

## Cell Proliferation and Cytotoxicity Assay

A new cell proliferation assay system consists of alamarBlue, an indicator dye that reacts in response to cellular metabolism, and the READar, a microplate fluorometer. The alamarBlue dye produces both a fluorometric and



a colorimetric response to cellular proliferation in mammalian cells, bacteria, and fungi. It can also be used to establish the relative cytotoxicity of agents within various chemical classes. The READar, which scans a 96-well microplate in less than 20 s, interfaces with most DOS-based management systems. Unlike other reagents, alamarBlue is not toxic to cells, the user, or the environment. It can be incorporated into media for exposure to cells for more than 10 days with no adverse effect. **alamar. Circle 91.**

## Time-of-Flight Mass Spectrometers

The LaserTec ResearchH and LaserTec BenchTop are fully automated matrix-assisted laser desorption time-of-flight mass spectrometers for determining molecular weights of biopolymers. In addition to a video sample monitor for viewing each sample and a joystick for fast manual operation, the LaserTec product line includes complete automation for controlling laser intensity and sample position on the 24-sample carousel. The BenchTop, designed with the protein chemist in mind, comes standard with a 0.7-m linear flight tube and a nitrogen laser. The ResearchH, designed with the research scientist in mind, comes standard with a

1.2-m linear flight tube and a nitrogen laser. It is engineered to accommodate additional lasers and can be configured with several access ports and a high-performance reflector. **Vestec. Circle 92.**

## Immunoglobulin Binding Protein

KappaLock is an immunoglobulin binding protein that binds to kappa light chains of all antibody types. Because the binding is to the light chain at the Fab region of the antibody, the binding activity of the antibody is minimally affected. KappaLock is free of binding activity for albumin, cell wall proteins, and lipids. It is ideal for purification of monoclonal antibodies and Fab fragments of antibodies. **Aaston Inc. Circle 93.**

## GM-CSF Test Kit

A new research-use enzyme immunoassay is available for granulocyte-macrophage colony-stimulating factor (GM-CSF), a multilineage growth factor that stimulates the production of neutrophils, eosinophils, and cells of the monocyte-macrophage series. GM-CSF has been isolated from a number of sources including fibroblasts, endothelial cells, macrophages, activated T cells, and cultured human placentas. The kit is supplied with a coated microtiter strip plate and six precalibrated, lyophilized standards. **T Cell Diagnostics. Circle 94.**

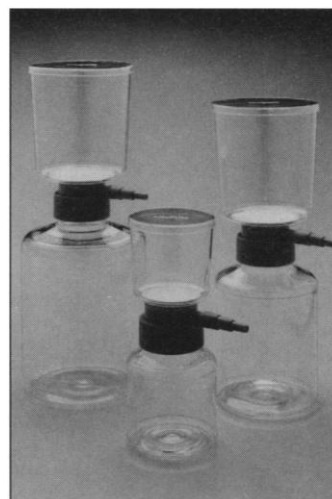
## Sequence Analysis Software

Gene Runner for Windows sequence analysis software is available for personal computers running Microsoft Windows. Gene

Runner provides fast restriction analysis, comprehensive oligonucleotide analysis, automatic polymerase chain reaction analysis, open reading frame analysis, a restriction fragment analysis designed to alleviate cloning headaches, and other advanced analysis capabilities. A sophisticated sequence editor permits editing of multi-megabase sequences, undoing and re-doing up to 500 changes, voice verification, and data exchange with other Windows programs. Gene Runner also determines optimal sequencing primers, hybridization probes, and reverse translation probes. **Hastings Software. Circle 95.**

## Vacuum Filtration of Aqueous Biologicals

The Stericup Filtration and Storage System for the rapid and economical vacuum sterilization (0.22- $\mu$ m membrane) or clarification (0.45- $\mu$ m membrane) of tissue culture media, biological fluids, or other aqueous fluids is available either with a mixed esters of cellulose membrane or with the low-protein binding Durapore membrane. Stericup



units are available with 200-, 500-, or 1000-ml receiver bottles. The filtrate can be stored in the receiver bottles so there is no need to transfer and risk recontamination of sterile solutions. **Millipore. Circle 96.**

## Automated DNA Sequencer

The Model 4000 Automated DNA Sequencer is an infrared (IR) fluorescence-based sequencer with a scanning, solid-state laser and detector. DNA primers are labeled with an IR-fluorescent dye that provides excellent sensitivity for detection. Samples can be sequenced within 4 to 7 hours of loading. Data are presented in an autoradiogram-like format for accurate base calling. The Model 4000 automatically sequences 450 bases per sample with a typical accuracy of 99%. Gels of various heights, thicknesses, and compositions and a variety of combs and lane-loading formats can be used. **LI-COR. Circle 97.**

## Literature

*ATCC Catalogue of Cell Lines and Hybridomas: 1993 Update* contains descriptions and reference information on the manufacturer's cell lines that have become available since publication of the 1992 catalog. **American Type Culture Collection. Circle 98.**

*Catalogue of Plant Viruses & Antisera: 7th edition, 1993* contains 84 pages of information on virus and viroid strains, polyclonal antisera, and molecularly cloned viruses. **American Type Culture Collection. Circle 99.**

*1993 Amersham: Life Science* is a catalog featuring a full range of radioactive and nonradioactive products for labeling and detection along with a technical reference guide. **Amersham International. Circle 100.**

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

# SCIENCE

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## POSITIONS OPEN

### FACULTY POSITION IN PROTEIN CHEMISTRY DEPARTMENT OF MOLECULAR BIOTECHNOLOGY

The Department of Molecular Biotechnology, University of Washington, invites applications for a faculty position in protein chemistry. Appointments as **ASSISTANT, ASSOCIATE** or **FULL PROFESSOR** will be considered. The department is seeking innovative and creative individuals to develop a vigorous research program in protein chemistry and technology development with particular emphasis on the application of new technologies to complex biological systems. The successful candidate will have a Ph.D. or M.D./Ph.D. and a strong commitment to teaching and research. Requested application materials include curriculum vitae, selected reprints, three letters of recommendation, and a statement of previous and anticipated research interests.

Materials should be sent to:

Dr. John R. Yates  
 Department of Molecular Biotechnology, FJ-20  
 University of Washington  
 Seattle, WA 98195

The deadline for receipt of materials is June 15, 1993. *The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

The Department of Pharmacology and Toxicology of the Rutgers College of Pharmacy and the Environmental and Occupational Health Sciences Institute are seeking an **ASSISTANT PROFESSOR**, who in addition to functioning in the Department will participate in the activities of the Joint Graduate Program in Toxicology and the Toxicology Division of the Environmental and Occupational Health Sciences Institute. The position will be available for the fall 1993 semester. This appointment will lead to a tenure-track position. The candidate should have a Ph.D. in Pharmacology, Toxicology, or a related discipline, or an M.D., and appropriate postdoctoral training, and should be dedicated to effective teaching of undergraduate and graduate students in courses offered by the Department. The Department and the Institute are specifically searching for a specialist in both cytogenetics and molecular biology to pursue studies aimed at exploring the relationship between chromosome alterations and the development of disease states. Interested candidates should submit curriculum vitae and a list of three references to: Professor Robert Snyder, Chairman, Department of Pharmacology and Toxicology, Rutgers College of Pharmacy, EOHHS Building, 681 Frelinghuysen Road, P.O. Box 1179, Piscataway, NJ 08855-1179. *Rutgers University is an Affirmative Action/Equal Opportunity Employer.*

### VASCULAR/MOLECULAR BIOLOGISTS

Applications are invited for tenure-track positions at the level of **ASSISTANT/ASSOCIATE PROFESSOR** in the Division of Cardiovascular Disease at the University of Alabama at Birmingham, School of Medicine. Individuals with established research programs using cellular/molecular approaches to study the biology of the vasculature and the myocardium with clinical relevance are encouraged to apply. Candidates should have a M.D., Ph.D. or M.D./Ph.D. and will be expected to develop externally funded research programs and participate in the research training of postdoctoral (M.D. and Ph.D.) fellows. Salary, start-up funds and laboratory space are negotiable. Applicants should send curriculum vitae, a statement of current and future research goals, and names of three references by June 1, 1993, to: Gerald M. Pohost, M.D., Director, Division of Cardiovascular Disease, University of Alabama at Birmingham, THT 311, UAB Station, Birmingham, AL 35294-0006.

*Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT PROFESSOR** of Biochemistry. Full-time, starting 1 July 1993. Ph.D. in Biochemistry required, medical school teaching experience preferred. Duties include teaching students of medicine, pharmacy and optometry. Send curriculum vitae and three letters of reference, by 15 May 1993, to: Edye E. Groseclose, Ph.D., Department of Biochemistry, Southeastern University of the Health Sciences, 1750 N. E. 167th Street, North Miami Beach, FL 33162-3017.

## POSITIONS OPEN

### EDUCATION TWO TENURE-TRACK FACULTY POSITIONS IN BIOLOGY UNIVERSITY OF DELAWARE

Position I. **ASSISTANT PROFESSOR** in **CELL BIOLOGY**. Preference will be given to applicants with research experience in the biology of membrane receptors. Teaching responsibilities include a course in molecular or cell biology, and an advanced course in her/his specialty.

Position II. **ASSISTANT** or **ASSOCIATE PROFESSOR** in **CELL PHYSIOLOGY**. Preference will be given to applicants with research experience in membrane ion transport. Teaching responsibilities include being coordinator of and teaching half of a two-semester course in human physiology for advanced undergraduates, and an advanced course of her/his own design.

The successful candidates will be expected to develop fundable research programs with broad evolutionary perspectives and using cellular/molecular approaches. Candidates must have a Ph.D., at least two years of postdoctoral experience and complement existing faculty research strengths. Applicants should submit by May 7, 1993, a cover letter indicating position desired, curriculum vitae, three letters of recommendation, copies of key reprints, present and future research plans, and teaching experience and philosophy to: Chairperson, Search Committee, School of Life and Health Sciences, University of Delaware, Newark, DE 19716; Telephone: (302) 831-6977, FAX: (302) 831-2281.

*The UNIVERSITY OF DELAWARE is an Equal Opportunity Employer which encourages applications from minority group members and women.*

### PLANT PHYSIOLOGY THE OHIO STATE UNIVERSITY

We seek a Ph.D. plant physiologist for a 9-month, tenure-track position at the **ASSISTANT PROFESSOR** level. The successful applicant shall develop a modern, externally funded research program. Postdoctoral experience is expected. This position also requires the direction of graduate students, the teaching of an advanced course in the person's specialty, and contributions to the department's lower-division offering. Send curriculum vitae, reprints, statements of research interests and teaching philosophy, and three letters of reference to: Dr. Roger P. Hangarter, Search Committee, Department of Plant Biology, The Ohio State University, 1735 Neil Avenue, Columbus, OH 43210 U.S.A. Review of applications will begin on April 15, 1993, and continue until a suitable candidate is found. *The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam-era Veterans, disabled veterans and the disabled are encouraged to apply.*

### FACULTY POSITIONS Department of the Geophysical Sciences THE UNIVERSITY OF CHICAGO

The department hopes to make two new faculty appointments over the next year. Preference will be given to candidates at the Assistant Professor level, although tenured appointments are possible in exceptional cases. Research by the present faculty includes paleontology, paleoecology, geology, geochemistry, geophysics, glaciology, atmospheric and oceanic dynamics and chemistry, physical meteorology, and remote sensing. We seek outstanding candidates whose research specialties complement, but do not duplicate, those currently in the department. Considerations in selection of new faculty are (1) demonstrated excellence in research and (2) effectiveness in teaching at the graduate and undergraduate levels. Successful candidates will be expected to build an independent research program, supervise research by students, teach, and make significant contributions to an area of the earth, oceanic, atmospheric, or planetary sciences. Applicants should send (1) curriculum vitae, (2) a detailed statement of research plans, and (3) the names of five potential references to: Professor John E. Frederick, Department of the Geophysical Sciences, The University of Chicago, 5734 South Ellis Avenue, Chicago, IL 60637. *The University of Chicago is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR VERTEBRATE/WILDLIFE ECOLOGY

Applicants should have a Ph.D., publications, teaching experience and commitment to integrating theoretical and applied aspects of ecology, conservation and management. Send a letter, curriculum vitae, appropriate reprints, statements of teaching philosophy and research interests, and the names of at least 3 references by 15 June 1993 to: **Dr. J.M. Packard, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, TX 77843-2258.** TAMU is an Affirmative Action/Equal Opportunity Employer and welcomes applications from qualified women and minorities.

The Wheaton College Biology Department is seeking applications for an ecologist, **ASSISTANT or ASSOCIATE PROFESSOR** level, whose experience should include one or more of the following: invertebrate biology, quantitative ecology, ecology systems, physiological ecology. The individual would be expected to teach general ecology, Environmental Science, Contemporary Issues in Biology, introductory majors and non-majors courses as well as courses at the Wheaton College Science Station in the Black Hills of South Dakota.

Application forms should be requested and nominations sent to: **Dr. Dorothy F. Chappell, Chair, Biology Department, Wheaton College, Wheaton, IL 60187** by April 26, 1993.

Wheaton is a Christian liberal arts college in the broad evangelical tradition and complies with federal and state guidelines for non-discrimination in employment. Women and minority candidates are encouraged to apply.

### AQUATIC ECOLOGISTS

The Department of Biology at the University of Toledo invites applications for two tenure-track positions in aquatic ecology, one at the **FULL or ASSOCIATE PROFESSOR** level, the other at **ASSISTANT PROFESSOR** rank. Successful candidates will be expected to contribute to graduate and undergraduate instruction, and to participate actively in the growth of a highly focused research and education program on Lake Erie. We especially welcome candidates studying toxicology, wetlands ecology, or dynamic processes involving sediment and benthos. Competitive salaries, facilities and start-up funds available.

Submit curriculum vitae, descriptions of research interests, reprints of publications, and three letters of recommendation immediately to: **Chair, Ecology Search Committee, Department of Biology, University of Toledo, Toledo, OH 43606.** An Affirmative Action/Equal Opportunity Employer, M/F/D/V. Women and minorities are encouraged to apply.

**AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES (AIBS)** seeks an **EXECUTIVE DIRECTOR** to serve as an articulate spokesperson and advocate for the biological sciences in Washington and nationwide; to have the administrative and financial responsibility for AIBS, including working with the Board of Directors to set policies and program priorities; to serve affiliate societies and members; to supervise a professional staff of approximately 35 persons; to lead AIBS programs such as the large annual meeting, the Special Science Program, and the publication of *BioScience*; and to attract funding for special projects.

**Qualifications:** Applicants should preferably have a Ph.D. in the biological sciences or a closely related discipline, at least ten years of professional experience in the biological sciences, and considerable experience with the executive and legislative branches of the federal government; an appreciation for the research enterprise, and well-developed communication, interpersonal and writing skills. In addition, applicants must have demonstrated leadership and the ability to meet the challenge of leading a multidisciplinary organization in an innovative manner.

