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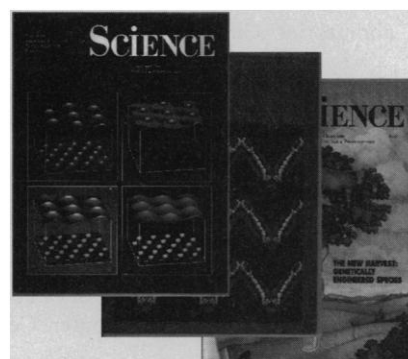
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### Monoclonal Antibodies

Monoclonal antibodies (MAbs) to CD44 and CD45 antigens are available for use in flow cytometry. Serotec. Circle 471.

MAB clone G3.1 to heat-shock protein (hsp27) is now available for immunohistochemical staining of routine formalin-fixed, paraffin-embedded tissue. The protein may be useful as an indicator of breast cancer recurrence. BioGenex Laboratories. Circle 472.

Antibodies specific to GLUT 1, 2, 3, 4, and 5 are available for use in protein immunoblotting, enzyme-linked immunosorbent assays, and immunohistochemistry. East Acres Biologicals. Circle 473.

MAB clone CB11 to the *c-erb* B-2 oncoprotein is now available for immunohistochemical staining of routine formalin-fixed, paraffin-embedded tissue. The oncoprotein is a receptor like glycoprotein with tyrosine kinase activity that has been reported to correlate with poor prognosis in breast cancer. BioGenex Laboratories. Circle 474.

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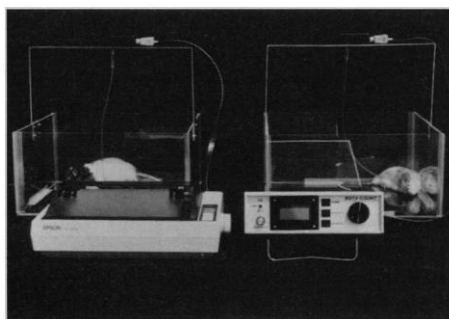
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The Rota-Count is a one to eight-channel rotation meter. It can be used with rats or mice in round or rectangular cages. The microprocessor-based controller counts left and right, full and partial rotations. The



results are periodically printed on an Epson printer or can be sent via RS-232 hookup to a computer. Columbus Instruments. Circle 477.

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## Literature

*Well-Engineered Tools for Excellence in Photonics Research* is a 16-page brochure from a new company. New Focus. Circle 479.

*Oncor 1991 Catalog and Source Book* provides 120 pages of DNA probes, reagents, instrumentation, and test kits for molecular pathology, molecular cytogenetics, and molecular biology research and comes complete with applications information, literature references, and troubleshooting guidelines. Oncor. Circle 480.

*The UK Biotechnology Handbook 91/92* provides profiles of more than 600 organizations, including universities, venture capital providers, government agencies, and companies. Eight in-depth review articles deal with such topics as biotechnology and sustainable development, public perception of biotechnology, and joint venturing and strategic partnerships. BioCommerce Data. Circle 481.

*Instruments for Separation and Analysis, Catalog 27*, features liquid chromatography, capillary electrophoresis, and supercritical fluid extraction instruments, along with related products and accessories. Isco. Circle 482.

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## POSITIONS OPEN

The Division of Biology, California Institute of Technology, seeks a faculty member in the field of Cellular and Molecular Neurobiology. The appointment will be effective 1 July 1992, at the level of **ASSISTANT PROFESSOR**. Applicants should send curriculum vitae, a statement of research interests. In addition, the applicant should request four letters of recommendation to be sent to the address below.

Letters of recommendation should include an evaluation of the applicant's scholarly work and potential, teaching ability, and comparison with leading members of the individual's peer group. All materials must be received by 31 January 1992. Address: Ms. Marilyn Tomich, Neurobiology Search Committee, Division of Biology, 156-29, California Institute of Technology, Pasadena, CA 91125.

*The California Institute of Technology is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.*

**BIOLOGIST-VERTEBRATE SYSTEMATICS.** The University of Richmond invites applications for a tenure-track position, preferably at the **ASSISTANT PROFESSOR** level. The primary teaching responsibility will be to instruct undergraduate courses in systematic vertebrate zoology, comparative vertebrate anatomy and evolution. In addition, the appointee will be expected to develop M.S.-level courses in his or her specialty. Preference will be given to those who will develop an active field-oriented research program that will involve undergraduate and graduate students. Candidates must have the Ph.D. degree and postdoctoral experience is desirable. Submit curriculum vitae, undergraduate and graduate transcripts, a statement of research plans, samples of writing and three letters of reference to: Dr. F. B. Leftwich, Department of Biology, University of Richmond, Richmond, VA 23173. Consideration of applications will begin on 15 December 1991. *The University of Richmond is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority candidates.*

## BIOLOGICAL ANTHROPOLOGIST

The Department of Biological Anthropology and Anatomy at Duke University invites applications and nominations for a tenure-track position at the level of **ASSISTANT PROFESSOR**, beginning September 1992. Applicants should have an active and ongoing research interest in the study of behavior or ecology with a strong basis in evolutionary theory and a focus on the biology of primates, including humans. Send application letter, curriculum vitae, a brief description of ongoing and planned research, and names, addresses and telephone numbers of three references to: Dr. R. F. Kay, Chair, Department of Biological Anthropology and Anatomy, Box 3170, Duke University, Durham, NC 27710, before 1 January 1992. *Duke University is an Equal Opportunity/Affirmative Action Employer.*

### BIOPHYSICS AND MOLECULAR BIOLOGY UNIVERSITY OF OREGON FACULTY POSITION

The Physics Department and the Institute of Molecular Biology at the University of Oregon have an opening at the **ASSISTANT PROFESSOR** level for an individual working in the area of biophysics and molecular biology. The appointment has been made possible by a grant from the Lucille P. Markey Charitable Trust to create a program in macromolecular assemblies. The successful candidate will be expected to teach physics and biophysics at the undergraduate and graduate levels and to conduct a vigorous research program. This is a tenure-track appointment with preferred starting date during the 1992-93 academic year. Applications from both experimentalists and theoreticians are encouraged. We would prefer to recruit an individual whose research interests will complement existing programs in the Department of Physics and the Institute of Molecular Biology.

Candidates should send curriculum vitae, a statement of research interests, and the names and addresses of three references to: Professor Brian W. Matthews, Chairman, Search Committee, Institute of Molecular Biology, University of Oregon, Eugene, OR 97403. To guarantee full consideration applications should be received by 1 December 1991. *The University of Oregon is an Equal Opportunity, Affirmative Action Employer committed to cultural diversity.*

## POSITIONS OPEN

**FACULTY POSITION IN BIOCHEMISTRY.** The Biochemistry Division of the Department of Chemistry of Purdue University invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. Candidates should have a doctoral degree and postdoctoral experience in a contemporary field of biochemistry, and should demonstrate exceptional promise in research and teaching. Applications including (1) curriculum vitae, (2) names, addresses and telephone numbers of three to five references, (3) a description of current research activities, and (4) a statement of future research interests should be sent to: Professor Harry Morrison, Attention: Biochemistry Faculty Search Committee, Department of Chemistry, Purdue University, West Lafayette, IN 47907-1393. Applications will be accepted until 15 December 1991 or until a qualified candidate is found. *Purdue University is an Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT PROFESSOR, BIOCHEMISTRY.** Applications and nominations are invited for tenure-track position in an ACS-certified chemistry department beginning fall 1992. The successful candidate will demonstrate excellence in teaching and research and will be responsible for undergraduate courses for majors and nonmajors including biochemistry. Ph.D. in biochemistry required. Deadline for application is 2 December 1991. Send application, curriculum vitae, publication record, and names of three references to: Dr. George Nazaroff, Chemistry Department, Indiana University at South Bend, P.O. Box 7111, South Bend, IN 46634. *An Affirmative Action/Equal Opportunity Employer.*

**BOTANIST.** A tenure-track position, **ASSISTANT PROFESSOR**, Ph.D. required; teaching experience preferred. We seek a broadly trained botanist to teach general botany, plant systematics, dendrology, and, with colleagues, introductory biology for majors and nonmajors. A research program using modern experimental techniques and involving undergraduates plus some curatorial work is expected. Send curriculum vitae, transcripts, letters of reference, and a statement of teaching/research goals by 15 November 1991 to: Dr. Jerry Warner, Biological Sciences, Northern Kentucky University, Highland Heights, KY 41099.

**ASSISTANT PROFESSOR.** The Department of Chemistry at Stanford University will consider applications for a tenure-track appointment as assistant professor starting in the 1992/1993 or 1993/1994 academic year. Preference will be given to applicants in physical chemistry or closely related fields. Applicants must be strongly motivated toward creative research and have a commitment to teaching at the undergraduate and graduate levels. In applying, please send curriculum vitae, list of publications, a brief statement of research interests (three pages or less) and, in addition, have three letters of recommendation sent to: Professor Harden M. McConnell, Chairman, Department of Chemistry, Stanford University, Stanford, CA 94305. *Stanford is committed to Equal Opportunity through Affirmative Action in Employment, and we are especially eager to identify minority persons and women with appropriate qualifications.* Applications should be received by 1 December 1991.

### CELLULAR/MOLECULAR BIOLOGY MOLECULAR NEUROBIOLOGY

Harvey Mudd College (HMC) is seeking candidates for two tenure-track faculty positions at the **ASSISTANT PROFESSOR** level to join a new program in biology. Candidates for one position must have expertise in molecular mechanisms of some aspect of neurobiology such as nervous system development, physiology or behavior. Candidates for the other position must have expertise in some other area of eukaryotic cellular/molecular biology such as development or genetics. Breadth of knowledge for excellent undergraduate teaching in a small department is required, as is a research program appropriate for participation by advanced undergraduates. HMC is a small private college of science and engineering (member of the Claremont Colleges) with a select undergraduate student body. Send curriculum vitae, research statement, and three letters of reference to: Dr. T. J. Mueller, Department of Biology, Harvey Mudd College, Claremont, CA 91711. To assure consideration, all materials should be received by 20 November 1991. *An Equal Opportunity/Affirmative Action Institution. Women and minorities are encouraged to apply.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR JOHNS HOPKINS UNIVERSITY BIOCHEMISTRY/MOLECULAR BIOLOGY

The Department of Biochemistry of the Johns Hopkins University invites applications for a tenure-track position available in September 1992. Outstanding candidates in all areas of biochemistry and molecular biology are encouraged to apply. The successful candidate will be expected to develop a vigorous basic research program and to participate in the training of graduate students. Please send curriculum vitae, reprints of publications, a statement of future research plans, and three letters of recommendation to: Dr. Roger McMacken, Chairman, Department of Biochemistry, The Johns Hopkins University, School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, MD 21205. The Johns Hopkins University is an Affirmative Action/Equal Opportunity Employer.

### BIOCHEMISTRY AND MICROBIOLOGY UNIVERSITY OF VICTORIA VICTORIA, BRITISH COLUMBIA, CANADA

The Department of Biochemistry and Microbiology invites applications for a full-time tenure-track appointment at the ASSISTANT PROFESSOR level in the areas of immunology/biochemistry/microbiology. Exceptional candidates in other research areas are invited to apply. The successful candidate will be expected to teach in our broadly based undergraduate program in biochemistry, microbiology, and immunology, and to establish a vigorous independent research program.

The appointment will be made in accordance with Canadian Immigration requirements. Priority will be given to Canadian citizens and permanent residents of Canada.

The deadline for application is 2 January 1992. Applicants should send their curriculum vitae, together with one copy of two recent publications, a short description of future research interests, and have at least three letters of references sent to:

Dr. Rozanne Poulson  
Faculty Search Committee  
Department of Biochemistry and Microbiology  
University of Victoria  
P.O. Box 3055, Petch Building  
Victoria, British Columbia V8W 3P6  
Canada

The University of Victoria offers Equal Employment Opportunities to qualified male and female applicants. Women are particularly invited to apply.

University of Oregon. **BIOCHEMISTRY FACULTY POSITION.** The Department of Chemistry invites applications for a tenure-track faculty position in the division of biochemistry, beginning fall 1992 at the anticipated rank of ASSISTANT PROFESSOR of Chemistry with membership in the Institute of Molecular Biology. Applicants with research interests in molecular and cell biology who could interact with the multidisciplinary programs in the Institute of Molecular Biology which have been funded, in part, by the Markey Charitable Trust, are especially encouraged to apply. The potential for a vigorous research program in modern molecular biology and biochemistry and active participation in the teaching program of the Chemistry Department will be the most important criterion for selection. To assure full consideration applicants should submit by 1 December 1991 curriculum vitae and a statement of research plans and objectives, and arrange for three letters of recommendation to be sent to: Chair Biochemistry Search Committee, Department of Chemistry, University of Oregon, Eugene, OR 97403. The University of Oregon is an Affirmative Action/Equal Opportunity Institution committed to cultural diversity.

Butler University. Biochemistry tenure-track position fall 1992. ASSISTANT OR ASSOCIATE PROFESSOR level. Teach biochemistry and develop undergraduate laboratory course including section on contemporary molecular biology methods. Butler is committed to quality undergraduate education. Ph.D. required. Send curriculum vitae and names of three references, undergraduate and graduate transcripts, and a narrative describing teaching philosophy, ideas on an undergraduate biochemistry laboratory and research interests by 6 January 1992, to: Dr. Joseph Kirsch, Head, Department of Chemistry, Butler University, 4600 Sunset Avenue, Indianapolis, IN 46208. Equal Opportunity Employer/Affirmative Action.

## POSITIONS OPEN

### DEVELOPMENT BIOLOGIST CARLETON COLLEGE

Applications are invited for a full-time, tenure-track, animal developmental biologist appointment beginning 1 September 1992 at the rank of ASSISTANT PROFESSOR in the Department of Biology. Teaching responsibilities include an upper level course in animal developmental biology, an upper level course in the biology of vertebrates and participation in a team-taught introductory zoology course. Candidate will be expected to maintain a research program which encourages participation by undergraduates and actively to seek external research support. Level of start-up funding is negotiable. Must be committed to teaching and research in the context of a liberal arts college. Applicants must have a Ph.D.; postdoctoral experience is highly advantageous. Women and minority candidates are strongly encouraged to apply. Send application, curriculum vitae, undergraduate and graduate transcripts, a statement of teaching philosophy, a summary of research goals, and three letters of recommendation to: G. J. C. Hill, Department of Biology, Carleton College, Northfield, MN 55057-4025 by 1 November 1991. Carleton College is an Equal Opportunity/Affirmative Action Employer.

### BEHAVIOR AND ECOLOGY

The Department of Biological Sciences invites applications for two tenure-track ASSISTANT PROFESSORSHIPS from candidates committed to excellence in teaching and research. Teaching loads are reasonable and modest startup funds will be provided. Preference will be given to applicants studying behavior, population biology, and evolutionary ecology of squamate reptiles. Teaching responsibilities will be in undergraduate and graduate specialty courses and in introductory courses. Submit curriculum vitae, reprints, statement of research interests, and at least three letters of recommendation to: William E. Cooper, Chair, Department of Biological Sciences, Indiana University Purdue University at Fort Wayne, Fort Wayne, IN 46805 by 6 December 1991. An Affirmative Action/Equal Opportunity Employer.

### ECOLOGIST

The Department of Biology of the University of North Carolina at Chapel Hill is seeking an ASSISTANT PROFESSOR, tenure-track appointment to commence July 1992 or later depending on applicant's availability. While all qualified individuals are encouraged to apply, special consideration will be given to candidates who have demonstrated excellence in research in population biology, evolutionary ecology, and/or physiological ecology. Send curriculum vitae, statement of research interests, and four letters of recommendation by 1 December 1991 to: Ecology Search Committee, Department of Biology, CB#3280, Coker Hall, The University of North Carolina, Chapel Hill, NC 27599-3280. An Affirmative Action/Equal Opportunity Employer.

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## POSITIONS OPEN

### FACULTY POSITION IN BIOMEDICAL/ENGINEERING AT NORTHWESTERN UNIVERSITY

The Biomedical Engineering Department of Northwestern University has two tenure-track positions at the ASSISTANT PROFESSOR level for the 1992-93 academic year, one in systems physiology or bioinstrumentation and another in biomechanics or transport. We are particularly eager to consider women and/or minority applicants. Candidates should have earned a Ph.D. in either engineering, or in a related physical science or quantitative physiology. Interested applicants should submit by 1 January 1992: curriculum vitae, outline of future research, teaching interests, and names and addresses of at least three references to: Andrew E. Kertesz, Chairman, Biomedical Engineering Department, Northwestern University, 2145 Sheridan Road, Evanston, IL 60208-3107. Northwestern University is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon eligibility to work in the United States.

### UNIVERSITY OF ARIZONA CULTURE SCIENCE AND TECHNOLOGY

Tenure-track ASSISTANT PROFESSOR in the Social and Behavioral Contexts of Engineering and Technological Innovation. Appointment in the College of Engineering with joint or adjunct appointment in social and behavioral sciences (i.e., history, sociology, anthropology, etc.). Ph.D. required. Send curriculum vitae, publications list, summary of research interests and names of three references to: Professor D. R. Uhlmann, Search Committee, Department MSE, University of Arizona, Tucson, AZ 85721. Closing date for applications is 15 January 1992. Applications by women and minority candidates encouraged. The University of Arizona is an Equal Opportunity/Affirmative Action Employer.

**GENETICIST.** The Department of Biological Sciences at California State University (CSU), Chico, invites applications for a tenure-track ASSISTANT PROFESSORSHIP beginning 1992 to 1993 academic year. Candidate must have a doctoral degree, specialization in animal molecular developmental genetics, a demonstrated ability to develop a vigorous research program in the molecular genetics of multicellular eukaryotes, teaching experience at the undergraduate level, and a strong interest in teaching excellence. Responsibilities include teaching courses in genetics and participation in upper and lower division developmental, molecular and introductory biology courses. Applicants should submit a letter of application, curriculum vitae, a statement of teaching philosophy, complete academic transcripts, copies of reprints, and three letters of reference to: Dr. William F. Derr, Chair, Department of Biological Sciences, CSU, Chico, CA 95929-0515 by 16 December 1991. An Equal Employment Opportunity/Affirmative Action/IRCA Employer.

**ASSISTANT PROFESSOR, HORTICULTURE.** Applications are invited for a tenure-track faculty position (90% research, 10% teaching) in horticulture at the University of Kentucky. The successful candidate must develop a research program in molecular genetics or cellular biology. A Ph.D. in horticulture or a related plant science is required. Horticultural crop experience is desirable. To apply, send a complete résumé, official transcripts, a letter stating research interests and career goals, and the names and addresses of five references by 8 November 1991 to: Dr. Dwayne Ingram, Department of Horticulture, University of Kentucky, Lexington, KY 40546.

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

Oregon State University Department of Forest Science announces an ASSISTANT PROFESSOR, 12-month, fixed-term appointment in research and extension with the Coastal Oregon Productivity Enhancement (COPE) Program to study wildlife habitat relationships in managed forest ecosystems. Salary \$34,000 to \$38,000 per annum. Available 1 January 1992 and located in Newport. Ph.D. and Pacific Northwest experience desirable. Closing date 15 November 1991. For information contact: Gabriel Tucker, COPE Program, Hatfield Marine Science Center, Newport, OR 97365. Telephone: 503-867-0220. An Affirmative Action/Equal Employment Opportunity Employer. Complies with Section 504, Rehabilitation Act of 1973.

# HOWARD HUGHES MEDICAL INSTITUTE

## FELLOWSHIPS FOR BIOLOGICAL AND BIOMEDICAL SCIENCES

The Howard Hughes Medical Institute has established a number of programs that support training in fundamental biological and biomedical research. Awards, based on international competitions each year, focus on research directed to understanding basic biological processes and disease mechanisms. Fellowships may be held at academic or not-for-profit research institutions.

### ■ Predoctoral Fellowships in Biological Sciences

Up to five years of support for full-time graduate study toward a Ph.D. degree in biostatistics, cell biology and regulation, epidemiology, genetics, immunology, neuroscience, or structural biology. Applicants must not have completed the first year of postbaccalaureate graduate study in biology. *Application deadline: early November.*

### ■ Postdoctoral Research Fellowships for Physicians

An opportunity for physicians to further their training in science. Three years of support for training in fundamental research subsequent to postgraduate clinical training. *Application deadline: early March.*

### ■ Research Scholars at the National Institutes of Health

Under this joint HHMI-NIH program, medical students in the United States spend an intensive year in research in the intramural program at the NIH in Bethesda, Maryland. Residence is provided at the Cloister on the NIH campus. *Application deadline: early January.*

### ■ Research Training Fellowships for Medical Students

An opportunity for medical students in the United States to explore a burgeoning interest in fundamental research. Support is awarded for one year of full-time fundamental research in a laboratory at the student's medical school or another institution (except NIH). *Application deadline: early December.*

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Bethesda, MD 20817  
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The Howard Hughes Medical Institute, an Equal Opportunity Employer, welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.

## Associate Director - Research Cross Cancer Institute

The Cross Cancer Institute (CCI), the comprehensive cancer treatment and research facility of northern Alberta, located in Edmonton, is seeking qualified applicants for the position of Associate Director - Research. The CCI's complement of 60 clinicians and scientists conducts a broad range of clinical and laboratory research. Clinical research programs include Immunodiagnosis and Immunotherapy, Experimental Hematology and Therapeutics, Symptom Control, Photodynamic Therapy, and NMR Imaging and Spectroscopy. Three theme-oriented groups conduct laboratory research in Immunology and Cell Biology, molecular Genetics and Carcinogenesis, and Radiobiology. As part of a major redevelopment project, the Institute's research facilities will expand to 35,000 net square feet in July, 1992.

The Associate Director - Research, reporting to the Director of the CCI, is responsible for the administration of its research initiatives and facilities. Major responsibilities include coordination and development of the overall research program, procurement of research resources, and staff recruitment. The successful candidate will be appointed to the Faculty of Medicine in the adjoining University of Alberta and will provide leadership in promoting the research activities of the diversified oncology program of this Faculty.

To qualify for this position, the Associate Director - Research must be an internationally recognized researcher/scientific administrator and eligible for appointment at the rank of full Professor at the University of Alberta. Demonstrated expertise in the administration of strong research programs, development of vigorous research groups or direction of widely acclaimed independent research is a prerequisite.



Interested persons should forward their letter of application and curriculum vitae to: **Dr. A.L.A. Fields, Director, Cross Cancer Institute, 11560 University Avenue, Edmonton, Alberta T6G 1Z2, Canada.** To assure full consideration, applications should be received by November 30, 1991. In accordance with Canadian immigration regulations, priority will be granted to Canadian citizens and permanent residents; however others are encouraged to apply.

## POSITIONS OPEN

### ASSISTANT PROFESSORS TENURE TRACK MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) DEPARTMENT OF CHEMISTRY

The Department of Chemistry invites applications for two tenure-track positions: one in organic chemistry and the other in inorganic chemistry. While the preferred level of appointment is at the rank of assistant professor, applications for appointment at more senior levels are also welcome. Outstanding individuals with a strong commitment to research and teaching are encouraged to apply by arranging to have curriculum vitae, a brief description of research plans, and three letters of recommendation sent to: **Professor Robert J. Silbey, Department of Chemistry, 18-399, Massachusetts Institute of Technology, Cambridge, MA 02139-4307** by 30 November 1991.

*MIT is an Equal Opportunity, Affirmative Action Employer and encourages applications from minorities and women.*

Harvard University, Department of Anthropology, invites applications for an **ASSISTANT PROFESSORSHIP IN BIOLOGICAL ANTHROPOLOGY**. We are especially interested in the biology and ecology of human populations, and the evolution of cognition. Applicants should evidence a strong commitment to field or laboratory research, and ability to teach undergraduates and direct doctoral research. Send curriculum vitae and names of three references to: **Chair, Department of Anthropology, Harvard University, Cambridge, MA 02138.** *An Equal Opportunity Affirmative Action Employer.*

### ASSISTANT PROFESSOR MICROBIOLOGY

The Department of Microbiology at the University of Illinois (Urbana-Champaign) seeks candidates for a full-time, tenure-track faculty position at the assistant professor level. Applicants should have a Ph.D. degree, post-doctoral experience, and show exceptional promise in developing an active research program in microbiology. Research areas of particular interest include, but are not limited to microbial physiology and genetics, molecular aspects of pathogenesis, and cell and molecular biology of eukaryotic microorganisms. Responsibilities include teaching undergraduate and graduate students. Starting date August 1992. Salary commensurate with experience.

The Department of Microbiology offers a supportive and collegial atmosphere and a strong graduate program. There are extensive interdepartmental interactions in microbial and eukaryotic cell and molecular biology, virology, immunology, neurobiology, developmental biology, evolution, biochemistry and biophysics. The University of Illinois (Urbana-Champaign) offers an outstanding and exciting academic research environment including a Biotechnology Center and state-of-the-art facilities for hybridoma production, flow cytometry, electron microscopy, x-ray crystallography and computer analyses.

Applicants should submit curriculum vitae, a statement describing research interests and future plans, and the names of at least three persons willing to provide letters of reference to:

**Junior Faculty Search Committee  
Department of Microbiology  
University of Illinois  
131 Burrill Hall  
407 South Goodwin Avenue  
Urbana, IL 61801  
Telephone: 217-333-1736**

To ensure full consideration applications should be received by 15 December 1991. Interviews may be conducted before the closing date, but no final decision will be made before that time. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT PROFESSOR.** Individuals with Ph.D., D.M.D., M.D. or equivalent degrees are sought in the areas of immunology, cellular or molecular biology for the position of an assistant professor in the Department of Oral Biology. Candidates are expected to carry out independent research programs. Limited participation in teaching is anticipated. Submit curriculum vitae and three letters of recommendation to: **Dr. Frank Oppenheim, Room G-217-B, Department of Periodontology and Oral Biology, Boston University Medical Center, Boston, MA 02118.** *An Equal Opportunity Employer.*

# MIT

## Two Faculty Positions in Cognitive Science

The Department of Brain and Cognitive Sciences of the Massachusetts Institute of Technology anticipates making two faculty appointments (levels open) in cognitive science, with a preferred focus in one of the following areas: (1) perception, (2) reasoning, or (3) cognitive neuroscience. The persons filling these positions will be expected to maintain an active experimental research program and to participate in the department's educational programs in cognitive science at the undergraduate and graduate levels.

