum vitae, statement of interest and background and names of three references to: **Dr. Joseph B. Warshaw, Chairman, Department of Pediatrics, or Dr. James Jamieson, Department of Cell Biology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510. Yale University is an Affirmative Action/Equal Opportunity Employer. Applications from women and minority group members are encouraged.**

### POSTDOCTORAL FELLOW OR RESEARCH ASSOCIATE WANTED

Applications are invited for a postdoctoral fellowship or research associate position in an active molecular virology laboratory. Laboratory focus is on retroviral pathogenesis. Candidates must have Ph.D. in molecular biology or related field. Position available immediately. Please send curriculum vitae with three references to: **Dr. Roger J. Pomerantz, Chief, Infectious Disease Division, Department of Medicine, Jefferson Medical College, 1025 Walnut Street, Suite 813, Philadelphia, PA 19107. Equal Employment Opportunity.**

### POSTDOCTORAL RESEARCH ASSOCIATE BIOMOLECULAR NMR

Position available for studies on RNA structure, dynamics and interactions using multidimensional NMR in concert with  $^{13}\text{C}$  and  $^{15}\text{N}$  labeling. Applicant will be responsible for day-to-day operation of AMX-500 spectrometer. Laboratory is equipped with graphics workstations, access to parallel computing in the W. M. Keck Center for Computational Biology. Send application and names of three references to: **Dr. G. C. King, Department of Biochemistry and Cell Biology, Rice University, P.O. Box 1892, Houston, TX 77251. Telephone: 713-527-4912. FAX: 713-285-5154. Email: garry@bioc.rice.edu.**

**POSTDOCTORAL RESEARCH ASSOCIATE,** Brookhaven National Laboratory. The Medical Department has a position available for a recent Ph.D. in organic chemistry to work on the synthesis of novel metal chelating agents and the development of conjugation chemistry for radiolabeling monoclonal antibodies. Some prior expertise in ligand synthesis is desirable. Candidates can apply by sending a curriculum vitae, publications list, and the names of three references to: **Dr. R. C. Mease, Medical Department, Building 490, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, NY 11973. Equal Opportunity Employer, M/F/H/V.**

### POSTDOCTORAL RESEARCH INSTITUTE OF BIOSCIENCES AND TECHNOLOGY—HOUSTON

We are interested in adding highly motivated individuals to our research effort concerning the structural and functional organization of the two major domains of the human insulin receptor: the extracellular ligand binding domain [*J. Biol. Chem.* **265**, 13386–13392 (1990)] and the cytoplasmic protein-tyrosine kinase domain [*J. Biol. Chem.* **266**, 990–996; 1390–1395; 3565–3570; 12369–12371; 13405–13410; 21804–21809 (1991)]. A strong background in protein chemistry and/or molecular genetics would be particularly useful. Applicants should send curriculum vitae, including a statement of research interests and the names of at least three references to:

**Leland Ellis, Ph.D.  
Professor of Biochemistry and Biophysics  
Institute of Biosciences and Technology  
Texas A&M University  
2121 Holcombe  
Houston, TX 77030**

*Equal Employment Opportunity/Affirmative Action.*

**SCIENCE** recruitment ads reach thousands of scientists in all disciplines, worldwide. Classified Advertising telephone: 202-326-6555. FAX: 202-682-0816.

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH ASSOCIATE/ ASSISTANT PROFESSOR.** Department of Pathobiology, University of Pennsylvania, seeks applicants with background in cell biology, biochemistry, or molecular biology to do collaborative research with Department of Urology, School of Medicine, on the basic mechanisms of urinary bladder function. Candidates must have Ph.D. in biological sciences and an interest in investigating the cell and molecular biological aspects of smooth muscle cell function in normal and pathologic bladder muscle. The University of Pennsylvania has a large community of muscle biologists, and opportunities for collaborative research and interaction are unlimited. Interested candidates should send curriculum vitae and three letters of reference to: **Samuel K. Chacko, D.V.M., Ph.D., Professor of Pathology, Department of Pathobiology, 389 East Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104. The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL RESEARCH** position in neuroendocrinology to study the hypothalamic control of the pituitary function in the unrestrained rhesus monkey using extracellular recording techniques. A strong background in these techniques as well as in the use of data acquisition systems is highly desirable. Experience in radiotelemetry is useful. Send curriculum vitae and names of references to: **E. Knobil, Laboratory for Neuroendocrinology, The University of Texas Medical School, P.O. Box 20708, Houston, TX 77225. The University of Texas Health Science Center is an Equal Opportunity Employer. Women and minorities are encouraged to apply.**

### POSTDOCTORAL RESEARCH ASSOCIATE

Position open for Ph.D. with background in biochemistry/immunology for investigating structure of hematopoietic protein tyrosine phosphatases and their roles in signal transduction. Experience in immunochemical methods, protein/lipid/saccharide analyses, and enzymology desirable. Send curriculum vitae, a brief statement of research experience and references to: **Dr. Akiko Take-da, Department of Pathology, Roger Williams Medical Center—Brown University, 825 Chalkstone Avenue, Providence, RI 02908.**

**POSTDOCTORAL RESEARCH INVESTIGATOR: VIROLOGY.** A position is available immediately in a cell biology group for a scientist to conduct virological studies on mechanisms of sexual and transplacental transmission of HIV. Emphasis is on the means by which epithelia of the genital tract or placenta become infected through contact with HIV-positive lymphocytes and monocytes. Techniques include cell culture, infection assays, ELISA, RT, and PCR. Send curriculum vitae and the names and addresses of three references to: **Dr. David M. Phillips, Center for Biomedical Research, The Population Council, 1230 York Avenue, New York, NY 10021.**