**Applications:** Applicants should submit a letter of intent, résumé, and the names of five referees by 30 May 1993. Inquiries and applications should be addressed to: **Paul G. Risser, President's Office, Roubidoux Hall, Miami University, Oxford, OH 45056.**

AIBS is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### PROJECT DIRECTOR

#### Western Hemisphere Cooperation Project Directorate for International Programs

The Directorate for International Programs of the American Association for the Advancement of Science (AAAS) seeks a director of its Western Hemisphere Cooperation Project (WHC). AAAS is the nation's leading general science and engineering association, based in Washington, DC. Through the WHC Project involving symposia, networking, joint studies, and other cooperative projects, AAAS has direct interaction with scientists and institutions throughout the region.

The WHC director will be responsible for managing cooperative programs, with counterpart organizations in the Western Hemisphere, serving as primary AAAS representative among scientific and engineering communities of Latin America; organizing and convening symposia on scientific topics of relevance to the Western Hemisphere; coordinating external support for WHC activities; providing expert advice and counsel to AAAS officers regarding cooperation with Latin American counterparts; monitoring special issues and trends in Latin American science, incorporating these considerations into overall program management.

Director will also serve as official liaison to Interiencia Association (IA), a federation of 14 national scientific organizations in the Americas. AAAS is the national member organization for the United States. The IA publishes a bi-monthly, tri-lingual journal, *Interiencia*, which focuses on the role of science and technology in development, organizes inter-American symposia in cooperation with member organizations, and coordinates regional networks on biotechnology and bioresources.

Successful candidate will have at least a Master's degree in a field of science or in Latin American studies; 5 to 10 years of experience in scientific or academic cooperative activities and in managing international programs, or an equivalent combination of education and related work experience; excellent writing skills; experience in working with grant-making organizations; and "in-country" experience in one or more countries of the Western Hemisphere. Candidate must be fluent in English and be able to communicate effectively in Spanish. A knowledge of Portuguese is desirable. Please send letter expressing interest together with current résumé and salary requirement (by May 16, 1993) to: **Ms. Alison French, Human Resources Department, Suite #128, AAAS, 1333 H Street N.W., Washington, DC 20005.** AAAS is an Equal Opportunity Employer. Non-smoking work environment.

**PLANT MOLECULAR BIOLOGIST.** The Department of Horticultural Science at North Carolina State University invites applications for the position of **ASSISTANT PROFESSOR** of Horticultural Science, a 12-month, tenure-track position. The successful candidate will be expected to develop a broad-based research program that will concentrate on the use of molecular techniques to investigate physiological and genetic processes relevant to horticultural crops. Basic qualifications include a Ph.D. in plant science with interest and broad training in molecular plant physiology/biochemistry and genetics. Write or call: **Dr. T. J. Monaco, Department of Horticultural Science, Box 7609, North Carolina State University, Raleigh, NC 27695-7609 (Telephone: 919/515-3131 or FAX: 919/515-7747)** for applications. Application deadline is June 1, 1993. *North Carolina State University is an Equal Opportunity/Affirmative Action Employer.*

### PHARMACEUTICAL DEVELOPMENT REGULATORY AFFAIRS CLINICAL TRIALS

**DIRECTORS, MANAGERS, CLINICAL RESEARCH ASSOCIATES.** A development-stage pharmaceutical company in the Pacific Northwest focusing on novel therapeutic agents has key positions available for individuals with experience managing and supporting contract-based preclinical testing, drug substance and finished product manufacturing and clinical investigations contributing to IND and NDA submissions. Direct FDA experience required. cGMP drug substances now in production. Letter and résumé with career path and experience to: **Box 31, Science, 1333 H Street, NW, Room 814, Washington, DC 20005.** Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

The Laboratory of Molecular and Integrative Neuroscience is seeking a qualified individual to **HEAD** the Functional Morphology Section and to participate in ongoing studies on the functional organization of the neuropeptidergic systems involved in the regulation of the function of the anterior pituitary and the involvement of neurotransmitters, neuropeptides, and excitatory amino acids in the pathogenesis of Alzheimer's disease. The applicant must possess M.D., Ph.D. or equivalent degrees; extensive knowledge in the organization and function of peptidergic neuronal systems of the brain and of the microscopic anatomy of rodent, monkey and human brain. Strong and documented experience in state-of-the-art morphological techniques, such as light- and electron microscopic immunocytochemistry, including the simultaneous detection of multiple antigens in the same neuron; *in situ* hybridization histochemistry; retrograde labeling, using the surgically isolated median eminence; and transections/ablations of neuronal pathways related to neuroendocrine systems is required. The candidate must have substantial experience and should have a strong record of demonstrated research productivity and proven ability to set up and carry out independent and collaborative research in all of the above areas. The candidate must possess strong leadership ability. Salary range is \$50,000 to \$70,000, commensurate with experience. For additional information, contact: **Dr. Andrés Negro-Vilar at (919) 541-2881.** For prompt consideration, send curriculum vitae and three letters of reference by April 16, 1993, to: **Mr. Bruce Wiggins, NIEHS, Personnel Office (HNV67), P.O. Box 12233, Research Triangle Park, NC 27709.** An Equal Opportunity Employer.

### WETLANDS ECOLOGIST/DIRECTOR

The Conservancy, a regional nonprofit conservation organization, invites applications for the Director position of its Environmental Protection Division. Requirements for the position include a Ph.D. in ecology with emphasis in applied wetlands ecology/hydrology especially of subtropical ecosystems, and experience in leadership/administration, conservation policy, and grant-writing. Send application letter, curriculum vitae, and three references by May 1, 1993, to: **Human Resources Director, The Conservancy, 1450 Merrihue Drive, Naples, FL 33942.** Equal Opportunity/Affirmative Action Employer.

**CURATOR/TROPIC WORLD:** Requires Master's degree in biology, zoology, or related field; advanced degree in vertebrate social behavior preferred. Plans and directs the management of all programs and operations of Tropic World (a mixed species facility with birds and a large collection of primates), and other assigned areas in accordance with the Zoo's strategic plan. Consults with other staff regarding behavioral issues.

**CURATOR OF MARINE PROGRAMS:** Requires degree in biology, zoology, or related field; advanced degree in marine animal biology preferred with experience in developing, implementing, and reviewing public communications programs. Plans and directs the management of all on-site and off-site programs and operations of the marine animal collection in accordance with the Zoo's strategic plan.

Both positions require three years of supervisory management experience, including programmatic planning, budgeting, and human resource management. Minority applicants are encouraged to apply. Send letter of interest and résumé to: **Carol McCarthy, Animal Collection, Brookfield Zoo, 3300 Golf Road, Brookfield, IL 60513** by 15 May 1993. Equal Opportunity Employer, M/F/V/H.

### FACULTY POSITION IN FOOD MICROBIOLOGY:

The Department of Food Engineering and Biotechnology at the Technion-Israel Institute of Technology, Haifa, is looking for applicants for a tenure-track position in Food Microbiology. Applicants with a strong background in microbiology, after postdoctoral training are invited to submit curriculum vitae, research and teaching experience, list of publications and names and addresses of three professional references. Proficiency in Hebrew for teaching is mandatory. Applications should be sent by May 14, 1993, to: **Professor Uri Cogan, Head, Department of Food Engineering & Biotechnology, Technion-Haifa, Israel.**

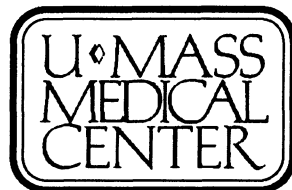
## Faculty Positions in Behavioral Neuroscience

**Several faculty positions are available in the Laboratory of Behavioral Neuroscience, Department of Psychiatry, University of Massachusetts Medical Center.**

Successful candidates will be expected to conduct an active, extramurally funded research program. Particular consideration will be given to scientists with backgrounds in neurochemistry, electrophysiology, and molecular neurobiology. All applicants will be required to develop an integrative approach to examine the biological basis of psychiatric disorders. It is important that prospective candidates have a cooperative attitude and the ability to work in an open laboratory setting. These are primarily research positions with some teaching responsibilities. Faculty rank commensurate with experience.