Applications must include a brief cover letter stating the candidate's research and teaching interests, a resume, and at least three letters of recommendation; representative reprints may be included.

Please send applications to **Dr. Emilio Bizzi, Chairman, Department of Brain and Cognitive Sciences, E25-526, MIT, Cambridge, MA 02139-4307.** Applications will be considered starting January 6, 1992. Qualified women and minority candidates are especially encouraged to apply. MIT is an Affirmative Action/Equal Opportunity Employer.

## Massachusetts Institute of Technology



## POSITIONS OPEN

### BROWN UNIVERSITY ASSISTANT PROFESSOR OF MEDICAL SCIENCE (MOLECULAR BIOLOGY AND GENE THERAPY)

Broadly trained molecular biologist with strong interest in gene therapy, particularly in research involving gene transfer for use in immuno-isolated cellular transplants and/or organoid research. Full-time, tenure-track appointment commencing 1 January or 1 July 1992. A doctoral degree and postdoctoral research experience are required. The appointment will be in the Section of Artificial Organs, Biomaterials and Cellular Technology, a multidisciplinary group with research emphasis on tissue regeneration, polymeric drug release systems and development of membrane-protected cellular transplants. Candidates must show evidence of their ability to establish an independent, externally funded research program and must demonstrate the potential for excellence in teaching. Teaching responsibilities include the participation in graduate and undergraduate courses in molecular biology and gene therapy, and the academic advising of undergraduate and graduate students.

Screening of applications will begin on 30 October 1991 and continue until a successful candidate has been identified or the search is closed. Applicants should submit curriculum vitae, a set of five representative reprints, a concise description of research interests and goals, and should arrange for three letters of reference to be sent to: **Professor E. H. Leduc, Division of Biology and Medicine, Box G, Brown University, Providence, RI 02912.** We encourage applications from women and minority candidates. Brown University is an Equal Opportunity/Affirmative Action Employer.

### ASSISTANT PROFESSOR DEPARTMENT OF MICROBIOLOGY THE UNIVERSITY OF TENNESSEE KNOXVILLE, TENNESSEE

Qualifications: Doctoral degree and at least 2 years of postdoctoral experience in molecular virology or closely allied biological science; demonstrated research productivity in molecular biology and potential excellence in teaching.

Responsibilities: Graduate and undergraduate teaching in virology/molecular biology, establishment of a productive independent research program, and academic responsibilities normally associated with a tenure-track faculty position.

Starting date: 1 August 1992.

Applicants should submit a letter of interest accompanied by curriculum vitae, a description of the applicant's research program and career objectives, and arrange for letters of reference to be sent by three individuals who can evaluate the applicant's qualifications for the position. *Applications from women and minorities are especially invited.* All material should be sent to: **Dr. David Brian, Chairman, Search Committee, Department of Microbiology, University of Tennessee, Knoxville, TN 37996-0845.** Nominations should be made as soon as possible; evaluation of applications will begin in December 1991. *The University of Tennessee is an Equal Opportunity/Affirmative Action/Title IX/Section 504/ADA Employer.*

### RESEARCH ASSISTANT PROFESSOR DEPARTMENT OF NEUROLOGICAL SURGERY UNIVERSITY OF VIRGINIA CHARLOTTESVILLE

We are seeking a neurosurgical nurse to be responsible for organizing multicenter clinical trials to improve outcomes from subarachnoid hemorrhage and stroke. Will supervise clinical monitoring staff, ensure high quality data collection and adverse events reporting, and participate in developing new protocols.

Required: M.S. (or near completion) in nursing with high level of knowledge of clinical trials and strong interest in subarachnoid hemorrhage or stroke as evidenced by work experience/publication record. Appointment will be at the research assistant professor level. Apply to: **Wayne M. Alves, Ph.D., Director, Neuro-Clinical Trials Center, 202 Park Place, University of Virginia School of Medicine, Charlottesville, VA 22908.**

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

18 OCTOBER 1991

## Challenging opportunities for growth.



Cambridge NeuroScience is an emerging pharmaceutical company committed to the discovery and development of unique medicines for the treatment of major disorders of the nervous systems. The Company is recognized for its combination of scientific expertise in biotechnology, chemistry, and pharmacology, as well as its collaborations with leading academic institutions and experts.

We are seeking to expand our efforts with the help of the following professionals:

### CHEMISTRY

#### Department Director

Minimum of a Ph.D. and 5 years' experience of synthetic medicinal chemistry and its application to biological systems, as well as experience managing a research group. Familiarity with analytical chemistry desirable.

### IN VIVO PHARMACOLOGY

#### Department Director

Minimum of Ph.D. and 5 years' experience of in vivo pharmacology, including work with animal models of brain ischemia, traumatic brain injury, peripheral neuropathies or nerve regeneration, as well as experience managing a research group. Experience with general pharmacology desirable.

#### Staff Scientists

Two positions are available. Both require a minimum of a Ph.D. and two years' experience: the first in the area of ischemic or traumatic brain injury; the second in the area of neuropathy and nerve regeneration.

### GENE EXPRESSION

#### Group Leader

Minimum of Ph.D. and 3 years' experience in optimizing mammalian cell expression systems, preferably in the biotechnology or pharmaceutical industry.

#### Staff Scientist

Minimum of Ph.D. plus at least 2 years' experience in molecular biology.

### CLINICAL RESEARCH

#### Medical Director/VP

MD preferred (D.V.M., Pharm. D., or Ph.D. in relevant field acceptable) with a minimum of 10 years' pharmaceutical industry experience in Clinical Research with IND products. Experience in the area of central nervous system therapeutics is essential, with the area of neurology preferred.

### DRUG DEVELOPMENT

#### Department Director

M.D., Ph.D., Pharm. D., or D.V.M., plus a minimum of 10 years' pharmaceutical industry experience in the areas of pharmacology, toxicology or pharmacokinetics with IND products are required. Minimum of 5 years' experience managing drug development in a matrix environment is essential.

If you are interested in participating in a company that demands and supports scientific excellence which will positively impact on the treatment of neurological disorders, consider a career at Cambridge NeuroScience. To apply for one of the above positions or obtain more information about the company, write to: **Human Resources, Dept. SCI-1018, Cambridge NeuroScience, One Kendall Square, Building 700, Cambridge, MA 02139.** An Equal Opportunity Employer.

## POSITIONS OPEN

### NATURAL RESOURCES BIOMETRICIAN UNIVERSITY OF MISSOURI

Applications are invited for the position of **ASSISTANT PROFESSOR** of Natural Resource Biometrics in The School of Natural Resources at the University of Missouri. The successful candidate will be expected to develop and conduct a competitive research program in the quantitative description and analysis of natural resource systems. Teaching responsibilities will include two undergraduate courses: one entailing the basic theory and techniques for measurement and description of natural resource populations, and the other an introductory interpretation of aerial photography. Participation in teaching basic natural resource measurements and inventory at Forestry Summer Camp will also be required. Candidates are expected to have a Ph.D. in a natural resource science and expertise in biometrics. Related job experience or postdoctoral teaching and/or research experience and expertise in geographic information systems are desirable.

Send an application letter, résumé, a one-page statement of teaching and research interests and philosophy, transcripts, and the names, addresses, and telephone numbers of three references, along with copies of major publications to: **Dr. John P. Dwyer, The School of Natural Resources, 1-30 Agriculture Building, University of Missouri, Columbia, MO 65211.** The deadline for applications is 15 January 1992 or until suitable candidates are found. For further information about the position described above call 314-882-3537.

*The University of Missouri is an Equal Opportunity Institution.*

The Department of Psychology, Rutgers University, has two openings: one for a tenure-track **ASSISTANT PROFESSOR** and one for a tenured **ASSOCIATE PROFESSOR** at the Laboratory of Vision Research. The assistant professor opening is for a person in psychobiology and behavioral neuroscience, with particular interest in behavioral and/or neurobiological aspects of animal learning, behavioral pharmacology (animal or human), comparative cognition, or behavioral ecology. Postdoctoral experience is highly desirable for this position. The associate professor position is in the Laboratory of Vision Research (directed by Dr. Bela Julesz). Interest is in candidates with experience in basic and applied research in visual space perception, with special emphasis on human factors engineering. Knowledge of computers and optical devices is desirable. Responsibilities for both positions will include undergraduate and graduate teaching and maintenance of an active research program. Send curriculum vitae, three letters of recommendation, and selected reprints by 1 December 1991 to: **Professor Charles Flaherty, Chairman, Department of Psychology, Rutgers University, Busch Campus, New Brunswick, NJ 08903.**

### MICROBIOLOGIST/CELL BIOLOGIST UNIVERSITY OF TORONTO ERINDALE CAMPUS

The Department of Zoology, University of Toronto, invites applications for a tenure-track **ASSISTANT PROFESSORSHIP** in microbiology or cell biology on the Erindale Campus, beginning 1 July 1992. A Ph.D. degree is required and postdoctoral or other experience is desirable. The candidate should have expertise in a nonmedical aspect of microbiology/cell biology, and will be expected not only to develop an active, externally funded research program, but also to provide graduate supervision. There is considerable potential for interaction with colleagues at Erindale, both in biology and in other departments. Members of the zoology and botany departments offer a joint undergraduate teaching program in biology at Erindale. Teaching duties will include participation in introductory microbiology and in cell biology, with opportunities to develop and participate in advanced courses according to the specific interests of the candidate. Effective teaching is both expected and encouraged. Applicants should send curriculum vitae, copies of representative publications, and arrange to have three letters of reference sent to: **Dr. Robert Reisz, Search Committee Chairman, Department of Zoology, Erindale College, University of Toronto, Mississauga, Ontario, Canada L5L 1C6, before 31 December 1991.** In accordance with Canadian immigration requirements this advertisement is directed to Canadian citizens and permanent residents. The University of Toronto encourages both women and men to apply.

## POSITIONS OPEN

**IMMUNOLOGY FACULTY.** Case Western Reserve University. Brand new research space is available for several immunologists to join an existing group of eight immunologists at the Institute of Pathology, Case Western Reserve University. Basic research in any area of immunology will be considered. For appointment as **ASSISTANT PROFESSOR** (tenure track), candidates should have completed a productive postdoctoral fellowship. For an appointment at the associate or full professor level, candidates should have established a productive laboratory. Applicants should submit curriculum vitae, a brief description of past and current research and future plans, and the names of three references to: **Immunology Search Committee, c/o R. Zuppert, Institute of Pathology, Case Western Reserve University (CWRU), 2085 Adelbert Road, Cleveland, OH 44106.** CWRU is an Equal Opportunity/Affirmative Action Employer.

### ASSISTANT PROFESSOR

The Department of Pathology and Laboratory Medicine at the University of Pennsylvania seeks applications for a tenure-track position in the Blood Bank and Transfusion Medicine Section available beginning 1 July 1992. The candidate must hold M.D. or M.D./Ph.D. degrees and be Board-eligible or Board-certified in clinical pathology or internal medicine with documented experience in transfusion medicine.

The successful applicant will be expected to play a major role in the clinical and teaching activities of the section and develop a strong independent research program, preferably related to the biochemistry of, or immune response to, human blood group antigens. Curriculum vitae, a statement describing research interests, and the names of three references should be submitted by 1 December 1991 to: **Dr. Steven Spitalnik, Chairman of Search Committee, Department of Pathology and Laboratory Medicine, 220 John Morgan Building, University of Pennsylvania, Philadelphia, PA 19104.**

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

### ASSISTANT PROFESSOR PHYSIOLOGY AND BIOPHYSICS

The Department of Physiology and Biophysics in the College of Medicine at the University of Nebraska Medical Center invites applications for a tenure-leading faculty position at the assistant professor level. Applicants should hold a doctoral degree and have completed at least 2 years of postdoctoral training. The department seeks an individual in the areas of microcirculatory control and/or endothelial cell-smooth muscle interactions, to complement ongoing research in these areas.

In addition to a strong research program, a commitment to teaching medical students, allied health students, and graduate students is required. The department will offer competitive salary commensurate with experience. Substantial set-up funds are also available. Applicants should send curriculum vitae with the names of three references by 30 November 1991, to:

**Irving H. Zucker, Ph.D.  
Professor and Chairman  
Department of Physiology and Biophysics  
University of Nebraska College of Medicine  
600 South 42nd Street  
Omaha, NE 68198-4575**

*The University of Nebraska is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.*

### VERTEBRATE ECOLOGIST

The Department of Biology at Trinity University invites applications for a tenure-track **ASSISTANT PROFESSOR** position beginning August 1992. Candidates must possess a Ph.D., and have research interests that are compatible with undergraduate participation. Duties include teaching a laboratory course in vertebrate zoology, participation in ecology courses, and academic advising.

Applicants should send curriculum vitae, summary of research interests and names of three references to: **Professor Thomas L. Koppenheffer, Chairman, Department of Biology, Trinity University, San Antonio, TX 78212.** Application deadline is 22 November 1991. Women and minority candidates are strongly encouraged to apply. Trinity University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**ASSISTANT PROFESSOR IN ORGANIC CHEMISTRY** at Iowa State University. Applications are invited for this position which will become available 21 August 1992. Candidates with outstanding potential and commitment to excellence in both research and teaching are sought to join a faculty with a strong tradition of research in organic chemistry. The university is prepared to provide start-up funds and summer salary to enable rapid progress in research. Applicants with interests in the chemistry of natural systems will be appointed as the Caldwell Assistant Professor of Chemistry and will in addition receive generous unrestricted research support for 3 years. Applicants should submit curriculum vitae, transcripts, a list of publications, and a detailed statement of research plans and teaching objectives to: **Organic Search Committee, c/o Professor James H. Espenson, Department of Chemistry, Iowa State University, Ames, IA 50011.** Applicants also should arrange for at least three letters of recommendation to be sent. Women and minority applicants are encouraged to apply. Iowa State University is an Affirmative Action/Equal Opportunity Employer.

### VASCULAR PLANT BIOLOGIST/ ECOLOGIST-SYSTEMATIST

Tenure-track **ASSISTANT PROFESSOR**; to begin August 1992. Teaching responsibilities include participation in freshman level biology, sophomore level general ecology and an upper division course in specialty. May also participate in interdisciplinary "Science in Context" course. Will share curatorial activities in herbarium. Faculty are expected to develop research programs that actively involve undergraduate students in research process. Ph.D. in the biological sciences, and commitment to liberal arts education and cultural diversity. Submit interest letter, curriculum vitae and names of three references by 15 November 1991, to: **Plant Biology Search, University of Puget Sound, P.O. Box 7297, Tacoma, WA 98407.** Equal Opportunity/Affirmative Action Educator/Employer.

## PHYSIOLOGY

### INDIANA UNIVERSITY AT KOKOMO

The Department of Biological and Physical Sciences invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level commencing August 1992 (pending funding approval). Responsibilities include teaching, at the undergraduate level, basic mammalian (human) physiology (both lecture and laboratory) for nursing and allied health students, and, on an alternating basis, upper level courses in cell physiology and endocrine physiology for biology majors. Although teaching is a prime responsibility, research and service are also required. Publication is expected.

Desired qualifications include an earned doctorate, and a strong commitment to undergraduate teaching, research and publication. Salary is competitive and includes an excellent fringe benefits package. Although the review process will commence 1 December 1991 applications will be accepted until the position is filled.

Send résumé, copies of undergraduate and graduate transcripts and the names, addresses and telephone numbers of at least three references to:

**Dr. Robert Roales  
Chairperson, Department of Biological  
and Physical Sciences  
Indiana University at Kokomo  
P.O. Box 9003  
Kokomo, IN 46904-9003**

*Indiana University at Kokomo is an Equal Opportunity/Affirmative Action Employer.*

### UNIVERSITY OF PENNSYLVANIA

The Department of Physiology seeks to fill several tenure-track positions, preferably at the **ASSISTANT PROFESSOR** level. Candidates with demonstrated strength in experimental approaches to the study of cellular and/or molecular mechanisms are encouraged to apply. Please send curriculum vitae, a statement of research interests, and names of three references to whom the committee may write for further information.

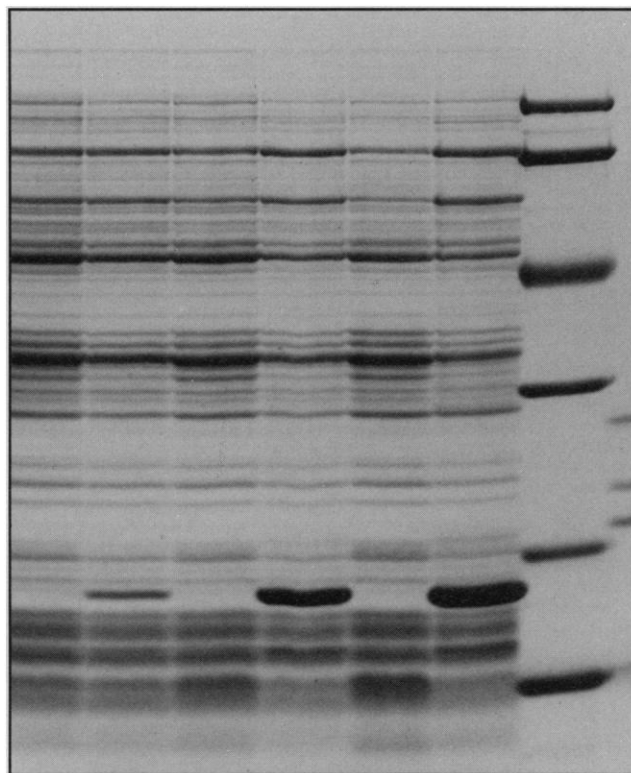
**Faculty Search Committee  
Department of Physiology  
University of Pennsylvania  
Philadelphia, PA 19104-6085**

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



# Creative Expression

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At Amgen we are committed to the development of human therapeutics based on the principles of Cellular and Molecular Biology. Although the application of this field is still in its infancy, Amgen has distinguished itself as an industry leader. Our success has been the result of the efforts of a talented scientific staff with a shared vision about the potential of biotechnology.

As a result of our success, we are actively recruiting scientists at the B.S. to Ph.D. levels in a number of fields including Molecular Biology, Cellular Biology, Protein Chemistry, Pharmaceuticals and Drug Delivery.

Amgen has made a commitment to being a leader in the field of biotechnology. Our success can only come from an

environment where scientists have the resources and support to develop their full potential. If you share our vision and enthusiasm, we would like the privilege of receiving your resume or CV at:

**Amgen Inc.**  
**Recruitment Department**  
**Amgen Center**  
**Thousand Oaks, CA 91320-1789**

# AMGEN®

## POSITIONS OPEN

**COGNITIVE NEUROSCIENCE.** The Psychology Department at The University of North Carolina (UNC) at Greensboro seeks applications for a tenure-track appointment at the **ASSISTANT PROFESSOR** level. We are interested in applications from both cognitive psychologists whose research illuminates the neural mechanisms underlying cognitive processes, and from neuroscientists whose research focuses on cognitive processes. Applicants should have demonstrated a promise of excellence in research and a commitment to teaching at graduate and undergraduate levels. Ph.D.-granting departments has 24 faculty members with strong interdisciplinary links. Copies of curriculum vitae, representative publications, and three letters of reference should be sent to: **Chair, Cognitive Neuroscience Search, Department of Psychology, UNC-Greensboro, Greensboro, NC 27412.** Minorities and women are especially encouraged to apply. Applications will be accepted until 15 December 1991, or until the position is filled. *Affirmative Action/Equal Opportunity Employer.*

## COMPARATIVE PHYSIOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

The Department of Ecology and Evolutionary Biology is seeking to fill two positions in the general area of comparative animal physiology. Area of specialization is open; evolutionary and/or ecological relevance of research interests is expected. One appointment is at the **ASSISTANT** or **ASSOCIATE PROFESSORIAL** level; the other, at the **ASSOCIATE** or **PROFESSORIAL** level. Teaching duties will involve participation in an undergraduate course in physiological sciences and on-going graduate courses in comparative organismal biology. Please submit a statement of research interests, curriculum vitae, reprints of relevant publications, and three letters of recommendation by 15 December 1991 to: **Chair, Comparative Physiologist Search Committee, Department of Ecology and Evolutionary Biology, University of California, Irvine, CA 92717.**

*The University of California is an Equal Opportunity/Affirmative Action Employer. The Department of Ecology and Evolutionary Biology welcomes applications from women and minority candidates.*

## VERTEBRATE ECOLOGIST

A tenure-track position in the Department of Zoology at Washington State University is available at the level of **ASSISTANT PROFESSOR** beginning August 1992. Applications are invited especially from those using experimental approaches on fish, amphibians, reptiles or mammals to address major questions in ecology. Teaching will include undergraduate and graduate courses in ecology and related areas. Postdoctoral experience is preferred. Applicants should send curriculum vitae, a statement of current and long-term research interests, and three letters of reference to: **J. H. Larsen, Department of Zoology, Washington State University (WSU), Pullman, WA 99164-4236** before 18 December 1991 when applicant screening begins. *WSU is an Equal Opportunity/Affirmative Action Employer and Educator. Protected group members are encouraged to apply.*

**VETERINARY BACTERIOLOGIST.** Tenure-track position as **ASSISTANT PROFESSOR** of bacteriology. Appointment at higher level possible. Must have Ph.D. and demonstrated evidence of research productivity. Preference will be given to those with D.V.M. Send curriculum vitae and names and addresses of three referees to: **Dr. R. J. Avery, Department of Microbiology, Immunology and Parasitology, College of Veterinary Medicine, Cornell University, Ithaca, NY 14853-6401. Telephone: 607-253-3400.** Screening of applications will begin immediately. *An Affirmative Action/Equal Opportunity Employer.*

**POPULATION BIOLOGIST.** A position as **ASSISTANT PROFESSOR** is available in August 1992 for a highly qualified Ph.D. interested in teaching and conducting research with undergraduates. Teaching will include introductory population biology plus non-major and/or advanced courses. Research should apply modern experimental approaches to evolution or ecology. New research facilities and research support are available. Postdoctoral experience is preferred. A letter stating teaching and research plans, curriculum vitae, and three letters of reference should be sent by 15 November 1991 to: **Dr. David W. Towle, Chairperson, Department of Biology, Lake Forest College, Lake Forest, IL 60045.** Applications from minorities and women are actively encouraged.

## POSITIONS OPEN

### ONE TO TWO TENURE-TRACK FACULTY POSITIONS IN PHARMACOLOGY

The University of Illinois College of Medicine at Rockford expects one to two tenure-track positions in its diversified Department of Biomedical Sciences at the level of **ASSISTANT PROFESSOR** of Pharmacology. The emphasis will be on excellence in research. The specific research area is open, but individuals will be expected to develop an independent, reputable, and externally fundable research program. Contribution to a team-taught course in medical pharmacology is expected. Submit curriculum vitae, a short statement of research interests, and the names and addresses of three references to: **Dr. Raymond Quock, Chair, Pharmacologist Search Committee, Department of Biomedical Sciences, University of Illinois College of Medicine at Rockford, 1601 Parkview Avenue, Rockford, IL 61107-1897.** Applications will be reviewed starting 15 November 1991. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

**PLANT ECOLOGIST.** The Department of Biology at Middlebury College has a 3-year position for a **VISITING ASSISTANT PROFESSOR** with the possibility of continuation, in the area of plant (or plant-herbivore) ecology. Teaching responsibilities will include introductory ecology, participation in the evolution portion of an introductory course on genetics and evolution, and an upper-level course in field botany. The successful applicant will have an active research program and be able to advise undergraduate research projects. Please arrange for at least three letters of reference to be forwarded, and send curriculum vitae, statements of teaching and research interests, and graduate transcripts, postmarked by 2 December 1991 to: **Dr. George B. Saul, Department of Biology, Middlebury College, Middlebury, VT 05753.**

*Middlebury College is an Equal Opportunity Employer.*

**DEVELOPMENTAL BIOLOGIST.** The Department of Biological Sciences, Mississippi State University, is seeking applications for a 9-month, tenure-track position at the **ASSISTANT OR ASSOCIATE PROFESSOR** level starting no later than 16 August 1992. The successful candidate will be able to teach basic and graduate cell biology courses, a course in the area of expertise and will be expected to develop an externally funded research program and to direct graduate students. Preference will be given to applicants working at the cellular, genetic, or molecular levels. Research involving transgenic animals cell-cell interactions, or morphogenesis would be especially appropriate, but other areas would be considered fully. Applications should include a letter stating research and teaching interests, a detailed curriculum vitae, and names, addresses, and telephone numbers of three referees. Screening of candidates will begin 15 December 1991 and will continue until the position is filled. Applications should be submitted to: **Dr. Dwayne Wise, Chairman, Developmental Biology Search Committee, Department of Biological Sciences, Mississippi State University, P.O. Drawer GY, Mississippi State, MS 39762.** *Mississippi State University is an Affirmative Action/Equal Employment Opportunity Employer.*

### FACULTY POSITION ORGANISMAL/ ECOLOGICAL PLANT PHYSIOLOGY

The Department of Biological Science invites applications for a tenure-track position as **ASSISTANT OR ASSOCIATE PROFESSOR** starting August 1992. Applicants must have a Ph.D. with experience in and a strong commitment to teaching and an active research program. Teaching responsibility may include principles of botany, principles of ecology, organismal plant physiology, and upper division and master's level courses in the applicants' area of expertise. The successful candidate will complement existing programs in terrestrial and/or aquatic botany.

