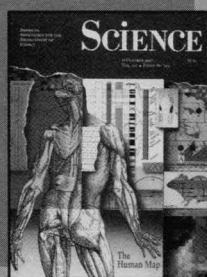




P-15



P-14



P-13



P-12



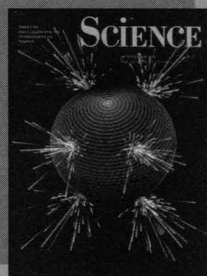
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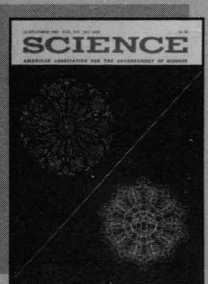
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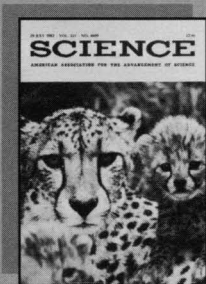
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Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics,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

scale) and 8-bit (256 grayscale) Intel format TIFF files produced by desktop scanners from Hewlett-Packard, Canon, Panasonic, Logitech, Agfa, Mitsubishi, and many others. Densitometry peaks can be located in manual, tangential, and automatic modes. The program requires an IBM-compatible computer with 512K random access memory; CGA, EGA, or VGA graphics; DOS 3.3 or higher; and a mouse. Biosoft. Circle 335.

### Mass Spectrometer

The SSQ 710 Advantage mass spectrometer delivers single-stage quadrupole performance at production quadrupole prices. The device can accommodate a full range of sample inlets, including gas chromatography, liquid chromatography, particle beam, electrospray, thermospray, and direct insertion probe or desorption chemical ionization probe. The instrument's extended mass range allows for the application of a variety of analytical techniques. Multilayered software allows complete data analysis and instrument control. Finnigan MAT. Circle 336.

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The PolarPlex Blotting Kit, part of a family of kits for chemiluminescent detection of nucleic acids, eliminates radioactivity from Southern (DNA) and Northern (RNA) blotting procedures. The kit detects DNA through an enzyme-catalyzed light reaction. Alkaline phosphatase is attached to the target DNA or RNA and breaks the dioxetane bonds on the substrate, which then decomposes and emits light. The entire detection process takes 40 minutes, including the typical exposure time of 10 minutes. Millipore. Circle 337.

### HPLC Instrument Series

The LC-10A high-performance liquid chromatography instrument series consists of 22 integrated modules that include engineering and miniaturization advances. The components—from controllers to autosamplers, detectors, pumps, and fraction collectors—use fiber optics to minimize electronic noise and to speed communication. Improved pump design, incorporating microvolume dual plungers for pulse-free mobile phase delivery, has doubled pump-seal life. A new ultraviolet detector, with

wavelength scanning and two-channel monitoring, is three times as sensitive as the best detectors currently available, according to the manufacturer. Shimadzu Scientific Instruments. Circle 338.

### Global Meeting Database

The Global Meeting Line database is a registry of more than 10,000 scientific and engineering meetings in the biological, chemical, and physical sciences. The current time span covered is 1990 to 2001. Two editions are available. The diskette edition consists of quarterly mailings of ASCII text files that can be searched off-line using a personal computer. It is available for IBM-compatible and Macintosh computers. The online edition, which requires a personal computer and modem, is updated weekly. Global Meeting Line. Circle 339.

### Autocirculating Subcell

The Bubbler Subcell for horizontal gel electrophoresis provides efficient recirculation of the buffer system without the need for magnetic stir bars or peristaltic pumping systems. The unit does this by capturing the hydrogen bubbles that are naturally formed during electrophoresis and using them for recirculation. Recirculation ensures that the pH and ionic strength of the buffer remains constant throughout the run, which increases reproducibility. The subcell is ideal for applications such as glyoxal RNA gels, restriction fragment analysis, field inversion gel electrophoresis, or any other procedure requiring long running times. Schleicher & Schuell. Circle 340.

### Literature

*1992 Catalog* of products and procedures for polymerase chain reaction, Southern (DNA) blotting, and in situ hybridization covers products such as DNA oligonucleotide primers, DNA probes and control DNA for the study of viruses and pathogenic organisms, cytokines, growth factors, CD markers, genetic disorders, and more. GeneMed Biotechnologies. Circle 341.

*LINKLINE* is a new newsletter from a company in the X-ray microanalysis field. Link Analytical. Circle 342.

*Riteflow Flowmeters* is a four-page leaflet designed to allow easy selection of the best combination of materials and formats for use in different types of measurement applications. Manostat Corp. Circle 343.

# SCIENCE

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## POSITIONS OPEN

### ASSISTANT PROFESSOR MOLECULAR BIOLOGY

The Department of Biology at Virginia Polytechnic Institute and State University invites applications for a tenure-track faculty position at the rank of assistant professor to begin August 1992. Candidates should have postdoctoral experience in a contemporary area of molecular/cellular biology. The successful candidate will be expected to build on existing strengths within the 43-member Biology Department. Responsibilities include graduate and undergraduate teaching in molecular/cellular biology and developing a competitive research program in the individual's specific area of interest. A letter of application, curriculum vitae, statement of professional goals, and names of three references should be received by 31 January 1992. All correspondence should be directed to: **Dr. Charles L. Rutherford, Chair of the Search Committee, Department of Biology, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061.** *Virginia Polytechnic Institute and State University is an Equal Opportunity/Affirmative Action Employer, women and minorities are encouraged to apply.*

Purdue University, Department of Foods and Nutrition, **TENURE-TRACK ASSISTANT PROFESSOR.** The Department of Foods and Nutrition anticipates filling a tenure-track, 12-month position (research/teaching) in food chemistry for fall 1992. We are seeking an individual of exceptional accomplishment and applicants should show outstanding promise in teaching and in directing research at both the undergraduate and graduate level. Research interests in lipid chemistry or biochemistry, lipid oxidation, lipid antioxidant, or related areas are a priority. A Ph.D. degree is required and postdoctoral or industry experience is desirable. Candidates should submit a résumé, list of publications, a short description of future research plans, and should arrange for three letters of reference to be sent to: **Dr. James R. Daniel, Food Chemistry Search Committee, Department of Foods and Nutrition, Purdue University, West Lafayette, IN 47907.** Applications will be accepted until 1 April 1992. *An Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR;** tenure-track, fall 1992. Seeking molecular approaches in developmental biology or in systematics. Ph.D. required; postdoctoral experience and prior teaching desirable. Small college atmosphere in magnificent part of North Shore Long Island, 45 minutes from Manhattan. Teaching at undergraduate and master's levels. Please send curriculum vitae and supporting materials to: **Dr. K. Nath, Biology Department, C. W. Post Campus/LIU, Brookville, NY 11548.** Closing date: 31 January 1992. *Equal Opportunity Employer.*

**CELL BIOLOGIST.** The College of Charleston, Department of Biology, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level beginning in August 1992. Candidates must possess the Ph.D. degree, a strong commitment to teaching, and an active, ongoing research program, which has the potential for undergraduate involvement. Teaching responsibilities include cell biology and general biology. The College of Charleston is a liberal arts institution whose primary aim is teaching excellence. In addition to its undergraduate programs, the department offers a graduate degree in marine biology. Applicants should submit curriculum vitae, a statement of teaching philosophy and research interests, reprints of recent publications and three letters of reference by 29 January 1992 to: **Chair, Department of Biology, Cell Biology Search Committee, College of Charleston, Charleston, SC 29424.** *The College of Charleston is an Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR, MICROBIAL GENETICS.** An academic year, tenure-track position is available for fall 1992 to teach microbial genetics and molecular biology, participate in an introductory microbiology or biology course, and direct undergraduate and master's level research. A Ph.D. and a strong commitment to undergraduate teaching are required. A competitive salary is offered. Send curriculum vitae, graduate and undergraduate transcripts and three letters of recommendation, all received by 15 February 1992, to: **James Parry, Chair, Department of Biology and Microbiology, University of Wisconsin-La Crosse, La Crosse, WI 54601.** *An Affirmative Action, Equal Opportunity Employer.*

## POSITIONS OPEN

### TEACHING OVERSEAS:

The Department of Biology at the American University of Beirut, Beirut, Lebanon (AUB) invites applications for faculty positions at the level of **ASSISTANT PROFESSOR** or above, available 1 October 1992. Candidates with specialization in the following fields are sought: zoology and comparative vertebrate anatomy, and plant taxonomy and plant anatomy.

Applicants should hold the Ph.D. degree and are expected to teach undergraduate and graduate courses and to conduct a research program. Postdoctoral experience is preferred.

Appointments are normally made for a 3-year-period. *AUB is an Equal Opportunity/Affirmative Action Employer.*

Interested persons may send curriculum vitae and three letters of recommendation before 15 April 1992 to: **The Dean of Arts and Sciences, c/o New York Office of the American University of Beirut, 850 Third Avenue, New York, NY 10022.**

*U.S. passports are presently invalid for travel to, in or through Lebanon, and for residence in Lebanon, by order of the Department of State, and therefore applications from individuals who would travel to or reside in Lebanon on a U.S. passport cannot at this time be considered.*

### ASSISTANT PROFESSORSHIP IN MOLECULAR BIOCHEMISTRY AND MOLECULAR BIOLOGY

Candidates are solicited for a tenure-track assistant professorship in the general area of molecular biochemistry and molecular biology. Experience and research interests in areas such as protein-nucleic acid interactions, enzymology, protein design, subcellular structure, signal transduction, cell division and cell-cell interactions would be appropriate. Research strategies may emphasize physical approaches, biochemistry or genetics.

Applicants should send curriculum vitae and a summary of proposed research, and arrange to have letters sent from at least three scientists who can provide an evaluation of the candidate's accomplishments and future potential for both research and teaching. Applications will be processed more expeditiously if all letters of reference have been received. Applications and letters should be sent to:

**Chairman, Molecular Biochemistry and  
 Molecular Biology Search Committee  
 c/o Room 16-437, Department of Biology  
 Massachusetts Institute of Technology (MIT)  
 77 Massachusetts Avenue  
 Cambridge, MA 02139**

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

### TRENTON STATE COLLEGE (TSC) ECOLOGIST ASSISTANT PROFESSOR

Candidates for tenure-track position sought to teach a modern, field-oriented course in ecology, an upper division course in specialty, and introductory biology. Commitment to undergraduate education and to research program involving high-caliber students essential. Ph.D. required. Forward letter addressing above, curriculum vitae, copies of transcripts, and three letters of recommendation by 1 February 1992 to: **Professor David Rose, Biology Department, Trenton State College, Hillwood Lakes, CN 4700, Trenton, NJ 08650-4700.** To enrich education through diversity. *TSC is an Affirmative Action/Equal Opportunity Employer.*

### MOLECULAR BIOLOGY LAFAYETTE COLLEGE

Tenure-track **ASSISTANT PROFESSOR** position in molecular biology to begin 26 August 1992. Ph.D. required, candidates with postdoctoral experience and training in gene organization and expression are preferred. We seek an individual committed to excellence in teaching and research within the context of a selective, undergraduate, liberal arts institution. Teaching duties will include two courses in molecular biology, a senior seminar, and the mentoring of undergraduate research projects. Competitive salary and start-up funds. Applications including curriculum vitae, graduate transcript and three letters of reference should be sent by 15 January 1992 to: **Dr. Robert S. Chase, Chair, Department of Biology, Lafayette College, Easton, PA 18042-1778.** *Lafayette College is committed to Equal Opportunity through Affirmative Action.*

# Senior Staff And Postdoctoral Opportunities.

Excellent opportunities for conducting research are now available with leading scientists at the National Institutes of Health.