**Applications should include curriculum vitae, a statement of research interests, documentation of grant support, and the names and addresses of three references. Send materials to:**

**Craig F. Ferris, Ph.D.**  
Director, Laboratory of Behavioral Neuroscience  
Department of Psychiatry/S7-823, University of Massachusetts Medical Center,  
55 Lake Avenue North,  
Worcester, MA 01655



The University of Massachusetts Medical Center is an Equal Opportunity/Affirmative Action Employer

## CRANIOFACIAL DEVELOPMENTAL BIOLOGY

The Laboratory of Developmental Biology, National Institute of Dental Research, seeks outstanding candidates for both senior (possible tenure-track) or junior level postdoctoral fellowship positions. Considerable opportunity exists for performing independent and collaborative research in a well-equipped multidisciplinary department where research is directed to studies in craniofacial developmental biology, with emphasis on studying the mechanisms of morphogenesis. Applicants interested in studying neural crest biology, tooth or palate formation, or other aspects of oral or facial development are encouraged to apply. Experience in histological analysis of embryonic craniofacial tissues is strongly preferred. Starting date negotiable. Starting salary will be commensurate with qualifications and experience. Interested applicants should submit a curriculum vitae, description of research interests, and names of at least three references no later than July 15, 1993.

Material should be sent to:

**Faye M. Harbrant**  
Personnel Management Specialist  
National Institute of Dental Research  
National Institutes of Health  
Bldg. 31, Rm. 2C23  
9000 Rockville Pike  
Bethesda, MD 20892.



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- Jonathan Losos** - Ecology, functional morphology, and molecular phylogenetics of lizard communities.
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- Peter Raven** - Phytogeography, and tropical floristics and conservation.
- Barbara Schaal** - Plant molecular evolution and population biology.
- Owen Sexton** - Ecology and natural history of vertebrates.
- Alan Templeton** - Population genetics and ecology; speciation mechanisms; genetic epidemiology.

For additional information please write to Division of Biology and Biomedical Sciences, Department MJ, Campus Box 8226, 660 S. Euclid Ave., St. Louis, MO 63110-1093.

## SCIENTIST

SmithKline Beecham Pharmaceuticals, a worldwide leader in pharmaceutical research and health care, has an immediate opening for a Senior Scientist in the Drug Metabolism and Pharmacokinetics Discovery Department.

The successful candidate will represent the department on interdisciplinary research teams and be responsible for the design and conduct of *in vitro* and *in vivo* preclinical studies of the drug metabolism, pharmacokinetics and pharmacodynamics of novel drug candidates. This will include the development of analytical methods for drugs in biological fluids utilizing both HPLC and activity-based approaches, the development of new models for *in vivo* and *in vitro* drug metabolism studies, pharmacokinetic and statistical data analysis, and the preparation of internal reports and manuscripts for outside publication.

The position requires a Ph.D. in chemistry or biological science with 1-3 years of relevant laboratory experience including demonstrated proficiency in HPLC and enzyme or immunoassay methodology. Previous experience with drug metabolism/pharmacokinetic studies is highly desirable.

Located in state-of-the-art research facilities in suburban Philadelphia, SmithKline Beecham offers a challenging, stimulating, multidisciplinary research environment in which to grow and excel. Interested applicants should forward their resume to: Senior Employment Administrator, M077, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/D/V.



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## POSITIONS OPEN

### NEUROBEHAVIORAL POSTDOCTORAL POSITIONS

Positions are available for an interdisciplinary neuropsychobiological research training program. The program objectives are to facilitate the development of investigators who are familiar with the integrated concepts of neuropsychobiology. Related concepts integrated into the program include molecular genetics, neuropsychimmunology, CNS virology (including AIDS), and *in vivo* metabolic imaging. In addition to the intensive research experience in one or more laboratory disciplines, conceptual issues are addressed in seminars. For a catalogue of opportunities and application forms, contact: **Dr. Everett H. Ellinwood, DUKE UNIVERSITY MEDICAL CENTER, P.O. Box 3870, Durham, NC 27710. Duke University Is An Equal Opportunity/Affirmative Action Employer.**

### INTEGRAL MEMBRANE PROTEINS

**POSTDOCTORAL POSITIONS** are available for studies of the molecular structures and mechanisms of several integral membrane proteins including the human and parasite multidrug resistance drug transporters, the human cystic fibrosis transmembrane conductance regulator, and the fungal plasma membrane  $H^+$ -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 POSITION** available to study activation and desensitization of N-methyl-D-aspartate (NMDA) receptors. Applicants should have some experience with whole-cell or single-channel recording. Send curriculum vitae and names of three references to: **Dr. Barry Pallotta, Department of Pharmacology, UNC-CH, Chapel Hill, NC 27599-7365. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** in the Department of Neurology, University of California, San Francisco, to study calcium channels and neural differentiation. Background in signal transduction and experience with calcium imaging or molecular biology strongly preferred. Interested candidates please send a description of prior research experience and three letters of reference to: **Dr. Robert O. Messing, M.D., Building 1 Room 101, 1001 Potrero Avenue, San Francisco, CA 94110.**

**POSTDOCTORAL POSITION** available summer/fall 1993 to investigate molecular mechanisms involved in regulation of vacuolar acidification. Experience in protein chemistry, cell biology or molecular biology desirable. Send curriculum vitae and names of three references to: **Dr. Michael Forgac, Department of Cellular and Molecular Physiology, Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111. Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL POSITION

Position available immediately to study the use of low density lipoproteins as drug delivery agents. Experience in lipoprotein isolation, characterization and biochemistry required. Please send curriculum vitae and names of three references to: **Dr. Stephen B. Kahl, Department of Pharmaceutical Chemistry, University of California, San Francisco, CA 94143-0446. FAX: 415-476-0688.**

**MOLECULAR BIOLOGISTS:** Two **POSTDOCTORAL POSITIONS** are available to study the mechanism by which baculoviruses block apoptosis and regulate gene expression (*J. Virology* 67:2149 & 2168). Send résumé to: **Dr. Lois K. Miller, Department of Genetics, University of Georgia, Athens, GA 30602; FAX: 706-542-2279.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION BONE BIOLOGY

Opening for a **POSTDOCTORAL FELLOW** in bone cell biology in the Department of Orthopaedics and Rehabilitation, Yale University School of Medicine. The focus of research is on the interactions between the skeletal, hematopoietic and immune systems. Within this general framework, specific emphasis is on the following areas: regulation of osteoblast cytokine secretion by growth factors; interaction between osteoblasts and osteoclasts, and analysis of osteoblast development. This position is currently funded by grants from the National Institutes of Health. *Candidates should be U.S. citizens or permanent residents with Ph.D., M.D., D.D.S. or D.V.M. and a working knowledge of one of the following: cell biology (bone), immunology or molecular biology.* Competitive salary and benefits. Send curriculum vitae, names of two references and statement of research interests by June 30, 1993, to: **Mark Horowitz, Ph.D., Yale University School of Medicine, Department of Orthopaedics and Rehabilitation, 333 Cedar Street, New Haven, CT 06510.**