Applicants should send a letter of application, curriculum vitae, copies of publications, statement of research and teaching interest and experience, documentation of high quality teaching, and three letters of recommendation to: **Faculty Search Committee, Department of Biological Science, California State University, Fullerton, CA 92634-4080.** Deadline for applications is 15 January 1992.

*Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR.** The Department of Biology, Illinois Benedictine College, has two tenure-track positions for fall 1992; Ph.D. required; 12 November 1991 deadline. The first position is for a **CELLULAR/MOLECULAR BIOLOGIST**; duties include: (1) teaching cell biology, molecular biology, and immunology, (2) heading the Molecular Biology Program, (3) directing some undergraduate research. The second position is for an **ECOLOGIST**; duties include: (1) teaching general ecology, microbiology, and a nonmajors environmental science course, (2) directing some undergraduate research. Send curriculum vitae, a copy of all transcripts and three letters of recommendation to: **Dr. Lawrence Kamin, Chairman, Search Committee, Illinois Benedictine College (IBC), 5700 College Road, Lisle, IL 60532.** *IBC is an Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT/ASSOCIATE PROFESSOR IN RESPIRATORY BIOLOGY OR BIOENGINEERING

The Department of Environmental Health at the Harvard School of Public Health is seeking an outstanding scientist of demonstrated independence and productivity to address the interaction between physical forces and alterations in cell function. Related appropriate areas include physical determinants of lung function at any level (organ, material, matrix, cell or molecule) as they pertain to lung growth, structure, mechanics, or pathogenesis.

The successful candidate will be expected to teach at graduate and post-graduate levels and to develop an independent research program that complements ongoing research in the Respiratory Biology Program; these include respiratory physiology, morphology, biology of chemical mediators, pathogenesis of lung diseases, cell and molecular biology, and aerosol physics. Funds are available to help establish a laboratory. Applicants should send a statement of current and future research interests, curriculum vitae, and the names of three references to:

**Jeffrey J. Fredberg, Ph.D., Chair  
Ad Hoc Search Committee  
Harvard School of Public Health  
665 Huntington Avenue  
Boston, MA 02115**

*Harvard University is committed to increasing the number of women and minorities in its faculty and encourages applications from such candidates.*

### ASSISTANT PROFESSOR REPRODUCTIVE BIOLOGY

Applicants are sought for a tenure-track position in the Division of Reproductive Biology, Johns Hopkins University. We are particularly interested in applicants who use cellular and molecular approaches to study basic reproductive processes. However, all excellent candidates with interests in any area of reproductive biology are encouraged to apply. Applicants must have a Ph.D. or M.D. or equivalent degree and at least 2 years of postdoctoral training. A faculty member is expected to maintain a well-funded research program, to advise graduate and postgraduate students and to teach at the graduate level. Application deadline is 2 January 1992; starting date is negotiable. Please send curriculum vitae, a description of proposed research and names of four references to: **Dr. William W. Wright, Chairman, Search Committee, Division of Reproductive Biology, Department of Population Dynamics, Johns Hopkins University School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, MD 21205.** *The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer. Applications are encouraged from women and minority groups.*

### PEDIATRIC GENETICISTS UNIVERSITY OF ARIZONA

Tenure-track faculty members sought (in biochemical/molecular genetics) at the **ASSISTANT/ASSOCIATE PROFESSOR** level. Qualifications: M.D. degree; Board certification or eligibility in pediatrics and clinical, biochemical, or molecular genetics. Approximately 80% time for research. Review of applicants begins 15 October 1991 and will continue until positions filled. Contact: **Robert Erickson, M.D., Department of Pediatrics, Arizona Health Sciences Center, Tucson, AZ 85724. Telephone: 602-626-5483.** *University of Arizona is an Equal Employment Opportunity/Affirmative Action Employer.*

**Forest Resources/  
Landscape Ecology**

## **Research Scientist**

**\$34,343 - \$73,978**

**Forestry Canada  
Petawawa National Forestry  
Institute  
Chalk River, Ontario**

### **Your Challenge**

You will manage and provide scientific leadership to a six-person research and development team responsible for a large spatial database on the forests of Canada. Through international liaison and collaboration, you will also be required to carry out independent research into the current state of Canada's forests, their pattern and dynamics, and the quality and type of information needed for the future in order to study the role of Canada's forests in a global context.

### **Your Credentials**

You must possess a doctoral degree from a recognized university with specialization in landscape ecology, forestry, database systems, modelling or a related discipline, or a lesser degree with evidence of research experience and productivity equivalent to that of a doctoral degree. You must also have experience in data collection, data management, and in one or more fields of analysis such as ecology or modelling. You should have a well-developed network of contacts in this field. Proficiency in English is essential.

Preference will be given to Canadian citizens.

**Please forward your resumé and/or application form before November 6, 1991, quoting reference number S-91-31-5343-47JG (G35), to: Joan Girling, Public Service Commission of Canada, 171 Slater Street, Ottawa, Ontario K1A 0M7.**

*We are committed to employment equity.*

**Canada**



Public Service Commission  
of Canada

Commission de la fonction publique  
du Canada

## **PHARMACEUTICAL RESEARCH**

The ICI Pharmaceuticals Group, with its leading worldwide position in cardiovascular and cancer breakthroughs, is seeking pharmacologists for the CNS and General Pharmacology drug discovery research groups based in Wilmington, Delaware.

The successful candidates will be part of our interdisciplinary team involved in exploring novel approaches in psychotherapeutics and urinary incontinence. The environment offers modern laboratory facilities, supported by state-of-the-art technology.

### **CNS Pharmacology**

**PRINCIPAL PHARMACOLOGIST** — PhD in Pharmacology or Neuroscience with experience as an independent investigator with a proven record of accomplishment and publication. A strong emphasis on mechanism of drug actions of psychotherapeutic drugs is highly desired, with a strong working knowledge on dopaminergic systems, neuropeptides and molecular biology. The candidate should demonstrate innovativeness and leadership potential capable of initiating and recommending new exploratory research programs towards drug discovery. Good supervisory skills are essential as well as interacting with other multidisciplinary scientists.

**SENIOR SCIENTIST** — PhD in Pharmacology/Biochemistry with a minimum of 3 years of post-doctoral experience is required. Experience with receptor-mediated second messenger coupling mechanism is desired. Proven application of molecular biology concepts and techniques including gene cloning and transfection into mammalian cells is preferred.

**RESEARCH ASSOCIATE** — An industrial position sponsored by the Department of Pharmacology of the University of Pennsylvania. One-year appointment with the potential to renew. Experience and research interests in neurochemical pharmacology and tissue culture techniques required. Knowledge of molecular biology preferred.

### **General Pharmacology**

**PHARMACOLOGIST** — BS/MS in Biology, Biochemistry, Pharmacology or Life Sciences with prior laboratory work in spectrophotometric assays to assist in testing compounds. Additional experience in radioisotope use and ligand binding assays a plus.

**PHARMACOLOGIST** — BS/MS in Biological Sciences or related discipline with experience handling small animals. The candidate must be skillful in performing dissection, working with isolated tissues, knowledgeable in pharmacological receptor functions to perform *in vitro* primary screen and standard receptor function assays. Additional familiarity with drug/solute transport desirable.

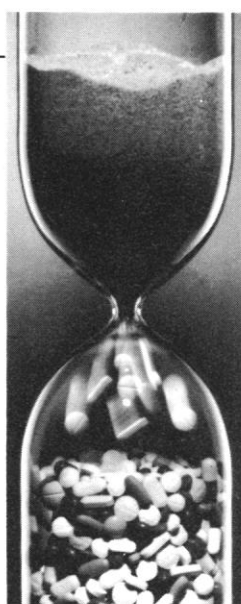
Enjoy the benefits of belonging to a worldwide organization with the professional and financial resources to support and sustain aggressive long-term research.

For consideration, submit c.v. to: **Rose S. Buono, Human Resources Dept., ICI Pharmaceuticals Group, Concord Pike and New Murphy Road, Wilmington, DE 19897.**



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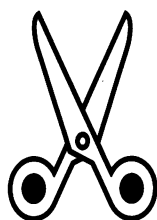
*The Glaxo Inc. Research Institute, a self-standing unit within Glaxo and an integral part of Glaxo Holdings' international research organization, encompasses a complete research and development function. Created in 1990, GRI serves as an energizing force for the discovery and development of drugs in three therapeutic areas of critical importance to vast numbers of patients — cancer, metabolic disorders and inflammatory diseases.*

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- R&D Resources Administration

*Your resume will receive our confidential consideration when forwarded to: Human Resources Department, Job #SC-10/18, Glaxo Inc. Research Institute, P.O. Box 13398, Research Triangle Park, NC 27709. (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/H/V.*



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## POSITIONS OPEN

### FACULTY POSITION ASSOCIATE PROFESSOR/PROFESSOR

The Departments of Physiology/Biophysics and Pediatrics at the University of California, Irvine, are currently seeking applicants for a joint tenure-track position under the auspices of the Physician-Scientist Program. Candidates are required to have an M.D. degree and Board certification in medical genetics. Preference will be given to candidates possessing, in addition, a Ph.D. degree or a strong background in basic science research.

We are seeking a colleague who will be able to develop a dynamic research program at the leading edge of molecular medicine. A proven track record of expertise in the disciplines of molecular biology, molecular genetics, and membrane transport systems is highly desirable. Candidates should demonstrate a history of generating extramural funding.

The successful candidate is expected to teach medical and graduate students, in addition to providing patient care at the university's clinical facilities. Rank and salary will be determined based on qualifications and experience in accordance with university scales.

The position is available mid-1992; applications must be received by 8 November 1991. Send letter of application, statement of research interests, curriculum vitae and the names of three references to:

**Michael D. Cahalan, Ph.D.**

**Professor and Chair**

**Department of Physiology and Biophysics  
University of California, Irvine  
Irvine, CA 92717**

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

### POSTDOCTORAL/RESEARCH ASSISTANT PROFESSOR IN VISUAL NEUROSCIENCE

Available 1 January 1992, in Department of Anatomy, Louisiana State University Medical Center (LSUMC), New Orleans. Applicants should have an interest in neurotransmitters in the visual system. Training in electrophysiology and/or immunocytochemistry is essential. Salary will be competitive and commensurate with experience. Send curriculum vitae and three names of references to: Dr. R. Ranney Mize, Department of Anatomy, LSUMC, 2001 Perdido Street, New Orleans, LA 70112-1393. *An Equal Opportunity/Affirmative Action Employer.*

**PHYSIOLOGICAL PSYCHOLOGIST.** The University of Massachusetts at Amherst expects an opening for a 3/4 to full-time ASSISTANT OR ASSOCIATE PROFESSOR in physiological psychology starting in January 1992 and renewable through August 1996, contingent upon funding. Applicants should have experience in teaching and research, and should be able to interact with and make use of existing group in mammalian neuroendocrinology. Salary is commensurate with qualifications and experience. Send curriculum vitae, statement of interests, and three letters of recommendation to: Charles Clifton, Jr., Acting Chair, Department of Psychology, University of Massachusetts, Amherst, MA 01003 by 8 November 1991. *The University of Massachusetts is an Affirmative Action/Equal Opportunity Institution.*

The Departments of Surgery and Physiology, University of Illinois at Chicago are seeking a qualified Physiologist for the position of RESEARCH ASSISTANT PROFESSOR and Director of General Surgery Laboratories. The applicant must possess a doctorate degree in physiology and have at least 5 years of experience in integrated organ systems, with special emphasis on in vivo measurements of systemic and regional hemodynamics, and cardiac, renal and hepatic function, as well as experience with septic shock models in animals. Duties will include directing and developing large animal models, research facilities and support laboratories at the University of Illinois and the West Side Veterans Administration Medical Center. Anticipated starting date is 1 February 1992 and the deadline for all applications will be 1 December 1991. All inquiries and curriculum vitae should be sent to: Eric B. Rypins, M.D., Chief, Division of General Surgery, Department of Surgery (Mail Code 958), College of Medicine, University of Illinois at Chicago, 840 South Wood Street, Chicago, IL 60612. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### SENIOR FACULTY POSITION MICROBIOLOGY

The Department of Microbiology at the University of Illinois (Urbana-Champaign) seeks candidates for a full-time, tenured-track faculty position at the **ASSOCIATE PROFESSOR** or **PROFESSOR** level. Applicants must have a doctorate degree and should have developed an active, independent research program of outstanding quality. Research areas of particular interest include, but are not limited to, molecular biology of microorganisms (prokaryotic or eukaryotic), microbial physiology and genetics, and molecular mechanisms of pathogenesis. The successful applicant should be an enthusiastic teacher able to interact effectively with the outstanding graduate and undergraduate students at the University of Illinois. Starting date August 1992. Salary commensurate with experience.

The Department of Microbiology offers a supportive academic environment, and a strong graduate program. There are extensive interdepartmental interactions in microbial and eukaryotic cell and molecular biology, genetics, virology, immunology, neurobiology, developmental biology, evolution, biochemistry and biophysics. The University of Illinois (Urbana-Champaign) offers an outstanding research environment including a Biotechnology Center with state-of-the-art facilities for hybridoma production, flow cytometry, electron microscopy, fluorescence dynamics, and x-ray crystallography. Computer resources include a National Center for Supercomputing Applications.

Applicants should submit curriculum vitae and statement of research interests, including the name of at least three persons willing to provide letters of reference to:

Senior Faculty Search Committee  
Department of Microbiology  
University of Illinois  
131 Burrill Hall  
407 South Goodwin Avenue  
Urbana, IL 61801  
Telephone: 217-333-1736

To ensure full consideration applications should be received by 15 December 1991. Interviews may be conducted before the closing date, but no final decision will be made before that time. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

### UNIVERSITY OF SOUTHERN CALIFORNIA FACULTY POSITION

Applications are invited for a tenure-track **ASSISTANT/ASSOCIATE PROFESSOR** position in the Department of Pharmaceutical Sciences, School of Pharmacy. Outstanding candidates with research interests in drug targeting and drug design using approaches in cell biology, molecular biology, or immunology are invited to apply. Applicants are expected to possess a Ph.D. degree in the pharmaceutical, biological, or chemical sciences. Participation in team teaching in either pharmaceuticals or medicinal chemistry at both the undergraduate and graduate levels is required. Please submit curriculum vitae, selected reprints, a short statement of future research plan, and the names and addresses of three references by 22 November 1991 to: Vincent H. L. Lee, Ph.D., University of Southern California, John Stauffer Pharmaceutical Sciences Center, 1985 Zonal Avenue, Los Angeles, CA 90033-1086.

*Equal Opportunity Employer, M/F/H.*

**CELL BIOLOGIST/IMMUNOLOGIST.** The Department of Cell Biology, Neurobiology and Anatomy at Loyola University Chicago is seeking a Cell Biologist to fill a tenure-track position at the **ASSISTANT, ASSOCIATE** or **FULL PROFESSOR** level beginning 1 July 1992. Applicants should have completed postdoctoral training and be capable of establishing an independent research program supported by extramural funding, although sufficient seed money will be available for establishing a laboratory. Individuals utilizing molecular approaches in the fields of general cell biology, immunobiology or neuroimmunology are encouraged to apply. Teaching responsibilities include medical histology and graduate cell biology. Applicants should submit a letter indicating qualifications and research goals, curriculum vitae and the names of three references by 15 January 1992 to: John Clancy, Jr., Department of Cell Biology, Neurobiology and Anatomy, Loyola University Chicago, 2160 South First Avenue, Maywood, IL 60153. *Loyola University is an Equal Opportunity Employer.*

# ROCHE

## RESEARCH SCIENTISTS

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### ASSISTANT SCIENTIST

**VIROLOGY:** Develop and implement a screening test for antagonists of human herpes virus replication. BS/MS in Chemistry or Biology required; 1-2 years' experience and knowledge of plasmid preparation preferred. **Please respond to Frances Newman, Department FN151MH on resume.**

### ASSOCIATE SCIENTISTS

**MEDICINAL CHEMISTRY:** Prepare peptide analogs and peptide mimetics for testing; a BS/MS in Organic Chemistry required; 2-3 years' experience in multi-step synthesis preferred. **Please respond to Frances Newman, Department FN161JT on resume.**

**DRUG METABOLISM:** Develop and utilize analytical chromatographic methods; use in vitro and in vivo techniques; and isolate/identify metabolites. A BS/MS in Chemistry, Biochemistry or a related biological science and 2-3 years' experience are required. **Please respond to Ms. Lynn Harac, Department LH321DM on resume.**

**BIOPROCESS DEVELOPMENT:** Develop protein purification methods and enzymatic assays. A BS/MS in Chemistry or Biochemistry and 2-3 years in genetics required; HPLC, UV and SDS-Page helpful. **Please respond to Frances Newman, Department FN171SB on resume.**

### SCIENTISTS

**DRUG METABOLISM:** A background in analytical methods development, in vitro and in vivo metabolism techniques, a BS/MS in Chemistry, Biochemistry or a related biological science and 5+ years' experience are essential. **Please respond to Lynn Harac, Department LH331DM on resume.**

### SENIOR SCIENTISTS

**DRUG METABOLISM:** Design and conduct investigations into the absorption, distribution and metabolism of experimental drugs. A PhD in Pharmaceutical Chemistry, Biochemistry or a related field, demonstrated experience in drug metabolism research and practical experience with in vivo and in vitro drug disposition and bioanalytical techniques are essential. **Please respond to Lynn Harac, Department LH341DM on resume.**

In addition, we have a variety of opportunities for PhDs in Pharmacokinetics, Neurobiology, Protein Biochemistry, Pharmaceutical R&D, Analytical Chemistry and Molecular Biology. **Please respond to Eleanor Malone, Department EM291MS on resume.**

We offer salaries commensurate with your experience and education, a generous bonus and benefits package, a state-of-the-art environment and important projects potentially leading to impressive medical breakthroughs.

For confidential consideration, please send your resume and present salary (those without this information will not be acknowledged), to the person and department code indicated for your position of interest, at: **Staffing and Employee Services, Hoffmann-La Roche Inc., Nutley, New Jersey 07110.**

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### MOLECULAR GENETICS FACULTY POSITIONS

The Department of Molecular Genetics of The Ohio State University is initiating a search to fill two tenure track positions at the Assistant or Associate Professor level. We are particularly interested in applicants with research interests in molecular genetic studies of major topics in cell and developmental biology using experimental systems such as yeast, *Drosophila*, *Caenorhabditis*, Mus, and humans. However, highly qualified applicants with other research specialties within the broader area of molecular genetics will also be considered seriously. A highly competitive recruiting package is available, including an attractive (hard money) salary, generous laboratory space, substantial funds for equipment purchase and funds for initial operating expenses, independent of extramural grant support. The Ohio State University is in the process of a major expansion in Molecular Biology and Biotechnology, and a substantial number of additional positions are anticipated in the future. Women and members of minority groups are enthusiastically encouraged to apply.

The Ohio State University is the flagship institution of the state's higher education system. It is located in the state capital, Columbus, which is a growing, yet highly affordable, metropolitan area of about 1.3 million people. Columbus has been ranked by *Newsweek* as one of the country's best places to live and work.

Applications should include a detailed curriculum vitae, a description of research experience, a statement of the nature of the planned independent research program, and the name, address and telephone number of each of four scientists who have agreed to serve as references. Applications will be accepted until suitable candidates are hired but recruiting is scheduled to begin in earnest by December 1991. Information about our Department can be obtained by calling our offices at 614-292-8084.

Application materials should be sent to: **Dr. Alan M. Lambowitz, Molecular Genetics Search, Department of Molecular Genetics, The Ohio State University, 484 W. 12th Avenue, Columbus, Ohio 43210.**

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

### U.S. DEPARTMENT OF ENERGY


## POSTGRADUATE RESEARCH PROGRAMS

Global Change	Engineering
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Risk Analysis	Human Factors

- Research at national laboratories
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- Recent graduate degree
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Information and applications (please give research area/s):

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Oak Ridge, TN 37831-0117  
(615) 576-3190

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Genentech, a leader in the biotechnology industry, has an immediate opportunity for a Research Assistant in our Endocrine Research department.

You will join a team researching the physiology and pharmacology of endocrine hormones discovered and produced by recombinant DNA technology. The team focuses on the discovery of new strategies for the manipulation of whole body growth.

Animal handling experience is required. Experience in the techniques of mRNA measurement by in situ and liquid hybridization; computing and statistics; and in the methods of hormone assay are preferred.

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. Send your resume to Yvonne Davino, Genentech, Inc., Human Resources Dept. YS/RC, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We promote and actively support affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

## Genentech, Inc.

## DIRECTOR

DIVISION OF BIOLOGICAL SCIENCES  
UNIVERSITY OF TENNESSEE



The University of Tennessee, Knoxville, seeks a Director for its proposed Division of Biological Sciences, which includes the Departments of Biochemistry, Botany, Microbiology and Zoology, the Graduate Program in Ecology and other interdisciplinary life sciences graduate programs. UTK is the major research campus and center for graduate education of the University of Tennessee system and has numerous collaborative interactions with the Oak Ridge National Laboratory. The Director will have budgetary authority, will coordinate undergraduate and graduate academic programs and will be responsible for future development and structure of Biological Sciences programs. Applicants should have a broad perspective on biology as well as the interactive skills necessary for dealing with a faculty having diverse scientific interests. Candidates should provide evidence of administrative skills and significant research achievement commensurate with a professorial appointment. The successful candidate will have an understanding and demonstrated commitment to equal employment opportunity and affirmative action. Inquiries and applications, with *curriculum vitae* and names, addresses and phone numbers of three individuals able to provide recommendation, should be directed to: **Prof. Mary Ann Handel, Biology Consortium, M303 Walters Life Sciences Building, University of Tennessee, Knoxville, TN 37996-0830 (Tel: (615) 974-6841).** Review of applications will begin early in January 1992.

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## POSITIONS OPEN

### TENURE-TRACK POSITION DEPARTMENT OF BIOCHEMISTRY WRIGHT STATE UNIVERSITY

The Department of Biochemistry at Wright State University invites applications for a 12-month, tenure-track, faculty position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level with an appointment in both the School of Medicine and the College of Science and Mathematics. Candidates with research expertise in any area of contemporary biochemistry will be considered.

Current research interests of the department are grouped into three areas: macromolecular mechanisms, including protein and membrane structure-function relationships; molecular genetics and the regulation of transcription and replication in eukaryotes; and the application of nuclear magnetic resonance and positron emission tomography to biomedical research.

A Ph.D. in biochemistry or related field and two or more years of postdoctoral experience are required for appointment at the assistant professor level. The successful applicant will be expected to develop an extramurally funded independent research program as well as to participate in the department's undergraduate, graduate (M.S. and Ph.D.), and professional (M.D.) teaching programs. Concurrent extramural funding will be required for appointment at the associate professor level.

Interested applicants should submit curriculum vitae, a focused research plan, and the names of three references to: **Dr. Lawrence J. Prochaska, Chairperson, Faculty Search Committee, Department of Biochemistry, Wright State University, Dayton, OH 45435.**

Candidates from groups underrepresented in academic sciences are encouraged to apply.

Applications will be accepted until the position is filled, however, those received prior to 15 December 1991 will be assured of full consideration. *Wright State University is an Affirmative Action/Equal Opportunity Employer.*

### FACULTY POSITION MOLECULAR AND CELLULAR PHARMACOLOGY UNIVERSITY OF SOUTH ALABAMA

The Department of Pharmacology, University of South Alabama, College of Medicine, invites applications for a tenure-track position at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. Applicants should have a Ph.D. or equivalent degree and two or more years of postdoctoral experience, a strong commitment to the development of an excellent research program, and an interest in teaching medical and graduate students. Applications are encouraged from individuals interested in the regulation of biological processes at the molecular and/or cellular level as broadly related to pharmacology. Interested individuals should send an outline of future research plans, curriculum vitae, including a bibliography, and the names of three references to: **Dr. Samuel J. Strada, Faculty Search Committee, Department of Pharmacology, University of South Alabama, College of Medicine, 3130 Medical Sciences Building, Mobile, AL 36688.** The deadline for the receipt of applications is 31 December 1991. *The University of South Alabama is an Equal Opportunity/Affirmative Action Employer.*

The Department of Pathology at the University of Texas Medical Branch (UTMB) at Galveston invites applications for a rewarding tenure-track faculty position as **ASSOCIATE DIRECTOR**, Hematopathology Division. UTMB employs 8400 people and consists of four schools, seven hospitals and two research institutes. Applicants should have Board certification, subspecialty training and Board certification/Board eligibility in hematopathology are particularly desirable. The department is seeking an individual with a strong record of scientific achievement in hematopathology. Preference will be given to applicants who are using modern approaches in the diagnosis and study of diseases of white and red blood cells. Responsibilities will include the teaching of both medical students and residents. A strong, independent research program and interactions with other faculty investigating the pathobiology and immunobiology of hematopoietic diseases is anticipated. Interested applicants should send detailed curriculum vitae, an outline of current clinical and research interests, and three letters of reference to: **Robert Harrison, M.D., Department of Pathology, The University of Texas Medical Branch, Galveston, TX 77550.** UTMB is an Equal Opportunity/Affirmative Action Employer, M/F/V/H. UTMB hires only individuals authorized to work in the United States.