## Senior Staff Fellowship (Assistant Professor Equivalent)

**Neuroscience**  
**M.L. Mayer, PhD**

Current research interests include synaptic transmission in CNS tissue, the mechanism of action of neurotransmitters and second messengers, and molecular analysis of receptors and ion channels. Applicants for the Senior Staff Fellowship (Assistant Professor Equivalent) should be experts in electrophysiological, optical, or molecular biological techniques. Experience with patch clamp experiments on brain slice preparations, or cloning and mutagenesis of ion channels and receptors, would be welcome. Funds are available for equipment, postdoctoral fellows, and administrative/technical support. Applicants should have at least three years postdoctoral experience. Appointment may be made at the tenured or tenure track level. Laboratory of Cellular and Molecular Neurophysiology (OE-2), NICHHD, Building 36, Room 2A21.

## Postdoctoral Fellowships

**Cell Physiology**  
**Maurice Burg, MD**

The molecular mechanisms involved in osmotic regulation and regulation of epithelial transport are currently being studied. Applicants should have experience in biochemistry, molecular biology or cell physiology and must have less than three years of postdoctoral training. Laboratory of Kidney and Electrolyte Metabolism (OE-2), NHLBI, Building 10, Room 6N307.

**Molecular Neurovirology**  
**Stephen E. Straus, MD**

Applicants are sought to conduct studies of the regulation and expression of latent herpesvirus genes in neural tissues. Doctoral level experience in molecular and cellular neurobiology or molecular virology and related

disciplines is essential. Full support is committed initially for two years. Laboratory of Clinical Investigation (OE-2), NIAID, Building 10, Room 11N228.

**Molecular Virology/Immunology**  
**Robert M. Chanock, MD**

The molecular virology and pathology of simian immunodeficiency virus (SIV) infection of macaques is being studied in order to use the SIV infection of macaques as a model for human AIDS. The laboratory is also seeking to understand the viral determinants of immunodeficiency and the immunologic correlates of protection from infection or disease. Previous experience with molecular techniques in microbiology, virology or pathobiology is preferred. The applicant for this position must be a US citizen or permanent resident. Laboratory of Infectious Diseases (OE-2), NIAID, Building 7, Room 100.

**Recombinant Toxins and Molecular Therapeutics**  
**Ira Pastan, MD**

New recombinant toxins are being developed for the treatment of cancer and AIDS. Current studies focus on designing new recombinant toxins and determining how these toxic proteins act to kill their target cells. Applicants should have some experience in either molecular biology or protein chemistry. Laboratory of Molecular Biology (OE-2), NCI, Building 37, Room 4E16.

## Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings you may contact the NIH EDNET Bulletin Board, the POSTDOC Conference at 301-492-2221. Use initials F5E, account AJL1. Those interested in learning about other postdoctoral opportunities may request a copy of the "Postdoctoral Research Fellowship Opportunities Catalog" by contacting the Office of Education, Building 10, Room 1C129, Phone: 301-496-2427.

If you hold a PhD, MD, or equivalent degree and would like to be considered for one of these positions, please send a cover letter, Curriculum Vitae, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



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Wayne State University

## CHAIRPERSON

### DEPARTMENT OF NUTRITION AND FOOD SCIENCE WAYNE STATE UNIVERSITY

The Department of Nutrition and Food Science, in the Wayne State University College of Liberal Arts, is seeking a Chairperson to lead its rapidly expanding undergraduate and graduate programs in Nutrition, Food Science, and Dietetics. Wayne State University, located in the Cultural Center of Detroit, Michigan, is an urban, comprehensive, research university serving 30,000 students. The Department of Nutrition and Food Science has 8 faculty and enrolls 100 undergraduate and 65 graduate (Ph.D. and Masters) majors. The Department, which moved into completely renovated research and teaching facilities in October, 1991, has ties to the WSU School of Medicine and the Institute of Chemical Toxicology as well as to other departments in the College of Liberal Arts.

Qualifications for the Chairperson's position include: an earned doctorate, administrative and teaching experience, and an established research program. Applicants should send a letter of application, curriculum vitae, and the names of at least three references to:

**Dr. Richard Lintvedt, Chair**  
**Nutrition and Food Science Selection**  
**Advisory Committee**  
**123 Chemistry**  
**Wayne State University**  
**Detroit, Michigan 48202**

Salary and rank are negotiable. The position is available immediately. For best consideration, please respond before January 30, 1992.

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## POSITIONS OPEN

### ASSISTANT UNIT LEADER ASSISTANT PROFESSOR

The Kansas Cooperative Fish and Wildlife Research Unit is anticipating filling the position of Assistant Unit Leader/Wildlife. Applicants must have a Ph.D. degree with expertise in terrestrial vertebrate ecology. The position requires development of a strong research program addressing both basic and applied questions, advisement of graduate students and the teaching of a graduate course in the area of one's expertise. For information contact: **Timothy Modde, Cooperative Fish and Wildlife Research Unit, Division of Biology, Leasure Hall, Kansas State University, Manhattan, KS 66506-3501; telephone: 913-532-6070.**

**MICROBIAL ECOLOGIST.** Applications are invited for the first of three tenure-track **ASSISTANT PROFESSORSHIPS** to be filled in the area of aquatic ecosystems. We are particularly interested in individuals conducting field-based biogeochemical studies of benthic, heterotrophic ecosystems, but all applicants will be considered. Current related faculty research includes plankton ecology, environmental physiology, aqueous geochemistry, and sedimentation. A Ph.D. and demonstrated interest in multidisciplinary research required. Expertise in statistics desirable. Teaching at the undergraduate and graduate (M.S. and Ph.D.) levels and an active research program expected. Send curriculum vitae, statement of research and teaching interests, selected (p)reprints, and three letters of reference to: **Craig Williamson, Department of Earth and Environmental Sciences #31, Lehigh University, Bethlehem, PA 18015.** Application review begins 2 January 1992. *Lehigh is an Equal Opportunity/Affirmative Action Employer. Women and minorities are strongly encouraged to apply.*

### CORNELL UNIVERSITY SECTION OF BIOCHEMISTRY MOLECULAR AND CELL BIOLOGY

Applications are invited for a tenure-track **ASSISTANT PROFESSORSHIP** in the area of physical biochemistry from individuals interested in applying physical methods to contemporary problems in enzymology, protein:nucleic acid recognition, or cell biology. Candidates will be selected based on accomplishments, strong motivation for creative research, and commitment to teaching. Applicants should send curriculum vitae and brief description of accomplishments and future research plans, and have three recommendation letters sent independently, by 15 February 1992, to: **Professor G. Hess, Search Committee, Biochemistry, Molecular and Cell Biology, Biotechnology Building, Cornell University, Ithaca, NY 14853.** *Applications from women and minority group members are encouraged. Cornell University is an Affirmative Action/Equal Opportunity Employer.*

### ANATOMY/PHYSIOLOGY THE OHIO STATE UNIVERSITY AT MANSFIELD

The Department of Zoology is seeking a candidate for a tenure-track **ASSISTANT PROFESSORSHIP** on the Mansfield Campus of The Ohio State University (OSU). Teaching duties include undergraduate courses in anatomy and physiology as well as introductory biology for majors and nonmajors. Research specialty is open, but preference will be given to applicants whose research program can be carried out in a regional campus setting with limited laboratory facilities. Applicants should have a Ph.D., a strong commitment to undergraduate teaching and an active research program. The appointment will begin autumn 1992. The successful candidate will join a Mansfield Campus biology faculty composed of a botanist, microbiologist, and zoologist, and will be a nonsalaried member of the OSU Department of Zoology on the Columbus Campus. The Mansfield Campus of OSU enrolls 1500 students and offers the first 2 years of The Ohio State University's curriculum as well as baccalaureate and master's degrees in education. Graduate faculty members may direct graduate students through the department on the Columbus Campus. Send curriculum vitae, reprints, three letters of reference, and a brief description of teaching and research goals by 31 January 1992 to: **Dr. Tim M. Berra, Chair, Zoology Search Committee, The Ohio State University at Mansfield, Mansfield, OH 44906.** *The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are strongly encouraged to apply.*

## POSITIONS OPEN

**AVIAN BIOLOGIST, ASSISTANT PROFESSOR** of avian sciences in the Department of Avian Science and Assistant Biologist in the Experiment Station, University of California, Davis. Eleven-month, 25% teaching and 75% research, tenure-track position. The successful candidate will be expected to establish an independent, competitive research program in the area of avian physiology, genetics and/or immunology, teach an undergraduate course in avian physiology and a graduate level course in his/her area of research specialization, and train and advise undergraduate, M.S. and Ph.D. students. Candidates should have a Ph.D. in physiology, immunology genetics or a related area, a solid background in areas related to research and teaching and demonstrated research productivity and/or potential. Each applicant should submit curriculum vitae and transcripts (official transcripts are required if Ph.D. was granted in the past 5 years) together with a detailed description of his/her research accomplishments and future plans, and three to five names and addresses of individuals familiar with the applicant's teaching and research abilities. Applications should be submitted to: **Kirk Klasing, Department of Avian Sciences, University of California, Davis, CA 95616-8532.** Application deadline is 1 March 1992. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

### BIOLOGY: DEVELOPMENTAL/ANATOMY

Natural Science (Biology) of Indiana University Southeast (IUS) invites applications from qualified Ph.D.s for a tenure-track **ASSISTANT PROFESSORSHIP** beginning fall 1992. Successful candidate will teach a core course in developmental biology precluding human anatomy sections and possible courses(s) in specialty. The applicant will also be expected to maintain an independent research program with extramural support and demonstrate a potential for excellence in teaching at the undergraduate level. Send statement of interest, curriculum vitae, transcripts, and three letters of recommendation by 18 February 1992 to: **Personnel Division. Attention: Dr. Carl M. Christenson, Chair of the Search and Screening Committee Biology Position, Indiana University Southeast, 4201 Grantline Road, New Albany, IN 47150.**

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

**CELL PHYSIOLOGIST, ASSISTANT PROFESSOR.** The Union College Biology Department invites applications for a tenure-track position from individuals trained in the cellular physiology of any system, including prokaryotes or plants. Teaching responsibilities will involve participation in introductory-level courses in cell biology and an upper-level course in the individual's specialty. Candidates must have a Ph.D.; postdoctoral experience is highly desirable and a strong commitment to excellence in both teaching and research is essential. A major grant from the Howard Hughes Medical Institute will provide the successful candidate, during the first year, with funds for major equipment and supplies, a reduced teaching load, and a summer stipend. Union College is a small, selective undergraduate institution with a long history of strength in science and engineering. The Biology Department is diverse and has 13 full-time faculty. Send curriculum vitae, a brief statement of research interests, and the names of three references by 31 January 1992 to: **Dr. George Butterstein, Chair, Department of Biological Sciences, Union College, Schenectady, NY 12308.**