### POSTDOCTORAL FELLOW

Postdoctoral fellow with 1 to 3 years of experience to work on a multidisciplinary project involving lipoproteins/macrophages and lipid peroxidation in women. Molecular biological experience (expression of genes in eukaryotic cells) essential. Experience related to cytokine/growth factors, enzymes involved in lipid peroxidation, antioxidants or *in situ* hybridization techniques preferred. Position available July 1, 1993. Send résumé and names of two references to: **Dr. Sampath Parthasarathy, Department of Gynecology and Obstetrics, Emory University School of Medicine; Thomas K. Glenn Memorial Building; 69 Butler Street, S.E.; Atlanta, GA 30303.**

### POSTDOCTORAL FELLOWSHIPS IN IMMUNOLOGY 1994-1997

The Irvington Institute for Medical Research will award up to ten (10) postdoctoral fellowships in immunology for three (3) consecutive years of work in a lab or hospital in the United States. A laboratory may qualify for only one (1) fellow per year. The fellowships will be awarded for basic immunologic research.

M.D.'s, Ph.D.'s, and M.D./Ph.D.'s are encouraged to apply. Candidates with not more than three (3) years of laboratory experience will receive priority.

The Institute will pay a stipend of \$23,000, \$25,000, and \$27,000 for years one, two, and three, with an additional \$2,000 each year paid directly to the host institution to help cover the costs of health insurance, travel and supplies.

**August 16, 1993**, is the deadline for filing applications. The Institute will notify applicants in November 1993 whether they have been selected to receive a fellowship to begin July 1, 1994.

Applications may be obtained by writing to: **Fellowship Coordinator, The Irvington Institute for Medical Research, 120 East 56th Street, #340, New York, NY 10022 USA. FAX: (212) 758-8968.**

### POSTDOCTORAL RESEARCH ASSOCIATE POSITION MAYO CLINIC

Department of Laboratory Medicine and Pathology is soliciting applications for a postdoctoral research associate to work closely with the Director of the Assay Signal System Core Laboratory. Responsibilities of this research position are to develop ultrasensitive non-isotopic methods using chemi- and bio-luminescence and to aid in the development of clinical assays using these technologies. Applicants should have M.D. or Ph.D. with a thorough background in immunochemistry or clinical chemistry. Familiarity with chemi- and bio-luminescence techniques is advantageous but not absolutely required. Initial appointment for two years starting approximately July 1, 1993, with the possibility for continuation. Please send résumé, publications and three letters of reference by May 15, 1993, to:

**Director, Core Laboratory for Assay Signal Systems  
Department of Laboratory Medicine and Pathology  
Mayo Clinic  
Rochester, MN 55905, U.S.A.**

*Mayo Foundation is an Affirmative Action and Equal Opportunity Educator and Employer.*

## POSITIONS OPEN

**POSTDOCTORAL FELLOWSHIPS** funded by the NIA will be available to Ph.D. and M.D. trained individuals through the Center for the Neurobiology of Aging at the University of Florida beginning 1 July 1993. Training is available in all areas of neurosciences relating to aging, with potential preceptors in 13 departments with expertise ranging from behavior to molecular biology. Application deadline: 15 May 1993. To apply please contact: **Dr. Edwin M. Meyer, Box 100267, University of Florida College of Medicine, Gainesville, FL 32610.**

### MECHANICAL ENGINEER

**RESEARCH ASSISTANT** to work with research team of professionals to develop computerized tools for energy analysis, daylighting and ventilation studies, and industrialized housing systems in Eugene, Oregon. M.S. or Ph.D. in mechanical engineering or equivalent with five (5) years of experience required, expertise with energy analysis software, including DOE 2, programming and project management. Familiarity with building codes, thermal analysis, HVAC, electrical, water and waste systems design. Industrialized residential construction and thermal testing is highly desirable. Salary \$35,000 to \$40,000 annually, depending on qualifications. *Applicant must have legal authority to permanently work in the United States.* Response due by April 30, 1993. Send résumé to: **Employment Division, Attention: Job Order Number 5550466, 875 Union Street N.E., Room 201, Salem, OR 97311.**

**POSTDOCTORAL POSITION** available for an Organic, Medicinal, or Biochemistry Ph.D. to develop techniques to sequence polysaccharides and to understand carbohydrate-protein interactions. Background in carbohydrate chemistry, electrophoresis/biopolymer sequencing, enzymology and NMR desirable. Ability to work across disciplines essential. *Women and minorities are encouraged to apply.* Salary: \$24,000 plus fringe benefits. Send résumé and two letters of reference to: **Professor Robert J. Linhardt, Division of Medicinal and Natural Products Chemistry, College of Pharmacy, University of Iowa, Iowa City, IA 52242. The University is an Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL FELLOW IN IMMUNOGENETICS

Position available in NIH- and USDA-funded laboratory to investigate host mechanisms of resistance to bovine leukemia virus infection. The applicant should have a strong background in immunogenetics and experience with T-cell proliferation assays, flow cytometry and PCR. This is an excellent opportunity to work on a unique animal model for human retroviral diseases in state-of-the-art facilities. Interested applicants please send letter of interest, curriculum vitae and the names of three references to: **Dr. Harris A. Lewin, Department of Animal Sciences, University of Illinois, 206A Plant and Animal Biotechnology Laboratory, 1201 West Gregory Drive, Urbana, IL 61801. FAX: (217) 244-5617. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.**

### FOUR POSTDOCTORAL FELLOWSHIPS AT THE FIB-FUNDACIÓN VALENCIANA DE INVESTIGACIONES BIOMÉDICAS

One-year, renewable; 2.100.000 Pts per annum, starting before December 1993. Research topics: morphogenesis and pathogenicity in microscopic fungi; characterization of Goodpasture's antigen; systems and mechanisms of intracellular proteolysis; molecular enzymology of carbamyl phosphate synthetases; mechanisms of toxicity of alcohol and ammonia; regulatory mechanisms of gene expression; biological signal transduction. Candidates should have carried out research outside Spain for at least one of the last four years. Send before May 15, 1993, full curriculum vitae, names of 2 referees, and letter of application indicating experience, preference of topics, knowledge of languages and any reasons in support of candidature. **Instituto de Investigaciones Citológicas, Amadeo de Saboya, 4. 46010 Valencia, Spain. Telephone: 34-6-3898500; FAX: 34-6-3601453.**



## FACULTY POSITION IN EPIDEMIOLOGY

Department of Biomedical and Environmental  
Health Sciences  
School of Public Health  
University of California, Berkeley 94720

The Department of Biomedical and Environmental Health Sciences invite applications for a tenure-track position in epidemiology at the Assistant Professor level, beginning as early as January 1, 1994. The successful candidate is expected to develop and maintain an active research program and to participate in the teaching program, including the supervision of doctoral thesis research. The area of specialization within epidemiology of the successful candidate is less important than the candidate's potential to develop an independent research program.

Candidates should have a doctoral, medical, or equivalent degree and evidence of research experience in epidemiology.