## POSITIONS OPEN

**COGNITIVE NEUROSCIENTIST.** Bates College. Beginning in fall 1992, a new tenure-track position at the **INSTRUCTOR** OR **ASSISTANT PROFESSOR** level, for a person in any area of cognitive neuroscience. Responsibilities include teaching a basic course in cognitive neuroscience, research methodology, and advanced courses in areas capitalizing on the applicant's strengths, as well as supervision of student research. Applicants are expected to have a strong commitment to undergraduate instruction and research interests appropriate to upperclass student participation. Ph.D. degree should be completed or near completion. *Women and minorities are encouraged to apply.* Deadline for applications: 15 November 1991. Send curriculum vitae and at least three references to: **Richard V. Wagner, Department of Psychology, Bates College, Lewiston, ME 04240.** *An Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT/ASSOCIATE PROFESSOR THE UNIVERSITY OF ILLINOIS AT CHICAGO (UIC)

Department of Medical Laboratory Sciences invites tenure-track applications until position(s) filled. Requirements: Ph.D. and minimum of 2 years of postdoctoral experience in human/clinical immunology, biochemistry or hematology. Medical technology background preferred. Candidates will be screened for ability to conduct vigorous research and participate in department graduate/undergraduate programs. Interested applicants should send curriculum vitae, statement of research interests, three recent reprints, and names of three references to: **Professor Beverly Fiorella, Head, Department of Medical Laboratory Sciences, The University of Illinois at Chicago, P.O. Box 6998 (m/c 518), Chicago, IL 60680.** UIC is an Affirmative Action/Equal Opportunity Employer. 5-30-1009.

### ASSISTANT/ASSOCIATE PROFESSOR

The Department of Microbiology and Immunology invites applications for a tenure-track faculty position in the area of bacterial pathogenesis/prokaryotic molecular biology. Candidates should have at least 2 years of postdoctoral experience and are expected to develop a strong, independently funded research program and to teach medical and graduate students in a research-oriented department. The research facilities of the department are excellent and will expand into a new ten-story Biomedical Research Institute. We offer a competitive salary and generous seed package. Send curriculum vitae, names of three references, and description of research interests and funding to: **Dr. Dennis J. O'Callaghan, Professor and Head, Department of Microbiology and Immunology, Louisiana State University Medical Center, 1501 Kings Highway, Shreveport, LA 71130-3932.** *Affirmative Action/Equal Opportunity Employer.*

### ASSISTANT/ASSOCIATE RESEARCHER OF MOLECULAR CELL BIOLOGY OR ASSISTANT/ASSOCIATE ADJUNCT PROFESSOR

Ph.D. with experience in mechanism of action of growth factors with expertise in molecular/cell biology to join a program investigating the effects of growth factors on fetal and neonatal development. Adjunct professor requires documentation of proficiency in teaching of students. Three years of start-up funding. Submit curriculum vitae with five references to: **Dr. Dennis Styne, Chair, Department of Pediatrics, 2516 Stockton Boulevard, Sacramento, CA 95817.** *The University of California, Davis, is an Affirmative Action/Equal Opportunity Employer.* Position remains open until filled but not later than 31 December 1991 to be considered.

**ASSOCIATE DIRECTOR OF RESEARCH.** UCLA-affiliated GRECC at Sepulveda Veterans Administration Medical Center (VAMC) is seeking M.D. or Ph.D. with investigative interests in aging using techniques of molecular biology. Applicants must qualify for rank of associate or full professor at UCLA. Excellent opportunity to establish a strong research team with additional funded positions, space, and resources. *Sepulveda VAMC is an Equal Opportunity/Affirmative Action Employer.* Send curriculum vitae and inquiries to **Dr. Edward J. Weinman, Chief, Medical Service (111), Sepulveda VAMC, 16111 Plummer Street, Sepulveda, CA 91343.**

## POSITIONS OPEN

### ASSISTANT EDITOR

Scientific journal seeks experienced technical editor. Degree in biochemistry or similar field, editorial experience and ability to focus full time on details of grammar, style and usage in medical chemical reports (M.A. preferred). Excellent benefit package; salary commensurate with experience. Forward résumé and salary requirements to: **Department J, 2029 K Street, N.W., Washington, DC 20006.** *Equal Opportunity Employer.*

### CHAIRMAN—DEPARTMENT OF ANATOMY

The Ponce School of Medicine is searching for a chairman. The candidate should possess a Ph.D. degree with significant research contributions. Applicants should have a demonstrated record of accomplishment in research and teaching. The Department of Anatomy is responsible for educational programs for medical and graduate students. Send a résumé, transcript of all university work, a statement of research goals in this position and three letters of reference to:

**José M. Bayona  
Acting Chairman  
Department of Anatomy  
Ponce School of Medicine  
P.O. Box 7004  
Ponce, PR 00732**

### DEAN

### ENGINEERING AND APPLIED SCIENCE NORTHWESTERN UNIVERSITY

Northwestern University seeks distinguished engineer/appointed scientist to fill position of Dean of McCormick School of Engineering and Applied Science. Responsible for providing academic, scholarly and administrative leadership for school with undergraduate and graduate education programs and numerous federally and industrially supported research initiatives. Applications to: **Arthur P. Hurter, McCormick Dean Search Chair, c/o Office of the Provost, Northwestern University, Evanston, IL 60208.** Review begins immediately and continues until position filled. *Affirmative Action/Equal Opportunity Employer.*

### DIRECTOR OF INTERNATIONAL REGULATORY AFFAIRS

European headquarters of worldwide pharmaceutical company seeks professional with 8 to 10 years in pharmaceutical regulatory affairs. Experience with FDA or corporate regulatory department highly desirable. Degree in medical or biological sciences required. Position will support and reinforce all corporate regulatory programs and will be primarily responsible to the company's U.S. operation. Candidate must be willing to relocate to Rome, Italy. Knowledge of the Italian language would be a plus, however, it is not a prerequisite for the job. Competitive salary and benefits assured. Challenging opportunity for qualified candidate. Please send a cover letter and résumé to: **P.O. Box 57438, Washington, DC 20037.** *Equal Opportunity Employer.*

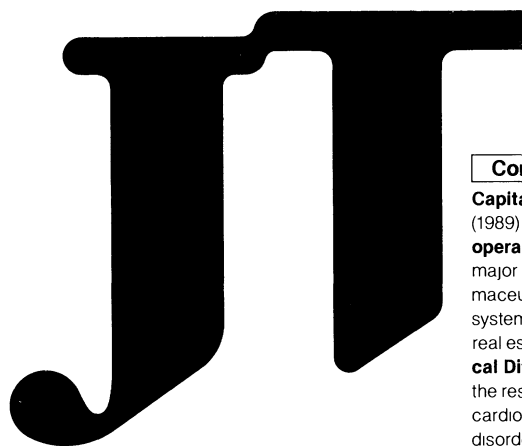
### HEAD OF DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF PUERTO RICO (UPR) SCHOOL OF MEDICINE

The UPR School of Medicine is seeking a head for the Department of Biochemistry. The successful candidate should have a demonstrated commitment to teaching excellence in biochemistry and possess the organizational and administrative skills to facilitate the growth and development of the department. The department head will be expected to foster the graduate program in the department and have extramural research funding and publications in one of the areas of biochemistry and/or molecular biology. It would be advantageous if the candidate is fluent in Spanish. Basic salary range is \$55,968 to \$61,752 per annum at the Full Professor level. This can be increased by direct research funding.

Applicants should submit a résumé, a detailed discussion of current research interests, and the names of three potential references. Nominations and applications should be sent to: **UPR, Dean School of Medicine, GPO Box 365067, San Juan, PR 00936-5067.** Applicant evaluations will begin 15 October 1991.

The search will be closed when sufficient number of qualified applicants have been identified, but not before 30 November 1991.

# PHARMACEUTICAL DIVISION OF



JT founded its Pharmaceutical Division in 1986. Since then, JT has been investing ¥10 billion annually in this Division, the main pillar of JT's diversified business operations. As we approach the 21st century, our goal is to become a research-driven corporation supported by three major research laboratories and 400 research personnel. Our researchers are now working to develop innovative pharmacological agents for use against diseases of the cardiovascular and central nervous systems, metabolic disorders, inflammatory diseases, and cancer.

Fields
Biochemistry, molecular biology, biology, basic medicine, pharmacology, synthetic science, formulation, ADME, Research in toxicity, safety & Research planning
Work site
<ul style="list-style-type: none"> <li>Pharmaceutical Basic Research Laboratory (Kanazawa Ku, Yokohama). Scheduled to be opened in April 1992.</li> <li>Pharmaceutical Research Laboratory (Midori Ku, Yokohama)</li> <li>Safety Research Laboratory (Hatano City, Kanagawa Prefecture)</li> <li>Head Office (Shinagawa-ku, Tokyo)</li> </ul>

## IS RECRUITING RESEARCHERS!!

**\* Japanese-language proficiency necessary.  
(Daily business is conducted in Japanese.)**

### Company outline

**Founded** April 1985

**Capital** ¥100 billion **Annual sales** ¥2.6 trillion (est.)

(1989) **Number of employees** 24,200

**Business operations** The JT Group is actively involved in

major industries, including tobacco, salt, pharmaceuticals, biochemicals, machinery, computer systems, printing, soft drinks, agriculture business, real estate, and other services

**The Pharmaceutical Div.** Newly established in November 1986, for

the research & development of new medicines (for

cardiovascular/central nervous/immune system

disorders and cancer) for our aging society

Operations range from research & development to

production & marketing of pharmaceuticals

(Ethical + OTC) Research at the Pharmaceutical

Research Laboratory (Yokohama) and the Toxicology

Research Laboratory (Hatano City, Kanagawa

Prefecture)

A Pharmaceutical General Research Laboratory is

planned for construction in Osaka.

**Please submit C.V. or inquiries, in Japanese, to:**

Mr. Takeuchi, Pharmaceutical Operations Division,

Japan Tobacco Inc., Higashi Shinagawa 4-12-62,

Shinagawa-ku, Tokyo 140, JAPAN

### INTERNATIONAL SERVICE FOR THE ACQUISITION OF AGRI-BIOTECH APPLICATIONS (ISAAA)

#### Invites Applications For The Position of EXECUTIVE DIRECTOR

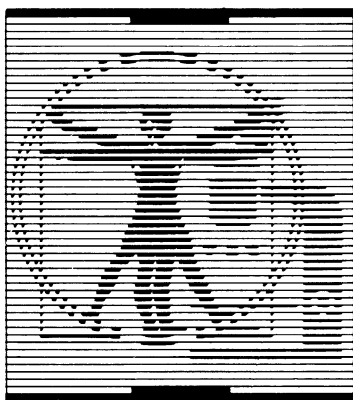
who will be located at ISAAA's AmeriCenter, a premier agricultural university campus in the United States.

ISAAA is a not-for-profit international organization co-sponsored by public and private sector institutions with the aim of facilitating the acquisition and transfer of proprietary agricultural biotechnology applications from the industrial countries, particularly from the private sector, for the benefit of the developing world. ISAAA will be a small responsive international network with professional staff located at three nodes, co-located at established centers of excellence in North America, Europe, and the Asian Pacific Rim, and at three nodes in the Third World, located in Africa, Asia, and Latin America. ISAAA will be managed by the Executive Director, and is governed by an international Board of Directors, comprised of prominent individuals who provide policy and program oversight. ISAAA is financed by private foundations, bilateral/multinational agencies, and the private sector in North America, Europe, and the Asian Pacific Rim.

ISAAA's Executive Director will be a high energy and dynamic individual with the capacity to provide the leadership and vision to build a new and unique international institution that permits the public and private sector to work together as partners for the benefit of the Third World. Candidates will possess extensive experience with the international donor community with respect to agricultural development needs in the Third World. Contacts at senior political, policy, and scientific levels in the developing countries of Asia, Africa, and Latin America are required. Candidates must be familiar with agricultural biotechnology applications and must possess experience in and an appreciation for collaborative relationships involving international agricultural research institutes in the industrial countries and in the developing world. The successful candidate will possess experience in working with the private sector agricultural technology community. A Ph.D. is expected. Fluency in English required. The compensation is very competitive at the international level. Interested individuals should send a detailed curriculum vitae with at least four professional references to:

**Gottfried International, Attention: H. William Gottfried  
Consultants to Management in Executive Selection  
4801 Woodway Drive, Suite 300 East  
Houston, Texas 77056 USA, Facsimile 713-965-0239**

## BIOMEDICAL RESEARCH



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At the forefront of biomedical research, Program Resources, Inc. (PRI) is paving the way for new programs and discoveries at the National Cancer Institute's Frederick

Cancer Research & Development Center (NCI-FCRDC).

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BS/AA with exp in spectroscopy, ELISA, HPLC, PAGE, UV/VIS, sample processing, cGMP, hybridoma cloning, immunoblot assays, EIA, RIA; monoclonal antibody production.

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EOE, M/F

## POSITIONS OPEN

### DEAN

Georgia State University invites applications for Dean of the College of Arts and Sciences which consists of 15 departments and two schools. The college has 325 faculty, 190 staff, 5800 undergraduate and 1100 graduate students, and offers 27 masters and 9 Ph.D. programs. Candidates should have an earned doctorate in an appropriate discipline, a record of outstanding scholarly accomplishments and academic leadership experience. Applications will be accepted until the position is filled. Correspondence and curriculum vitae should be sent to: **Dr. Margo A. Brinton, Co-Chair, Arts and Sciences Dean Search Committee, Georgia State University, 231 Sparks Hall, Atlanta, GA 30303-3083.** Georgia State University is an Equal Opportunity Educational Institution and an Equal Opportunity/Affirmative Action Employer. Georgia is an open-records state.

**DEPARTMENT HEAD, BIOLOGY,** Eastern Michigan University. Position available July 1992. Department has 21 faculty, offers B.S. and M.S. degrees with programs in general biology, ecosystem biology, physiology, microbiology, cellular/molecular biology, and science education. Candidates must have earned doctorate in a biological science and at least 5 years of college teaching experience, demonstrated potential for administrative leadership, record of research accomplishment, and commitment to contemporary directions in biology. Previous administrative experience desirable. Submit letter of interest, including brief statement of administrative philosophy, curriculum vitae, and three letters of recommendation by 15 December 1991 to: **Position APAA9208, 204 King Hall—Box S, Eastern Michigan University, Ypsilanti, MI 48197.** In the interest of developing a representative pool of qualified candidates, we encourage women and members of minority groups to apply and to identify themselves. Eastern Michigan University is an Equal Opportunity Employer.

**DIRECTOR HEMATOLOGY.** The University of Mississippi Medical Center is seeking candidates for Director of the Division of Hematology. Candidates should have a record of scholarly accomplishment in hematology, have successfully competed for peer-review research support and be qualified for the academic rank of **ASSOCIATE PROFESSOR OR PROFESSOR.** Qualified applicants should submit current curriculum vitae to: **Dr. Martin Steinberg, VA Medical Center, 1500 East Woodrow Wilson, Jackson, MS 39216.** The University of Mississippi Medical Center is an Equal Opportunity Employer, M/F/H/V.

**FACULTY POSITION—BIOLOGIST,** Ph.D. King College, a Christian 4-year liberal arts college in the Presbyterian tradition, is seeking a biologist, permanent position beginning fall 1992. Teaching responsibilities involve molecular genetics, microbiology, and introductory biology. Start-up funds are available for student-directed research. King College is an Equal Opportunity Employer. Send curriculum vitae and statement of teaching and research interests by 1 December 1991 to: **Dr. Gregory D. Jordan, Dean of the Faculty, King College, 1350 King College Road, Bristol, TN 37620-2699.**

### FACULTY POSITION MOLECULAR VIROLOGY UNIVERSITY OF PITTSBURGH

The Department of Infectious Diseases and Microbiology of the Graduate School of Public Health, University of Pittsburgh, is seeking outstanding applicants for a **TENURE-TRACK FACULTY POSITION** in the area of HIV or herpesvirus pathogenesis. Our department is committed to the continuing development of a strong multidisciplinary program wherein molecular biology, immunology and the epidemiology of viral pathogenesis are integrated with ongoing clinical studies. Candidates should have a Ph.D., M.D., or equivalent, and have sufficient experience to establish an independent research program which integrates basic science with clinical medicine and public health. Letters of application including curriculum vitae, bibliography, a brief statement of research interests, and the names of three references should be sent to: **Chairperson, IDM Search Committee, A450 Crabtree Hall, University of Pittsburgh, Pittsburgh, PA 15261.**

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

## SENIOR SCIENTISTS

Pharmacia P-L Biochemicals Inc. is the international headquarters for research, production and marketing of molecular and cellular biology reagents for Pharmacia LKB Biotechnology. Our Research and Development Department has immediate openings for two Sr. Scientists interested in developing products for the research market.

### NUCLEIC ACID CHEMISTRY

A chemist with a background in nucleic acid chemistry and an interest in the broader area of applying organic chemistry to the solution of problems in molecular biology. The successful candidate will possess a PhD in organic chemistry with up to two years postdoctoral or industrial experience working with nucleotides and oligonucleotides. A practical knowledge of NMR, FTIR and especially UV/visible and fluorescence spectroscopy and HPLC is essential. While projects center on nucleic acid chemistry, the research is not limited to this area.

### DNA SEQUENCING

A scientist with experience in DNA sequencing. The successful candidate will possess a PhD in Molecular Biology or a related field with up to two years postdoctoral or industrial experience. The scientist will be expected to develop methods and products for DNA sequencing. Experience with automated DNA sequencing and one of the following areas is desirable, but not necessary: genomic cloning, cDNA cloning, protein expression or protein purification.

We offer a competitive salary and a company-paid benefit package. For consideration, send resume and salary requirements in confidence to:

**Sandra Stetter**  
Manager, Human Resources  
PHARMACIA P-L BIOCHEMICALS INC.  
2202 North Bartlett Avenue  
Milwaukee, WI 53202

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No telephone calls, please



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**Pharmacia P-L Biochemicals**

## POSITIONS OPEN

### MOLECULAR IMMUNOLOGIST

Applications are invited for a tenure-track immunologist interested in the molecular effects of toxicants on the immune system. The position will require approximately 60% research and 40% teaching. The candidate must possess a Ph.D. and at least 2 years of postdoctoral training in molecular immunology. The person will be expected to develop an independent extramurally funded research program as well as participate in collaborative research efforts in the area of immunotoxicology. Teaching duties include medical, dental as well as other allied health students. Interested individuals should send a letter of application, curriculum vitae, statement of research interests and goals, and three letters of reference to: **John B. Barnett, Ph.D., Department of Microbiology and Immunology, West Virginia University School of Medicine, Health Sciences Center North, Morgantown, WV 26506.** Deadline for applications is 30 November 1991. *An Affirmative Action/Equal Opportunity Institution. Women and minorities are encouraged to apply.*

The Anatomy Department of the Medical College of Ohio has openings for **NEUROBIOLOGISTS** studying neural organization at the molecular, cellular, or system level. Appointments may be either tenured or tenure track. Applicants for assistant professorship should have demonstrated the ability to establish an independent and funded research program. Applicants for more senior appointments should have ongoing and funded programs. The Medical College and the Department of Anatomy offer excellent core facilities, very competitive salaries, and generous start-up funds. New faculty will join a neuroscience group which has expanded substantially over the past 3 years, and which will continue to expand over the next few years. Forward curriculum vitae and the names of three references to: **Dr. John T. Wall, Faculty Search Committee, Department of Anatomy, Medical College of Ohio, Toledo, OH 43699-0008.** *Equal Opportunity Employer.*

### FACULTY POSITIONS UNIVERSITY OF MASSACHUSETTS MEDICAL CENTER

Immediate opening for a senior tenured or a junior tenure-track position in a newly formed interdepartmental Molecular Medicine Program. Rank will be commensurate with ability and experience. The appointment will be in one of the basic science departments. The laboratories for the program are housed in a new building that contains approximately 80,000 square feet of modern research space. Core facilities for tissue-culture, media preparation, DNA synthesis, protein sequencing and peptide synthesis, fluorescence-activated cell sorting, and transgenic mice are available. The position will be highly competitive with regard to start-up funds, laboratory space, and salary.

The program seeks an individual of outstanding research potential in the broadly defined area of eukaryotic molecular biology. Potential areas of interest include, but are not exclusive to, transcriptional regulation, RNA processing, oncogenes, and developmental biology. Applicants should send curriculum vitae, statement of research interests, and names of three references to: **Dr. Michael P. Czech, Director, Program in Molecular Medicine or Dr. Michael Green, Search Committee Chairman, University of Massachusetts Medical Center, 373 Plantation Street, Worcester, MA 01605.**

*An Equal Opportunity/Affirmative Action Employer.*

**LECTURER IN BIOLOGICAL SCIENCES.** The Department of Biological Sciences, University of Nevada, Las Vegas (UNLV), seeks applicants for a nontenure-track position as lecturer in biological sciences. Responsibilities will include teaching of lecture and laboratory components of a course in general microbiology and a course for non-biology majors, e.g., human biology. The successful candidate becomes a professional staff member of the department. Experience in, and commitment to, undergraduate biology instruction is expected. The position requires at least a Master's degree. Salary is negotiable; position available August 1992. Send curriculum vitae and three letters of reference to: **Dr. Wes Niles, Chair, Lecturer Search Committee, Department of Biological Sciences, University of Nevada, Las Vegas, NV 89154.** Applications must be received no later than 6 December 1991. *UNLV is an Equal Opportunity/Affirmative Action Employer and employs only U.S. citizens and aliens authorized to work in the United States.*

18 OCTOBER 1991

## Opportunities with Monsanto Agricultural Company

# Biochemist

## Join Our Plant Sciences Technology Team!

The Plant Sciences Technology group, an integral part of Monsanto Agricultural Company, located in suburban St. Louis, is committed to high quality, basic and applied research in plant science. Monsanto is a leader in the development of new technologies in agriculture.

We are seeking a Ph.D. Biochemist, preferably with post-degree experience, to create and develop novel strategies to discover proteins that can be engineered into plants for crop protection from insects and disease. The candidate must be strong in protein purification and general protein biochemistry, with some experience in cell physiology and general metabolism. The position requires development of innovative/novel protein assays and investigations into molecular MOA. The individual will be expected to collaborate with plant scientists, molecular biologists, entomologists and microbiologists in a multidisciplinary project team.

The candidate must have strong communication and interpersonal skills and be accomplished at technical presentations. An established publication record and a visible commitment to state-of-the-art research will be important. Please send C.V. and names of three references to: **Marion Kent O3H, Monsanto Agricultural Company, Dept. SM10.18, 800 North Lindbergh Boulevard, St. Louis, MO 63167.** We're an equal opportunity employer. M/F/H/V.

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# RESEARCH SCIENTISTS PROTEIN PURIFICATION

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From a single laboratory bench in 1928, Schering-Plough's on-going dedication to the development of new life-enhancing medications has made us one of the world's most successful pharmaceutical organizations. Today, our 2,000 research scientists create medications with sales of over \$3 billion a year.

As a member of our bio-isolation team, you will be an integral part of our work. Here, you will help develop, purify and characterize recombinant proteins from bacteria and mammalian cell cultures. The results of your success will impact directly on new applications in human pharmaceuticals. Positions currently available include:

### SENIOR SCIENTIST

This position requires a Ph.D. in protein chemistry, biochemistry or a related field, with 0-5 years' experience in purification and characterization of proteins. Familiarity with HPLC, FPLC and conventional chromatographic techniques would be a distinct advantage. Respond to Box DD 91-68.

### ASSISTANT SCIENTISTS

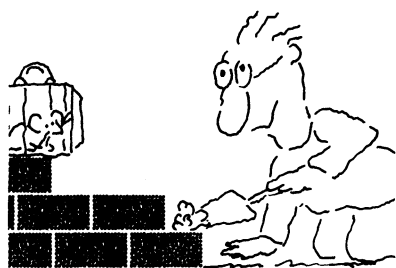
Successful candidates will have a B.S. in Biochemistry or related field with 0-2 years' experience in purification and characterization of proteins. Respond to Box DD 91-50.

Both positions offer highly competitive salaries, superior benefits, and all the challenge and growth potential an international industry leader can offer. Please forward your resume, indicating appropriate box, to Personnel Manager KB, Schering-Plough Corporation, 1011 Morris Avenue, Union, NJ 07083. We are an equal opportunity employer.



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## POSITIONS OPEN

**LECTURER IN GENETICS (TENURABLE)**, Division of Botany and Zoology, Faculty of Science, The Australian National University. The Division of Botany and Zoology of the School of Life Sciences is seeking applicants for the post of tenured lecturer in evolutionary or ecological genetics. The successful applicant will be involved in developing, organizing and contributing to undergraduate units in genetics, will be expected to develop an excellent research program in genetics, and to supervise honours and graduate students in that general area. Applications are welcomed from all qualified geneticists, but preference may be given to applicants who can contribute to one of the four areas identified in the strategic plan of the division: evolutionary theory and ecology (including behavioural ecology and conservation biology); population ecology; systematics of plants or animals; and functional botany. Closing date: 20 November 1991. Reference FS 24.9.1. Salary: A\$38,500 to A\$46,000 per annum. Appointment: tenurable. Applications should be submitted in duplicate to the Registrar, The Australian National University, GPO Box 4, Canberra, ACT 2601, quoting reference number and including curriculum vitae, list of publications and names of at least three referees. The university reserves the right not to make an appointment or to appoint by invitation at any time. Further information is available from the Registrar.