*Union College is an Equal Opportunity/Affirmative Action Employer.*

**IMMUNOLOGIST/CELL BIOLOGIST.** Furman University has a tenure-track, **ASSISTANT PROFESSOR** position to begin in fall 1992. The successful candidate will develop an undergraduate course in immunology and have the opportunity to set up a cell culture facility. Other assignments will include introductory biology courses and upper level undergraduate courses matching one's interests and training. Candidates must have the Ph.D., a strong interest and ability in teaching, and a commitment to involving undergraduates in an active research program. Furman is a selective liberal arts school of 2500 students with a vigorous program in the sciences. Submit curriculum vitae, original or photostatic copies of transcripts, a statement describing areas of teaching competency and research interests, and three letters of recommendation to: **Dr. Lewis P. Stratton, Department of Biology, Furman University, Greenville, SC 29613.** Application deadline is 6 January 1992. *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSISTANT PROFESSORS OF BIOLOGY

The Biology Department at the State University of New York (SUNY) at Geneseo seeks applicants for two or three tenure-track assistant professor positions in environmental, invertebrate, and evolutionary biology. The third position will be filled contingent upon administrative approval. One individual must be able to teach methods in secondary science education and supervise student teaching in secondary science education one semester per year. Successful candidates will be expected to teach undergraduate/graduate courses (e.g., contemporary biology, ecology, or invertebrate biology) as well as a course in their area of specialty. They are expected to develop a research program involving undergraduate and graduate students, advise students, and participate in general departmental administration. The department has over 500 majors in biology, biochemistry, and medical technology.

Successful candidates will complement 11 faculty members with specialties in zoology, behavioral ecology, physiological plant ecology, developmental biology, cell ultrastructure, animal physiology, algal genetics, molecular biology, immunology, plant biology, and microbial ecology.

All applicants must have a Ph.D. degree in biology or related field and postdoctoral experience. One successful candidate must have direct experience in secondary science education. Applications including curriculum vitae, publications, graduate transcripts, and three letters of recommendation should be sent by 17 January 1992 to: Search Committee, Biology Department, SUNY, Geneseo, NY 14437. SUNY is an Affirmative Action/Equal Opportunity Employer. Minorities and women are strongly urged to apply.

**ASSISTANT PROFESSOR** in (1) microbial ecology/limnology and (2) two in comparative vertebrate anatomy/comparative vertebrate physiology. Tenure-track positions available 1 August 1992. Ph.D. required, working knowledge of Spanish (or willingness to learn) highly desirable. Applicants will teach, coordinate courses and conduct research in their areas, periodically teach in basic courses, and direct graduate student research. Applicants should send (1) curriculum vitae, (2) reprints or copies of their significant publications, and (3) three letters of reference, and (if a recent Ph.D.) complete graduate transcripts to: Dr. Mildred Chaparro, Director, Biology Department, University of Puerto Rico-Mayaguez, Mayaguez, PR 00681. The University of Puerto Rico is an Equal Opportunity Employer.

### EVOLUTIONARY ECOLOGIST ASSISTANT PROFESSOR UNIVERSITY OF VERMONT

Applications are invited for a tenure-track position in evolutionary ecology, broadly defined. Applicants are expected to hold the Ph.D. degree and have postdoctoral research experience. Appropriate research specialties include, but are not limited to, plant-animal interactions, biodiversity issues, freshwater ecology, tropical ecology, behavioral ecology, or population ecology of animals or plants. Position requires teaching undergraduate courses, mentoring graduate students, and conducting independent, extramurally fundable research in some area of evolutionary ecology. Applicants should forward current curriculum vitae, a brief description of their research and teaching interests, and two to three reprints, and should arrange to have three letters of reference sent to: Dr. Jos. J. Schall, Chair, Evolutionary Ecology Search Committee, Department of Zoology, University of Vermont, Burlington, VT 05405-0086. Review of applicants will begin on 15 January 1992. We especially encourage women and minority candidates to apply. The University of Vermont is an Affirmative Action/Equal Opportunity Employer.

### MICROBIOLOGY/MOLECULAR BIOLOGY

The Department of Biological Sciences, Youngstown State University (YSU) is seeking two individuals for tenure-track positions at the ASSISTANT PROFESSOR level in microbiology and molecular biology to begin fall 1992. A Ph.D. is required and postdoctoral experience is desirable. Please submit curriculum vitae, description of research interests, recent reprints, and three letters of reference to: Dr. Anthony E. Sobota, Chairperson, Department of Biological Sciences, Youngstown State University, 410 Wick Avenue, Youngstown, OH 44555.

YSU is an Affirmative Action/Equal Opportunity Employer.

13 DECEMBER 1991



### Research Leadership

## A TIME FOR ACHIEVEMENT

There is that place in time in the progress of a company, when it stands at the threshold of an era of splendid opportunity. For Glaxo Inc., the fastest growing ethical pharmaceutical company in the U.S., that time is now.

The recent opening of the new Glaxo Inc. Girolami Research Institute, located at our headquarters site in Research Triangle Park, NC, represents our continued commitment to the discovery of medicines for the treatment of serious diseases of mankind. We will strengthen our biological research leadership with the appointment of three Scientists. These Scientists will play a crucial role in the direction of established research groups and be instrumental in the augmentation of our research base through additional recruitment.

## DIRECTOR OF CELLULAR SCIENCES

This is a senior and highly influential position for an established researcher and scientific leader. This individual will strengthen and enrich the scientific mix of our research management team and provide leadership and strategic research direction to our therapeutic area of metabolic diseases, particularly for the important diabetes programs.

Selected candidate will direct existing world class research groups (in diabetes, tumor cell biology, signal transduction, ion channel biology, gene control, and macrophage and bone cell biology) and play a key role in the expansion and diversification of each of these departments and our new biological research division. Individual must be an established scientific leader in one of the growth areas of diabetes research.

Please refer to Job # 9129B148-SC on all resumes.

## SECTION HEAD Signal Transduction & Cell Cycle Regulation

We are directing considerable biological and chemical effort toward the study of signal transduction, oncogenes and cell cycle control in cancer cells. To assist in our search for potential drug targets, we seek a Molecular or Cell Biologist to lead an established team in the Department of Cell Biology.

This position will provide opportunities for leadership and innovation with the support of an established team of biologists with relevant experience. We will provide you with the interdisciplinary support required to turn ideas into action and action into successful drug discovery and career advancement.

The successful candidate will have a Ph.D. or M.D. with a minimum of 5 years relevant postdoctoral experience and 2 years leadership of a research team. Significant research contribution and experience in the regulation of cyclins and cell-cycle dependent kinases is required.

Please refer to Job # 9125B116-SC on all resumes.

## SECTION HEAD Control of Gene Expression

We will expand our Department of Molecular Biology by the creation of a new section dedicated to understanding the control of gene expression at the DNA level. Although Glaxo has several research teams committed to other aspects of gene control, this section head will lead a new team of specialists in transcriptional control.

The successful candidate will have a Ph.D. or M.D. with a minimum of 5 years relevant postdoctoral experience and 2 years leadership of a research team. This is a challenging position for an individual with a record of scientific achievement evidenced by publications of consistent high quality.

Please refer to Job # 9126B110-SC on all resumes.

Our Research Triangle Park, NC location (near Raleigh, Durham and Chapel Hill) offers a lot more for people who seek a well-rounded lifestyle. This world-famous scientific, industrial and academic community affords access to respected universities, beautiful residential areas, excellent health care and abundant cultural and recreational facilities. Join Glaxo and enjoy excellent salaries, flexible benefits, an on-site recreation and fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction.

Send your resume, INDICATING THE CORRESPONDING JOB # and salary history, to: Human Resources Department, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709. (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/H/V.

# Glaxo Inc.

## POSITIONS OPEN

### TENURE-TRACK ASSISTANT PROFESSORS

The Department of Bioengineering, University of Utah, has openings for two tenure-track Ph.D. assistant professors in the areas of tissue and molecular/nano engineering and neurophysiological modeling. Applicants should have strong physical science or engineering background with experience and interest in cell and tissue culture; hybrid artificial organs; cell, tissue, and molecular assembly and patterning; or neuro-electric phenomenon. Complete curriculum vitae, names of three references, and brief career goals/objectives statement should be sent to: **Dr. R. Normann, Acting Chair, Department of Bioengineering, 2480 MEB, University of Utah, Salt Lake City, UT 84112. Telephone: 801-581-8528; FAX: 801-581-8692, by 15 February 1992, or until the positions are filled. The University of Utah is an Equal Opportunity/Affirmative Action Employer, and women and minorities are encouraged to apply.**

### SAINT ANSELM COLLEGE ASSISTANT PROFESSOR DEPARTMENT OF BIOLOGY

Applications are invited for a full-time faculty position in the area of evolutionary biology. The 12-hour per semester teaching load will initially include an evolution course with lab, a biostatistics course, and a human anatomy and physiology course with labs, as well as participation in nonmajor and major biology labs as needed. Responsibilities include maintaining an active research program and supervising senior students in directed studies and research. Ph.D. and undergraduate teaching experience required. Position is not tenure-track. Saint Anselm College is a Catholic, 4-year, liberal arts college situated in southern New Hampshire. It is committed to excellence in undergraduate education and has approximately 1800 students. Please send curriculum vitae, statements of teaching goals and objectives, research interests and needs, a brief lecture and lab outline for the evolution course, and three letters of reference to: **Dr. Daniel J. Lavoie, Chairperson, Department of Biology, Saint Anselm College, 87 St. Anselm Drive, Manchester, NH 03102-1310. Application deadline: 24 January 1992. Equal Opportunity Employer.**

### MIAMI UNIVERSITY

The Department of Zoology seeks candidates for two tenure-track, **ASSISTANT PROFESSOR** positions effective August 1992. We are seeking: (1) a **MOLECULAR BIOLOGIST** for the Oxford campus whose training is in developmental biology and/or genetics; and (2) a **PHYSIOLOGIST** for the Middletown campus who will teach a two-semester course in human anatomy and physiology for nursing students, and an animal development course for majors. Further information about these positions is available upon request. Application review will begin 15 January 1992. Send a résumé, transcripts of all academic work, a description of research and teaching interests, and three letters of reference to: **R. G. Sherman, Department of Zoology, Miami University, Oxford, OH 45056.**

*Minorities and women candidates are strongly encouraged to apply. Miami University is making every effort to create a diverse, heterogeneous faculty and staff.*

The University of Alaska Fairbanks invites expressions of interest in the position of **ASSISTANT UNIT LEADER—WILDLIFE** in the soon to be restructured Alaska Cooperative Fish and Wildlife Research Unit within the College of Natural Sciences and the Institute of Arctic Biology. The position is that of a research biologist in the U.S. Fish and Wildlife Service with faculty appointments as **ASSISTANT or ASSOCIATE PROFESSOR**. The incumbent will be expected to plan, conduct, and direct research related to wildlife ecology and management with emphasis on arctic or subarctic wildlife; advise graduate students; teach one graduate level course per year; and develop a related research program.