Applicants should send their curriculum vita and the names and addresses of three references to:

**Professor Arthur Reingold**  
Chair, Search Committee for Epidemiologist  
Department of Biomedical & Environmental  
Health Sciences  
School of Public Health  
University of California  
140 Warren Hall  
Berkeley, CA 94720

Deadline for application is **August 15, 1993.**

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## Director X-Ray Crystallography

The PARKE-DAVIS Pharmaceutical Research Division of Warner-Lambert Company has an immediate opening in the Chemistry Department to start-up and direct a new X-ray crystallography facility. The successful candidate will join experienced teams of dedicated Computer-Assisted Drug Design and protein NMR experts, taking advantage of their current state-of-the-art computer hardware and software. The position involves opportunities for extensive collaboration with scientists in most drug discovery programs as well as with members of various biological departments. The establishment of this X-ray crystallography group at PARKE-DAVIS complement the existing array of technologies already applied to structure-based design of novel pharmaceutical agents.

We are seeking a highly motivated research scientist with a Ph.D. in a relevant discipline and a strong background in the practical aspects of macromolecular X-ray crystallography, including crystallization, data acquisition, structure solution and refinement, and molecular modeling. Academic or industrial experience exemplifying additional skills in biochemistry, molecular biology, protein purification and characterization, and biophysics are desirable.

Interested individuals should submit their resume to **Box JDM-CHX, Human Resources Department, PARKE-DAVIS Research Division, Warner-Lambert Company, 2800 Plymouth Road, Ann Arbor, MI 48105.** "Smoke-Free Work Environment"



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## BIOCHEMIST/ MOLECULAR BIOLOGIST

Upjohn Laboratories is currently seeking a qualified individual to perform experiments utilizing biochemical and molecular biology techniques. Applicants must possess a BS/MS degree and a strong background in biochemistry and molecular biology, as the research will require a broad range of technical skills from these areas.

Hands-on experience in protein biochemistry methodology (e.g., enzyme assays, protein purification, HPLC, SDS gel electrophoresis) and fundamental techniques in recombinant DNA technology (e.g., PCR, DNA sequencing, site-directed mutagenesis, cloning & expression in bacteria) will be important. Familiarity with tissue culture techniques including gene expression in mammalian cells would be a plus.

Upjohn offers a promotion system which recognizes performance, experience and training, and a compensation program which rewards high-caliber employees through merit and cost-of-living increases. Benefits include medical, dental and life insurance coverage, paid vacation & holidays, and matching stock contributions. For consideration, please send your resume to **The Upjohn Company, Attn: Corporate Recruiting, Position Code #154, 7000 Portage Road, Kalamazoo, MI 49001.** Equal Opportunity Employer.

# Upjohn

## THE FIFTH PRINCETON LIPOSOME CONFERENCE THE BASICS AND THE BREAKTHROUGHS

May 24-25, 1993

Scanticon Conference Center  
Princeton, New Jersey

**Co-Chairmen:** **Marc J. Ostro, Ph.D.** (The Liposome Co., Inc.)  
**Gerald Weissmann, M.D.** (New York University)  
**Pleter R. Cullis, Ph.D.** (Univ. of British Columbia)

Sponsor: The Liposome Company, Inc.

The Fifth Princeton Liposome Conference, "The Basics and the Breakthroughs," will be a major international gathering of scientists active in the lipid and liposome fields. The conference will serve as a comprehensive forum for discussion of developments in these areas.

Speakers include: **Gerrit L. Scherphof**, Ph.D. (University of Groningen), **Donald Armstrong**, M.D. (Sloan-Kettering), **Marcel B. Bailey**, Ph.D. (B. C. Cancer Agency), **Stephen L. Saletan**, M.D. (The Liposome Co.), **Prof. I. W. Kellaway** (University of Wales), **Sam Castimore**, V.M.D. (Ideal Farms Equine Clinic), **Francis Szoka, Jr.**, Ph.D. (Univ. of California, SF), **A.H. Goldstone**, M.D. (Univ. College Hospital, London), **A. Kilbanov**, Ph.D. (University of Pittsburgh), **Gabriel Lopez-Berestein**, M.D. (M.D. Anderson Cancer Ctr.), **R. Jain**, M.D. (Harvard Medical School), **John Repline**, M.D. (Webb-Waring Lung Institute), **Cary A. Presant**, M.D. (University of Southern Cal), **I. J. Fidler**, M.D. (University of Texas Cancer Center), **Gerald Batist**, M.D. (McGill University), **Leaf Huang**, Ph.D. (University of Pittsburgh), **Sinil Kim**, Ph.D. (DepoTech Corporation), **Andrew S. Janoff**, Ph.D. (The Liposome Co.), **Heiner Frost**, M.D. (CIBA-GEIGY), and **Pleter R. Cullis**, Ph.D. (Univ. of British Columbia)

Contact: **E. Templeton**, Conference Coordinator, c/o The Liposome Company, Inc., One Research Way, Princeton, NJ 08540. Telephone: 609/452-7060.

# DIRECTOR, DATA ANALYSIS

Exciting opportunity to use analytical and communication skills to help improve health care delivery in New York State. As the Director of Data Analysis for **IPRO**, the successful candidate will direct analyses of variations in patterns of care and outcomes. **IPRO** has a large and rich data base of Medicare and Medicaid claims, review and related information. Work with the medical community in targeting areas amenable to improvement.

Requires a doctoral degree in epidemiology, public health, biostatistics or related field; knowledge of health care delivery systems; and experience in analysis of health care data. Publications authorship preferred.

We offer excellent salary and comprehensive benefits package. Please submit resume to: **Director of Human Resources, ISLAND PEER REVIEW ORGANIZATION, 1979 Marcus Avenue, Lake Success, NY 11042.** Equal opportunity employer. Women and minorities are encouraged to apply.

## IPRO

ISLAND PEER  
REVIEW ORGANIZATION

## POSITION AVAILABLE RESEARCH ASSOCIATE DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY UNIVERSITY OF MINNESOTA

A full time annually renewable academic position at the rank of Research Associate is available approximately July 1, 1993. Candidates must hold a Ph.D. in biochemistry or in some physical science area. A minimum of two years' postdoctoral experience is required. Experience should be demonstrated in nuclear magnetic resonance (NMR) structural analysis of proteins and peptides. Operational experience with Bruker AMX-NMR spectrometers (11-14 Telsa) is highly desirable. Candidates will be expected to participate in on-going research programs in the general areas of protein cytokines and cell adhesion promoting peptides. Other duties will include assisting with teaching of graduate students and postdoctoral fellows. Salary range \$35,000 to \$45,000 depending on qualifications.

Applicants should send curriculum vitae, a brief synopsis of recent research activity and three letters of reference to:

Prof. K. H. Mayo  
Research Associate Search Committee (NMR)  
c/o Marilyn Green  
Box 198 UMHC-420 Delaware St., SE  
Minneapolis, MN 55455

Deadline for receipt of applications is May 15, 1993. The University of Minnesota is an equal opportunity educator and employer.