*The University is an Equal Opportunity Employer.*

### SUMMER FACULTY POSITIONS IN THE SPACE LIFE SCIENCES TRAINING PROGRAM (SLSTP) A NASA PROJECT

Five Project Counselor positions are open in the 1992 SLSTP to be held at the Kennedy Space Center, Florida. Project Counselors will be involved in the implementation of the 7-week-long program (starting mid-June 1992) activities for undergraduate science and engineering students. An applicant must have a minimum of an M.S. degree (Ph.D. preferred) and some experience teaching and doing research with undergraduates in life sciences and related fields. Experience with international students a plus. For further information and an application packet (all application materials must be postmarked by 31 December 1991) contact:

**SLSTP Program Director**  
Florida A&M University  
106 Honor House  
Tallahassee, FL 32307  
Telephone: 904-599-3623/3636

### GEORGETOWN UNIVERSITY TENURE-TRACK FACULTY POSITION DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

We are interested in outstanding scientists currently directing or capable of organizing an independent, physically oriented research program. Successful candidates will be expected to participate in pre- and postdoctoral training. Cooperative programs are in place with the Fidia-Georgetown Institute for the Neurosciences, the Lombardi Cancer Center and NIH. Applicants should send curriculum vitae and the names of three referees by 15 November 1991 to: Dr. E. Davidson, Chairman, Department of Biochemistry and Molecular Biology, Georgetown University School of Medicine, 3900 Reservoir Road, Washington, DC 20007. *An Equal Opportunity Employer.*

### UNIVERSITY OF CALIFORNIA LOS ANGELES, CALIFORNIA (UCLA) POSTDOCTORAL POSITION MOLECULAR NEUROBIOLOGY

A postdoctoral position is available in a group studying the structure and function of *Shaker* potassium channels with a multidisciplinary approach including site-directed mutagenesis, electrophysiology, and biochemistry. Previous electrophysiology experience using patch-clamp or voltage-clamp methods is required. The position is available immediately, with guaranteed funding. Please send curriculum vitae and the names and addresses of three references to:

**Diane M. Papazian, Ph.D.**  
Department of Physiology  
UCLA School of Medicine  
Los Angeles, CA 90024-1751

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

## POSITIONS OPEN

### MOLECULAR GENETICIST

Candidates should be applying molecular genetic techniques to important problems of cellular structure and/or function or development.

### BIOCHEMIST

Candidates should be engaged in research on macromolecular recognition, macromolecular interactions, and/or the regulation of cellular function. We particularly encourage applicants interested in signal transduction, energy transduction, or protein-nucleic acid interactions.

Tenure-track positions are available at the **ASSISTANT OR ASSOCIATE PROFESSOR** levels. Postdoctoral experience and demonstrated research potential are required. Appointment and teaching duties will be in the Departments of Chemistry or Biological Sciences. The interdepartmental Institute was recently established to stimulate expanded graduate training and research and will be occupying a new building in 1992. Set up funding is available. Applicants should forward complete curriculum vitae, reprints of two to four publications, and three letters of reference to: **Molecular Genetics Search Committee or Biochemistry Search Committee, Institute of Molecular Biology and Biochemistry, Simon Fraser University, Burnaby, B.C. Canada V5A 1S6.**

Applications will be evaluated beginning 3 January 1992. *Simon Fraser University offers Equal Employment Opportunities to qualified applicants. While all are encouraged to apply in accordance with Canadian immigration requirements, consideration in the first instance will be given to citizens and permanent residents of Canada.*

### MICROBIOLOGY AND IMMUNOLOGY

The Department of Microbiology and Immunology of the University of Oklahoma Health Sciences Center invites applications for a **TENURE-TRACK POSITION** with a preferred interest in the areas of:

- Virology
- Immunology
- Molecular Pathogenesis

Candidates with postdoctoral experience, as well as more senior scientists will be considered; rank will depend on the qualifications of the successful applicant. The applicant should have demonstrated excellence in conducting independent research and be able to compete for extramural research support. Academic responsibilities will include participation in the instruction of medical, dental, and graduate students.

The position will provide excellent opportunities for conducting basic biomedical research in a department of 12 faculty members and 31 adjunct members, with a strong emphasis on the molecular genetics and immunology of infectious agents. In addition, opportunities exist for interaction within the newly created Center for Molecular Medicine. Ample start-up funds will be provided.

Please send curriculum vitae, a brief statement of research interest, copies of representative publications and the names of three references to:

**Dr. Michael S. Gilmore**  
Department of Microbiology and Immunology  
University of Oklahoma Health Sciences Center  
Oklahoma City, OK 73190

*The University of Oklahoma Health Sciences Center is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORATE IN PROTEIN ENGINEERING OF INSECT TOXINS

Two postdoctorate positions available after 1 January 1991 with expertise in protein biochemistry and/or molecular genetics. Send curriculum vitae and three letters of recommendation by 15 November 1991 to: **Dr. Donald H. Dean, Department of Biochemistry, The Ohio State University, Columbus, OH 43210, or FAX: 614-292-6773.**

**POSTDOCTORAL POSITION** available in research program investigating the immunotherapy and chemotherapy of *Mycobacterium tuberculosis* and *Mycobacterium avium* infections in mouse models. Recent Ph.D. in immunology preferred. Send curriculum vitae and names of three references to: **Dr. Ian Orme, Department of Microbiology, Colorado State University, Fort Collins, CO 80523. Equal Opportunity/Affirmative Action Employer.**



# CELL AND MOLECULAR BIOLOGY BIOCHEMISTRY

- Scientists
- Postdoctoral Fellows
- Research Assistants

Eisai London Research Laboratories Limited, located on the campus of University College London, was established with the goal of studying various aspects of the cell and molecular biology of neurodegenerative disease. The hope is that intensive basic research in this area will lead to novel therapeutic approaches. At present, the institute is housed in temporary quarters but will move into a newly constructed and extremely well-equipped building towards the end of 1992.

We are currently recruiting at all levels — research assistant, postdoctoral fellow and scientist up to group leader. We hope to employ cell biologists, biochemists and molecular biologists. Some of these positions, especially research assistants and postdoctoral fellows, will be available immediately; others in approximately 1 year — but we will consider applications from all parties at this time. In some cases, joint appointments in academic departments at University College London will be offered.

An excellent salary and benefits package is offered with substantial opportunity for advancement. All interested parties should send their Curriculum Vitae and names of two professional referees to Mr. Y. Tsuchiya, Eisai London Research Laboratories Limited, Darwin Building, University College London, Gower Street, London, WC1E 6BT.



**EISAI LONDON RESEARCH LABORATORIES LIMITED**

## Make A Difference In The Quality of Life

The Hyland Division of Baxter Healthcare, a leader in the area of human plasma-derived protein therapeutics, is undertaking the development of its next generation of therapeutics with the aid of state-of-the-art biotechnological techniques. We seek an energetic individual who can contribute effectively in a multi-disciplinary R&D environment in our **Duarte, CA** facility:

### **CELL CULTURE PROCESS DEVELOPMENT**

The selected candidate will be responsible for maintaining viable working cultures and adapting them to serum-reduced and/or defined media; selecting and optimizing process conditions for maximizing product; and the operation of small and large bioreactors for cell culture supernatant production, as needed. You will analyze experimental data and prepare reports. You will also assist other personnel in the scale-up of the cell culture process. A BS in biology or biochemical engineering is required; an MS degree in cell biology or biochemical engineering is preferred. 1-3 years of work experience in a cell culture or fermentation laboratory or pilot plant is essential.

Baxter Healthcare Corporation, a Fortune 500 company, is synonymous with products, systems and services devoted to improving health care throughout the world. We provide a smoke-free environment, competitive compensation and benefits. Please send your resume and salary requirements in confidence to: **Becky Freeman, Baxter Hyland Division, Human Resources Dept. CC, 550 N. Brand Blvd., Glendale, CA 91203.** An Affirmative Action/Equal Opportunity Employer.

Hyland Division

***Baxter***

# Senior Executive

The National Aeronautics and Space Administration has an opening for Chief, Earth Observing System Data and Information System in Washington, DC. Incumbent assists in policy and planning issues and oversight of development of NASA's new data system for Earth Science & Applications. Salary to \$100,000, depending on background and experience. Inquiries may be directed to Dixon Butler, Director, Modeling, Data & Information System Program, Code SED, NASA Headquarters, Wash., DC, PH: 202/453-1715. Send Standard Form 171 to Barbara Mayo, NASA Headquarters, Code DP, Washington, DC 20546. PH 202/453-2814

The International Laboratory for Research on Animal Diseases, based in Nairobi, Kenya is a member of the Consultative Group on International Agricultural Research with the mandate of developing economically improved methods for the control of livestock diseases. Currently research focuses on immunological and genetic means of control of African trypanosomiasis and immunological control of the theileria disease, East Coast fever. Livestock disease research is supported by a programme of socio-economic research and both programmes are integrated with a programme of collaborative research, information dissemination and training.

## Veterinary Epidemiologist

ILRAD wishes to recruit a veterinary epidemiologist to join the Trypanosomiasis Programme. The successful candidate will be responsible to the Head of the Trypanosomiasis Research Programme for leadership of research in the epidemiology of trypanosomiasis which will enhance the capacities of national organisations to assess the impact of trypanosomiasis in domestic livestock and to improve and sustain the control of trypanosomiasis. Research projects focus on the development, validation and application of new diagnostics based both on monoclonal antibodies and nucleic acid probes, the development, validation and application of improved assays for drug levels in domestic livestock and drug resistance in trypanosomes, relevant aspects of host-parasite interactions and trypanosome genetics. The programme leader will be expected to integrate the results of both field and laboratory based research, including collaborative studies with other international organisations, into strategies which will lead to the improved control of animal trypanosomiasis.

Applicants will have a doctoral degree in an area of veterinary epidemiology, an interest in livestock disease control and proven ability to interact with scientists carrying out advanced research in a multi-disciplinary framework. Candidates should have wide experience in veterinary epidemiology, an understanding of techniques in biotechnology as they apply to collection of epidemiological data and experience in the application of computer models and geographic information systems in the analysis of epidemiological data. Preference will be given to applicants who are bilingual in English and French.

The salary and benefit package are comparable to those offered by similar International Organisations, and includes allowances for first arrival, housing, education, commutation, and home leave as well as provisions for pension and insurances.

Applications with CV and the names and addresses of three referees should be sent to: The Chief Personnel Officer, ILRAD, P.O. Box 30709, NAIROBI. (Telex: 22040 Fax: 254-2-631499 Email: BT TYMNET CGI017) not later than November 15, 1991 or until a suitable candidate has been identified.

ILRAD is an equal opportunity employer.

## RESEARCH SCIENTISTS

### San Diego

Hybritech Incorporated, a \$100 million subsidiary of Fortune 100 Eli Lilly and Company and a recognized leader in the manufacturing and marketing of *in vitro* diagnostic tests utilizing monoclonal antibody technology, has several immediate and challenging opportunities available to support our R&D, Clinical & Regulatory Affairs, and Operations departments at our San Diego headquarters.

General responsibilities include directing technical projects; collaborating with external scientists; generating new ideas for patent applications; presenting posters and papers at scientific meetings; and possessing thorough knowledge of internal/external customer needs, competitor products, and current developments in appropriate scientific fields.

Ideal candidates will possess a Ph.D. degree in a related scientific discipline and 1-2 years of academic or industrial post-doc experience in a related field.

Hybritech is an Equal Opportunity Employer and encourages diversity in our workforce. We offer a stimulating work environment and competitive salaries and benefits, including relocation assistance. Please send your resume to: HR/RS/SCI10-18-91, HYBRITECH INCORPORATED, P.O. Box 269006, San Diego, CA 92126-9006.

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## DEPARTMENT OF PHARMACOLOGICAL AND PHYSIOLOGICAL SCIENCE

### Saint Louis University Medical Center

Applications are invited for faculty positions in the Department of Pharmacological and Physiological Science at Saint Louis University Medical Center. Positions are tenure track appointments at the Assistant or Associate Professor level. We offer an environment rich in senior level scientific experience, start up funds, laboratory space and a record of highly successful and continuing extramural research funding. Preference will be given, but not restricted, to individuals with demonstrated experience in the application of molecular biology to research in the nervous, cardiovascular and endocrine systems. Interested persons should send a curriculum vitae, three letters of reference and a description of research interests and objectives to:

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

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

**Public Health Service  
National Institutes of Health**

**Fellowship in Brain  
Lipid Metabolism**

The Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health, invites applications for a Fellowship position to study brain lipid metabolism in relation to development, aging and neuroplasticity, pharmacological and physiological activation in animals. Research opportunities include examination of incorporation of radiolabeled fatty acids into brain, using analytical techniques to examine mass and specific activity within precursor pools and phospholipid species; examining brain lipid composition in Alzheimer's disease. The position is located in Bethesda, Maryland, and is available immediately.

Interested candidates should submit their Curriculum Vitae and two letters of recommendation to: **Stanley I. Rapoport, M.D., Chief, Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health, Bldg. 10, Room 6C103, 9000 Rockville Pike, Bethesda, MD 20892**

NIH is an Equal Opportunity Employer

## RESEARCH SCIENTISTS

Bristol-Myers Squibb is a world renowned pharmaceutical company dedicated to the progression of scientific research. We are currently seeking highly motivated Research Scientists to join our team of professionals.

### CHEMISTRY

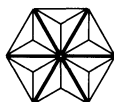
**Peptide** - Qualified candidates will possess a B.S. or M.S. in Chemistry with 1 year or more experience which encompasses: modern methods of solid phase peptide synthesis, preparation of protected and preactivated intermediates, peptide/protein purification and characterization, including a variety of chromatographic and quantitative analytical techniques, with particular emphasis on HPLC applications. **Reply to Dept. #252A-BM.**

**Cardiovascular** - Qualified candidates will possess a B.S. or M.S. in Chemistry with 2-4 years experience. Responsibilities will include: synthesis of biologically interesting organic compounds on a 1 to 100 millimolar scale, purification of intermediate and final compounds using various chromatographic techniques, operation of analytical instruments, particularly NMR spectrometers, and analysis of data. **Reply to Dept. #252B-BM.**

### BIOLOGY

**Pharmacology** - Qualified candidates will possess a B.S. with 5-7 years of experience or an M.S. with 2-4 years experience. Responsibilities will include: conducting experiments involving measurements of renal and cardiovascular function in conscious and anesthetized models, performing surgery required for acute and chronic models, developing and implementing procedures for in-vivo renal and cardiovascular studies when needed and summarizing, analyzing and graphing experimental data using available software. **Reply to Dept. #252C-AR.**

Please forward your resume, (including dept. #) to: **Bristol-Myers Squibb Pharmaceutical Research Institute, P.O. Box 4000, Princeton, NJ 08543-4000.** Equal Opportunity Employer, M/F/H/V.



**Bristol-Myers Squibb Company**

NYU  
Medical  
Center

### Associate Research Scientist

Discover the excellence of NYU Medical Center, one of the most highly esteemed health care institutions in the country. As an Associate Research Scientist, you'll use your expertise to study pre-mRNA splicing or snRNA synthesis in fission yeast.

Requirements include a Ph.D in Biochemistry, Molecular Biology or other related field. Experience with yeast genetics is desirable.

If you're interested in exploring the opportunities at a leading medical institution, send your resume to Ms. Singh, Professional Recruiter, NYU Medical Center, 550 First Ave., New York, NY 10016. EOE, M/F.

## Scientific Director Advanced Light Source

The birthplace of collaborative science, Lawrence Berkeley Laboratory, is a national laboratory affiliated with the University of California and funded by the Department of Energy. LBL operates a multi-disciplinary research facility on a 130-acre wooded site overlooking the San Francisco Bay.

The Advanced Light Source, one of the newest national user facilities at LBL, is a modern synchrotron radiation facility with unique capabilities for research in the life and physical sciences based on the use of high brightness partially coherent soft x-rays.

For the Scientific Directorship of the ALS, we are seeking a scientist with an outstanding record of achievement, a broad scientific vision, leadership skills and a demonstrated ability to manage scientific or technical programs. This search is being conducted jointly with faculty from the University of California at Berkeley in anticipation of making a joint appointment.

LBL compensation includes the competitive UC benefits package. Please send three copies of your curriculum vitae to Lawrence Berkeley Laboratory, Employment Department, JOB #A6834, Building 90, Room 1042, Berkeley, CA 94720. LBL is an equal opportunity employer. Women and minorities are encouraged to apply.



**LAWRENCE BERKELEY LABORATORY**  
UNIVERSITY OF CALIFORNIA  
U.S. Department of Energy

## POSITIONS OPEN

**POSTDOCTORAL POSITION** at Oak Ridge National Laboratory (ORNL) to conduct research on the biocatalytic design of enzymes (cellulases) using chemical modification. Degree in biochemistry/chemistry/biochemical engineering is required with experience and/or interest in protein biochemistry. For position information: Jonathan Woodward, ORNL, Oak Ridge, TN 37831-2008; telephone: 615-574-6826. For application material: Postgraduate Research Program, Science/Engineering Education Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117; telephone: 615-576-3456.

**POSTDOCTORAL POSITION IN VIROLOGY/MOLECULAR BIOLOGY.** Available immediately to study mechanisms of host range discrimination and error-prone RNA replication by influenza virus. Experience with molecular biology is required; experience with site-directed mutagenesis is desirable. Please send curriculum vitae, summary of previous research, and names/addresses of three references to: Dr. Thomas M. Chambers, Department of Veterinary Science, 108 Gluck Equine Research Center, University of Kentucky, Lexington, KY 40546-0099. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer.

## FETAL ALCOHOLIC RESEARCH

**NIAAA POSTDOCTORAL RESEARCH TRAINING FELLOWSHIPS**, to join faculty in the Fetal Alcohol Research Center conducting multidisciplinary, basic biomedical/neurobehavioral research on alcohol-related birth defects. Faculty interests include behavioral teratology, brain slice electrophysiology, chemical neuroanatomy, neuropharmacology, reproductive endocrinology, and sensory neurophysiology. Stipends include benefits. Send letter, curriculum vitae, and three references to: J. H. Hannigan, C. S. Mott Center for Human Growth and Development, Wayne State University Medical School, 275 East Hancock, Detroit, MI 48201. Equal Opportunity/Affirmative Action Employer. (Recruiting at Society for Neuroscience meeting).

**POSTDOCTORAL POSITION.** Available to study the role of multiple protein kinases and protein phosphorylation in neutrophil activation. Experience in biochemistry, cell biology or molecular biology is required. Please send curriculum vitae and names of three references to: Dr. Chi-Kuang Huang, Department of Pathology, University of Connecticut Health Center, Farmington, CT 06030.

**POSTDOCTORAL POSITIONS.** Several positions are available immediately to study enzymatic and molecular biology aspects of eukaryotic DNA repair. Applicants must have a Ph.D. degree and a strong background in protein biochemistry. The positions are funded for a minimum of 2 years with the potential of converting to a tenure-track faculty position. Starting salary \$35,000 to \$40,000 depending on experience. Please send curriculum vitae and names of three references to: Dr. Sal Caradonna, Department of Molecular Biology, University of Medicine and Dentistry of New Jersey (UMDNJ) School of Osteopathic Medicine, 401 South Central Plaza, Stratford, NJ 08084. Telephone: 609-782-6097. The UMDNJ is an Affirmative Action/Equal Employment Opportunity Employer, M/F/H/V, and a member of the University Health System of New Jersey.



**POSTDOCTORAL SOIL ECOLOGIST/ECOSYSTEMS MODELER.** Available 1 January 1992. The research involves: (1) field and laboratory studies of C/N/P interactions in soils of arctic ecosystems, and (2) simulation modeling of element interactions in wet, organic soils. The overall aim is to advance understanding of how carbon balance in arctic ecosystems is regulated by interaction with N and P cycles.

The ideal applicant should have a strong background in both soil process studies and simulation modeling. To apply, send a cover letter along with curriculum vitae and names only of referees to: Dr. G. R. Shaver, The Ecosystems Center, Marine Biological Laboratory (MBL), Woods Hole, MA 02543. The MBL is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**A POSTDOCTORAL POSITION** is available to study the cellular and subcellular mechanisms underlying the development of vascular disease. Background in endothelial cell biology or receptor signal transduction processes desirable. Send curriculum vitae and names of three references to: Dr. Nicholas A. Flavahan, Department of Medicine, Johns Hopkins University (JHU) School of Medicine, 720 Rutland Avenue, Baltimore, MD 21205. JHU is an Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL POSITION.** Available immediately to study the translational regulation of gene expression by tumor necrosis factor and other hormones. Experience in cellular and molecular biology is essential. Submit curriculum vitae and names and telephone numbers of three references to: Dr. David B. Donner, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION.** To study the role of microtubules and motor proteins in cell motility and morphogenesis. The project will focus on the relationship of microtubule dynamics to vesicle transport and will combine biochemical, immunological, and video-based microscopy approaches. Send curriculum vitae and three letters of reference to: Dr. Gregg Gundersen, Department of Cell Biology and Anatomy, Columbia University, 630 West 168th Street, New York, NY 10032.

## SIGNAL TRANSDUCTION AND AGING

Two **POSTDOCTORAL POSITIONS** are immediately available to define age-related declines in signal transduction in multiple cellular systems with particular emphasis on the cell membrane. Send curriculum vitae and names of three references to: Dr. David A. Lipschitz, Department of Medicine, GRECC (182), Veterans Hospital, Little Rock, AR 72205. Telephone: 501-660-2031; FAX: 501-660-2034.

**POSTDOCTORAL POSITION.** Available immediately for a biochemist, cell biologist, or organic chemist interested in the study of molecular mechanisms of drug resistance in cancer cells using NMR spectroscopy and fluorescence microscopy. Send curriculum vitae to: Dr. Michael Gamesik or Dr. Michael Colvin, The Johns Hopkins University School of Medicine, 310 Traylor Building, 720 Rutland Avenue, Baltimore, MD 21205-2195.

## Calendar of Upcoming Meetings

SCIENCE will be distributed to scientists attending the following meetings:

### NEUROSCIENCE

11 to 14 November 1991, New Orleans, LA  
Issue Date: 1 November 1991

### SALON DU LABORATOIRE

2 to 6 December 1991, Paris, France  
Issue date: 15 November 1991

### AMERICAN SOCIETY OF CELL BIOLOGY

8 to 12 December 1991, Boston, MA  
Issue date: 22 November 1991

Your classified ad will enjoy  
**BONUS DISTRIBUTION**  
at these events.

Deadline for classified ads:  
15 days prior to issue date at 10:00 a.m.

SCIENCE Classified Advertising  
Telephone: 202-326-6555  
FAX: 202-682-0816

## POSITIONS OPEN

**POSTDOCTORAL POSITION IN DEVELOPMENTAL NEUROBIOLOGY.** Immediate opening on NIH grant to correlate membrane and synaptic properties with structure of vestibular sensory neurons in chick brain slices. We are studying developmental changes in electrical and chemical synaptic transmission using intra- and extracellular recording, dye injection, and immunocytochemistry. Experience in electrophysiology desirable. Send curriculum vitae and names of three references to: Dr. K. D. Peussner, Department of Anatomy, George Washington University School of Medicine, 2300 I Street, N.W., Washington, DC 20037. Equal Employment Opportunity/Affirmative Action.

**A POSTDOCTORAL POSITION** with the USDA, ARS, Orlando, Florida, to develop a transformation system for peanut using *Agrobacterium* and particle delivery systems. Initial appointment is for 2 years. Salary is \$31,116. Send curriculum vitae, official academic transcripts, and names of three references to: Dr. Randall P. Niedz, USDA, ARS, 2120 Camden Road, Orlando, FL 32803; telephone: 407-897-7356. ARS is an Equal Employment Opportunity Employer.

**POSTDOCTORAL POSITION** available immediately for cell/molecular biologist. Areas of research include (1) regulation of growth factor and growth factor receptor gene expression in vascular cells, and (2) identification and characterization of fibroblast growth factor-inducible genes. Interested applicants should send curriculum vitae and the names and addresses of three references to: Jeffrey Winkles, Ph.D., American Red Cross, Laboratory of Molecular Biology, 15601 Crabbs Branch Way, Rockville, MD 20855.

**POSTDOCTORAL POSITION IN MITOCHONDRIAL GENETICS.** Available immediately to study the effects of chronic ethanol consumption on hepatic mitochondrial protein synthesis, with emphasis on changes in the structure and functioning of mitochondrial ribosomes. The primary interests in the laboratory are energy metabolism, mitochondrial biogenesis and ATP synthase-phospholipid interactions. Send curriculum vitae and names of three references to: Dr. Carol Cunningham, Department of Biochemistry, Wake Forest University Medical Center, Winston-Salem, NC 27157. Telephone: 919-748-4254. Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION (PLANT MOLECULAR GENETICS).** Available immediately to investigate the developmental biology of the *Cuphea* flower. Closing date is 1 November 1991. Salary is \$25,000. Applicants must have a Ph.D. in molecular genetics and should send their curriculum vitae and three letters of reference to: Dr. Sheldon L. Ladd, Department of Crop and Soil Science, Oregon State University (OSU), Corvallis, OR 97331-3002. OSU is an Affirmative Action/Equal Employment Opportunity Employer and is responsive to dual-career needs.

## POSTDOCTORAL ASSOCIATE

The University of Iowa Department of Neurology is accepting applications for a postdoctoral associate to study the cytochemical organization of the cerebral cortex in non-human primates and in patients with Alzheimer's disease and related conditions. Experience in the anatomy of the cerebral cortex, immunocytochemistry, in situ hybridization and/or neuropathology is desirable. Interested applicants may submit résumé and cover letter to: R. O. Kuljis, M.D., Department of Neurology, University of Iowa, Iowa City, IA 52242. Telephone: 319-356-8753; FAX: 319-356-4505. The University of Iowa is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

**POSTDOCTORAL POSITION IN UROLOGY** available immediately for 3 years through CBR-DOD research project to study toxicity of radioprotection agents. Require experience in vivo and in vitro toxicity study designs with emphasis on reproductive toxicology. Proper handling of small vertebrates with knowledge of hematological and endocrinological tools is important. Salary range: \$20,000 to \$24,000 based on experience. Send curriculum vitae and three letters of references to: Dr. Suresh C. Sikka, Associate Professor in Urology, Tulane University School of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112. An Equal Opportunity/Affirmative Action Employer.