For more information on the position or application procedures, contact either **Dr. Reid Goforth (Telephone: 703-358-1709; FAX: 703-358-2289)** or **Dr. David Klein (Telephone: 907-474-7673; FAX: 907-474-6967).**

*The U.S. Fish and Wildlife Service and the University of Alaska Fairbanks are Affirmative Action/Equal Opportunity Employers. Interest by women and minority candidates in this position is encouraged.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR PHYSIOLOGY

The Department of Physiology, Uniformed Services, School of Medicine, invites applicants for a tenure-track faculty position at the assistant professor level to begin July 1992. Applicants must hold a doctoral degree and have completed at least 3 years of postdoctoral training.

Applicants must have a strong commitment to research and teaching of medical and graduate students. A competitive starting salary commensurate with background and experience will be offered. The department is well-equipped for research endeavors, with much of the resources centralized to support the scientific investigator.

Curriculum vitae with letters of interest should be sent to the attention of the University's Personnel Department. *Equal Opportunity/Affirmative Action Employer.*

**c/o Civilian Personnel Office  
Uniformed Services University of the Health Sciences  
(PH:PHY)  
4301 Jones Bridge Road  
Bethesda, MD 20814-4799**

**VERTEBRATE BIOLOGIST.** The College of William & Mary invites applicants for a tenure track position in the Department of Biology. We expect to make the appointment at the **ASSISTANT PROFESSOR** level, although we will consider a higher rank in exceptional circumstances. The successful applicant must be committed to excellence in teaching and research, and must establish a vigorous research program involving undergraduate and beginning graduate students. Postdoctoral experience is preferred. Teaching responsibilities will include an undergraduate course in vertebrate biology, emphasizing form, function, evolution and phylogeny, as well as an advanced undergraduate or graduate course. The research area is open but it should emphasize organismal biology. The College of William & Mary has an enrollment of 5500 undergraduate and 1800 graduate students in the arts and sciences and four schools. The department has a faculty of 24 and it interacts with an additional 70 faculty members in the School of Marine Science. Screening of applications will begin on 1 February 1992, and the search will remain open until the position is filled. Interested applicants should submit curriculum vitae, the names, addresses, telephone and FAX numbers of three references, and one-page statements of teaching and research interests and capabilities to: **E. L. Bradley, Department of Biology, College of William & Mary, Williamsburg, VA 23187-8795. The College of William & Mary is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are strongly urged to apply.**

### ASSISTANT OR ASSOCIATE PROFESSOR

**NEUROBIOLOGIST.** The Department of Otolaryngology of West Virginia University invites applications for a tenure-track position available summer 1992. We are seeking an individual whose primary interest is in the neuroanatomical organization of the auditory or vestibular systems or chemical senses to join a growing research group and to establish a vigorous and independent basic research program. A joint appointment in the Department of Anatomy is available. Please send curriculum vitae, reprints of publications, a brief statement of future research plans and three letters of recommendation by 15 January 1992 to: **Dr. Stephen J. Wetmore, Chairman, Department of Otolaryngology, West Virginia University School of Medicine, 2222 Health Sciences Center, Morgantown, WV 26506. West Virginia University is an Affirmative Action/Equal Opportunity Employer.**

**FACULTY POSITION.** The Department of Microbiology in the School of Medicine at the State University of New York at Stony Brook invites applications for a tenure-track **ASSISTANT PROFESSOR** with research interests in prokaryotic molecular biology. Strong applicants at the **ASSOCIATE PROFESSOR** level also are encouraged to apply and will be given serious consideration. Candidates must have M.D. or Ph.D. postdoctoral experience and demonstrated commitment and potential for basic research. Preference will be given to those candidates whose research interests include the molecular biology of bacterial pathogens. Applicants should arrange for curriculum vitae, a statement of research interests, and three letters of recommendation to be sent to: **Search Committee, Department of Microbiology, SUNY at Stony Brook, Stony Brook, NY 11794-5222. SUNY at Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK110.**

## POSITIONS OPEN

### FACULTY POSITION NEUROSCIENCE

The Department of Biology at the University of Oregon invites applications for a tenure-track position at the **ASSISTANT or ASSOCIATE PROFESSOR** level. This appointment will be made in the Institute of Neuroscience, an interdepartmental, multidisciplinary research group with strengths in cellular, developmental and systems neurobiology. Applicants are expected to have established a strong record of scientific research and a commitment to excellence in teaching at the undergraduate and graduate levels. Application deadline is 1 February 1992. Applicants should send curriculum vitae statement of research interest, and three letters of recommendation to: **Neuroscience Search Committee, Department of Biology, University of Oregon, Eugene, OR 97403. The University of Oregon concurrently has openings for a developmental biologist or geneticist (contact Molecular Biology Search, Department of Biology), a biophysicist (contact Biophysics Search, Institute of Molecular Biology) and a biochemist (contact Biochemistry Search, Department of Chemistry). Women and minorities are encouraged to apply. The University of Oregon is an Affirmative Action/Equal Opportunity Employer.**

### THREE FACULTY POSITIONS CELL/ECOLOGICAL/AQUATIC BIOLOGY

CSU San Marcos, the newest campus of the California State University system, seeks applicants for three tenure-track positions in its expanding Biology Program. Candidates will be responsible for a core course in their area and for courses in their specialty. They will also be expected to contribute to the program's general educational offerings. Research will be encouraged; postdoctoral experience is required.

**ASSOCIATE/FULL PROFESSOR IN CELL BIOLOGY.** Candidates should present documentation of a broad range of experience in teaching, research and program development. Their research and teaching interests should focus on some central aspect of molecular cell biology.

**ASSISTANT PROFESSOR IN ECOLOGY.** Preference will be given to candidates whose research interests involve the biochemical, molecular, or physiological aspects of some question in ecology. We particularly seek candidates with interests in plants.

**ASSISTANT PROFESSOR IN AQUATIC BIOLOGY.** Research interest in the biochemical or molecular aspects of marine organisms is especially desirable, although applications from candidates with interests in other aquatic environments are also encouraged.

Send letter of application, curriculum vitae, statement of research and teaching interests, and accomplishments by 10 January 1992, and arrange to have three letters of support sent to: **Chair, Biology Search Committee, CSUSM, Science Annex, 820 West Los Vallecitos Boulevard, San Marcos, CA 92096. The positions are subject to final authorization.**

*CSUSM is an Equal Employment Opportunity/Affirmative Action/Title IX Employer. Women and minorities are encouraged to apply.*

### RESEARCH ASSISTANT PROFESSOR UNIVERSITY OF UTAH

Available immediately for M.D. or Ph.D. with a background in molecular biology and genetic research. Major activity is to direct laboratory in mapping and isolating cancer predisposing genes. Candidate will work with team to map loci predisposing to cancer, refine linkages, and develop a physical and genetic map around them. Position for 2 years minimum, competitive salary.

Send curriculum vitae and three letters of reference to: **Mark Skolnick, Ph.D., Genetic Epidemiology, University of Utah, 420 Chipeta Way, Room 180, Salt Lake City, UT 84108. Deadline: 15 January 1992 or until suitable candidate identified.**

*The University of Utah is an Equal Opportunity Employer.*

**ASSISTANT/ASSOCIATE PROFESSOR, MATERIALS CHEMIST.** Tenured or tenure-track position starting August 1992. Interests in design and synthesis of organic materials including polymers. Send credentials and three letters of reference by 3 February 1992 (or until suitable candidate applies thereafter) to: **Professor Craig J. Eckhardt, Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE 68588-0304. Telephone: 402-472-2734. Affirmative Action/Equal Opportunity Employer.**

## POSTDOCTORAL SCIENTIST AND RESEARCH ASSOCIATE NEUROBIOLOGY

**Amgen** has distinguished itself as the industry leader in the development of human therapeutic products through applications of biotechnology. As a result of our continuing commitment to the discovery and characterization of novel neurotrophic factors, we are actively seeking a Postdoctoral Fellow and a Research Associate to contribute to the development of this program. Both positions require a background in the neurobiology of learning and memory, and experience with rodent models of cognitive dysfunction.

Candidates must be familiar with classical conditioning and spatial learning paradigms in addition to experience with neuropharmacological techniques, including *in vitro* receptor autoradiography. Applicants for the Postdoctoral position must have a PhD in the Neurosciences with a focus on learning and memory. Research Associate applicants must have a BS or MS in Biology, Psychology or other appropriate discipline and a minimum of 2 years' experience in the fields indicated.

**Amgen** provides a stimulating and challenging research environment in which individuals are given the resources necessary to achieve their goals. Our compensation and benefits package reflects our commitment to attracting the best scientific talent available. If you have the necessary skills and would like to be a part of an organization that places its highest priority on its human resources, please send a complete CV, in confidence, to:

**AMGEN, INC.**  
**Recruitment, Dept. #619**  
**Amgen Center**  
**Thousand Oaks**  
**CA 91320-1789**

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Employer

# AMGEN

## Postdoctoral Fellowships In Signal Transduction

Postdoctoral positions are available in the Department of Signal Transduction for highly motivated and independent individuals interested in applying modern techniques in molecular and cellular biology to explore the actions of hormones and growth factors. The department consists of a highly interactive group of scientists dedicated to investigation of the basic mechanisms underlying metabolic, cardiovascular and neurological diseases. Research opportunities are available in the laboratories of:

**Pedro Cuatrecasas:** Hormone-receptor interactions; molecular membrane biology; novel membrane transport systems.

**Stuart Decker:** EGF receptor processing; receptor-effector interactions; regulation of receptor function by phosphorylation.

**David Dudley:** Structure, function and regulation of novel angiotensin II receptors; peptide receptor signaling mechanisms.

**Dean Lockwood:** Mapping N-linked glycosylation sites on the insulin receptor; role of glycosylation in receptor processing and function.

**Alan Saltiel:** Mechanism of insulin action; lipid-protein interactions in membranes; role of protein phosphorylation in NGF action.