### RESEARCH ASSOCIATE

Research position is available for a creative synthetic organic chemist. Ph.D. required. Expertise in modern drug design and natural products synthesis helpful. Starting salary: \$22,000 plus. Position available 1 February 1992, but starting date flexible. Send curriculum vitae and names of three references to: **Dr. David H. Kinder, Phytosyn, Inc., R & T Park, N.E. 1615 Eastgate Boulevard, Pullman, WA 99163.**

### STAFF RESEARCH ASSOCIATE

The Cancer Research Laboratory at University of California, Berkeley, is developing a transgenic mice facility. Responsible for the management and production of transgenic and "knock-out" mice. Duties include collection of eggs/blastocysts, microinjection, uterus/ovaduct transfer and subsequent analysis of the transgenic mice using molecular biological techniques. Require: Scientific background and training in mouse embryo manipulation. Salary: Commensurate with experience. Full-time position with generous benefits. Send résumé and telephone numbers of two references to: **Personnel Office, Box 01-213-22 (S), 2200 University Avenue, Room 7G, Berkeley, CA 94720. Equal Employment Opportunity/Affirmative Action.**

## POSITIONS OPEN

**RESEARCH ASSOCIATE.** Position in Molecular Biology available immediately. Two-year position at the USDA, Agricultural Research Service, Western Regional Research Center, Albany, California. Project involves DNA and computer assets in an international effort to map the wheat genome. Responsibilities include the establishment and maintenance of a repository of probes and libraries for wheat and barley genomic mapping; collaborate in exploration in the use of YACs in molecular biology of Triticeae; contribute to establishment of a wheat computer database. Extensive experience required in molecular biology. Includes technician supervision. Additional useful experience includes knowledge of cereal genetics and computer systems. Salary commensurate with experience GS-11/12 (\$35,016 to \$41,969). U.S. citizenship required. Contact: **Dr. Olin D. Anderson, telephone: 510-559-5773. ARS is an Equal Opportunity Employer.**

**RESEARCH ASSOCIATE: NEUROCYTOLOGY.** Position available for Ph.D. or M.D. with training in ultrastructure and immunocytochemistry, to join multidisciplinary research group studying plasticity and molecular pathophysiology of neurons and glial cells. Experience with ultrastructure and immunocytochemical analysis of CNS/PNS is desirable. Excellent opportunities for collaboration with electrophysiologists, biophysicists, pharmacologists, and confocal microscopists. Send curriculum vitae and three letters of references by 6 March 1992 to: **Stephen G. Waxman, M.D., Ph.D., Chairman, Department of Neurology, Yale Medical School, 333 Cedar Street, New Haven, CT 06510.**

*Equal Opportunity/Affirmative Action Employer.*

### ECOLOGICAL GENETICIST

Applicants are sought for 2-year **RESEARCH ASSOCIATE** position. The associate will conduct laboratory research applying molecular genetic analysis to address current fisheries issues in the Chesapeake Bay region. Applicants should have a doctoral degree, training in environmental or ecological molecular biology, and should be familiar with standard laboratory techniques and instrumentation employed in ecological genetic surveys (enzyme and DNA electrophoresis, DNA amplification and sequencing, spectrophotometry). Experience working in a culturally diverse setting is highly preferred. Position available immediately pending funding approval. Qualified candidates submit curriculum vitae, statement of research interest and names of three references by 25 March 1992 to: **Dr. Bonnie L. Brown, Department of Biology, Virginia Commonwealth University (VCU), Richmond, VA 23284-2012. VCU is an Equal Opportunity Affirmative Action Employer. Women and minorities are encouraged to apply.**

Triplex Pharmaceuticals, located north of the Texas Medical Center in Houston, Texas, has positions available in the field of triple helix-forming oligonucleotides.

**RESEARCH ASSOCIATE/SCIENTIST.** Ph.D. in molecular biology, biochemistry or virology and 1 to 3 years of postdoctoral experience in transcription regulation and in vitro transcription analysis. Familiarity with plasmid cloning, RNA isolation and analysis, including RNase protection is also essential.

Excellent compensation and benefits. For consideration, please send a résumé with publication/patent list to: **Director of Administration, 9391 Grogan's Mill Road, The Woodlands, TX 77380.**



**RESEARCH ASSOCIATE** (vertebrate ecology). Full-time research position for Ph.D. to collaborate in a wide range of field and laboratory studies, with emphasis on marine vertebrates. Topics of current interest include migration, diving physiology, population biology, global change, and aquaculture of marine fishes. Exceptional opportunity to work with captive animals. Successful applicant will develop strong research program in his/her field of special interest. Salary negotiable, depending on qualifications. Send curriculum vitae and list of three references to: **Dr. Joseph R. Jehl, Jr., Hubbs-Sea World Research Institute, 1700 South Shores Road, San Diego, CA 92109.**

# The New York Blood Center Lindsley F. Kimball Research Institute Postdoctoral Fellowships

The Kimball Research Institute of the New York Blood Center announces openings for Postdoctoral Research training of one to three years **beginning July 1, 1992**. The Laboratory Heads and their research interests are summarized:

**John W. Adamson, M.D.**

Physiology of erythropoiesis; the therapeutic use of erythropoietin; hematopoietic growth factor effects on stem cells.

**Catherine Falk, Ph.D.**

Genetic linkage analysis; multi-locus gene ordering; modeling and analysis of complex genetic traits.

**Jack Goldstein, Ph.D.**

Structure and function of ABO and Rh blood group antigens; modification of recipient incompatible red cells for use in transfusion therapy; molecular enzymology of glycosidases.