## Research Scientists

Baxter Healthcare Corporation is a world leader in diverse healthcare markets. The Fenwal Division of Baxter is advancing research and development of life saving immunotherapy products. The rapid growth of our team is creating a variety of opportunities for Research Scientists at our Irvine, California facility. We are looking for people at entry and Ph.D. levels who are dedicated to research and who are enthusiastic about making a significant contribution in the following areas:

**Molecular Biology:** Application of PCR technology to the analysis of T cell subsets associated with certain autoimmune and neoplastic disorders.

**Cellular Immunology:** Functional characterization of T cell subsets as assessed by antigen specificity, expression of specific T cell markers and lymphokine secretion.

**Tumor Biology:** Development of animal models to assess efficacy of adoptive transfer of T cell subsets for therapy of neoplastic diseases.

**Hematopoiesis:** Application of growth factors to the study of human progenitor cell differentiation and function to aid in development of new therapeutic transfusion products.

**Immunochemistry:** Development of immunoassays, purification of antibodies, characterization of proteins and development of methods for attachment of protein on various solid phase substrates.

**Protein Chemistry:** Purification, characterization and evaluation of functional characteristics of biologicals.

All positions require a minimum of a Bachelor's degree. Baxter offers an excellent compensation package, including full benefits. For consideration, please send letter of application, with resume or c.v. to: **Baxter Healthcare Corporation, Fenwal Division, Human Resources, 2807 Catherine Way, Santa Ana, California 92705.** Baxter is an equal opportunity employer. All offers are contingent on the negative results of a drug screen.

Fenwal Division

**Baxter**

## Post-Doctoral Opportunity Signal Transduction

The Central Research Division of Pfizer Inc offers a unique post-doctoral program comprising a 3 year appointment that includes 18 months working with our Diabetes Research Group followed by 18 months in an academic laboratory. The current position requires a scientist with a PhD in Biochemistry or related field and an interest in the areas of insulin action, signal transduction, and/or protein phosphorylation. The first half of the study will focus on the diabetes-associated defects in the insulin signal transduction pathway in intact cells, while the second half will extend the studies to the subcellular level. Publication of the results of these studies will be expected.

This position includes a stipend, medical and dental insurance, and relocation assistance. To be considered, please forward your *curriculum vitae* and the names of three references to: Kym Goddu, Personnel Associate, Employee Resources, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, Connecticut 06340. An equal opportunity employer.



**Central Research**  
Bringing science to life.

## RESEARCH UPDATE

### Address insect neurobiology concerns of global importance.

American Cyanamid Company has a longstanding and highly successful commitment to the discovery and development of new products through innovative scientific research. And, as part of our Agricultural Research Division, you will join a global network that includes laboratories in the U.S., U.K., and Japan, as well as 25 international subsidiaries.

The following opportunities exist for PhDs with 3-5 years' relevant research experience, a proven record of research productivity, strong leadership abilities and scientific expertise in neurophysiology and cell biology.

#### Insect Neurophysiologist

Skill in mode of action studies, receptor biology and biochemistry is expected. An interest in fundamental problems dealing with insect neurobiology is essential.

#### Insect Cell Biologist

Expertise in establishing cell lines, cell differentiation and cell nutrition is required. An interest in virus-cell interactions and molecular biology is strongly preferred.

American Cyanamid Company offers an excellent compensation and benefits package which includes 401(k) savings plan and flex-time work schedules. We invite you to forward your resume to: Employment Office, Dept. BB, American Cyanamid Company, Agricultural Research Division, P.O. Box 400, Princeton, NJ 08543-0400. An Equal Opportunity Employer M/F/H/V.



## POSTDOCTORAL POSITION (NIH) AIDS RESEARCH

Interaction of HIV Envelope Glycoprotein  
with its Receptor, CD4

**Projects:** 1) Biochemical and biophysical studies of receptor-induced structural changes related to virus/cell fusion. Design, expression and analysis of recombinant wild type and mutant receptor proteins, predominantly using vaccinia vectors [PNAS (1991) **88**, 8082]; 2) Novel CD4-based antiviral agents, including recombinant CD4-toxin chimeric proteins targeted to kill HIV-infected cells [PNAS (1990) **87**, 8889].

Position available immediately; later starting dates considered. Funded by National Research Council fellowship; starting salary \$29,000 - \$35,000. Location: 9000 Rockville Pike, Bethesda, Maryland. Experience in molecular biology, protein chemistry, membrane biochemistry or virology helpful but not required. Diversified opportunities for collaboration. Send CV and names of 3 references to:

**Edward A. Berger, Ph.D.**  
**Laboratory of Viral Diseases, NIAID**  
**National Institutes of Health**  
**9000 Rockville Pike**  
**Bldg. 4, Room 229**  
**Bethesda, MD 20892**  
**Phone: 301/402-2160**  
**Fax: 301/480-1147**



U.S. Citizenship Required  
NIH is an Equal Opportunity Employer

## GRADUATE PROGRAM CELL AND MOLECULAR BIOLOGY (MULTI-DEPARTMENTAL)

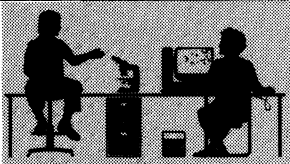
- GENE EXPRESSION AND REGULATION
- DEVELOPMENTAL BIOLOGY AND GENETICS
- SIGNAL TRANSDUCTION AND MEMBRANE BIOLOGY
- STRUCTURAL AND COMPUTATIONAL BIOLOGY
- MOLECULAR VIROLOGY, IMMUNOLOGY AND AIDS
- CELL CYCLE, GROWTH CONTROL AND CANCER BIOLOGY
- LIPID METABOLISM AND CARDIOVASCULAR BIOLOGY
- THE HUMAN GENOME AND GENE THERAPY

The Graduate school at BAYLOR COLLEGE OF MEDICINE has created a graduate program in CELL AND MOLECULAR BIOLOGY stressing basic research in the above areas. Students accepted for studies leading to the Ph.D. will receive financial support. For further information please contact Dr. Savio L.C. Woo, Director at the following address:

**Graduate Program in Cell and Molecular Biology**  
**Baylor College of Medicine**  
**The Graduate School**  
**One Baylor Plaza, Room S101**  
**Houston, Texas 77030**

**Phone: (713) 798-6557**

## 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 Division of Pharmacology is seeking a pharmacologist to develop non-primate models of normal and impaired learning/memory and work with CNS program teams to discover drugs that restore cognitive function.

Candidates must have a Ph.D. in psychology, pharmacology or neuroscience with emphasis on the behavioral pharmacology or learning/memory plus one year of experience in learning/memory research. Candidates selected for interview will take an on-site writing assessment. Other factors to be considered in selection include publications demonstrating expertise in models of normal or impaired human learning/memory, and experience with the following: methods of producing impairment of learning/memory; operant behavior; neuroanatomical and histological procedures, surgery and drug development.

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 letters, by **December 2, 1991** to: **Burroughs Wellcome Co., Recruiting and Staffing, Pos. #63128-4, 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.**



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As a world leader in membrane ultrafiltration technology for nearly thirty years and a division of Grace, Amicon has become known as a pioneer specializing in molecular separation systems. We are a leading supplier of technology, equipment and systems for separation applications in research, clinical and development laboratories, hospitals and industrial processes. Our products not only serve as components of diagnostic kits but are used extensively in the pharmaceutical, biotechnology and specialty chemicals industries.

With headquarters in Massachusetts and production facilities in the USA, England and Ireland, Amicon serves its customers through a worldwide network of marketing offices, research and technical service establishments, as well as distributors.

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Non-Smoking Environment



**UNIVERSITY OF DUNDEE  
LECTURESHIP IN  
BIOLOGICAL CHEMISTRY**  
Departments of Biochemistry  
and Chemistry  
(£12,690-£23,427, including  
5% interim pay award)

Applications are invited for a tenure-track lectureship in biological chemistry which is available from 1 October 1991 or as soon as possible thereafter. Applicants with interests in the application of high resolution NMR to biological problems, and in particular those with an interest in the application of NMR to the determination of the solution structure of proteins are encouraged to apply.

The University of Dundee has excellent facilities for NMR including 300 MHz widebore and 500 MHz instruments, molecular graphics and computational facilities, and the Department of Biochemistry is one of four departments in the UK rated as 'outstanding' by the UFC. The City of Dundee and surroundings offer unrivalled recreational facilities, together with one of the highest living standards in the UK.

The appointment may be made on the Lecturer Grade A scale (£12,690-£17,593) or Grade B scale (£18,328-£23,427) and will be for an initial period of 5 years, with the intention of a permanent post to follow.

Informal enquiries are invited to Dr S W Homans, tel 0382 23181 ext 4230.

Applications in writing with 8 copies of CV (or, if posted abroad, one copy in a format suitable for photocopying) and the names and addresses of three referees **should be sent as soon as possible** to, the Personnel Office, The University, Dundee, DD1 4HN, Scotland. Please quote reference EST/40/91/SC.



**SAINT LOUIS UNIVERSITY**

**VICE PRESIDENT AND CHIEF EXECUTIVE OFFICER FOR THE MEDICAL CENTER  
SAINT LOUIS UNIVERSITY**

Saint Louis University invites applications and nominations for the position of Vice President and Chief Executive Officer for the Saint Louis University Medical Center. The Vice President is the Chief Executive Officer of a long-established, modern, major health science center for St. Louis and the surrounding region of Illinois and Missouri. The Medical Center campus is located in the City of St. Louis and is one of four campuses of Saint Louis University. The Center includes four schools: School of Medicine, School of Nursing, School of Allied Health Professions, School of Public Health, plus an ultra modern hospital opened in 1988. In addition, there are graduate programs leading to masters' and doctoral degrees in the various schools. The Saint Louis University Medical Center is also a major research center with numerous internationally renowned programs.

The Vice President and Chief Executive Officer is expected to provide dynamic and creative leadership, characterized by initiative and vision in the overall direction of the Medical Center. He or she is responsible for the administration of the Center, including academic programs, research administration, and health care procedures. Applicants should possess the academic credentials usually associated with such a position (M.D., Ph.D., or comparable earned degrees), have had experience in academic and/or health care administration, research, and teaching, and be able to demonstrate an understanding and appreciation of the various missions of Saint Louis University. The University, founded in 1818, is the oldest institution of higher education west of the Mississippi River. Its Medical Center is linked inextricably to the 450-year history of academic excellence associated with the Jesuit education tradition.

Candidates should submit a curriculum vitae and a letter of application to:

Joan Hrubetz, Ph.D., R.N.  
Chair, Search Committee for the Selection of the  
Vice President and Chief Executive Officer, Medical Center  
Office of the Vice President  
Saint Louis University  
3556 Caroline Street, Room 207  
St. Louis, Missouri 63104-1085

Applications should be submitted as soon as possible and will be kept confidential during the initial screening process. This Search Committee will begin application review on February 1, 1992. The Vice President position will be filled when the chosen candidate is able to assume the responsibility after July 1, 1992. Saint Louis University is an equal opportunity and affirmative action institution.

**RESEARCH FELLOWSHIPS  
IN GERONTOLOGY  
AT THE UNIVERSITY OF  
MICHIGAN**

Postdoctoral research fellowships, supported in part by training grants from the National Institute on Aging, are available at the University of Michigan Institute of Gerontology. Stipends and related expenses will be provided to qualified applicants. Postdoctoral trainees must have completed a Ph.D., M.D. or equivalent degree. Prospective faculty mentors represent the behavioral, biological, clinical and social sciences, and the humanities as follows:

W.A. Achenbaum, Ph.D.; R.C. Adelman, Ph.D.; F.L. Bookstein, Ph.D.; S.F. Bradley, M.D.; B.M. Carlson, M.D., Ph.D.; J.A. Faulkner, Ph.D.; D.J. Fink, M.D.; B.E. Fries, Ph.D.; A. Gafni, Ph.D.; J.B. Halter, M.D.; N. Krause, Ph.D.; J. Liang, Ph.D.; R.A. Miller, M.D., Ph.D.; D.E. Rosenblatt, M.D., Ph.D.; A.B. Schultz, Ph.D.; D.G. Steel, Ph.D.; M.A. Supiano, M.D.; B.R. Troen, M.D.; L.M. Verbrugge, Ph.D.; B. Villeponteau, Ph.D.; W.G. Weissert, Ph.D.

Candidates should forward a letter of interest, identification of a potential faculty mentor, complete curriculum vitae and bibliography, graduate transcript, representative article (if available), and at least three letters of recommendation to: Michelle Shepherd, Institute of Gerontology, the University of Michigan, 300 North Ingalls, Ann Arbor, Michigan 48109-2007. The application deadline for Summer and Fall fellowships is March 31, 1992. *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.*

**University of California, Davis  
POSTDOCTORAL POSITIONS  
IN POPULATION BIOLOGY**

The Center for Population Biology at the University of California, Davis invites applications for up to three postdoctoral positions in population biology, broadly defined, including systematics, ecology, population genetics and evolution. Positions can be for up to three years, and will begin between February 1, 1992 and August 31, 1992. Salary will range from \$25,000 to \$30,000, depending upon qualifications, plus a modest yearly supplement for research support, depending upon needs. Successful individuals will be members of the Center for Population Biology and will be expected to have an independent research program, in which they interact with one or more faculty at Davis.

Interested candidates should submit i) a curriculum vitae, ii) names of three references, iii) a short (1-2 page) description of research accomplishments, and iv) a short (1-2 page) description of proposed research to: Search Committee, Center for Population Biology, c/o Department of Zoology, University of California, Davis, Davis, CA 95616. Applications should be received by 31 December 1991 to assure proper consideration.

**UCD is an Equal Opportunity /  
Affirmative Action Institution.**

**FACULTY POSITION  
MACROMOLECULAR  
CRYSTALLOGRAPHY**

The Waksman Institute and the Department of Chemistry at Rutgers, The State University of New Jersey, are recruiting outstanding individuals to join a multidisciplinary and rapidly expanding group of investigators in the area of Macromolecular Structure. One tenure-track faculty position is currently available.

We seek an individual with demonstrated ability and commitment to conduct vigorous research programs and to teach. The new faculty member will enjoy many opportunities to interact with other x-ray crystallographers, molecular biophysicists, and biochemists on the Rutgers campus. State-of-the-art x-ray diffraction and computational facilities have been established. Salary and rank will be commensurate with experience, background, and professional qualifications.

Applications should include an expression of interest in the position, a current publication list, a *curriculum vitae*, and confidential letters of recommendation from four professional references. Applications will be accepted until the position is filled.

Applications and nominations may be directed to: **Chairperson, Macromolecular Crystallography Search Committee, Rutgers, The State University of New Jersey, Department of Chemistry, PO Box 939, Piscataway, New Jersey 08855.**

THE STATE UNIVERSITY OF NEW JERSEY

**RUTGERS**

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Equal Opportunity Employer*

## POSITIONS OPEN

A POSTDOCTORAL POSITION IN VIROLOGY is available to study the structure and function of the attachment protein of Paramyxoviruses [*J. Virol.* 65, 4999-5006 (1991)] and its role in virus-induced cellular fusion using hybridoma technology, site-directed mutagenesis and x-ray crystallography. Preference will be given to individuals with experience in one or more of the above techniques. Please send curriculum vitae and the names of three references by 15 November 1991 to: **Dr. Ronald M. Iorio, Department of Molecular Genetics and Microbiology, University of Massachusetts Medical School, Worcester, MA 01655.** An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION to study markers and mechanisms of drug resistance in a well-equipped, multi-investigator and interactive group. Recent graduates with biochemical/immunology training may send curriculum vitae to: **Dr. Awtar Krishan, University of Miami, Department of Medical Oncology, Division of Experimental Therapeutics, P.O. Box 016960 (R-71), Miami, FL 33101.**



• **POSTDOCTORAL POSITIONS:** available in a group studying neurophysiology, neuropharmacology, neurobehavioral toxicology and neurochemistry of neurotoxic and neuroprotectant substances.

• Requirements: Ph.D. within past 5 years; experience in tissue culture, EEG, EVP, behavioral toxicology, electrophysiological recording from vertebrate and/or invertebrate neurons using voltage clamp, patch clamp, iontophoresis, and micropressure techniques would be helpful. Successful applicant will engage in original research under a program administered by the National Research Council, under the guidance of an approved mentor. The annual stipend from the Research Council is \$27,750.

• Submit curriculum vitae and personal references to: **Chief Neurotoxicology Branch, SGRD-UV-YN, U.S. Army Medical Research Institute of Chemical Defense, Aberdeen Proving Ground, MD 21010-5425.**

### TWO POSTDOCTORAL POSITIONS UT MEDICAL GROUP, INC. (UTMG) AFFILIATED WITH THE DEPARTMENT OF OBSTETRICS/GYNECOLOGY UNIVERSITY OF TENNESSEE, MEMPHIS MOLECULAR GENETICS RESEARCH LABORATORY

The molecular genetics research laboratory within the division of reproductive genetics invites applications for two 5-year postdoctoral research fellow positions. The successful candidates will join a small dynamic team studying the molecular biology of the sex-reversed (Sxr) region of the mouse Y chromosome. Ongoing projects include (1) the cloning and functional analysis of the spermatogenesis gene *Spy*, (2) cloning and analysis of *Hya*, the gene controlling the expression of the male specific minor histocompatibility antigen H-Y, and (3) the production of a complete structural map of the entire region in overlapping yeast artificial chromosomes leading to the identification of new Y located genes. Applicants must have a Ph.D. and be experienced in molecular genetics. Experience in cell culture and mouse genetics would be an advantage. In addition, applicants should be capable of thinking and working independently. Working conditions are excellent in new well-equipped laboratories. UTMG offers excellent benefits and competitive salaries. Informal inquiries may be made to: **Dr. Collin E. Bishop—telephone: 901-528-7258/7174 or FAX: 901-577-8476.** Interested applicants should send detailed curriculum vitae, a summary of research interests/reprints and the names of three referees to: **Dr. C. E. Bishop, UT Medical Group Inc., Employment Office, 66 North Pauline Street, Memphis, TN 38105-5102.**

UT Medical Group Inc. is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### RNA PROCESSING POSTDOCTORAL POSITION

A funded position will be open in early 1992 for a postdoctoral fellow to join a program addressing interactions between spliceosome proteins and small nuclear RNPs. Previous experience with mRNA splicing and protein purification desirable. Send curriculum vitae and the names of at least two references to:

**Dr. Thoru Pederson  
Cell Biology Group  
c/o Personnel Office  
Worcester Foundation for Experimental Biology  
222 Maple Avenue  
Shrewsbury, MA 01545**

Affirmative Action/Equal Opportunity Employer, M/F/H.

POSTDOCTORAL POSITION in molecular and cellular biology of the cardiovascular system is available immediately to study the hypoxia-adaptation and regulation of expression of oxygen responsive genes in cardiac cells. Excellent research environment with prospect for developing independent research programs. A Ph.D. in molecular biology/biochemistry is required. Related experience in molecular genetic and biochemical assays would be desirable. Salary for postdoctoral fellows is \$28,000 to \$32,000 per annum. Send full curriculum vitae and names/numbers of three references to: **K. W. Sison, AA210, SRI International, 333 Ravenswood Avenue, Menlo Park, CA 94025.** An Equal Opportunity Employer.

### SRI International

POSTDOCTORAL POSITION. Available 1 December 1991 or 1 January 1992. Studies will involve development and application of vectors for in vivo gene transfer to the respiratory epithelium. Experience in molecular biology and small animal handling desirable. Send curriculum vitae and three letters of reference to: **David T. Curiel, M.D., 724 Burnett-Womack Building, University of North Carolina, Chapel Hill, NC 27599-7020.**

A POSTDOCTORAL POSITION is available immediately for the study of neutrophil function and chemically induced liver or lung injury. A Ph.D. degree and training in biochemistry and cell biology are required. Research experience in phagocytic cell function or chemically induced organ toxicity is desirable. Applicants should submit their curriculum vitae and names of three references to: **Dr. Robert A. Roth, Department of Pharmacology and Toxicology, Michigan State University, East Lansing, MI 48824.** Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Available immediately for a NIH-funded project to study factors involved in regulating TRH in the CNS. These studies will involve RIA, receptor autoradiography and in situ hybridization techniques. Salary commensurate with experience. Send curriculum vitae and names of three references to: **Andrew Winokur, M.D., Ph.D., Department of Psychiatry, University of Pennsylvania, 11 Gates Building, 3400 Spruce Street, Philadelphia, PA 19104.** University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

### MOLECULAR BIOLOGIST RESEARCH SCIENTIST

Position available immediately to study B cell lymphokine and B cell lymphokine receptor expression in the Lymphokine Research Laboratory. Specific requirements include a strong background in molecular biology including cDNA cloning and sequencing, vector construction, point mutations and PCR.

POSTDOCTORAL POSITION IN MOLECULAR AND CELLULAR BIOLOGY  
A postdoctoral position is immediately available to study B cell lymphokine secretion and B cell lymphokine receptor expression. Applicants should have experience in cell and molecular biology techniques. Please send curriculum vitae, a brief description of research experience and the names and addresses of three references to: **David Benjamin, M.D., Lymphokine Research Laboratory, 1232 James Cancer Hospital and Research Institute, Ohio State University Hospitals, 300 West 10th Avenue, Columbus, OH 43210-1228.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION AT THE UNIVERSITY OF MICHIGAN

Postdoctoral position in Human Gene Therapy is available immediately to study gene transfer into human hematopoietic cells. Minimum requirements include a Ph.D. in biological sciences and research experience in molecular biology. Research in progress focuses on retroviral gene transfer into human hematopoietic stem cells through the use of novel growth conditions and novel retroviral vectors. Salary range is \$25,000 to \$35,000 per year.

Interested candidates should send curriculum vitae, copies of relevant reprints, and the names and telephone numbers of three references to: **Dr. Michael F. Clarke, Department of Internal Medicine, C570 MSRB II, The University of Michigan, Ann Arbor, MI 48109-0668.**

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

### POSTDOCTORAL FELLOW

There are several positions available in a multidisciplinary research environment to study the molecular basis of retinoid actions in human skin. The aims of the research are: (position 1) to investigate the pathways, enzymes, and regulation of vitamin A metabolism in human skin; (position 2) to identify and characterize early retinoid acid inducible genes in human skin by differential and subtractive library screening; (position 3) to investigate the regulation of pigment formation and function by retinoids in human skin; (position 4) purification and functional and physical characterization of recombinant nuclear retinoic acid receptors; and (position 5) regulation of epidermal transglutaminase expression. Candidates should be familiar with biochemistry and molecular biology techniques including: enzymology, protein purification, molecular cloning, cell transfection, and in situ hybridization. These positions offer excellent opportunities for career development. Send curriculum vitae, indicating position of interest, to: **Dr. John J. Voorhees, Professor and Chairman, University of Michigan, Department of Dermatology, 1301 East Catherine, Kresge I, R6558, Ann Arbor, MI 48109-0528.**

### POSTDOCTORAL TRAINING PROGRAM CELLULAR AND MOLECULAR ENDOCRINOLOGY

Postdoctoral traineeships are available in 1991/92 in an NIH-supported program. Trainees with a Ph.D. or M.D. degree having U.S. citizenship or permanent residence in the United States will participate in a research program with 1 of 14 faculty from the Biochemistry Department and the Division of Biomedical Sciences on the campus of the University of California, Riverside. The purpose of the program is to provide for research training at the postdoctoral level in the following five major areas of focus: (1) insulin, related growth factors, and their actions; (2) endocrinology of vitamin D, calcium, and bone cell metabolism; (3) production and actions of lymphokines, hemopoietic growth factors, and cytokines; (4) molecular and cell biology of hormone synthesis and action; and (5) transductive and intracellular events in hormone action. For detailed information and application forms write to: **Dr. Anthony W. Norman, Program Director, Department of Biochemistry, University of California, Riverside, CA 92521; telephone: 714-787-4777.** An Affirmative Action/Equal Opportunity Employer.

### U.S. DEPARTMENT OF ENERGY HOLLAENDER POSTDOCTORAL FELLOWSHIPS

Hollaender Postdoctoral Fellowships provide research opportunities in the life, biomedical, and environmental sciences. Stipend is \$37,500. Fellowships are tenable at approved Department of Energy and university laboratories with programs sponsored by the Office of Health and Environmental Research. A doctoral degree received after 1 April 1990 is required, as is U.S. citizenship or PRA status. Deadline is 15 January 1992. Contact: **Hollaender Postdoctoral Fellowships, Science/Engineering Education Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117; telephone: 615-576-4805.**

## THE KORET SCHOOL OF VETERINARY MEDICINE

The Hebrew University invites applications for the post of Director of the Koret School of Veterinary Medicine. The School of Veterinary Medicine, which opened in 1985, is an autonomous school from both academic and budgetary aspects, within the framework of the Faculty of Agriculture of the Hebrew University. The School prepares students for the degree of Doctor of Veterinary Medicine and conducts continuing Post-Graduate programs.

### The Functions of Director of the School:

Management of the School and responsibility for its teaching; initiating, guiding and encouraging basic scientific and clinical research activities; recruiting professional personnel and resources; representing the School vis-a-vis the Faculty of Agriculture and the Hebrew University; cultivating good work relations and cooperation with veterinary bodies and institutions in the State of Israel and developing international relations with parallel institutions abroad.

### Requirements of the Position:

The candidate must be a recognized veterinary personality both internationally and in Israel, who has had wide experience in research and academic veterinary teaching and holds a Doctor of Veterinary Medicine degree from a recognized university. It is desirable that candidates have leadership ability and administrative experience in a research or clinical veterinary institution.

The candidate is required to submit his/her curriculum vitae and list of publications, together with names of two to three persons who can be approached for letters of recommendation. These should be mailed, within three months of publication of this advertisement, to:

**Professor Nachum Snapir**  
Dean, Faculty of Agriculture  
P.O. Box 12, Rehovot 76-100, Israel

## PEPTIDE CHEMIST

The Medical Research Division of American Cyanamid is seeking a Peptide Chemist for the Molecular Biology Section of our Infectious Disease and Molecular Biology Research Group. This position will be responsible for synthesizing and purifying peptides to fill the research needs of the division as well as participating in assorted research projects.