Applicants should be recent MD or PhD graduates in cell biology, biochemistry or pharmacology with some experience in molecular biology, protein chemistry, membrane and lipid biochemistry or carbohydrate structure and function. However, the overall ability, enthusiasm and motivation are more important than the precise nature of previous experience. Interactions with our colleagues at nearby University of Michigan and other academic institutions are encouraged. Interested scientists should send a CV and list of references to Human Resources, Box JDM-932, **PARKE-DAVIS**, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment"

"Equal Opportunity in Action"

## PARKE-DAVIS

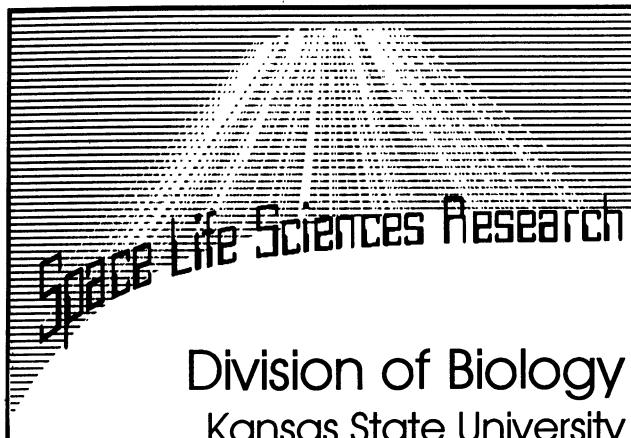


A DIVISION OF **WARNER  
LAMBERT**



**STANFORD UNIVERSITY  
RESEARCH ASSOCIATE OR  
SENIOR RESEARCH ASSOCIATE POSITION  
IN PROTEIN CRYSTALLOGRAPHY AT SSRL**

The Biotechnology Group at the Stanford Synchrotron Radiation Laboratory (SSRL) has an opening for a Ph.D. scientist with research interests and experience in protein crystallography and crystallographic computing. SSRL has a vigorous program in protein crystallography using synchrotron radiation from the dedicated storage ring SPEAR. Facilities have been developed for the collection of multi-wavelength diffraction data using a multi-wire area detector, and for routine high-speed photographic data collection using a rotation camera mounted on a high intensity wiggler beam line. The RA/SRA will have the opportunity to participate in the further development of multiple-wavelength anomalous dispersion phasing techniques to solve macromolecular structures, the development of white beam Laue diffraction techniques for time-resolved studies, data collection at extreme low-temperatures, the use of novel x-ray detectors (such as imaging plates and CCD's), and the development of methods to facilitate data collection from microcrystals. SSRL offers an RA/SRA 50% of his/her time to pursue individual and collaborative research projects. Funds for materials/supplies and capital equipment, as well as staff priority beam time, are also provided. For the other 50% time, the RA/SRA will advise and assist visiting user groups and participate in beam line and experimental facility (and methodology) development projects related to protein crystallography. A willingness to provide good quality user support is considered to be a very important part of this staff position. A strong background in protein crystallography is essential. Experience in software development on VAX systems in "C" and Fortran, and in real time instrument control would be very desirable. Salary and appointment period will be determined by experience. The position includes full Stanford University staff benefits. Interested applicants should send a CV, a list of publications and the names and phone numbers of three referees, together with a brief description of their research interests to Dr. Paul Phizackerley, SSRL, Stanford Linear Accelerator Center, P.O. Box 4349, Bin 69, Stanford University, California 94309, USA. Application deadline is February 1, 1992; however, early application is recommended since applications will be reviewed as received. Stanford University is an Equal Opportunity Employer.



**Division of Biology  
Kansas State University**

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**Interested?**  
**Contact:**  
Space Life Sciences  
Division of Biology  
Ackert Hall  
Kansas State  
University  
Manhattan, KS  
66506

The Division of Biology at Kansas State University is offering **Graduate** and **Postdoctoral** research opportunities in space biology. These studies are supported by two NASA Centers for Space Life Sciences Research in the Division.

- ◆ **The Center for Gravitational Studies in Cellular and Developmental Biology, A NASA Specialized Center of Research and Training (NSCORT)**
- ◆ **BioServe Space Technologies, A NASA Center for the Commercial Development of Space (CCDS).**

Kansas State University is an equal opportunity/affirmative action employer.



**DEAN  
SCHOOL OF MEDICINE  
UNIVERSITY OF CALIFORNIA, DAVIS**

The University of California, Davis invites applications and nominations for the position of Dean of the School of Medicine.

The Dean is the chief academic and administrative officer of the School responsible for leadership of the School in all education, research, patient care, and public service programs; academic planning; developing and managing resources; and articulating the goals and programs of the School to the community and to governmental leaders at local, state, and national levels. Together with the Hospital Director, the Dean provides leadership in the development of the UC Davis Medical Center, a 471 bed comprehensive academic medical center supporting the School's academic missions.

Nominees and applicants must hold an M.D. degree, have a distinguished record of teaching and research, and have demonstrated leadership and administrative capabilities. We seek candidates who have a deep commitment to academic and clinical excellence and to affirmative action; who understand the challenges posed by changes in the national medical environment; and who will be able to lead the School in its continuing development.

Nominations and applications are desired by February 10, 1992 and should be sent to **Chancellor Theodore L. Hullar, Office of the Chancellor, UC Davis, Davis, CA 95616-8558**. Applications should include a curriculum vitae and the names, addresses, and telephone numbers of five references. The position will remain open until filled. The starting date will be September 1, 1992, or as negotiated.

*UC Davis is an affirmative action, equal opportunity employer.*

**SENIOR EDITOR**

An editorial position at *Science* is available for a PhD scientist with a broad range of interests and research experience in biological or physical sciences. We are seeking someone with five to ten years of experience and publications in the refereed literature. Established connections with the scientific community and knowledge of trends/important research questions essential. Editor must have strong technical editing and interpersonal skills. Previous editorial experience is required. This is a full-time position in our Washington offices.

Please send resume and a list of publications with cover letter and salary requirements to:

**Mr. Gregory Stokes  
AAAS  
1333 H Street, NW  
Washington, DC 20005**

EOE

# Affymax Research Institute

Affymax Research Institute is a new therapeutic drug discovery company. If you are as dedicated as we are and you would like to work in a stimulating environment, we currently have the following positions available:

**Staff Scientist/Receptor Biology (3 positions)** – Will be responsible for developing programs using novel technologies to discover and optimize ligands for cell surface receptors. Requires Ph.D. with 2 or more years of post-doctoral training in molecular biology, immunology or molecular pharmacology. Experience in one or more of the following is required: mutagenesis and expression of recombinant proteins, purification and labelling of proteins, receptor binding assays, assays for studying cellular signal transduction. A broad knowledge of receptor biology is necessary. Knowledge of molecular biology techniques is essential, experience in structure/function studies would be an asset. (11SS/RB)

**Staff Scientist/Biochemistry** – Will participate in a program employing novel screening technologies to discover and optimize inhibitors of proteases and other enzymes. Requires a Ph.D. with 2 or more years of post-doctoral training in biochemistry, molecular biology or related areas. Experience in one or more of the following is required: expression and purification of recombinant proteins; analysis of enzyme mechanism and inhibition; mutagenesis and analysis of mutant proteins. Familiarity with bacterial genetics and culture; synthesis and analysis of peptides or chemical/enzymatic modification of proteins would be an asset. (11SS/B)

**Staff Scientist/Bioorganic Chemistry** – Will join a multidisciplinary team of chemists and biologists in developing technology for creating and screening large combinatorial libraries of synthetic compounds. Requires a Ph.D. with at least 2 years post-doctoral research experience in synthetic organic chemistry. Familiarity with both peptide and nucleic acid chemistry is essential. (11SS/BC)

**Staff Scientist/Exploratory Chemist** – Will participate in a program aimed at optimizing the therapeutic utility of drug leads. Requires a Ph.D. in organic chemistry and 2-5 years post-doctoral experience in medicinal chemistry. Must be familiar with instrumental methods of analysis and separation including NMR, US/VIS, IR, HPLC, GC, etc. Experience with capillary gel electrophoresis and *in vitro* enzyme kinetics is desirable. (11SS/EC)

**Postdoctoral Fellow/Protein Biochemistry** – Will create and analyze large libraries of variants of structurally constrained bioactive peptides. Requires a recent Ph.D. with expertise in the field of protein biochemistry. Experience in the study of the structure and function of peptides is highly desirable. Some experience with the techniques of molecular biology and microbiology would be helpful. (11PF/PB)

**Postdoctoral Fellow/Receptor Biology** – Will develop technology for using random peptide libraries to discover novel ligands for cell surface receptors. Requires a recent Ph.D. in biological sciences with experience in some molecular biology, cell culture and/or microbiological techniques. Expertise in methods for studying cell-surface receptors (cloning and expression of receptor cDNAs, radioligand binding studies) is highly desirable. (11PF/RB)

**Postdoctoral Fellow/Biochemistry** – Will study structure/function relationships of matrix metalloproteases, focusing on properties such as autoinhibition, inhibition by TIMPS and substrate specificity. Requires a recent Ph.D. with experience in the use of molecular biology to study protein biochemistry. (11PF/BD)

To become part of our new company, send your resume with appropriate job code to:

**Affymax Research Institute  
Human Resource Department  
4001 Miranda Avenue, Palo Alto, CA 94304  
EOE**

**affymax**



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 to work on the isolation and characterization of genes encoding neurotrophic factors and of cell death genes:

## STAFF SCIENTISTS

### Molecular Biology

Ph.D. plus 2-4 years' post-doctoral experience in molecular biology required. The preferred candidate will have broad experience in gene isolation and analysis including: library construction, gene/cDNA cloning, *in situ* hybridization, quantitative RNA analysis, DNA sequence analysis, PCR using degenerate primers, mutagenesis and expression in heterologous systems. The ideal candidate will have applied several/many of the above approaches to investigations in molecular neurobiology.

Cambridge NeuroScience offers competitive salaries and benefits. For immediate consideration, send your resume, with salary history and the names of three references, to: Cambridge NeuroScience, SCI1213, One Kendall Square, Building 700, Cambridge, MA 02139. An equal opportunity employer.



## Inflammation Pharmacology Research Scientist

### Discover The Value Of Your Innovative Ideas.

CIBA-GEIGY Pharmaceuticals Division is world-renowned for research and development of innovative therapeutic products. We owe our success to our team of dedicated professionals who strive for excellence. Currently, we are seeking a Scientist who will develop novel approaches to the discovery of therapies to treat arthritis and/or inflammatory diseases, using both *in vitro* and *in vivo* models.

The qualified candidate will have a PhD in Biochemistry, Cell Biology or Immunology, postdoctoral experience, plus 2-5 years pharmaceutical research experience. Familiarity with molecular biology techniques and supervisory skills are desirable.

CIBA-GEIGY offers a competitive salary, comprehensive benefits and an environment conducive to professional achievement in our headquarters complex located in the suburban community of Summit, New Jersey. Please forward resume with salary requirements, in confidence to: **Staffing Center, Box PS, CIBA-GEIGY Corporation, Pharmaceuticals Division, 556 Morris Avenue, Summit, New Jersey 07901.** We Are An Equal Opportunity Employer M/F/H/V.