**Bernard Horowitz, Ph.D.**

Blood protein fraction characterization; development of virus inactivation methods to make blood and blood products safe.

**Anna Rita Migliaccio, Ph.D.**

**Giovanni Migliaccio, Ph.D.**

Molecular mechanisms underlying erythroid and granulocytic differentiation; structure and function of the erythropoietin receptor.

**A. Oscar Pogo, M.D.**

Molecular biology of blood group gene expression; blood groups and the receptor for malaria invasion.

**Colvin M. Redman, Ph.D.**

Molecular biology of Kell and Kx blood group antigens; mechanisms of fibrinogen assembly and secretion.

**Pablo Rubinstein, M.D.**

Immunogenetics of HLA, human blood groups and regulatory components of the complement system, genetics of HLA-associated diseases.

**Debendranath Banerjee, Ph.D.**

Eukaryotic gene regulation; intracellular vesicular transport; assembly and secretion of lipoproteins.

**James L. German, III, M.D.**

Genetics of chromosome breakage syndromes; molecular genetics and embryology of testis determination; regulation of the blood group gene XG.

**Gerd Grieninger, Ph.D.**

Molecular biology of human and avian plasma proteins; fibrinogen and hemopexin gene expression; structure/function relationship of the fibrinogen gene family.

**Bohdan J. Kudryk, Ph.D.**

Immunochemistry of fibrin(ogen); fibrin(ogen) antigen in tumor stroma and atherosclerotic lesions; in vivo proteolysis of fibrin(ogen); structure-function relationships in fibrin(ogen); factor XIII-induced polymerization and gelation reactions.

**A. Robert Neurath, Ph.D.**

Molecular immunology of HIV-1 and HBV envelope glycoproteins; HBV- and HIV-1-cell receptors; synthetic HIV-1 and HBV immunogens.

**Alfred Prince, M.D.**

Molecular biologic studies on hepatitis C virus, onchocerca volvulus, and control of lymphokine gene expression.

**Marion Reid, Ph.D.**

Genetics, biochemistry, and molecular biology of red cell antigens; function of antigenic structures and relationship to disease.

**Cladd E. Stevens, M.D.**

Epidemiology, prevention and immunoprophylaxis of disease caused by HBV, HIV, HTLV and HCV.

Send a curriculum vitae and the names of three references to: **Dr. John Adamson, President, New York Blood Center, 310 East 67th Street, New York, New York 10021, USA.**

An equal opportunity/affirmative action employer.

 **Lindsley F. Kimball Research Institute**

*A Division of the New York Blood Center*

*Where concern for the community comes first*

# RESEARCH SCIENTISTS & ASSOCIATES BIOCHEMISTRY

Amgen has emerged as the leader in the development of proteins as human therapeutics. The success of such breakthrough products as EPOGEN® (recombinant human Erythropoietin) and NEUPOGEN® (recombinant human G-CSF) has enabled us to expand our emphasis on research and technology development. This continued commitment to research has created outstanding opportunities for Research Scientists and Associates in our protein chemistry group. If you would like to make an impact in the purification and characterization of natural and recombinant proteins, consider one of these opportunities.

Candidates for Research Scientist positions must have a PhD in Biochemistry or other relevant field and a minimum of 2 years experience in the purification and characterization of proteins.

Candidates for the Research Associate positions must have a BS or MS in Biochemistry or a related discipline and familiarity with the physical characterization of proteins, including spectrophotometric and other physical methods. Experience in computerized data analysis and familiarity with the principles of ultracentrifugation are desirable.

Amgen offers a stimulating and challenging research environment where scientists are provided the resources and encouragement necessary to do their best work. This commitment is reflected in an excellent compensation and benefits package as well as a complete relocation program. If you have the necessary skills and would like to be a part of an organization that places its highest priorities on its human resources, please send a resume or CV, in confidence, to: **Amgen Inc., Staffing Department, Code #S-626, Amgen Center, Thousand Oaks, CA 91320-1789.** Equal Opportunity Employer

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## We Have A 103-Year Track Record Of New Drug Discoveries.

From our breakthrough work with erythromycin to our present HIV research, Abbott Laboratories has consistently developed innovative products to improve the quality of human life. Today, we continue to support our scientists with significant R&D funding, and a commitment to global success.

### Behavioral Pharmacologist

At Abbott's Neuroscience Research Division, we're increasing our efforts in identifying new drug candidates. As a result, we're now seeking scientists to join our multi-disciplinary project team focusing on therapeutic approaches in the areas of **Parkinson's Disease and Cognition Research.**

We are seeking Research Assistants with a Bachelor's or Master's degree in Psychology or Biology with experience in studying drug-induced behaviors in rodents and other animals. Previous experience with handling and injecting animals, stereotaxic surgery, histology and data management desired.

As a \$6 billion leader in the health care industry, Abbott offers an excellent salary and benefits package, including profit sharing and a stock retirement plan. We are located in an attractive suburban area approximately 30 miles north of Chicago. For consideration, please send a resume to: **P. H., Corporate Placement, Job #AN7613, Abbott Laboratories, One Abbott Park Rd., Abbott Park, IL 60064.** Abbott is an Affirmative Action Employer/Smoke-Free Environment.