## UNIVERSITY OF ROCHESTER SCHOOL OF MEDICINE AND DENTISTRY

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Associate Professor of Psychiatry and Psychology  
**JAN A. MOYNIHAN, PH.D.**

Assistant Professor of Psychiatry and Microbiology and  
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**JOHN A. OLSCHOWKA, PH.D.**  
Associate Professor of Neurobiology and Anatomy

U.S. Citizenship or permanent residence required.  
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**FOR FURTHER INFORMATION:** Dr. Robert Ader,  
Department of Psychiatry, University of Rochester  
Medical Center,  
300 Crittenden Boulevard, Rochester, NY 14642

#### Faculty position Molecular virologist/microbiologist

The Department of Medical Microbiology and Immunology, The Ohio State University College of Medicine is seeking applications for a tenure-track, hard-money position at the level of Assistant or Associate Professor in the area of Molecular Virology/Microbiology. Preference will be given to candidates whose research involves molecular studies on viruses, although strong candidates in other areas of microbiology that emphasize molecular biology will be considered. The successful candidate is expected to continue and extend his/her current research program, be involved in the training of graduate, medical and post-doctoral students in a Department with broad research interests. There is ample opportunity for interaction with several department virologists, and many other virologists, microbial geneticists and molecular microbiologists in one of the largest Universities in the country. Affiliations with the University Comprehensive Cancer Center, Retrovirus Center, AIDS Clinical Trials Unit or associated research institutions in the city are available and permit an opportunity for broad research collaborations. Applications for the position should include a curriculum vitae, a statement of research interests, reprints of selected publications, and the names and addresses of three individuals who will provide letters of recommendation. Materials or inquiries should be sent to: Dr. J. Dennis Pollack, Chairperson, Search Committee, Department of Medical Microbiology and Immunology, 333 West 10th Avenue, The Ohio State University, College of Medicine, Columbus, Ohio 43210. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam-era veterans, disabled veterans and individuals with disabilities are encouraged to apply.

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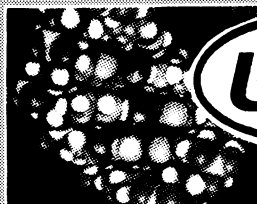
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## **VACCINE RESEARCH AND DEVELOPMENT**

*UNITED BIOMEDICAL, INC. (UBI) is a dynamic and growing biopharmaceutical company devoted to the development and manufacture of diagnostic products, vaccines and therapeutics to combat immune disorders and infectious diseases. Currently openings exist in the Vaccine Research and Development area for the following:*

**MOLECULAR BIOLOGY:** Scientists with foreign gene expression experience using mammalian and insect cell systems are needed. Successful candidates will be responsible for: the design and development of vaccines to protect humans from assorted viral and bacterial pathogens; the production and characterization of genetically engineered and authentically configured vaccine immunogens; modifying existing expression systems for optimal foreign antigen production; and the generation of novel proprietary expression systems.

**BACTERIOLOGY:** Scientists with comprehensive training in bacterial disease pathogenesis are needed. Previous experience with Chlamydia and/or Borrelia and bacterial gene expression will be given special consideration. Successful candidates will participate in the design and development of recombinant DNA and synthetic peptide based vaccines.

**VIROLOGY:** Scientists with comprehensive training in human viral pathogens including measles, human papilloma, and Epstein Barr are needed. Applications from scientists with a proven track record studying molecular mechanisms of virus diseases, immune responses to viral infection, and induction of humoral/cellular immunity to virus diseases will be given special consideration. Successful candidates will participate in vaccine design, development, and testing.

### **VACCINE FORMULATION/ADJUVANT**

**DEVELOPMENT:** Scientists with expertise in proper vaccine antigen presentation to stimulate protective cellular, humoral and mucosal immune responses are needed. Individuals with experience in the use of adjuvants in human vaccine formulations and in novel antigen delivery systems designed to stimulate local or mucosal immune responses will be given special consideration. Successful candidates will be responsible for formulating new and effective vehicles for delivering our genetically engineered and synthetic peptide immunogens.

## **CLINICAL DEVELOPMENT**

### **CLINICAL RESEARCH ASSISTANT**

Position available for one person to provide full time support services to our vaccine clinical trials program. Responsibilities include management of a repository of clinical samples, and the collation of experimental data pertaining to those samples. Previous laboratory experience in the handling of human specimens is desirable.

### **CLINICAL TRIALS ASSOCIATE**

Responsibilities include site visits of international and local clinical trials sites for monitoring vaccine administration, specimen collection, and laboratory/clinical data. This position will require international travel, to Asia and Africa, and applicants must therefore demonstrate the ability to work independently. Previous experience in clinical trials monitoring is essential, with international experience highly desirable.

### **CLINICAL REGULATORY AFFAIRS ASSOCIATE**

Senior management position in Regulatory Affairs: vaccines; diagnostics; biological therapeutics. U.S. and international approval routes; preparation and maintenance of INDs; DMFs; PLAs; GCP compliance experience. Successful candidate should have several years industrial and/or FDA regulatory experience, and ability to work effectively with multidisciplinary research, development, and manufacturing groups.

Located on Long Island, in close proximity to Cold Spring Harbor Laboratory and the State University of New York at Stony Brook, yet only 45 miles from Manhattan, UBI offers an active and stimulating scientific environment. **An excellent benefits package and competitive salary accompany these positions.**

Please send CV, indicating position of interest, along with salary requirements to:



**Manager, Human Resources-S  
UNITED BIOMEDICAL, INC.  
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**Neural Systems Section  
National Institute of Neurological Disorders and  
Stroke  
National Institutes of Health  
Public Health Service**

Applications are invited from scientists having an M.D. and/or Ph.D. degree and at least 5 years of postdoctoral experience to lead an NIH intramural research unit studying the cellular and molecular basis of memory in animal models and related applications to Neurological disorders such as Alzheimer's Disease. The position requires that the candidate have expertise and creativity in the planning and performance of complex research projects, requiring a multidisciplinary approach, and for training of section personnel. The candidate must satisfy the following specific requirements: Proven ability to produce creative research in cellular and molecular mechanisms of memory storage. Proven expertise in the investigation of signal transduction mechanisms with emphasis on regulation of ion channels by second messengers in invertebrates and vertebrates. Expertise in patch-clamp techniques, ion channel reconstitution in artificial bilayers and intracellular recordings. Computational data acquisition and analysis. Experience with tissue culture techniques, including acute neuronal dissociation procedures. Experience with marine animals (molluscs) maintenance. Knowledge of modern molecular biology techniques (PCR) and their application to ion channel cloning. Familiarity with human neurological diseases. Familiarity with psychophysiological and neuropsychological techniques. A medical background is highly desirable for a wider perspective of basic research that could lead to clinical applications. The position is located in Bethesda, Maryland at the general schedule (tenured-track) level with a salary of \$41,000 to \$51,000 per annum depending on experience and qualifications. For further information please contact Mrs. Christine M. Steyer at (301) 496-6334. Please send curriculum vitae, a detailed description of your past activities, future research plans, and three letters of recommendation to:

Mrs. Christine M. Steyer  
National Institute of Neurological  
Disorders and Stroke  
NIH, Bldg. 31, Rm. 8A23  
9000 Rockville Pike  
Bethesda, MD 20852



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## WARMINGTON CHAIR IN THE SOCIAL ECOLOGY OF PEACE AND INTERNATIONAL COOPERATION

The University of California, Irvine seeks candidates for the Drew, Chance, and Erin Warmington Chair in the Social Ecology of Peace and International Cooperation. Candidates should have a very distinguished research record and teaching interests bearing on international cooperation in specialized areas including but not limited to world environmental problems, public health and other human development issues, or expanded international educational and communications capabilities. Candidates interested in applying perspectives drawn from economics or political economy are especially encouraged to apply. The appointment will be at the professor or senior professor level in the School of Social Ecology. The holder of the Chair will also be associated with the interdisciplinary program on Global Peace and Conflict Studies.

Applications and nominations will be received and considered until the position is filled. However the screening process will begin after July 1, 1993, and applications are encouraged prior to that date.

Nominations, or letters expressing interest with curriculum vitae and names of three references, should be submitted: Warmington Chair Search Committee, Attn: Davida Hopkins-Parham, Office of Academic Affairs, 535 Administration Bldg., University of California, Irvine, CA 92717-1000. The University of California, Irvine is an equal opportunity/affirmative action employer committed to excellence through diversity.