Science Serving Mankind

# CIBA-GEIGY

## POSITIONS OPEN

**VIROLOGIST.** Cornell University seeks candidates for a tenure-track position in molecular virology. Appointment will be at the **ASSISTANT PROFESSOR** level or at a higher level for exceptional candidates. The successful applicant will be expected to develop an independent, competitively-funded research program and to teach veterinary and graduate students. We anticipate that the area of research will complement existing programs in the college, especially in viral oncology. Applicants should have a Ph.D. and preferably a D.V.M. or equivalent. Experience in molecular virology at the post-doctoral level is required. This position is part of a major commitment to apply molecular approaches to animal health research. Applications including curriculum vitae, outline of research interests and the names of three referees should be sent to: **Dr. Roger J. Avery, Department of Microbiology, Immunology and Parasitology, College of Veterinary Medicine, 615 Veterinary Research Tower, Cornell University, Ithaca, NY 14853-6401.** Screening of candidates will begin immediately and will continue until the position is filled. Telephone inquiries will be welcomed (607-253-3400). *Cornell University is an Equal Opportunity/Affirmative Action Employer and Educator.*

### BIOCHEMISTRY AND MOLECULAR BIOLOGY MEDICAL COLLEGE OF GEORGIA

Applications are invited for a tenure-track faculty position at the level of **ASSOCIATE PROFESSOR** or **PROFESSOR**. Outstanding candidates in all areas of **MOLECULAR BIOLOGY** are encouraged to apply. The successful candidate will be expected to maintain a vigorous research program and to participate in the training of graduate and medical students. Curriculum vitae, reprints of publications, a statement of future research plans, and names of three references should be sent to: **Dr. Barry Whitney, Molecular Biology Search Committee, Department of Biochemistry and Molecular Biology, Medical College of Georgia, Augusta, GA 30912-2100.** To guarantee full consideration, materials should be received by 1 March 1992. *The Medical College of Georgia is an Affirmative Action/Equal Opportunity Employer.*

### COLUMBIA UNIVERSITY DEPARTMENT OF PHARMACOLOGY

The Department of Pharmacology invites applications for the position of **ASSISTANT** or **ASSOCIATE PROFESSOR** (both tenure-track). Successful candidates are expected to establish an independent research program in the molecular analysis of receptor mediated signal transduction. Requirements include a Ph.D. and/or M.D. degree and a minimum of 2 years of postdoctoral research in molecular biology or molecular genetics.

Candidates should submit their curriculum vitae, a brief statement of research interests and future plans, and the names of three references by 6 January 1992 to: **Dr. Steven Siegelbaum, Search Committee, Department of Pharmacology, Columbia University, 630 West 168th Street, New York, NY 10032.**

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

### DARTMOUTH COLLEGE ENVIRONMENTAL STUDIES PROGRAM SENIOR FACULTY APPOINTMENT

Dartmouth College is seeking a **CHAIR** for the Environmental Studies Program. The appointment will be at the **ASSOCIATE OR FULL PROFESSOR** level, depending upon the qualifications of the candidate. Anticipated start date is September 1992. Responsibilities as chair do not necessarily have to be assumed immediately.

Candidates must have an outstanding scholarly record, with an active research program in some field of natural science and evidence of interest in the broader societal or policy implications of environmental matters. In addition, candidates must be able to direct and participate in a broadly based interdisciplinary teaching and research program.

Applications should be sent to: **Chair, Environmental Studies Search Committee, Dartmouth College, 337 Murdough Center, Hanover, NH 03755.** The search committee will begin to read applications on 2 January 1992.

*Dartmouth College is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSISTANT OR ASSOCIATE PROFESSOR BIOCHEMISTRY/MOLECULAR BIOLOGY

The Department of Biochemistry at the Uniformed Services University (USUHS) invites applications for two 12-month salaried tenure-track positions available in 1992. Outstanding candidates in all areas of biochemistry and molecular biology are encouraged to apply. Candidates at the assistant professor level must have postdoctoral experience and will be expected to develop a vigorous basic research program. Applicants for associate professor should have an ongoing extramurally funded research program, and have teaching experience. Faculty will participate in the training of medical and graduate students. Please send curriculum vitae, reprints of two to three publications, a statement of future research plans, and at least three letters of recommendation by 1 February 1992 to: **Uniformed Services University of the Health Sciences, c/o Civilian Personnel Office (LD:BIOCHEM), Biochemistry Search Committee, 4301 Jones Bridge Road, Bethesda, MD 20814.** USUHS is an Equal Opportunity Employer.

### TENURE-TRACK FACULTY POSITIONS DEPARTMENT OF ANATOMY AND CELL BIOLOGY

The Department of Anatomy and Cell Biology, Texas College of Osteopathic Medicine (TCOM), has openings for two (2) tenure-track faculty positions, one **ASSISTANT PROFESSOR** and one **ASSOCIATE PROFESSOR/PROFESSOR**. TCOM, located in the Dallas/Fort Worth Metroplex, is a state-supported medical college affiliated with the University of North Texas and is the cornerstone of a rapidly developing health sciences center.

Applicants for assistant professor must have a Ph.D. or equivalent degree, significant postdoctoral experience, and the potential to develop an extramurally funded research program in either ocular molecular biology or ocular cellular immunology. Preference will be given to individuals working in the area of retinal biology who can contribute to a growing multidisciplinary program in the visual sciences. Teaching responsibilities will be at the medical and graduate school level in cell biology and/or the anatomical sciences. Applicants for associate professor/professor must have a Ph.D. or equivalent degree and significant experience in teaching gross anatomy to medical students with an interest in directing the course. A funded research program complimentary to ongoing programs in ocular/retinal biology, cell and molecular biology, or the neurosciences is desired.

A competitive salary, generous start-up funds, modern laboratory space, and outstanding research support facilities are available. Review of applications will begin 1 March 1992. Qualified applicants should send curriculum vitae, list of publications, a description of current and future research directions, and the names, addresses and telephone numbers of three references to:

**Dr. Edward L. Orr**  
Department of Anatomy and Cell Biology  
Texas College of Osteopathic Medicine  
3500 Camp Bowie Boulevard  
Fort Worth, TX 76107-2690

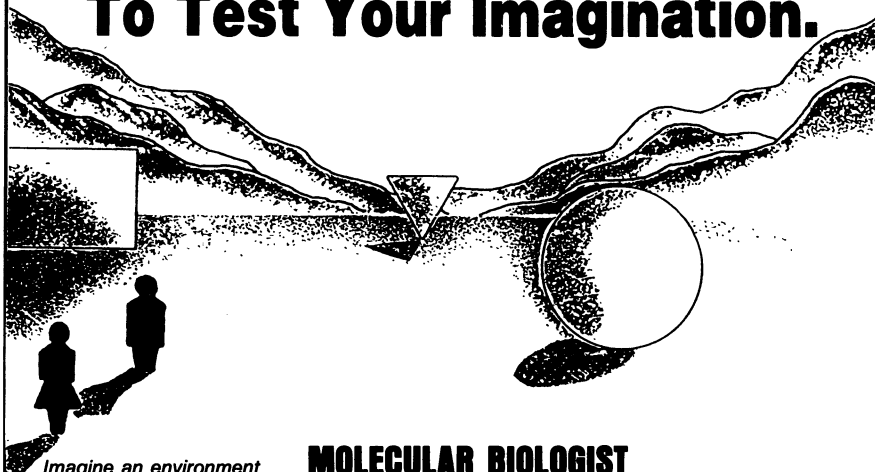
*TCOM is an Equal Opportunity/Affirmative Action Employer. Females, minorities, and persons with disabilities are encouraged to apply for any TCOM vacancy for which they are qualified.*

### DEAN, COLLEGE OF SCIENCES

The University of New Orleans, Louisiana's major urban public institution, is a comprehensive, selective-admissions university in the Louisiana State University System. Founded in 1958, it has 16,210 students, and 717 full- and part-time faculty members. The College of Sciences consists of seven departments: biology, chemistry, computer science, geology and geophysics, mathematics, physics, and psychology. All departments offer bachelor's and master's degrees, and chemistry and psychology offer the Ph.D.

The screening committee is actively seeking applications and nominations. For more information, address correspondence to: **Dr. George Ioup, Chair, Screening Committee for College of Sciences Dean, Office of Academic Affairs, University of New Orleans, New Orleans, LA 70148.** Applicants should include a cover letter, curriculum vitae, and the names, addresses, and telephone numbers of three references. Review of applications will begin 3 February 1992. *Equal Employment Opportunity/Affirmative Action Employer.*

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### MOLECULAR BIOLOGIST (Frederick, MD) - CODE 2237

Molecular Biologist with a Ph.D. in Molecular Biology or Chemistry, and experience with nucleic acids, molecular genetics, and recombinant methodology (DNA/RNA). Individual needed to establish and apply molecular technology in the general area of bioeffects monitoring in close association with the investigator for the project at the hands-on bench level. Work will be directed at demonstrating changes in nucleic acids following exposure of an in-vitro system to munitions and related nitroaromatic compounds of interest to the Army. The approach will entail the identification of a gene sequence to serve as a biomarker based on the literature and the amplification and analysis of changes in that sequence by gradient gel electrophoresis in the laboratory.

### BIOLOGIST (Frederick, MD) - CODE 2238

Biologist with a Ph.D. and minimum of 3 years' experience needed to present scientific results, develop credibility in the community and interface successfully with EPA and the Corps of Engineers. The position entails leading and participating in laboratory and field projects associated with environmental R&D and hazard assessments using non-mammalian species. Specifically, the research uses various species of fish to examine effects of potential toxins and to determine criteria for concern.

### CELLULAR PHYSIOLOGIST (Bethesda, MD) - CODE 2239

A Doctoral level candidate is sought for our research activities associated with studies on the effects of growth factors in skin wound repair. The successful candidate will possess a Ph.D. or M.D. in Physiology or a related field, with extensive laboratory experience in the regulation of cell function, and small animal surgery.

### BIOCHEMIST/MICROBIOLOGIST (Bethesda, MD) - CODE 2235

A Doctoral level candidate is sought to lead a project team to purify and study bacterial hydrogenases. The successful candidate will possess a Ph.D. in Biochemistry or Microbiology, with demonstrated practical experience with hydrogenases, protein purification, microbial techniques, metalloproteins and enzyme immobilization.

### RESEARCH SUPPORT STAFF (Various Locations) - CODE 2240

GEO-CENTERS, INC. is seeking technical staff members at the B.S./M.S. levels for our research activities nationwide. Applicants for these positions will have degrees in Molecular Biology, Immunology, Chemistry or related fields, as well as practical laboratory experience. Candidates should indicate geographic preferences (MD, IL, OH, CA), if any, when submitting their qualifications for review.

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## POSITIONS OPEN

**CHEMISTRY POSITION.** Agnes Scott College invites applications for the William Rand Kenan, Jr., **PROFESSOR OF CHEMISTRY**, a full-time, tenure-track position starting August 1992. Ph.D., demonstrated excellence in teaching, and established scholarly record required. Opportunity to participate in leadership role in establishment of regional, multidisciplinary science center for women. Recently renovated building with excellent facilities. Broad complement of modern instrumentation. ACS-approved since 1957, offering degrees in chemistry and chemistry with biochemistry emphasis. Presbyterian-related, liberal arts college for women located in metropolitan Atlanta. *Minority applications strongly encouraged.* Send curriculum vitae, brief discussion of research plans, transcripts, and names of three references to: **Dean of the College, Agnes Scott College, Decatur, GA 30030-3797.** To receive full consideration, applications must be received by 3 January 1992. *An Equal Opportunity Employer.*

### CANCER CENTER DIRECTOR

The University of Florida College of Medicine is seeking a Cancer Center Director who will hold a 12-month academic administrative appointment and reports to the Dean of the College of Medicine. This individual will hold a tenure-track faculty appointment as **PROFESSOR**. The candidate should have an M.D. degree with excellent clinical credentials and a solid track record in research achievement.