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## POSITIONS OPEN

### UNIVERSITY OF CALIFORNIA, RIVERSIDE DEPARTMENT OF NEMATOLOGY ASSISTANT EXTENSION NEMATOLOGIST ASSISTANT NEMATOLOGIST

Applications are invited for an assistant extension nematologist/assistant nematologist. Ph.D. required. Position is 11 months, 60% extension, 40% research (career track) to establish an innovative, vigorous, and independent research and extension program on alternative/integrated management of nematode pests in diversified agriculture (annual, perennial crops, nursery, turf and landscape) of Southern California. Applications will be accepted until 31 March 1992. Applicants should send curriculum vitae, transcript, bibliography, reprints and manuscripts in press of research publications, statement of research and extension interests, and a list of a minimum of three references to: **Dr. P. A. Roberts, Department of Nematology, University of California, Riverside, CA 92521.** The University of California is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

**ASSOCIATE SCIENTIST.** Available 1 February 1992 to assist in the development of separation science instrumentation. The successful candidate will have a completed bachelor's degree in one of the life sciences and will have 1 to 2 years of experience, including solution hybridization and DNA sequencing. Send current curriculum vitae to: **Dr. M. T. MacDonell, AMBIS Inc., 3939 Ruffin Road, San Diego, CA 92123.**

### FISHERY BIOLOGIST (RESEARCH) U.S. DEPARTMENT OF ENERGY BONNEVILLE POWER ADMINISTRATION

GS-9 position in Portland, Oregon (\$26,798 per annum). Applicant must have knowledge of fish population genetics and gene conservation. Applicants must show that they have a degree with major study in biology, zoology, or biological oceanography.

Call 503-230-3055 or write:

Bonneville Power Administration  
Personnel (SPOF-15)  
P.O. Box 3621  
Portland, OR 97208-3621

Refer to Recruiting Bulletin 92-31 when requesting application forms or further information. *Equal Opportunity Employer.*

### LANDSCAPE ECOLOGIST CONSERVATION BIOLOGIST

A **VISITING SCIENTIST** position is available to evaluate the distribution of vegetation types, stand ages, and structural attributes of industrial forests in the Pacific Northwest and southeastern United States and relate these characteristics to biodiversity considerations. The successful applicant will have a Ph.D. and excellent research skills. Experience in the use of GIS, remote sensing, analysis of vegetative communities and biodiversity are required. Familiarity with forestry and wildlife biology is desirable. This 2-year position is available immediately and will be located at the Weyerhaeuser Co. research facility in Tacoma, Washington. Compensation will be commensurate with qualifications. Send curriculum vitae, statement of research interests and experience, names, addresses and telephone numbers of three professional references and copies of pertinent publications by 20 February 1992 to: **Dr. Robert E. Bilby, Weyerhaeuser Co., WTC 1A5, Tacoma, WA 98477.** Weyerhaeuser is an Affirmative Action/Equal Opportunity Employer.

### INTEGRAL MEMBRANE PROTEINS

Postdoctoral positions are available immediately for studies of the molecular structures and mechanisms of three related integral membrane proteins, the human cystic fibrosis transmembrane conductance regulator, the human multidrug resistance pump, and the fungal plasma membrane H<sup>+</sup>-ATPase. Research will involve both biochemical and molecular biological approaches. Send curriculum vitae and names of three references to: **Dr. Gene A. Scarborough, Department of Pharmacology, CB#7365, F.L.O.B., University of North Carolina, Chapel Hill, NC 27599.** *Equal Opportunity Employer.*

# Postdoctoral Opportunities in Investigative Toxicology

Become a vital member of an interdisciplinary team.

The Medical Research Division of American Cyanamid Company is recognized internationally as a leader in the research and development of therapeutic compounds for the benefit of people the world over. Currently, the Investigative Pathology and Biochemical Toxicology units of the Investigative Toxicology Department invite applications for postdoctoral fellowships in Nephrotoxicity and Neurotoxicity. The selected candidates will work within an interdisciplinary group of investigators and will have an opportunity to conduct independent research into mechanisms of nephrotoxicity and neurotoxicity.

## Postdoctoral Fellow/ Nephrotoxicologist

This position will involve the use of *in vivo* models to understand the mechanisms of drug-induced nephrotoxicity. Histopathologic, electron microscopic, immunohistochemical, and various biochemical techniques will be utilized. Experience in molecular or biochemical toxicology is desirable. The successful



candidate must have a D.V.M or M.D. or Ph.D. or equivalent in cell biology, toxicology or a closely related field. (Dept. MC)

## Neurobiologist/Neurotoxicologist

This position involves the use/development of *in vitro* models for the study of drug-induced peripheral and/or central neurotoxicity. The successful candidate should have demonstrated expertise in biochemical, molecular or cell biological approaches to the study of toxicity. The applicant must have a Ph.D. or equivalent in cell biology, biochemistry, pharmacology, toxicology or a closely related field. (Dept. DN)

We are located at the Lederle Laboratories facilities of American Cyanamid, a 580-acre campus-like setting in Rockland County, only 25 miles north of New York City. The salaries are fully competitive and include comprehensive benefits. For consideration, send your resume, indicating the Dept. code for the position of your choice, to: Personnel, Lederle Laboratories, 401 N. Middletown Road, Pearl River, NY 10965. An Equal Opportunity Employer M/F.

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## STAZIONE ZOOLOGICA 'ANTON DOHRN' DI NAPOLI



### SEAGRASSES: FROM THE MOLECULE TO THE ECOSYSTEM

An Advanced Course on Ecophysiology and  
Molecular Biology of Seagrasses

24 August to 19 September 1992

**Venue:** Benthic Ecology Laboratory of the Stazione Zoologica  
di Napoli, Ischia, Italy

**Course Directors:** R. S. Alberte (University of California, Los  
Angeles, USA) and L. Mazzella (Stazione  
Zoologica di Napoli, Italy)

**Description:** An advanced course for graduates and post-graduates with an interest in applying new approaches and techniques to the study of marine vascular plant ecosystems. The lectures will include seagrass ecology, evolution, biogeography and ecological function. The reproductive and population biology, growth dynamics, production ecology and recycling pathways will be treated. In addition, the key metabolic processes that drive production dynamics of seagrass communities and the relationships of these processes to environmental conditions will be covered. Both field and laboratory activities will explore new approaches and techniques for the study of the ecology of autotrophic communities and molecular tools will be exploited to examine population structure and key sites of environmental regulation.