The successful candidate will have a BS/MS with a minimum of three years of professional experience in Peptide Synthesis. Additionally, the candidate must be thoroughly familiar with state-of-the-art methodology of automated solid-phase peptide synthesis, instrument operation and maintenance, and peptide purification.

The Medical Research Division of American Cyanamid is located at Lederle Laboratories in Pearl River, New York, approximately 25 miles north of New York City. We offer an excellent salary, a benefits package which includes a 401(k) savings plan, and growth potential.

For consideration, please send your resume and the names of three references to:



Professional Employment Office,  
Lederle Laboratories, Department  
PB, Middletown Road, Pearl River,  
New York, 10965. We are an equal  
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## DEAN OF MEDICINE AND BIOLOGICAL SCIENCES

*Brown University is seeking a Dean of Medicine and Biological Sciences to serve as the chief academic and administrative officer for Biology and Medicine at the University, including the Program in Medicine (the medical school) and the University's undergraduate and graduate programs in the Biological Sciences. The Program in Medicine includes the eight-year college/medical school continuum called the Program in Liberal Medical Education, as well as more conventional medical education. Medicine and the Biological Sciences at Brown are integrated in a mutually supportive relationship and are intimately intertwined with the University at large.*

*In addition to the campus-based program, medical education at Brown encompasses eight affiliated hospitals comprising more than fifty percent of the inpatient beds in the State of Rhode Island and more than twenty-five additional associated facilities which extend beyond State boundaries and are international in scope.*

*Candidates must have an earned doctorate in the biological sciences and/or medicine, be qualified for the rank of Professor, have a strong record of research and teaching accomplishment, and have substantial academic administrative experience.*

*Brown University is an Equal Employment Opportunity/Affirmative Action Employer and is deeply committed to affirmative action for minorities and women.*

*Please forward curriculum vitae by November 15, 1991 to: Ms. Marie Langlois, Chairperson, Search Committee for the Dean of Medicine and Biological Sciences, c/o Donna D. Newton, Special Assistant to the Dean of Medicine, Office of the Dean of Medicine, Brown University Medical School, Box G-A2, Providence, Rhode Island 02912.*



**BROWN UNIVERSITY**

## MICROBIOLOGIST Group Leader



Marion Merrell Dow is an international leader recognized for the success of our research efforts in the pharmaceutical industry. We're also known for the outstanding quality of our scientific environment and the career opportunities we provide. Currently, we're seeking an experienced individual to oversee lab activities in our **Kansas City** location.

Providing support to R&D and to Quality Assurance for new product development, you will supervise the daily activities of the Microbiology group, and identify, coordinate and schedule work. Additionally, you'll provide technical direction, develop method and analytical testing for the release of clinical trial supplies, and develop the Microbiology staff by defining goals and implementing training.

We require a PhD in Microbiology plus a minimum of 6 years in the pharmaceutical or cosmetic industry to include experience with liquids, creams and ointments. Previous supervisory experience essential.

Marion Merrell Dow is committed to ongoing major research efforts. And we're committed to providing you with a quality lifestyle, with benefits such as bonus, 401(k) and stock options. Our Kansas City location provides an affordable and family-oriented, yet cosmopolitan lifestyle. For consideration, send a resume with salary history to: **Marion Merrell Dow, Staffing Dept. ALS, P.O. Box 9627, Kansas City, MO 64134.** An Equal Opportunity Employer.



**MARION MERRELL DOW INC.**

# Veterinary Pathologist

With four of the first six biotechnology products ever marketed, Genentech has done more to shape the industry than anyone. We have an immediate opening for a Veterinary Pathologist. Join us in our on-going efforts within the Pathology group in the Safety Evaluation department.

You will interact with scientists in many disciplines including molecular biology, immunology and toxicology to conduct independent research supporting experimental and developmental projects with recombinant DNA products. The scope of the position will include basic experimental pathology to investigate mechanisms of toxicity and efficacy of these products in animal models as well as GLP preclinical safety assessment studies supporting registration of new products.

Requirements include a DVM/VMD with board certification (ACVP) in Veterinary Pathology and three - five years' experience. Postdoctoral graduate training in neuropathology, immunohistochemistry or in the biotechnology field is also desirable.

Our progressive company offers an extensive benefits package which includes fully paid dental/medical/vision coverage for you and your dependents, child care facilities, free health club membership and an employee stock purchase plan. For immediate consideration, please send your resume to Nancy Symonds, Genentech, Inc., Human Resources Dept. NO/TP, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We promote and actively support affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

## Genentech, Inc.



## OsteoArthritis SCIENCES, INC.

OsteoArthritis Sciences, Inc. (OSI) is a drug discovery company located in Boston whose mission is to research novel therapeutics for connective tissue diseases. We are inviting innovative scientists to join in this endeavor. Qualified individuals will join a multi-disciplinary team dedicated to all aspects of cartilage biology and biochemistry. Opportunities are available to develop your ideas within an entrepreneurial environment.

### *Open Ph.D. positions include:*

PROTEIN CHEMISTS	BIOCHEMISTS
MEDICINAL CHEMISTS	COMPUTATIONAL CHEMISTS
ANALYTICAL CHEMISTS	MOLECULAR BIOLOGISTS
PHARMACOLOGISTS	CELL BIOLOGISTS.

Competitive salary, stock options and fringe benefits are available to qualified candidates. OSI is an equal opportunity/affirmative action employer.

### *Please send your resume to:*

OsteoArthritis Sciences, Inc  
379 Thornall St. - 7th floor  
Edison, NJ 08837  
Attn: Lisa Kotch



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# SCIENTISTS

Rhône-Poulenc Rorer Central

Research is a global leader in pharmaceutical research.

Our commitment to research is reflected in our new, 1.1 million sq.

ft. World Headquarters & Research facility located in southeastern Pennsylvania.

We currently have the following opportunities available:

## Drug Metabolism

**SCIENTIST (Position 91R-109CL)** – Will conduct in vitro and in vivo disposition studies on NCEs using analytical chromatographic methods, radioisotopic techniques, and computer data analysis. BS or MS in Chemistry/Biology with 2-5 years experience required.

**RESEARCH SCIENTIST (Position 91R-114CL)** – Will support discovery & development of proteins and peptides as therapeutic entities using in vitro and in vivo biochemical techniques. PhD in Biochemistry/Pharmacology with 1-4 years post-doctoral experience required.

**RESEARCH SCIENTIST (Position 91R-112DW)** – To establish an innovative program for dispositional studies of NCEs in drug development. PhD in Biochemistry, Pharmacology, or Toxicology with 0-2 years post-doctoral training required.

**RADIOCHEMIST RESEARCH SCIENTIST (Position 91R-113KB)** – Will be responsible for synthesis-purification of radiolabeled drug candidates, specific activity, radiochemical/chemical purity analyses, and stability monitoring of stored compounds. A PhD in Organic Chemistry Radiopharmaceutics with 0-3 years post-doctoral training required.

**RESEARCH SCIENTIST (Position 91R-KB)** – Will probe metabolic pathways of our NCEs to support discovery development. An MS with 2-4 years of experience or a recent PhD with post-doctoral training in Biochemical Pharmacology required.

## Product Research & Development

**SCIENTIST (Position 91R-074JM)** – BS/MS with 5-7 years experience with fermentation of recombinant bacteria to be a part of a multidisciplinary team doing product and process research and development, and GMP production of recombinant pharmaceutical products clinical trials. Primary duties will include strain improvement, pilot scale fermentor operations, and product recovery. Will also be involved with mammalian cell culture, molecular biology, and protein purification. Must be able to interact closely with other research groups.

## Pharmaceutics

**ASSOCIATE SCIENTIST/SCIENTIST (Position 91R-153MW)** – Will be responsible for performing experimental studies intended to provide fundamental information leading to the successful development of protein/peptide drug products. Experience in the standard biotechnological techniques relating to the analysis of proteins and peptides, including HPLC, is essential. BS or MS in Chemistry, Biochemistry or Biology with industrial or academic work experience required.

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**RHÔNE-POULENC RORER CENTRAL RESEARCH, Human Resources**

**Dept. (INDICATE POSITION #), 640 Allendale Road, King**

**of Prussia, PA 19406.** Equal Opportunity

Employer, M/F/H/V.



## POSITIONS OPEN

**FELLOWSHIPS FOR POSTDOCTORAL TRAINING IN NEURAL DEVELOPMENT, PLASTICITY, AND REGENERATION** at the Ohio State University. Systems, cellular, and molecular approaches are available for trainees supported by an NINDS training grant. Faculty include K. Alley, M. Beattie, G. Bishop, J. Boulant, R. Boyd, J. Bresnahan, R. Burry, H. Cooke, M. Hadjiconstantinou-Neff, R. Ho, L. Horrocks, J. King, D. Lim, G. Martin, N. Neff, R. Nordlander, R. Rogers, A. Rotter, B. Stokes, R. Tassava, S. Tjioe, J. Wood, and A. Yates. *Fellows supported by the training grant must be U.S. citizens or permanent residents*; however, other positions may be available which can be supported by funds available to individual investigators.

Applications, including curriculum vitae, statement of research interests, and three letters of recommendation, should be sent to: **Drs. G. F. Martin and M. S. Beattie, at the Department of Cell Biology, Neurobiology and Anatomy, The Ohio State University, 333 West 10th Avenue, Columbus, OH 43210.** Potential applicants are encouraged to contact the program directors and prospective faculty sponsors for detailed information. **Telephone: Dr. Martin, 614-292-1667; Dr. Beattie, 614-292-1781.**

**POSTDOCTORAL FELLOWSHIPS.** The Monell Chemical Senses Center announces the immediate availability of postdoctoral fellowships in interdisciplinary training and research in the chemical senses. We are seeking applicants with a recent Ph.D. in one of the following disciplines: animal behavior, biochemistry, biology, chemistry, ecology, epidemiology, genetics, neuroscience, nutrition, physiology, psychology, sociology, or zoology. Research activities at the center range from studies on receptor mechanisms of taste, smell and chemical irritation at the subcellular level, including molecular genetics, to investigations on the ecological, social and reproductive significance of chemical signals. The center also maintains a major Chemosensory Clinical Research Center with Jefferson Medical College of Thomas Jefferson University. Individuals having interests in conducting clinical and/or biomedical research on taste, smell, nutrition or related areas also are encouraged to apply. Stipend will depend upon level of experience. Please send a brief description of previous research interests, curriculum vitae and three references to: **Dr. Charles J. Wysocki, Chair, Training Program, Monell Chemical Senses Center, 3500 Market Street, Philadelphia, PA 19104-3308.** *The Monell Center is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL FELLOWSHIP** available in one of the following areas: language acquisition/childhood language disorders, sign language/linguistics, phonetics/neurolinguistics, hearing science, or speech motor control/stuttering. Position is available to *U.S. citizens/permanent residents* and is renewable for a second year. Send letter, curriculum vitae, and telephone numbers of three references to: **Dr. Rachel E. Stark, Chair, Audiology and Speech Sciences, Purdue University, West Lafayette, IN 47907; telephone: 317-494-3788 or FAX: 317-494-0771.** *Purdue is an Equal Opportunity/Equal Access University.*

### POSTDOCTORAL FELLOW/ RESEARCH ASSOCIATE MOLECULAR BIOLOGIST/BIOCHEMIST

To study mechanisms of antibody catalysis and binding using recombinant DNA, monoclonal antibody and peptide chemistry techniques. Murine monoclonal and human polyclonal autoantibodies with peptidase activity and cDNA encoding H- and L-chains are available. Core facilities for monoclonal antibody production, peptide and oligonucleotide synthesis and sequencing and molecular modeling are available. Responsibilities include collaborative interaction with other fellows and technologists. Strong background in basic biochemical and nucleic acid manipulations and interest in protein structure-function correlation is desirable. Appointment can be at the senior associate level with salary \$23,000 to \$34,000 depending on experience. Send curriculum vitae with names and addresses of three references (including telephone numbers) to: **Dr. Sudhir Paul, Associate Professor, Departments of Anesthesia, Biochemistry and Medicine, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-4455; telephone: 402-559-4556.** *Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.*

## POSITIONS OPEN

### POSTDOCTORAL FELLOWSHIPS

Four possible positions available, University of Hawaii, Hawaii Natural Energy Institute, full-time, federal funds, to begin approximately 1 November 1991, continuation dependent upon availability of funds, annual stipend \$24,000 to \$30,000. Duties: Conduct research in the areas of (1) marine macroalgal physiology (biomass), (2) microbial enzymology/genetics (ethanol), (3) cyanobacterial physiology/genetics (hydrogen), and/or (4) microbial physiology/genetics (hydrogen). Minimum qualifications: Ph.D. in appropriate field to conduct research in the areas mentioned above. Inquiries: **Dr. Kelton McKinley at 808-956-2346.** To apply, send cover letter, résumé, and three letters of references to: **Grace Fujino, Hawaii Natural Energy Institute, 2540 Dole Street, Holmes 246, Honolulu, HI 96822.** Closing date: until a suitable candidate is found.

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

### SMITHSONIAN INSTITUTION FELLOWSHIP PROGRAM

**GRADUATE STUDENT, PRE-, POST-, AND SENIOR POSTDOCTORAL FELLOWSHIPS** in American history and material culture, anthropology, biological sciences, earth sciences, history of art, history of science and technology. Tenable in residence at the Smithsonian and its research facilities. Stipends and tenures vary. Deadline: 15 January annually. Contact: **Smithsonian Institution, Office of Fellowships and Grants, 955 L'Enfant Plaza, Suite 7300, Desk S, Washington, DC 20560. Telephone: 202-287-3271.** *Awards are based upon merit, without regard to race, color, religion, sex, national origin, age, or condition of handicap of applicant.*

### RESEARCH FELLOW

Children's Hospital Medical Center, long recognized as a leader in biomedical research and in the treatment and research of childhood diseases, currently has an opening for a Research Fellow in the Department of Gastroenterology. Applicants should possess a Ph.D. in molecular biology, molecular genetics, biochemistry or related discipline. Three plus years of experience in an academic or related setting and in the area of molecular biology. For information call: **513-559-4244.** Send résumé describing research and names of three references to: **H. Donnelly, Human Resources, Children's Hospital Medical Center, Elland and Bethesda Avenues, Cincinnati, OH 45229.** *Equal Opportunity Employer.*

### POSTDOCTORAL RESEARCH ASSOCIATE

Position is available for 4 years in the NIH-supported laboratory to study biochemical and molecular properties of vitellogenin receptor from mosquito oocytes. Strong background in biochemical techniques is required and experience in molecular biology is desirable. Send curriculum vitae, reprints of publications and three letters of recommendations to: **Dr. Alexander Raikhel, Professor, Program in Genetics and Department of Entomology, S-136 Plant Biology Building, Michigan State University, East Lansing, MI 48824-1115; telephone: 517-353-7144; FAX: 517-353-5598.**

### POSTDOCTORAL RESEARCH ASSOCIATE

Available immediately to study the mechanisms underlying the selective effects of DNA damage induced by the carcinogen chromium(VI) on gene transcription in cultured cells. Experience in basic molecular biology techniques and cell culture is required. Send curriculum vitae and three letters of reference to: **Dr. Karen Wetterhahn, Department of Chemistry, Dartmouth College, Hanover, NH 03755.** *Dartmouth College is an Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSOCIATE.** Position immediately available to study biochemical regulation of ion transport in isolated secretory granules. Experience required in cell fractionation, PAGE, 32P-labeling, immunoelectrophoresis, membrane protein chemistry, and use of microcomputers (MS-DOS) for data analysis. Salary range \$22,000 to \$30,000, depending on experience. Send applications with curriculum vitae and names of two references to: **Dr. Ulrich Hopfer, Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, OH 44106-4970.** *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSOCIATE IN RESEARCH

The University of South Florida is currently seeking one nontenure (possible tenure in the future) track **RESEARCH ASSOCIATE** in the Division of Radiation Oncology. Candidates must have a doctorate degree or equivalent in biology or a related science and will be expected to develop, fund and conduct independent research in areas that include: tissue culture techniques including Courtney Assays, CAM Assays, and Tpot measurements; development of biochemical and immunological procedures and supervision of experiments; and growth, radiolabeling, characterization and quality control of monoclonal antibodies. Applications for the position should include a cover letter, curriculum vitae, statement of research interests and letters of recommendation and be addressed to: **Harvey M. Greenberg, M.D., Medical Director of Radiation Oncology, H. Lee Moffitt Cancer Center, 12902 Magnolia Drive, Tampa, FL 33612; telephone: 813-972-8424.** *The University of South Florida is an Equal Opportunity Employer.*

**RESEARCH ASSOCIATE.** Position available in Department of Cancer Biology at leading university to design and develop experimental strategies involving HTLV-1 and HTLV-2, HIV-1 and HIV-2, and SIVs particularly as they relate to mechanisms of disease induction in cancer, neurological diseases and AIDS.

Duties would include: culturing of HIV- and HTLV-infected cells and isolation of lymphotropic retroviruses; expression of proteins in prokaryotic and eukaryotic systems; molecular cloning and mutagenesis of DNA; protein analysis and serological techniques; preparation of scientific proposals for submission to funding agencies; technical training of research assistants and graduate students; supervision and performance of experiments; summarizing results and preparing manuscripts for submission to scientific journals as well as for oral presentation at scientific meetings.

Applicant must have a Ph.D. or M.D. degree with experience in the fields of retrovirology and molecular biology and broad knowledge of medical biology. Must have had a minimum of 2 years of pre- or postdoctoral research experience in culturing of HIV- and HTLV-infected cells and isolation of lymphotropic retroviruses, expression of proteins in prokaryotic and eukaryotic systems, molecular cloning and mutagenesis of DNA, protein analysis and serological techniques. Salary: \$30,000 per annum.

Interested applicants should send two copies of curriculum vitae, including bibliography, and refer to: **Job Order #11029, P.O. Box 8968, Boston, MA 02114.**

**RESEARCH ASSOCIATE** positions available immediately. Specific emphasis is on the function and regulation of the retinoblastoma gene and its protein targets. Please send curriculum vitae and the names of references to: **Dr. Y. K. Fung, Children's Hospital Los Angeles, Mail Stop 67, P.O. Box 54700, Los Angeles, CA 90027.** *Children's Hospital Los Angeles/University of Southern California is an Affirmative Action/Equal Opportunity Employer.*

### RESEARCH ASSOCIATE

The Arnold Arboretum of Harvard University seeks **POSTDOCTORAL RESEARCH ASSOCIATES** for two positions: (1) to coordinate plant collecting expeditions in Indonesia in collaboration with the Herbarium Bogoriense, and to identify and document specimens for taxonomic and pharmacognasy studies in the United States. Minimum qualifications: Ph.D. in plant systematics; ability to conduct expeditions in Southeast Asian rain forest; ability to solve problems and conduct work independently in an unfamiliar cultural environment; annually renewable for up to 3 years. (2) to prepare a field guide in plain English to rapid survey methods for ranking prospective preserves in Southeast Asia for conservation of plant species based on species richness, endemism, viable minimum population size. Qualifications: Ph.D. in plant biology relevant to conservation and experience in conservation research. For each position, send letter of interest, résumé, and three letters of reference to: **Dr. Robert E. Cook, Arnold Arboretum, 125 Arborway, Jamaica Plain, MA 02130.**

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**FAX NUMBER: 202-682-0816**



## CELL AND MOLECULAR BIOLOGISTS

Department of Cell & Structural Biology, University of Illinois at Urbana-Champaign, invites applications for **ASSISTANT, ASSOCIATE, or FULL PROFESSOR**, from PhD scientists interested in establishing an outstanding research program in a young, expanding department. Potential areas of focus include membrane receptors and signaling, cell cycle control, nuclear and cytoskeletal structure/function, cellular immunology, and molecular aspects of virus/host interactions. Responsibilities also include teaching core cell biology courses. Salary will be commensurate with experience and level.

Substantial start-up funds and laboratory facilities are available, along with exceptional physical and intellectual resources of the University: Transgenic Animal Facility; Center for Electron Microscopy; Genetic Engineering Facility, providing oligonucleotide and peptide synthesis and automated protein sequencing; Cell Science Laboratory, providing hybridoma culture and flow cytometry; Molecular Graphics Facility; National Center for Supercomputing Applications; and Beckman Institute for Advanced Science and Technology, which combines research in biological and physical sciences.

Urbana-Champaign offers the residential advantages of a medium-sized city (population 120,000) plus excellent cultural amenities on campus. Its location gives easy access to Chicago and St. Louis.

Applicants should send curriculum vitae, summary of research interests, and three letters of reference to: **Dr. Douglas Lauffenburger, Faculty Search Committee Chair, Department of Cell & Structural Biology, University of Illinois, 506 Morrill Hall, Urbana, IL 61801. Telephone: (217) 333-6118.**

To ensure full consideration, applications should be received by 1 January 1992. Interviews may be conducted before this date, but all applications received by then will be given full consideration. Final selection will not be made until after this date.

■ *The University of*

**ILLINOIS**

*at Urbana-Champaign*

An Affirmative Action, Equal Opportunity Employer.

## Research Opportunities

As one of the nation's largest research hospitals, Massachusetts General Hospital has maintained a tradition of excellence in patient care, ground-breaking technology and research. With over 500 laboratories dedicated to understanding, alleviating and curing disease through quality science, MGH is always on the forefront of new technology and treatment modalities.

Individuals with education and background in Biology, Chemistry, Biochemistry and Molecular Biology are needed to be involved in current research projects in Transplantation Biology, Cutaneous Biology, Cardiovascular, Cancer, Cardiac Surgery, and AIDS research. Our Molecular Biology Department has projects ranging from studies on oncogenesis and models of gene therapy to molecular analysis of plants. The Neurogenetics Unit is studying Alzheimer's Disease and Huntington's Disease.

If you would like the opportunity to work with world-renowned leaders in the field of medicine that encourages professional growth and academic

pursuits, please respond to: Jodi Hughes, Sr. Recruiter, Massachusetts General Hospital East, 149 13th Street, Charlestown Navy Yard, MA 02129. Proudly pursuing Affirmative Action and Equal Opportunity.

**MASSACHUSETTS  
GENERAL HOSPITAL**



### SCIENTIST Microbiology R&D

Difco Laboratories, a world leader in products for the microbiology laboratory, has a position open for a creative, results-oriented scientist with fundamental training in bacteriology. The position requires a PhD in microbiology or closely related field with hands-on experience in enzymology, binding assays, immunology/immunochemistry, and cell culture. Experience in bacterial enzyme purification and process scale up is a plus. Interested candidates should submit resume to:

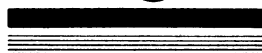
**D.S. Kerschbaum  
Difco R&D Center  
1180 Ellsworth Rd.  
Ann Arbor, MI 48108  
EOE, M/F**

### Geisinger Clinic

#### Associate Scientist/ Postdoctoral Fellow

Position available immediately for an associate scientist (3 years postdoctoral experience) or postdoctoral fellow to study the expression, activation, and function of protein kinase C and/or  $Ca^{2+}$ /calmodulin-dependent kinase II isozymes in vascular smooth muscle. Requires a Ph.D. in biochemistry, cell biology or a related field. Prior experience in protein kinase biochemistry and/or molecular biology would be advantageous. Competitive salary and fringe benefits are available. Please send curriculum vitae and two letters of reference to: **Dr. Harold Singer, Weis Center for Research, Geisinger Clinic 26-12, Danville, PA 17822. Equal Opportunity Employer M/F/H/V.**

**Geisinger**



### Laboratory Director Molecular and Cellular Biology

Genetic Therapy, Inc., a leader in the development of gene transfer products and processes for human gene therapy, has been involved, through its collaborators at the National Institutes of Health and other major research institutes, in the first clinical testing of retroviral-mediated gene transfer and therapy. GTI is currently looking for an experienced researcher, with a Ph.D. or M.D. qualification and a minimum of 5-7 years research experience, to direct a molecular and cell biology laboratory of up to 10 researchers and technicians. Training and expertise in retrovirology, recombinant DNA techniques, gene cloning, and animal cell culture are essential; interest and experience in human genetics, other mammalian gene transfer systems, blood coagulation and liver cell biology would be an asset. Applicants should send their resumes, and the names and addresses of 2 references to:



**Genetic Therapy, Inc.  
Human Resources - LD  
19 Firstfield Road  
Gaithersburg, MD 20878**

GTI is an equal opportunity employer.

## Head, Department of Ophthalmology University of Minnesota

Applications are being solicited for the position of Head and Tenured Professor of the Department of Ophthalmology, University of Minnesota Medical School, and Chief of Ophthalmology of the University of Minnesota Hospital and Clinic, Minneapolis, Minnesota. It is expected that this person will provide leadership in administration of all aspects of the department. We seek a candidate who is Board certified in Ophthalmology and has outstanding academic credentials. The candidate should have demonstrated experience, skill and leadership in patient care, research, teaching and administration and must have a national and international reputation in his/her professional field.

Submit inquiries and curriculum vitae by November 15, 1991 to:

**Roberto C. Heros, M.D.**  
Head, Dept. of Neurosurgery  
Chairman, Ophthalmology Search  
Committee  
University of Minnesota Medical School  
Box 96 UMHC  
420 Delaware Street S.E.  
Minneapolis, Minnesota 55455

This is to announce the extension of an ongoing search.