Responsibilities include: The Cancer Center Director will serve as the Medical Director of the ambulatory Cancer Center and will serve as Director of the Cancer Center. The Director will promote multidisciplinary clinical and research activities in areas related to cancer. The Director will direct activities in support of the institution's application for the Cancer Center core grant; will recruit research faculty to endowed chairs related to cancer research. The Director will develop cancer screening and community education projects as appropriate. The Director will serve as chairperson of the Cancer Center Steering Committee and administer space assignments for the Cancer Center.

Letters of application should consist of current curriculum vitae and include a summary of relevant research, clinical and administrative experience. The application deadline is 15 March 1992. Applications should be sent to:

**James E. McGuigan, M.D.**  
Search Committee Chairman  
Chairman, Department of Medicine  
University of Florida College of Medicine  
Box 100277  
Gainesville, FL 32610-0277

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

### DIRECTOR OF TECHNOLOGY TRANSFER

The University of Utah seeks a new Director for the Office of Technology Transfer. The primary responsibilities of this position are to: (1) manage the intellectual property arising at the University of Utah, (2) administer the university's Technology Transfer Office and personnel, and (3) interact with state and local community officials on economic development issues.

The candidate for this position should have a broad-based background in technology/legal/business, with demonstrated effectiveness in planning, controlling, organizing, staffing, budgeting, and marketing, with an earned advanced degree in a relevant field. Experience in technology evaluation, patentability analysis, business plan formulation and review, and technology license negotiations is required. Interpersonal skills to be able to work with faculty inventors and independent counsel as well as staff and business executives are important. A working knowledge of patent law, contract law, licensing law, federal law governing funded research results, transfer of technology in a university setting, general accounting and business skills is expected.

*The University of Utah is an Equal Opportunity and Affirmative Action Employer. Nominations and applications from women and minorities are encouraged.*

Please submit letters of application and supporting letters of reference to:

**Dr. Kent Smith**  
Chair, Search Committee  
3148 Merrill Engineering Building  
University of Utah  
Salt Lake City, UT 84112

Screening of applications will begin 1 January 1992 and will continue until the position is filled.

## POSITIONS OPEN

### CHAIR DEPARTMENT OF BIOCHEMISTRY CORNELL UNIVERSITY MEDICAL COLLEGE

Applications and nominations are invited for the position of Professor and Chair of the Department of Biochemistry to succeed Dr. Alton Meister. We seek a person (M.D. and/or Ph.D. or equivalent degree) who has been widely recognized for achievement in biochemistry and who has a significant interest in the education of medical and graduate students. The new chair will have the opportunity to recruit additional faculty and develop new programs. The department has an active Ph.D. program and there are opportunities for growth and new interactions.

Cornell University Medical College is part of The New York Hospital-Cornell Medical Center and is adjacent to the Hospital for Special Surgery, The Memorial Sloan Kettering Cancer Center and the Rockefeller University.

Applications should include a complete résumé and the names, addresses and telephone numbers of three or more references. Please send replies by 31 January 1992 to:

**Dr. Kenneth I. Berns, Chair**  
Biochemistry Search Committee  
Department of Microbiology  
Cornell University Medical College  
1300 York Avenue, New York, NY 10021

*Cornell University Medical College is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*



### UNIVERSITY OF MANITOBA DEPARTMENT OF PHYSIOLOGY PROFESSOR AND HEAD

Applications are invited for the position of Head of the Department of Physiology at the Faculty of Medicine, University of Manitoba, for a 5-year term commencing 1 July 1992, or as soon thereafter as possible. This position comes with a tenure-track appointment. Candidates should have a substantial record of academic achievement in physiology as well as proven administrative experience. The department is responsible for programs of education at the undergraduate and graduate levels. Salary and academic rank will be commensurate with qualifications and experience. *The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, aboriginal people, and persons with disabilities. The University provides a smoke-free environment, save for specially designated areas. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens or permanent residents.* Interested candidates should apply, enclosing curriculum vitae, in writing to: **Dr. N. R. Anthonisen, Chair, Department of Physiology Search Committee, Dean, Faculty of Medicine, University of Manitoba, 753 McDermot Avenue, Winnipeg, MB, Canada, R3E 0W3.** Closing date: when position is filled.

### CHAIR DEPARTMENT OF BIOLOGY HOWARD UNIVERSITY

The search has been extended for the position of chairperson of the Department of Biology, which will be established upon the merger of the existing Departments of Botany and Zoology on 1 July 1992. The new department will have 30 faculty members, approximately 600 undergraduate majors, and 50 graduate students. Candidates should have a distinguished record of consistent research productivity and extramural support, a commitment to teaching, and a willingness to exercise innovative and resourceful leadership in building the department to a level of prominence. The area of concentration is open. Applicants should qualify for the rank of full professor. Salary is commensurate with qualifications and experience. Applicants should send, by 15 January 1992, curriculum vitae, names and addresses of three references, and a statement of educational and administrative philosophies to:

**Dr. Mary McKenna, Chair**  
Biology Search Committee  
Office of the Dean  
College of Arts and Sciences  
Locke Hall, Room 101  
Howard University  
Washington, DC 20059

*Howard University is an Equal Opportunity Employer.*

## POSITIONS OPEN

### THE ANDERSON TEAM ADMINISTRATIVE MANAGER/THORACIC SURGERY

The University of Texas M. D. Anderson Cancer Center (UTMDACC) is currently seeking an experienced administrative manager to fill a full-time position in our Thoracic Surgery Department. This individual will be responsible for managing the business affairs of the department as well as some patient care related duties.

Requirements for consideration include:

- Bachelor's degree in business or health care administration, master's or Ph.D. preferred.
- Five years business/management experience including 2 years in health care or related field.
- Previous research, laboratory or clinical experience.
- Ability to run laboratory facility and monitor budgets, grants and contracts.
- Familiarity with NIH and NCI.
- Excellent communication and interpersonal skills.

UTMDACC offers a competitive salary and benefits package. Qualified candidates are encouraged to send résumés in confidence to: **The University of Texas M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, HMB 205, Houston, TX 77030.** *An Equal Opportunity Employer. Smoke-free environment.*

**ASSISTANT ACADEMIC DIRECTOR**, Department of Obstetrics and Gynecology (Ob/Gyn). Applications are invited for a full-time position in the Department of Obstetrics and Gynecology at Saint Michael's Medical Center. The successful candidate must hold a doctoral degree and is expected to aid in the development of a research program in obstetrics and gynecology. While no formal training in Ob/Gyn is required, the candidate must possess the necessary research skills to work with and train Ob/Gyn residents in the development of academic and clinical endeavors, leading to publication in peer-review journals. Computer literacy a must. The candidate will work with the director in completing the above goals as well as in administrative duties. As Saint Michael's is affiliated with Seton Hall University, an academic appointment will be encouraged.

Located in Newark, New Jersey, the medical center is within 30 minutes of Essex and Morris counties, both known for their high quality suburban lifestyles. Equally close is the center of New York City, with its numerous cultural advantages. Highly competitive salary and very attractive fringe benefits included.

For more information, send curriculum vitae to: **Dr. James G. Pullano, Director-Obstetrics and Gynecology, Maternal Fetal Medicine, c/o Saint Michael's Medical Center, 268 Dr. Martin Luther King, Jr. Boulevard, Newark, NJ 07102.**

The Department of Pathology at the University of Texas Medical Branch (UTMB) at Galveston invites applications for a rewarding full-time tenure-track faculty position as **DIRECTOR, CLINICAL CHEMISTRY** with a salary and benefit program commensurate with rank and experience. UTMB employs 8,400 people and consists of four schools, seven hospitals and two research institutes. Applicants should have an M.D. degree and be Board-certified AP/CP or CP and have recognized expertise in clinical chemistry preferably documented by certification by the American Board of Clinical Chemistry or American Board of Pathology. The department is seeking an individual with a strong record of scientific achievement and leadership in clinical chemistry. Responsibilities include providing the scientific and administrative direction of the Division of Clinical Chemistry which performs over 500,000 procedures per year in general and special chemistry, toxicology and immunochemistry. Other responsibilities will include the teaching of medical and graduate students as well as residents in pathology and fellows in clinical chemistry. A strong, independent research program and interactions with other faculty are anticipated. Candidates with broad senior leadership experience in clinical pathology may be considered for additional administrative responsibilities in the clinical laboratories. Interested applicants should send detailed curriculum vitae, an outline of current clinical and research interests, and three letters of reference to: **David H. Walker, M.D., Chairman, Department of Pathology, UTMB, Galveston, TX 77555-0609.** *UTMB is an Equal Opportunity/Affirmative Action Employer, M/F/V/H. UTMB hires only individuals authorized to work in the United States.*

# Post-Doctoral Fellowship

**\$36K - \$39K p.a. + Optional Retirement Benefit Contributions**

**For a term of 2 years and should follow no more than 4 years after conferring of your doctorate.**

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Black Mountain,  
Canberra, ACT, Australia*

We need a highly motivated scientist to work as part of a team investigating the implications of global atmospheric composition and climate change on plant and ecosystem performance.

You will investigate biochemical, physiological and morphological acclimation phenomena which develop through time when plants are grown continuously in above-normal atmospheric carbon dioxide concentrations.

For more information on the job contact Dr Roger M. Gifford on 61 6 246 5441 or fax 61 6 246 5000.

The Selection Criteria and Duty Statements are available from Lynette on 61 6 246 5295 or fax 61 6 246 5000.

Your application, including your curriculum vitae, highlighting your skills, qualifications and work experience, should be framed against the selection criteria, quote Ref No. PG 91048 and be sent to: **The Recruitment Office, CSIRO Division of Plant Industry, GPO Box 1600, Canberra, ACT 2601, Australia, by January 24, 1992.**



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## MOLECULAR GENETICIST

### POST-DOCTORAL POSITION

**National Institute of Diabetes and Digestive  
and Kidney Diseases  
Phoenix, Arizona**

Full-time post-doctoral research position for an M.D. or Ph.D. (preferably with some years of relevant experience) at the Clinical Diabetes and Nutrition Section. The project involves genetic analyses of obesity related phenotypes in the Pima Indian population.

The candidate is expected to work independently, as well as in close collaboration with other investigators studying the genetics of non-insulin dependent diabetes.

Send curriculum vitae, three letters of reference, and a summary of current research activity to:

**Eric Ravussin, Ph.D.  
Clinical Diabetes and  
Nutrition Section  
National Institutes of Health  
4212 North 16th Street, Room 541  
Phoenix, Arizona 85016**



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### Applied Environmental Scientist

The ideal candidate will possess a strong background in limnology and statistics and will have a documented record of using these skills to understand, explain, and solve applied environmental problems. Ph.D. in Limnology, Environmental Sciences, Environmental Engineering or similar fields preferred; M.S. considered. Experience with Florida limnology, sediment-water interactions, mathematical modeling, and SAS is highly desired.