**Application Information:** The course is limited to 15 students. The registration fee is Italian Lira 1,500,000 (approx. US\$1,200), which includes tuition, materials, lodging and one main meal a day. **Contact:** Jean Gilder Congressi snc, via Quagliariello 35/E. Tel: +39 (0) 81 546 3779/545 4617; Fax: +39 (0) 81 546 3781.

## Director, Scientific Development & Licensing Southern California

For over a quarter century, we've been helping the world see things clearly. We're Allergan, an international leader in the eye care product industry. Join our extraordinary team and play an integral role in the development of our advanced products.

You will be responsible for researching scientific licensing and business development opportunities associated with ophthalmic and dermatological drugs, contact lens care products, surgical devices and instrumentation. This position will involve 30% travel.

The ideal candidate will possess a PhD in Pharmacology or Biological Science (Molecular/Bio-Chemistry) and 8-10 years research experience, including a minimum of 5 years experience in the pharmaceutical industry. Research management and licensing experience is essential, as well as excellent communication skills. An MBA, bi-lingual ability (English/French, German or Japanese) and contract negotiation experience are desirable.

At Allergan, you'll enjoy a highly competitive salary and benefits package. For immediate consideration, please send your resume to: **Allergan, Inc., Human Resources Dept. JS-S, 2525 Dupont Drive, Irvine, CA 92715.** Equal Opportunity Employer.

*Helping The World See Things Clearly.*



## RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY

The Department of Biotechnology is seeking applicants for our ongoing program of crop improvement. Pioneer offers competitive salaries, excellent facilities and a highly cooperative research environment. Successful candidates will be expected to interact extensively with ongoing programs in transformation, gene expression, gene isolation or RFLP programs.

**SENIOR RESEARCH ASSOCIATE, CORN TRANSFORMATION (JOB #1380)** - This position will be responsible for delivering agronomically important genes into corn for traits such as nutritional modification, insect and/or disease resistance. In addition, the successful candidate will be expected to actively contribute to other project areas important to the corn transformation effort including methods development in corn. This position will collaborate with Research Associates/Project Leaders in the Transformation Group and in other groups within the department and Plant Breeding Division. **EDUCATION/EXPERIENCE:** MS degree or equivalent in appropriate science area plus 4 years of directly related laboratory experience in transient and stable genetic transformation; or, 7 years of experience with a 4 year University degree, plus good familiarity with cell biology in monocots is required. **CONTACT PERSON:** JO ANN JORGENSEN

**RESEARCH ASSOCIATE, ALFALFA TRANSFORMATION (JOB #1388)** - The Alfalfa Transformation Research Associate will be an integral part of the alfalfa transformation effort. The successful candidate will be expected to perform transient and stable transformation experiments in alfalfa, develop technology as necessary to achieve efficient transformation of genes important to alfalfa breeding, and actively support field tests of transgenic alfalfa. Active collaboration with others in the Transformation Group, Biotechnology Research and Alfalfa Departments is expected. **EDUCATION/EXPERIENCE:** MS degree or equivalent in appropriate science area plus 1-2 years laboratory experience; or, 3 years of experience with BS degree is required. Experience with genetic transformation in dicots is preferred. **CONTACT PERSON:** JO ANN JORGENSEN

**RESEARCH ASSOCIATE, RFLP (JOB #1353-A)** - This position is part of an existing RFLP group emphasizing gene identification in maize. This group has complementary expertise in molecular biology, plant breeding, genetics and statistics. The research associate will be responsible for conducting RFLP experiments which include DNA extractions, electrophoresis, Southern hybridization, data recording and computer analysis. **EDUCATION/EXPERIENCE:** BS degree or equivalent in biology, molecular biology, genetics or related field plus 2-3 years of directly related laboratory experience is required. **PLEASE NOTE:** Application Deadline for JOB #1353-A is February 14, 1992. **CONTACT PERSON:** AMY LaMOTTE

**RESEARCH ASSOCIATE, SPECIALTY PLANT OILS (JOB #1371)** - The successful candidate will be part of a group working on the isolation of genes involved in fatty acid and triacylglycerol biosynthesis, with the long term goal of genetically improving the quality of oil seed crops. Extensive expertise is required in the isolation of nucleic acids from plant tissue, the construction, expression and screening of cDNA and genomic libraries. Nucleic acid sequencing and expression of isolated clones, and manipulation of acquired data. This position will be responsible for the day-to-day operation of a research laboratory including maintaining records, ordering of appropriate inventory, maintenance of appropriate cultures and solutions, and control of data management. **EDUCATION/EXPERIENCE:** BS degree or equivalent plus 3 years of directly related laboratory experience is required. **CONTACT PERSON:** LISA HALL

Applications received by MARCH 2, 1992 will be assured of consideration. However, applications will be considered until the positions are filled.