*The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities.*

## FACULTY POSITION MOLECULAR GENETICIST

Applications are invited for a tenure-track faculty position at the Waksman Institute with a joint appointment in an appropriate academic department. The research-oriented environment at the Piscataway campus includes research institutes and academic science departments of Rutgers University, the Robert Wood Johnson Medical School, and the Center for Advanced Biotechnology and Medicine. The Waksman Institute is expanding in the research areas of molecular developmental genetics, plant molecular biology, regulation of gene expression and structural molecular biology. Preference will be given to candidates with complementary research interests and who use prokaryotic or lower eukaryotic organisms. The successful applicant will be expected to conduct a vigorous independent research program and to participate in instructional activities. Recently renovated laboratory space and generous start-up funds are available.

Candidates should send a biographical sketch (with a list of publications and a description of research interests) and request that three letters of reference be sent to: **Dr. Joachim Messing, Director, The Waksman Institute, Rutgers, The State University of New Jersey, P.O. Box 759, Piscataway, NJ 08855-0759**

THE STATE UNIVERSITY OF NEW JERSEY  
**RUTGERS**

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## POSITIONS OPEN

**ASSOCIATE RESEARCH SCIENTIST** position available Columbia University Department of Genetics and Development. Applicant must have experience in cDNA library cloning and maintenance of phagemid vector systems, including normalization and subtraction of cDNA libraries; *E. coli* genetic techniques; strain constructions; single-stranded phages. Solid background in biochemistry and organic chemistry (labeling techniques, photochemistry, purification and analysis of nucleic acids and proteins). Familiarity with computer systems and networks; some programming and program maintenance. Please forward a cover letter, curriculum vitae and names of three references to: **Genetics Office, Columbia University College of Physicians and Surgeons, 701 West 168th Street, Room 1602, New York, NY 10032.**

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

## ENVIRONMENTAL TOXICOLOGIST

The Department of Pharmacology and Toxicology at Ponce School of Medicine is seeking applicants for a research faculty position to assist with the development of the environmental toxicology program. The applicant should possess a Ph.D. in toxicology, pharmacology, or related specialty; at least 2 years of postdoctoral experience; and research interests in environmental toxicology. Considerable experience with analytical methodology such as HPLC, GC/MS, and ICP is highly desirable. Responsibilities include development of a competitive research program, limited teaching responsibilities to medical and graduate students, and responsiveness to toxicology information inquiries. Ongoing research emphasizes heavy metals, marine toxins, and biomarkers of pollution. Interested applicants should send detailed curriculum vitae and statement of research plans to: **Dr. Arthur L. Hupka, Department of Pharmacology and Toxicology, Ponce School of Medicine, P.O. Box 7004, Ponce, PR 00732. Ponce School of Medicine is an Equal Opportunity Employer.**



## MICROBIOLOGIST

The United States Department of Agriculture, Agricultural Research Service, Poultry Production and Product Safety Research Laboratory, Fayetteville, Arkansas is seeking a microbiologist to isolate and identify those organisms involved in bone diseases and ascites in poultry. The incumbent will also be responsible to work with a team of scientists to establish the etiology of bone diseases and the significance of disease agents in the onset of ascites in poultry. A Ph.D. degree is desirable and the incumbent must be a United States citizen. Salary is commensurate with experience (\$31,116 to \$57,650 per annum). For information on the research program and position, contact: **William Huff, telephone: 501-575-2104.** For information on application procedures/forms, contact: **Jeannette Hubbard, telephone: 301-344-1222.** Applications in response to this advertisement should be marked **ARS-D1S-147 (S-01-029).** Applications must be postmarked by 11 November 1991. Mailing address:

**USDA, ARS, Personnel Operations Branch  
Southern Section  
Room 341-A, 6305 Ivy Lane  
Greenbelt, MD 20770**

*The USDA is an Equal Opportunity Employer.*

## PRINCIPAL SCIENTIST

Responsible for research concerning color theory, color image processing and image data compressing toward design of next generation color graphics products. Ph.D. or equivalent in applied mathematics; computer science or equivalent. 5 years experience as principal scientist, image processing scientist or equivalent. Experience in color image processing with emphasis on graphics arts and color printing. Experience with color science and colorimetry, color image processing, color reproduction, image data compressing and exposure to applications in graphic microprocessors and digital signal processors. Programming experience with high- and low-level languages. Job site: San Bruno, California. Salary: \$114,000 per year. Clip ad and submit with résumé to: **MLM #15256, P.O. Box 9560, Sacramento, CA 95823-0560** before 1 November 1991.

## POSITIONS OPEN

## ASSOCIATE RESEARCH SCIENTIST

To pursue the biochemistry and molecular biology of microtubule-associated proteins that modify microtubule function. Applicant must have a Ph.D. or M.D.; further training is desirable. Send curriculum vitae and names of three referees to: **Dr. J. Chloe Bulinski, Associate Professor, Department of Anatomy and Cell Biology, College of Physicians and Surgeons, Columbia University, 630 West 168th Street, New York, NY 10032. Columbia University is an Equal Opportunity Employer.**

## BIostatistician

**RESEARCH ASSISTANT.** Position is available in the Department of Surgical Research at the University of Virginia Health Sciences Center. Research areas include vascular physiology, thoracic transplantation, and cardiovascular clinical studies. M.S. degree or higher and expertise in computer application is required. Send curriculum vitae to: **Irving L. Kron, M.D., Department of Surgery, Box 181, University of Virginia Health Sciences Center, Charlottesville, VA 22908. Affirmative Action/Equal Opportunity Employer.**

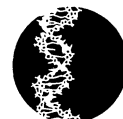


## PHYSIOLOGIST

The United States Department of Agriculture (USDA), Agricultural Research Service, Poultry Production and Product Safety Research Laboratory, Fayetteville, Arkansas is seeking a physiologist to conduct basic research on the regulation of bone development in poultry. The incumbent will be responsible to work with a team of scientists to identify, isolate, and develop methods to assay the factors important to the regulation of bone development, and to determine the significance of these factors in bone-related pathology of poultry. A Ph.D. degree is desirable and the incumbent must be a United States citizen. Salary is commensurate with experience (\$31,116 to \$57,650 per annum). For information on the research program and position, contact: **William Huff, telephone: 501-575-2104.** For information on application procedures/forms, contact: **Jeanette Hubbard, telephone: 301-344-1222.** Applications in response to this advertisement should be marked **ARS-D1S-148 (S-01-030).** Applications must be postmarked by 11 November 1991. Mailing address:

**USDA, ARS, Personnel Operations Branch  
Southern Section  
Room 341-A, 6305 Ivy Lane  
Greenbelt, MD 20770**

*The USDA is an Equal Opportunity Employer.*



## PLANT VIROLOGIST

The Center for Agricultural Biotechnology, Maryland Biotechnology Institute, and the Department of Botany, University of Maryland, College Park, invite applications for a tenure-track position at the **ASSISTANT OR ASSOCIATE PROFESSOR** level starting 17 August 1992. A Ph.D. degree and research experience in plant virology is required. Postdoctoral experience is preferred. The successful applicant will be expected to develop an extramurally funded research program employing molecular techniques to study the biology of plant viruses and to contribute annually to the curriculum in the Department of Botany. Send curriculum vitae, summary of research interests and goals, reprints of published work and arrange that three letters of recommendation be sent by 20 December 1991 to: **Dr. Steven W. Hutcheson, Chair, Plant Virologist Search, Center for Agricultural Biotechnology, 2111 Ag/Life Sciences Surge Building, University of Maryland, College Park, MD 20742-3351.**

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

## Microbial Physiologist

Pfizer, a research-driven Fortune 100 leader in the health care industry, has significant challenges in the production of new and existing medicinal and animal health drugs at our Central Research Division.

In Fermentation Research and Development, you will conduct strain improvement with *Streptomyces* and other types of organisms using classical mutation/selection and implement automated microtiter fermentation for high throughput screening. To qualify, you should be a PhD-level microbial physiologist with demonstrated strengths in culture maintenance and preservation. Consideration will also be given to individuals with an MS degree and pharmaceutical industry experience.

Pfizer offers a stimulating scientific research environment, a competitive compensation/benefit package and relocation assistance to this southeastern Connecticut shoreline community. To apply, forward resume and salary history to: Ms. Sonia R. Banks, Personnel Associate, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340. An equal opportunity employer.



**Central Research**  
Bringing science to life.

## Consortium for a Strong Minority Presence At Liberal Arts Colleges

### Minority Scholar-in-Residence Program

With a view towards encouraging African-American, Hispanic-American and Native American scholars to consider teaching and research careers in small liberal arts colleges, the Consortium for a Strong Minority Presence in Liberal Arts Colleges, an association of selective undergraduate institutions, has established the Minority Scholar-in-Residence Program. Applications are invited for the dissertation fellowship program or the post-doctoral fellowship program in all disciplines of the liberal arts and engineering. Applicants should be working toward the PhD or the MFA degree, or should have been awarded the degree no more than five years before application.

The Minority Scholar-in-Residence will receive a stipend equal to the typical salaries for beginning instructors or assistant professors. Scholars will be expected to do some teaching and research, and to participate in other activities at the host institution under the supervision of a mentor. It is hoped that the scholars will, upon completion of their residency, qualify for tenure-track appointments at the host institution or similar institution.

Scholars must be citizens of the United States and shall have had no more than five years of teaching or relevant work experience before receiving the award. Ideally, applicants for the dissertation fellowship program should have completed their research before the beginning of the fellowship year.

Among the member institutions of the Consortium, the following offer to sponsor minority scholars during the 1992-93 academic year: Bates College, Bowdoin College, Bryn Mawr College, Colby College, Colorado College, Davidson College, Franklin & Marshall College, Grinnell College, Haverford College, Macalester College, Oberlin College, Occidental College, Pomona College, Reed College, Rhodes College, Swarthmore College, The University of the South, Vassar College, Wellesley College and Whitman College.

The brochure describing the program, and an application form, may be secured by writing to:

Gwendolyn M. Bookman  
Assistant to the President  
Wellesley College  
Wellesley, MA 02181



DEADLINE FOR THE RECEIPT OF APPLICATIONS IS DECEMBER 2, 1991

## Memorial Sloan-Kettering Cancer Center Faculty Positions in Cell and Structural Biology



MSKCC has openings for several junior and senior level faculty in our newly formed Cellular Biochemistry and Biophysics Program, chaired by Dr. James E. Rothman. This program is one of five in the Sloan-Kettering Institute, and utilizes advanced

central facilities for modern molecular biology in a new research building (Rockefeller Research Laboratory). Colleagues include Dr. Ulrich Hartl and Dr. Martin Wiedmann. Positions offered are highly competitive with regard to space and other resources.

Applications should include a curriculum vitae, a list of publications, a summary of research activities, and the names and addresses of three individuals who can provide letters of recommendation upon request. Applications should be addressed to:

Dr. James E. Rothman Chairman, Cellular Biochemistry & Biophysics Program, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Equal Employment Opportunity/Affirmative Action.

## Science at Synergen

Synergen, a biopharmaceutical company in Boulder, Colorado, is developing protein-based human pharmaceuticals for the treatment of serious diseases, including neurological disorders.

We're currently looking for a Ph.D. to work in our Neuroscience department. The research scientist in this position must have a thorough understanding of neurotrophic factors and experience in group work. Education should be in protein chemistry or molecular biology at the Senior Post Doctorate level or higher. Experience in biotechnology or an academic setting is preferred. Responsibilities will include supervising several individuals who will contribute their talents and ideas to effect new product development.

Synergen offers competitive salaries, generous benefits and a Rocky Mountain community renowned for its beauty and culture as a place to live and work. If you value the complexity of new ideas and an open-non-traditional work environment, please send your C.V. or résumé, salary requirements and references to: Synergen, Inc., Director of Recruitment, Box FC, 1885 33rd Street, Boulder, Colorado 80301. All résumés will be held in confidence. We are an equal opportunity employer.



## POSITIONS OPEN

**ASSISTANT RESEARCH MOLECULAR BIOLOGIST.** Postdoctoral experience in molecular biology to carry out studies of the structure and function of different types of human red cell membranes. Experience in DNA sequencing necessary, some experience in membrane transport desirable. Ph.D. required. Salary based on established University of California, San Diego (UCSD) salary scales. Reply by 8 November 1991 to: **Dr. Helen Ranney, Veterans' Administration Medical Center (11F), 3350 La Jolla Village Drive, San Diego, CA 92161.** UCSD is an Affirmative Action/Equal Opportunity Employer.

### ELECTRON MICROSCOPY RESEARCH TECHNICIAN

The Howard Hughes Medical Institute (HHMI) is seeking an electron microscopy (EM) research technician for one of its laboratories located at the University of California, San Diego campus. The successful candidate will support studies on the molecular biology of signal transduction in the visual system of *Drosophila*. At least 2 years of experience with electron microscopy is required and previous experience in cryoultramicrotomy and immunocytochemistry is desired.

HHMI offers a competitive salary, excellent retirement plan, and flexible benefits, including health insurance. Please forward your résumé, including recent salary history and three references to: **Dr. Nansi Jo Colley/Dr. Charles Zuker, Howard Hughes Medical Institute, M-049 University of California at San Diego, La Jolla, CA 92093-0649.** We are an Equal Opportunity Employer.

### SUPERVISORY RESEARCH PHYSICAL SCIENTIST

U.S. Army Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire seeks a supervisory research physical scientist to direct research in snow/ice mechanics and geophysics. M.S. (Ph.D. preferred) in an appropriate discipline and 3 years of research/research management experience. Salary: GM-14: \$52,406 to \$59,394 dependent upon qualifications. Contact: **Susan Koh, Human Resource Specialist, telephone: 603-646-4500.** Equal Opportunity Employer.

**Ph.D. RESEARCH BIOCHEMIST.** Conceptualize, develop and evaluate new bioanalytical separation products especially in the field of high performance liquid chromatography. Demonstrate new applications and provide technical information to support the marketing of these bioseparation products. Specific duties include: perform chemical syntheses and related research analyses required to develop new chromatographic packings and columns; provide technical support to a worldwide network of distributors involving areas such as applications and product performance; present and publish original scientific papers related to the development and use of bioseparation products. This position requires a Ph.D. in biochemistry or closely related discipline in the life sciences with a background in organic chemical synthesis as well as physical biochemistry and protein chemistry. The candidate must have both technical knowledge and significant experience in high performance liquid chromatography, specifically in the biological sciences. The experience must be evidenced by several technical publications in established journals. This person must have expert knowledge of computer hardware and software, especially for the acquisition and processing of chromatographic data and its graphical presentation. Salary: \$4300 per month. Qualified candidates should submit résumés, along with a list of publications, to: **David A. Lann, State of Delaware Department of Labor, 3301 Lancaster Pike, Wilmington, DE 19805** and refer to Job Order DE 801457.

### STAFF ASSOCIATE

Position available to study the structure and function of the human immunodeficiency virus (HIV) genome, with emphasis on the mechanism of fusion and effects of HIV infection on cellular gene expression. Applicants should have a Ph.D. or equivalent and at least 5 years of experience in virology and molecular biology. Experience in membrane biology is helpful. Send curriculum vitae and three letters of reference to: **Dr. D. J. Volsky, Molecular Virology Laboratory, St. Luke's/Roosevelt Hospital Center and College of Physicians and Surgeons, Columbia University, 432 West 58th Street, New York, NY 10019.**

Columbia University takes Affirmative Action to ensure Equal Opportunity.

## POSITIONS OPEN

USDA, Forest Service, Forest Environment Research, seeking applicants for **FOREST HYDROLOGY STAFF SPECIALIST** (\$61,643 to \$80,138) to provide leadership and coordination of national programs in water resources research. Formulates policies related to forest soil and water resources, develops research program objectives and budgets, and reviews and coordinates the soil and water research programs of eight regional experiment stations. **Telephone: 703-235-2313 or 202-205-1524** for vacancy announcement.

**RESEARCH SCIENTIST** for university in central Ohio. Conceives, identifies and defines approaches and methods of exploring and understanding new insight and knowledge in regulation of nuclear oncogene expression; develops and establishes molecular research processes and establishes and directs actual laboratory operations; supervises laboratory staff; collaborates with interdisciplinary groups in disseminating new and state-of-the-art knowledge in the broad field of cancer and the specific field of nuclear oncogenes; publishes research results; conceptualizes new research projects; obtains external sponsor funding. No experience required in the duties described but applicants will qualify with the following: Ph.D. in molecular biology and 2 years of research experience in nuclear oncogenic expression, analysis of transcriptional control domains of the human *c-myc* promoter and on the isolation of novel transforming genes from human chronic myeloid leukemia and at least five first-author publications related to oncogenic expression. Forty hours per week, 8:00 a.m. to 5:00 p.m., Monday to Friday; \$54,840 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **J. Davies, JO#1260319, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

### SCIENTISTS

Applications are invited for nine research positions in the National Museum of Natural Science in the following fields: anthropology, botany, geology, zoology, public education and exhibit design. Salary: \$30,000. Ph.D. or equivalent qualification required. Working in a very new and well-equipped environment. Send curriculum vitae, list of publications and photocopy of degree certificate to: **Personnel Section, National Museum of Natural Science, 1, Kuan Chien Road, Taichung, Taiwan, Republic of China. FAX: 04-322-2290.**

## ANNOUNCEMENTS

### 1992 SUMMER FELLOWSHIPS MOUNT DESERT ISLAND BIOLOGICAL LABORATORY

The Mount Desert Island Biological Laboratory (MDIBL), an internationally renowned marine facility for biomedical and comparative physiological research, invites applications for fellowships in the following categories:

• **YOUNG INVESTIGATOR FELLOWSHIPS**, sponsored by the Lucille P. Markey Trust and/or privately donated fellowship funds, are for scientists with a doctorate and evidence of independent research. Fellowship amount is based on individual needs and can include salary, laboratory space, housing, and funds for supplies and travel.

• **UNDERGRADUATE STUDENT-FACULTY FELLOWSHIPS** supported by the Pew Charitable Trusts, Burroughs-Wellcome and the Grass Foundation are available for undergraduate students with a minimum of 1 year of both biology and chemistry, for faculty members with Ph.D. actively teaching biology at the undergraduate level, and for student/faculty pairs with the same qualifications as above. Awardees may work from 1 to 4 months at MDIBL with senior scientists or, in the case of faculty or student/faculty pairs, may choose to work independently. Funding provides for housing, travel, research costs and salary: maximum faculty award is \$14,000 with up to \$6,000 salary; maximum student award is \$6,900 with up to \$2,400 salary.

Applications may be obtained by calling the office at 207-288-3605 or writing to: **MDIBL, P.O. Box 35, Salsbury Cove, ME 04672.**

Young investigator applicants write to **Department YIF**. Deadline for completed applications is 10 January 1992.

Undergraduate student-faculty applicants write to **Department USFF**. Deadline for completed applications is 9 December 1991.

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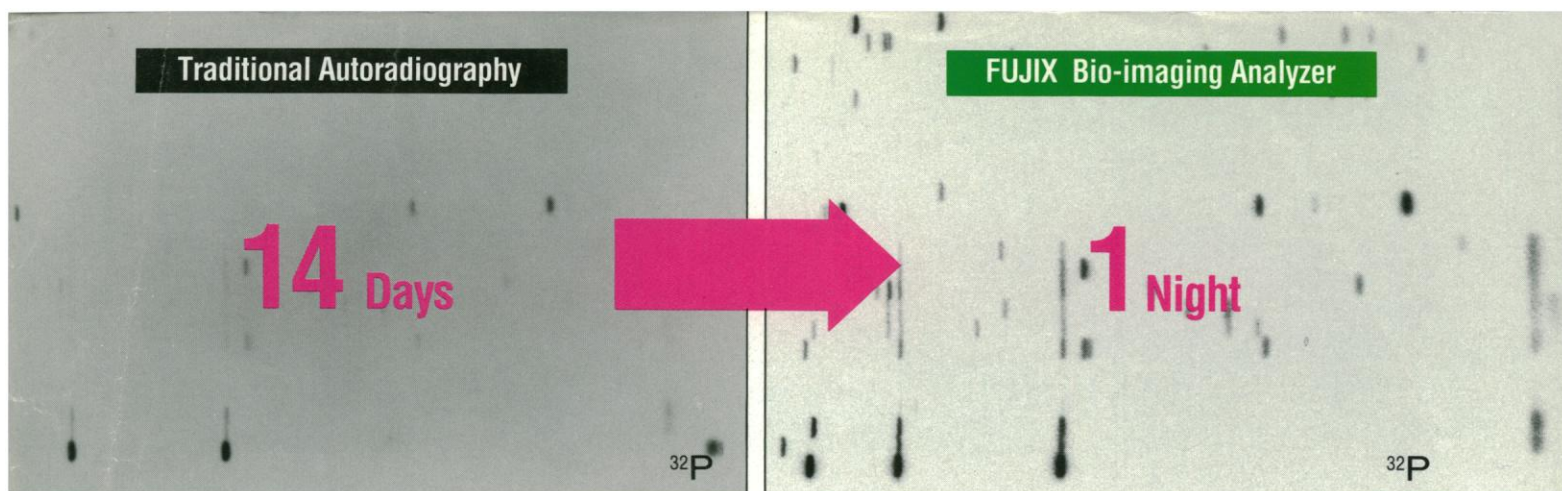
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**Guaranteed minimum 100 µg DNA**

**Research Genetics**  
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Fuji's patented photostimulable phosphor Imaging Plate (IP) takes the place of traditional x-ray film to expose your radio-labelled sample. Image data exposed on the Imaging Plate is read by a laser and computer processed to detect minute amounts of substances often undetected by traditional autoradiography.

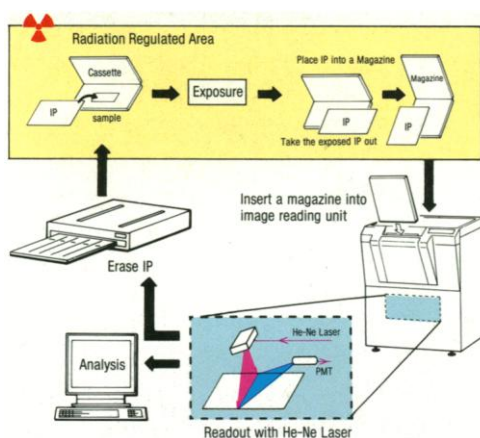
## TODAY'S MOST SENSITIVE TECHNOLOGY

The erasable, reusable Imaging Plates are over 100 times more sensitive to radiation than conventional x-ray film. This greatly reduces exposure time and helps you get your results faster.

The wide dynamic range of the Imaging Plate, which exceeds five orders of magnitude, covers from the faintest to the greatest amount of activity, virtually eliminating re-exposures.

The Imaging Plate allows easy to handle operation and scanning in under three minutes without a darkroom. Because the exposure and reading processes are decoupled, productivity is increased. Bands or spots can be quantitated directly on the display, eliminating the need for liquid scintillation counting.

## The Reusable Imaging Plate (IP)



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SPARCstation is a registered trademark of SPARC International, Inc., licensed exclusively to Sun Microsystems, Inc.

## FAST AND EASY TO USE

The powerful SPARCstation™ 2 provides high performance not only in overall speed but also in the display of detailed images on its high resolution monitor. The mouse-controlled image analysis software offers many functions including quantitation, molecular weight determination, contrast setting, magnification, and superimposition. Images are stored in the workstation's fixed storage or in a removable 150MB cartridge for later analysis.

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To learn more about how Fuji can accelerate your autoradiography or to arrange to evaluate the Fujix BAS2000 with your own samples, call Fuji Medical Systems—Biomedical Department toll-free 800-431-1850, (in CT 203-353-0300) or write: Fuji Medical Systems U.S.A., Inc., P.O. Box 4960, Stamford, CT 06907-0960.



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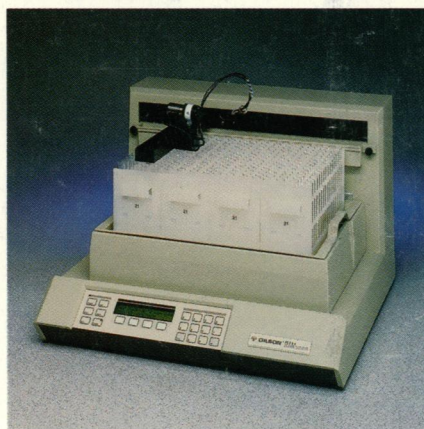
### ...you can depend on a Gilson fraction collector

The Gilson FC 203, for example, has a 98% problem-free performance record. And there are some FC 80s that are still on the job after 20 years. That's the kind of reliability you get with a Gilson fraction collector...for any process, any collection volume, any vessel size.

### New Gilson collector offers high-volume, high-capacity

The new FC 204 is a multi-mode fraction collector that holds 176 18 mm tubes for preparative applications; 240 13 mm tubes for semi-preparative applications and; 432 10 mm tubes for analytical HPLC. And in low pressure LC systems, the FC 204 can provide start/stop control of pumps and chart recorders.

Except for size, the FC 204 is identical to the proven FC 203. Both collect by time, drop or peak with up to ten collection windows in any mode.



**New FC 204 high-capacity, high-volume fraction collector.**

### Micro-Fractionators offer time and drop collection options

Gilson FC 80 and FC 100 Micro-Fractionators are two of the most popular time/drop collectors ever made. Tens of thousands are in use in LC systems, HPLC systems and other processes. The FC 80 occupies less than a

square foot of bench space but offers a total collected volume of 720 ml. The FC 100 offers 100-sample capacity in volumes up to 25 ml per tube.

### Multi-mode 201 and 202 offer more collection options

If your requirements can't be met with an FC 204, FC 203 or one of our Micro-Fractionators, chances are you need a 201 or 202. These collectors offer 15 operating modes, high capacity and virtually unlimited collection volumes. The 201 has a 120-tube capacity while the larger 202 offers 540-tube collection in a five-rack configuration.

### For information on choosing the right fraction collector...

...request a free packet of literature that describes and explains all of the options. You can simply mark the reader service number, contact your local Gilson representative, or call us toll-free.

**GILSON®**

**Call 800-445-7661**

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