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\* June 1992 ABC statement

\*\* June 1992 BPA statement

# LEUKON

Leukon is recruiting scientists at all levels to develop a research program focusing on the role of chemoattractants and adhesion molecules in the development of tissue-specific immunity. We are looking for team-oriented investigators who will have demonstrated expertise in their field and a commitment to the development of novel therapeutics for acute and chronic inflammation.

**Cell Biology:** Scientists in this Division will bring expertise in one or more of the following areas: chemotaxis/motility, leucocyte-endothelial interactions and organ-specific homing mechanisms. In addition we are recruiting for scientists to establish a hybridoma group.

**Molecular Biology:** This group will have responsibility for a wide range of basic molecular biological techniques including mammalian expression systems, cDNA cloning, automated DNA sequencing, PCR technology and site-directed mutagenesis.

**Protein Chemistry:** This team will undertake the purification and sequencing of novel proteins and the generation of peptide libraries. Individuals with expertise in protease enzymology and robotics are also being sought.

**Immunochemistry:** Scientists in this group will bring a wide range of immunochemical techniques to bear on the characterization of endothelial and leucocyte membrane proteins.

**In vivo modeling:** This section will undertake the development of acute and chronic inflammatory disease models, evaluate the role of novel chemoattractants therein, and test candidate therapeutics. A background in monoclonal immunotherapy is desirable.

We have solid venture capital funding, an outstanding scientific advisory board and are located in close proximity to Harvard Medical School. Leukon offers competitive salaries, excellent health benefits, a generous relocation package and an incentive stock option plan. This is your opportunity to get in at the ground floor and have a major impact on the future of our product development. For confidential consideration, please submit a resume to:

Dr. Walter Newman  
Director of Research  
Leukon, Box 101  
800 Huntington Ave.  
Boston, MA 02115

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## NEW ENGLAND BIOLABS

### Postdoctoral Position

The Molecular Parasitology group at New England Biolabs, Inc., a pioneer and leader in biotechnology located twenty miles north of Boston, is seeking a recent Ph.D. for a postdoctoral fellowship to study filarial chitinases. Experience with cloning, enzymology or protein purification is strongly preferred.

The scientists at New England Biolabs have the freedom to do basic research, manage their own time and experiments, and publish immediately. Compensation and benefits have few peers.

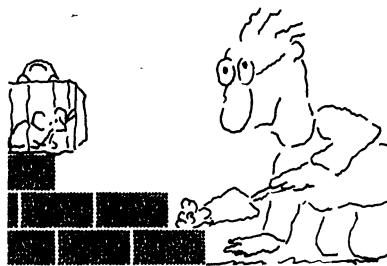
Candidates please submit curriculum vitae with the phone numbers of three references to:

Dr. Francine Perler  
New England Biolabs, Inc.  
32 Tozer Road  
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## Botanist - Ecologist

We seek a broadly trained botanist to teach general ecology, vascular plants, and some combination of courses from the applicant's field of expertise, and/or the environmental sciences. Ph.D. expected. Preference will be given to applicants having an active research program that can involve students. This position is a two year appointment to begin in August 1993. Send c.v., three letters of reference, and statement of teaching interests to:

Dr. Kenneth Crowell  
Department of Biology  
St. Lawrence University  
Canton, NY 13617

St. Lawrence University is committed to fostering multicultural diversity in its faculty, staff, student body and programs of instruction. As an Equal Opportunity/Affirmative Action employer, we specifically encourage applications from women, persons of color, and the disabled.

**ST. LAWRENCE  
UNIVERSITY**  
Canton, New York 13617

**Director  
Eastman Dental Center  
Rochester, New York**

Applications and nominations are invited for the position of Director of the Eastman Dental Center. The Director is the chief executive officer of the Center, which provides clinical care, conducts basic science and clinical research programs, and maintains postdoctoral education programs in general dentistry, orthodontics, pediatric dentistry, periodontics, and prosthodontics. In all of its missions-clinical care, education and research-the Center has interactions with the University of Rochester. The Director must have an international reputation and qualifications for a senior academic appointment in the University. Qualifications include an earned doctorate in dentistry and/or science, a strong record of research funding, familiarity with the management of clinical dental programs and specialty training programs, and experience in administration.

Application with a full curriculum vitae or nominations should be sent to Mrs. Elaine P. Wilson, Search Committee Chairperson, c/o Director's Office, Eastman Dental Center, 625 Elmwood Avenue, Rochester, New York 14620, before June 1, 1993. The Eastman Dental Center is an affirmative action, equal opportunity employer and seeks applications from women and minority candidates.

## Postdoctoral Positions

### Biochemistry/Molecular Biology

The PARKE-DAVIS Pharmaceutical Research Division of Warner-Lambert Company has two immediate openings in the Biochemistry Department for postdoctoral research in metalloproteinases and their inhibitors using molecular biology and protein chemistry techniques. The research will involve molecular cloning, protein expression in *E. coli* or other host cells and purification, and enzyme structure-function studies by mutagenesis and kinetic analysis.

The positions require a recent Ph.D. in biochemistry, molecular biology, or related areas. Previous experience in DNA cloning, protein expression and purification is desired, but others who wish to have the training in molecular biology and protein chemistry will also be considered.

Interested individuals should send their resume and names of references to **Box JDM-0089, Human Resources Department, PARKE-DAVIS Research Division, Warner-Lambert Company, 2800 Plymouth Road, Ann Arbor, MI 48105.** "Smoke-Free Work Environment"



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**RESEARCH ASSOCIATE** position available to undertake studies on PDGF-receptor dimerization and hypoxic injury using microscopic fluorescence spectroscopic techniques. Ph.D. in physics or biophysics with experience in digitized video microscopy, FRAP, confocal microscopy, fluorescence lifetime imaging microscopy and laser tweezers desirable. Salary commensurate with experience. Send curriculum vitae and names of three references to: **Dr. Brian Herman, Department of Cell Biology & Anatomy, UNC-CH, CB# 7090, 232 Taylor Hall, Chapel Hill, NC 27599.** *Equal Employment Opportunity Employer/H/M/F/V.*

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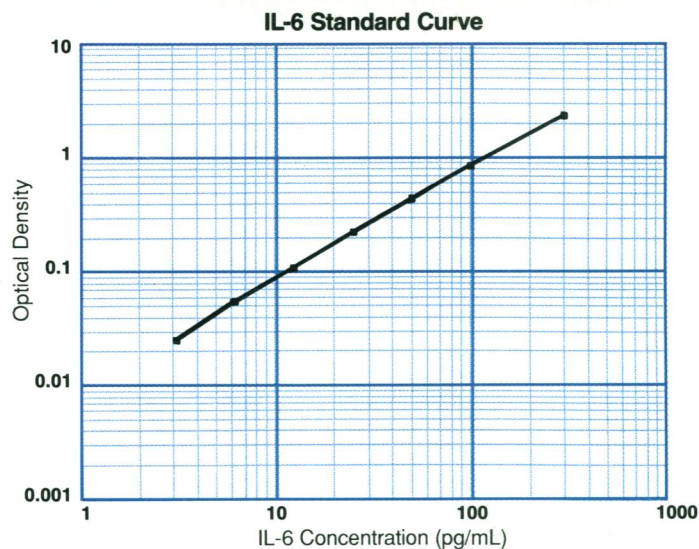
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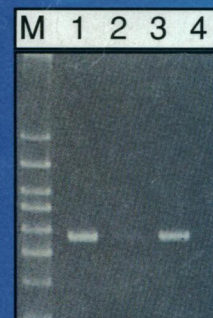
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