Pioneer Hi-Bred International, Inc. is an Equal Opportunity/Affirmative Action employer. Please send resume to the contact person listed above indicating the JOB # on the outside of the envelope and the names, addresses and telephone numbers of three references in your correspondence to:



**PIONEER®**

PIONEER HI-BRED INTERNATIONAL, INC.  
Plant Breeding Division  
Department of Biotechnology Research  
Attn: (Contact Person) JOB # \_\_\_\_\_  
P.O. Box 38  
Johnston, IA 50131-0038

## BIOTECHNOLOGY INDUSTRIAL LIAISON

Iowa has invested more than \$50 million in agricultural biotechnology research at Iowa State University in the past six years. A position is immediately available for a person to serve as liaison between the agricultural biotechnology program at ISU and biotechnology industries.



Primary responsibilities will be to establish and promote opportunities for research collaboration between the biotechnology industry and ISU, solicit industrial investment in university product development activities, licensing of technology, and the location of industrial research and production facilities in Iowa. The liaison officer will be a staff member of ISU's Office of Biotechnology, which coordinates the university-wide biotechnology research programs for the Colleges of Agriculture, Engineering, Family and Consumer Sciences, Liberal Arts & Sciences, and Veterinary Medicine. The liaison officer will work closely with state agencies and other Iowa universities and colleges.

Minimum requirements are a Master's degree in a biotech-related discipline with ten years experience in university and/or corporate research and management, or a Ph.D. degree with five years experience. Salary is commensurate with qualifications and experience.

Qualified individuals should submit a detailed resume including names, addresses, and phone numbers of three references to Dr. Walter R. Fehr, Director of Biotechnology, 1010 Agronomy, Iowa State University, Ames, Iowa 50011.

Application deadline: February 29, 1991, or until filled.

Iowa State University is an Equal Opportunity / Affirmative Action Employer

## IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY

National Institutes of Health  
National Institute of Environmental Health Sciences  
Research Triangle Park, North Carolina

## POSTDOCTORAL POSITIONS CALCIUM SIGNALLING

The Laboratory of Cellular and Molecular Pharmacology invites applications from postdoctoral scientists who wish to study  $Ca^{2+}$  regulation and its role in cell signalling with modern imaging and patch clamp techniques. Appointments are initially for two years with the possibility of annual renewal for three additional years. The salary range begins at \$25,000 p.a. and increases with experience. Further information can be obtained from **Dr. James Putney** (inositol phosphates and  $Ca^{2+}$  signalling) or **Dr. David Armstrong** (ion channel modulation) at (919) 541-3332.

For prompt consideration, send cover letter, CV and names of three references by **March 27, 1992** to:

**Ms. Carole Gregory (HNV46)**  
**NIEHS Personnel Office**  
**P. O. Box 12233**  
**Research Triangle Park, NC 27709**

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## POSITIONS OPEN

The Marine Life Research Group of Scripps Institution of Oceanography (SIO) at the University of California, San Diego (UCSD), cooperates with federal and state fisheries agencies in the study of the pelagic ecology of the California Current System—the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program. We intend to employ one or more **ASSISTANT RESEARCH BIOLOGISTS/OCEANOGRAPHERS OR PROJECT SCIENTISTS** who have demonstrated the ability to conduct original, independent, and interdisciplinary research relevant to CalCOFI. Areas of particular interest are phytoplankton physiology and/or remote sensing, microzooplankton ecology, and coupled physical-biological modeling. Appointment as project scientist is not a "career" position and may not be renewed beyond 6 years, nor may appointee act as sole principal investigator, but may by exception serve as Co-PI with regular faculty or research members of SIO. Appointment as assistant research is "career" but does not carry tenure. However, it is our intent to provide at least half salary from state sources for two initial years in recognition of the required commitment to CalCOFI. Salary will be commensurate with University of California pay scales. *UCSD is an Affirmative Action Employer.* The closing date for this position is 28 February 1992. Direct inquiries, or applications with curriculum vitae, statement of research goals, and names of referees, should be made to:

**Professor Michael M. Mullin**  
Director, Marine Life Research Group  
Scripps Institution of Oceanography  
University of California, San Diego  
9500 Gilman Drive  
La Jolla, CA 92093-0227

**MICROPROCESSOR ENGINEER:** A highly rewarding opportunity in hardware/software manufacturing system development is available for an electrical engineer or instrumentation physicist with outstanding academic credentials. Minimum requirements: master's degree, microprocessor applications, embedded control, professional publications, 2 years of manufacturing experience. Experience in precision machine tooling also desirable. Doty Scientific is an attractive high-tech manufacturing and R&D company with an exceptional 9-year growth record. Competitive salary and benefits commensurate with abilities and experience. Send résumé including copy of transcripts, and GRE or SAT scores to: **Judy Doty, Doty Scientific, Inc., 700 Clemson Road, Columbia, SC 29223.**

The Biotechnology Patent Examining Group of the Patent and Trademark Office is currently recruiting scientists for positions as **PATENT EXAMINERS**. Individuals with advanced degrees and/or equivalent experience in the fields of immunology, molecular biology, gene therapy, plant genetics and plant breeding, biochemistry, protein engineering and microbiology are urged to send a résumé or SF-171 to the following address:

**Patent and Trademark Office**  
c/o David Lacey  
15345 Stillfield Court  
Centerville, VA 22020

For further information, call: **David L. Lacey at 703-308-4314.**

### POPULATION DYNAMICISTS STATISTICAL ECOLOGISTS

The National Oceanic and Atmospheric Administration's (NOAA) center of excellence in population dynamics research at the National Marine Fisheries Service Laboratory, in Woods Hole, Massachusetts, is seeking several scientists with training and experience in dynamics of exploited fishery systems. Incumbents will conduct empirical and theoretical studies and develop quantitative methods to assess single- and multispecies effects of harvesting of the Northeast Shelf fishery ecosystem. The positions offer a challenging problem set, extensive time-series databases (30 plus years), and access to advanced computing facilities. Starting salary is \$38,900; closing date for applications is 3 March 1992. For application information contact: **Ms. Kathryn McArthur, NOAA, Eastern Administrative Support Center, Room 411, 253 Monticello Avenue, Norfolk, VA 23510; telephone: 804-441-6880.**

*NOAA is an Equal Opportunity Employer.*

## IMMUNOLOGIST

The Upjohn Laboratories Division of The Upjohn Company has a **RESEARCH SCIENTIST** position available for a Ph.D. **IMMUNOLOGIST** to join an interdisciplinary group focused on **ARTHRITIS RESEARCH**. The selected scientist will design and establish an independent research program to study immunoregulatory mechanisms of inflammation and arthritis, preferably with a focus on macrophage function. The research activities will include the discovery and evaluation of novel anti-inflammatory drugs using in vitro assays of immune function and animal models of arthritis.

Candidates should have a Ph.D. degree and 2-10 years of postdoctoral experience in immunology, macrophage biology, cell biology or inflammation research. Experience with animal models of arthritis is preferred. A highly competitive compensation and benefits program is offered, including relocation assistance. Upjohn Laboratories offers a stimulating, multidisciplinary research environment at our facilities in Kalamazoo, a southwestern Michigan city of 225,000 located midway between the Chicago and Detroit metropolitan areas. Our region provides an outstanding mix of cultural and recreational pursuits along with a four season climate and moderately priced housing. Qualified candidates are invited to send their curriculum vitae to: The Upjohn Company, Corporate Recruiting: Position Code 900485-020, 7000 Portage Road, Kalamazoo, MI 49001, USA. An Equal Opportunity Employer M/F.

**Upjohn**

## Cardiovascular Scientist

The field of pharmaceuticals and healthcare is more rewarding than ever as new products create a healthier world population. As one of the leaders in this dynamic industry, Pfizer Inc, a Fortune 100 company, is committed to continuing its remarkable growth.

The primary R&D facility for Pfizer Inc is located in a southeastern Connecticut shore community, giving easy access to the well known academic and cultural centers of the Northeast and offers the attractions of a New England lifestyle.

We currently seek a qualified professional with training in isolated tissue bath evaluation of vascular smooth muscle and cardiac function to join an active team of investigators involved in the discovery of novel therapeutics for hypertension and heart failure. Experience in endothelial cell biology, renin-angiotensin and/or *in vivo* models is an asset. This position requires a PhD in Pharmacology, Physiology or related discipline and 2-3 years postdoctoral experience. Active collaboration with other investigators is essential. Drug discovery experience is highly desirable.

We offer highly competitive salaries and a full range of benefits. To become a member of our team, send your resume to: **Mr. Kym Goddu, Employee Resources, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340.** An equal opportunity employer.



**Central Research**  
Bringing science to life.



## POSITIONS OPEN

### OUTSTANDING BIOPHYSICIST

The opportunity exists in our Chemistry Department to integrate a biophysicist for a full or joint position. The scientist is expected to expand our undergraduate program in biophysics, the only one in the country, and to contribute to a vigorous and ambitious graduate research program. A solid background in physical chemistry is preferable. Contact: **Professor Shmuel Bittner, Department of Chemistry, Ben-Gurion University, Beer-Sheva 84105 Israel. FAX: 972-57-74359.**

**RESEARCH BIOCHEMIST.** Responsible for identification, isolation and characterization of enzymes which would serve as potential therapeutic targets in the development of antibiotics and antiviral agents. The identification of these target enzymes requires execution of experiments designed to study essential features of bacterial and/or viral replication and metabolism, the identification of genes encoding the enzymes involved in these processes, the cloning of these genes to generate recombinant organisms that overproduce these enzymes, and characterization of these enzymes to aid in drug design efforts. Responsible for using polymerase chain reaction technology, DNA sequencing, and enzyme purification, kinetics and mechanism employed. Ph.D. in biochemistry and 3 years of experience as research biochemist or 3 years of experience as postdoctoral fellow and/or teaching assistant and/or research assistant required. Three years of experience required in enzyme purification, kinetics and mechanism and molecular biology and enzymology in drug-related research, 1-1/2 years of which must have included gene cloning in polymerase chain reaction technology and in DNA sequencing. Applicants must have at least one publication in peer-reviewed journal on the subject of gene cloning, expressing and purification. Forty hours per week, 8:15 a.m. to 4:55 p.m., salary: \$4083 per month. *Must have proof of legal authority to work permanently in the United States.* Send résumés to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605. Attention: Maxine Counts, Reference #V-IL-4901-C. No calls. An employer-paid ad.**

The Retrovirus Diseases Branch—Centers for Disease Control (CDC), Atlanta, Georgia, invites applications for the position of **RESEARCH BIOLOGIST.** Position is responsible for studying the molecular biology and molecular epidemiology of human and animal retroviruses, primarily for the detection of known and novel retroviruses as possible etiologic agents in lymphoproliferative disorders and chronic diseases. A doctoral degree in the biologic sciences and at least 4 years of postdoctoral experience are preferred. Specific requirements include the following (1) at least 2 years of research experience in the development of molecular techniques for the detection and identification of retroviruses, (2) application of molecular techniques to epidemiologic questions, and (3) experience with in situ PCR development. Experience with HTLV is preferred over that with other human or animal retroviruses. Ability to conduct independent and collaborative investigations is essential. Salary is \$38,861 to \$55,516. Submit curriculum vitae and names of three references to: **Ms. Janie Oddy, Centers for Diseases Control, Personnel Management Office, Mailstop D-01, 1600 Clifton Road, N.E., Atlanta, GA 30333.**

For technical questions, contact **Dr. Thomas Folks, Chief, Retrovirus Diseases Branch, CDC, at 404-639-1024. CDC is an Equal Opportunity Employer, and provides a smoke-free environment.** Applications must be received by 15 April 1992.

### TECHNICAL COMMUNICATIONS SPECIALIST

New position requires technical knowledge of cell biology, biochemistry, molecular biology and related areas, with demonstrated communication and project management skills. Experience with fluorescence techniques and databases is desired. Expect extensive interaction with researchers inside and outside growing company on product development/support. Responsibilities include writing/editing technical periodicals, research grants, manuscripts, patents, presentations. Send résumé by 20 February 1992 to: **Molecular Probes, Technical Communications, P.O. Box 22010, Eugene, OR 97402. Equal Employment Opportunity/Affirmative Action.**

## POSITIONS OPEN

### RESEARCH CHEMIST

SmithKline Beecham Clinical Laboratories, one of the world's most respected testing laboratories, is seeking a chemist to join their research and development team in Van Nuys.

Requirements include two plus years of research experience in biochemistry, molecular biology or microbiology. Additional experience in nucleic acids chemistry, polymerase chain reaction, immunoassays, flow cytometry or DNA probes is essential.

We offer an excellent salary and comprehensive benefits. For consideration, send résumé with salary history to:

**Personnel Department  
SMITHKLINE BEECHAM  
CLINICAL LABORATORIES  
7600 Tyrone Avenue  
Van Nuys, CA 91405**

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### RESEARCH SCIENTIST

Saint Francis Hospital and Medical Center, located in Hartford, Connecticut, is seeking a candidate to join our department of Research and Heart Institute to establish a new program in vascular biology. Candidates should have completed a doctorate degree and a postdoctorate fellowship and have prior experience in molecular aspects of vascular cells. Candidates will be eligible for an appointment at the University of Connecticut School of Medicine. Interested candidates should send a résumé and references to: **Dr. Ernesto Canalis, Saint Francis Hospital and Medical Center, 114 Woodland Street, Hartford, CT 06105. FAX: 203-548-5415. Equal Opportunity Employer.**

### RESEARCH SCIENTIST

Saint Francis Hospital and Medical Center, located in Hartford, Connecticut, is seeking candidates to join our NIH-supported bone biology laboratory to work on molecular and cellular biology of the bone. Candidates should have completed a doctorate degree and a postdoctoral fellowship with prior molecular and cell biology experience. Candidates will be eligible for an appointment at the University of Connecticut School of Medicine. Interested candidates should send a résumé and references to: **Dr. Ernesto Canalis, Director, Department of Research, Saint Francis Hospital and Medical Center, 114 Woodland Street, Hartford, CT 06105. Equal Opportunity Employer.**

**SCIENTIST** needed in a Diagnostic Chemistry Department for the identification, characterization and analysis of components contained in clinical laboratory specimens which impair subsequent assay performance. Also to conduct research to maximize activity and yield of proteins produced by recombinant DNA technology. Ph.D. in biochemistry, chemistry, or microbiology with a minimum of 2 years of postdoctoral experience in protein chemistry, carbohydrate chemistry or clinical microbiology. DNA chemistry and amplification methodology and experience with antibodies are essential. Salary is \$42,000 per year; 40 hours per week. Please contact the **Job Service Office at 516 North Mangum Street, Durham, NC 27701** or the **Job Service Office** nearest you. Refer to: **Job Order Number NC 3011284.**

**TECHNICAL STAFF—PHYSICS.** Ph.D. atomic and molecular physics. Two years of experience in the job offered or 2 years of experience in postdoctoral research. Experience should include quantum and relativistic theory of atomic and molecular photo-effects; technical expertise with lasers, optics ultrahigh vacuum system and computer control of experiments. The above evidenced by a minimum of six publications in refereed journals. Conceives and executes innovative high quality experimental atomic physics research projects using synchrotron light sources. Publishes results of experiments in refereed journals and makes oral presentations at meetings, conferences, symposia, and seminars. Salary: \$3800 per month; 40 hours per week; 8:30 a.m. to 5:00 p.m. Send résumés to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605. Attention: Talise Lyke, Reference #V-IL 4412-L. No calls. Must have proof of legal authority to work permanently in the United States. An employer-paid ad.**

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## ANNOUNCEMENTS

**GRADUATE RESEARCH ASSISTANTSHIPS.** Cornell University has been awarded a Research Training Grant (RTG) by the National Science Foundation to support an interdisciplinary program entitled, **Ecological and Social Science Challenges in Conservation.** Applications are being accepted for graduate research assistantships for the academic year 1992–1993. The objective of the RTG is to train graduate students seeking solutions to the environmental degradation crisis confronting tropical ecosystems. Ongoing projects in Costa Rica and the Dominican Republic provide a research framework for the program. For information and application guidelines, contact: **Dr. Timothy Fahey, RTG Director, Department of Natural Resources, Cornell University, Ithaca, NY 14853.**

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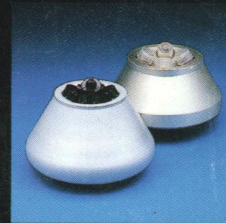
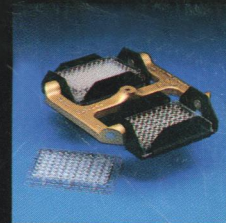
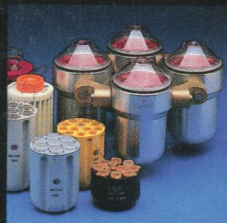
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