This position offers a competitive salary and fringe benefit package, a desirable sub-tropical location and the opportunity to influence the future of South Florida's environment. Please contact Dr. Thomas D. Fontaine, Director, Water Quality Division, (407) 687-6551, or send resume to: Ms. Linda Starr, Human Resources Department, Re: AES/S192, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, Florida 33416. E.O.E. M/F/H/V.

### South Florida Water Management District

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we mean business.

## POSITIONS OPEN

### UNIVERSITY OF ARKANSAS AT LITTLE ROCK CHAIRPERSON OF THE DEPARTMENT OF BIOLOGY

Applications are invited for the position of Chairperson, Department of Biology available on 1 July 1992. The University of Arkansas at Little Rock is a metropolitan institution with a current enrollment of approximately 12,000 students. The Department of Biology consists of 19 full-time faculty members and 250 majors in its various degree programs. The department is in the College of Sciences and Engineering Technology and offers B.S. degrees in biology with two concentrations (general biology and fisheries and wildlife management), environmental health sciences with four options and health education.

Qualified applicants from all areas of biology are welcome. Applicants should have an earned doctorate and a strong commitment to teaching, scholarly activity and service. Previous administrative experience is desirable. The ability to work effectively with people having a wide diversity of interest is important. Qualifications should be commensurate with the rank of associate or full professor within the department.

Letters of application should include curriculum vitae, a statement of departmental administration philosophy, and names, addresses, and telephone numbers of at least four references. To be assured of full consideration, applications should be received by 1 February 1992. Applications should be addressed to:

**Chairperson Search Committee**  
Department of Biology  
University of Arkansas at Little Rock  
2801 South University  
Little Rock, AR 72204

*Applications will be subject to inspection under the Arkansas Freedom of Information Act. The University of Arkansas at Little Rock is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.*

### CHAIRPERSON DEPARTMENT OF BIOCHEMISTRY PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE

Philadelphia College of Osteopathic Medicine (PCOM) invites applications for the position of Professor and Chairperson of the Department of Biochemistry. Applicants should have a Ph.D., Ph.D./D.O., or equivalent degree(s); strong leadership ability to direct the educational and research programs of the department; and a proven record in biomedical research, teaching and administration. Broad opportunities exist at PCOM, which is a recognized leader in osteopathic education, research, and clinical practice.

Application review will begin 2 January 1992 and continue until a suitable candidate is found. Interested candidates should send their curriculum vitae and the names, addresses, and telephone numbers of three references to: Susan P. Miska, Ph.D., Chair, Biochemistry Search Committee, Department of Physiology and Pharmacology, Philadelphia College of Osteopathic Medicine, 4150 City Avenue, Philadelphia, PA 19131-1696.

*PCOM is an Equal Opportunity Employer that offers a competitive salary and benefits package.*

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**SCIENCE**

## POSITIONS OPEN

The Centers for Disease Control (CDC) is seeking qualified applicants for CHIEF of the Molecular and Experimental Virology Section, Influenza Branch, Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases. The person appointed will conceive, direct, and participate in studies on influenza viruses including development of improved influenza vaccines, immune response to vaccines, and molecular studies on genetic and antigenic variation of influenza viruses and its role in human disease. A research virologist with extensive experience in molecular biology is being sought. Candidates with a doctoral degree, a record of established research in virology, significant scientific accomplishments in one or more areas of relevant research, and proven ability to provide leadership for support staff are preferred. Salary range is \$52,406 to \$68,129 per annum, depending on qualifications and experience. Replies to be received by 27 December 1991. Applicants should submit (1) a letter describing qualifications and career goals, (2) curriculum vitae, and (3) a list of publications to: Nancy J. Cox, Ph.D., Acting Chief, Influenza Branch (G16), Division of Viral and Rickettsial Diseases, Centers for Disease Control, 1600 Clifton Road, NE, Atlanta, GA 30333. Telephone: 404-639-3591; FAX: 404-639-2334. CDC is an Equal Opportunity Employer and provides a smoke-free environment.

### PENN STATE UNIVERSITY BIOLOGY DEPARTMENT PHYSIOLOGIST/ASSISTANT DIRECTOR GERONTOLOGY CENTER

We invite applications for a tenure-track position in the area of physiology to serve half time as Assistant Director for Biological Science of the Penn State Gerontology Center. The appointee will be expected to establish a strong gerontology research program and have a commitment to excellence in undergraduate and graduate teaching. Send curriculum vitae, statements of research and teaching interests, and three letters of recommendation to: Search Committee, 208 Mueller Laboratory, Box GC, Penn State University, University Park, PA 16802. Review of applications will begin 8 January 1992 and continue until the position is filled. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

### MEDICAL DIRECTOR FOR CLINICAL VIROLOGY

The Brigham and Women's Hospital Clinical Laboratories is seeking an M.D. or Ph.D. to serve as the Medical Director of Virology. This position carries a clinical appointment in the Department of Pathology, Harvard Medical School. In addition to serving as the Medical Director with operational responsibilities in the hospital's Clinical Virology Laboratory, it is anticipated that the successful applicant will have demonstrated research experience and the ability to develop an independent research program. The Brigham and Women's Hospital is an Equal Opportunity Employer. Women and minorities are encouraged to apply. Please send a résumé and three letters of recommendation to: Dr. Andrew B. Onderdonk, Director of Clinical Microbiology, 75 Francis Street, Boston, MA 02115.

## CHAIRPERSON

Department of Physiology, School of Medicine, University of North Dakota. We invite applications from individuals holding a Ph.D. and/or M.D. degree with an outstanding record of extramurally funded research, a strong teaching record, and enthusiasm for medical student and graduate student education. We are seeking candidates from a wide spectrum of disciplines and research areas within physiology. In addition to several strong programs in cellular and molecular biology in the Medical School, opportunities exist for interactions with the USDA Human Nutrition Laboratory and with various aspects of aerospace sciences. The salary for the position will be competitive. Review of applications will begin 15 February 1992 and continue until the position is filled. Interested applicants should send curriculum vitae, a summary of research goals, and at least three letters of reference to: Dr. Edward C. Carlson, Physiology Search Committee Chair, Department of Anatomy and Cell Biology, School of Medicine, University of North Dakota, Grand Forks, ND 58202.

*The university is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### RESEARCH MICROBIOLOGIST (VIROLOGIST) SECTION CHIEF, INFLUENZA BRANCH CENTERS FOR DISEASE CONTROL (CDC)

The Centers for Disease Control is seeking qualified applicants for Chief of the Molecular and Experimental Virology Section, Influenza Branch, Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases. The person appointed will conceive, direct, and participate in studies on influenza viruses including development of improved influenza vaccines, immune response to vaccines, and molecular studies on genetic and antigenic variation of influenza viruses and its role in human disease. A research microbiologist (virologist) with extensive experience in molecular biology is being sought.

Candidates with a doctoral degree, a record of established research in virology, significant scientific accomplishments in one or more areas of relevant research, and proven ability to provide leadership for support staff are preferred.

Salary range is \$52,406 to \$68,129 per annum, depending on qualifications and experience. Replies to be received by 27 December 1991.

Applicants should submit (1) a letter describing qualifications and career goals, (2) curriculum vitae, and (3) a list of publications to: Nancy J. Cox, Ph.D., Influenza Branch, Centers for Disease Control (G16), Atlanta, GA 30333. Telephone: 404-639-3591; FAX: 404-639-2334.

*CDC is an Equal Opportunity Employer and provides a smoke-free environment.*

### DIRECTOR BIOTECHNOLOGY DIVISION UNIVERSITY OF ARIZONA

The Biotechnology Division in the University of Arizona invites applications and nominations for the position of Director of the Biotechnology Division. At the University of Arizona, researchers of the Colleges of Agriculture, Arts and Sciences, Engineering and Mines, Medicine, and Pharmacy have combined their efforts to develop a university-wide biotechnology program. The program has nine support facilities staffed by 20 professional and technical personnel with an annual operating budget of more than \$1.5 million. The program is intended to provide interdisciplinary support and training to researchers of the state's universities, the state and the nation.

The nine facilities specialize in biomaterial processing, biomolecular characterization, cell sorting, electron microscopy, hybridoma technology, macromolecular structure, molecular design, molecular systematics, and biological magnetic resonance.

It is essential that candidates possess the orientation to provide service and support for researchers in the broad field of biotechnology, as well as the skills, vision, and scientific and educational accomplishments and interests necessary to provide scientific and academic leadership in the field. The selected candidate may be given an appointment in an appropriate academic department. Qualified applicants are invited to submit an up-to-date and comprehensive curriculum vitae (including list of publications); a statement of their views, recommendations, and aspirations for the Biotechnology Division; and the names, addresses, and telephone numbers of at least three references to: Dr. Michael A. Cusanovich, Arizona Research Laboratories, 1011 Gould-Simpson Building, University of Arizona, Tucson, AZ 85721. All application materials must be received by 31 January 1992 or until the position is filled. The University of Arizona is an Equal Opportunity/Affirmative Action Employer. Nominations and applications from women and minorities are encouraged.

**RESEARCH ASSOCIATE/INSTRUCTOR.** At Brigham and Women's Hospital Tissue Typing Laboratory and Harvard Medical School able to develop and perform clinical assays of class II (HLA-DR, DQ) using nonradioactive Polymerase Chain Reaction—Restriction Fragment Length Polymorphism (PCR-RFLP) technique. Applicants must have an M.D. or Ph.D. degree, at least 4 years of experience in the field of histocompatibility and demonstrated expertise in PCR-RFLP. Please send curriculum vitae, bibliography, names, addresses, and telephone numbers of professional references, and cover letter to: Edgar L. Milford, M.D., Director, Tissue Typing Laboratory, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. Affirmative Action/Equal Opportunity Employer.



## IBEX Technologies

**IBEX Technologies** is a growing biotechnology company involved in the research and product development of medical devices and therapeutic applications relating to glycosaminoglycans. We have several opportunities for experienced individuals including:

### GROUP LEADER

This candidate will have a Ph. D. in Biomedical Engineering or a related discipline and at least 5 years industrial experience. This individual's responsibilities will be to lead a growing group of researchers in the development of enzymatically based medical devices used in extracorporeal therapy. This includes the development of strategic research plans and the coordination of internal research efforts with our outside collaborators.

### SENIOR SCIENTIST - Molecular Biology

We are looking for an individual with a Ph. D. in Molecular Biology or a related discipline with at least 3 years industrial experience in the production and characterization of recombinant proteins in prokaryotes. The person filling this position will focus on the development of expression systems for use in production processes.

### SENIOR SCIENTIST - Biomolecules

This individual will have a Ph.D. in Biochemistry, Chemistry or Biochemical Engineering and at least 3 years experience in the purification and characterization of proteins or carbohydrates. This individual will be responsible for the development and implementation of purification and analytical techniques in several processes.

### PRODUCTION MANAGER

This candidate will have a BS/MS degree in a biological or chemical discipline with at least 5 years experience in the production of biological materials. Experience in the areas of bacterial fermentations, lyophilization, protein purification and GMP procedures will be considered. Responsibilities of this position include; assisting the installation of a production facility, establishing production procedures, coordinating production schedules, managing the production of a diagnostic product line and implementing GMP procedures.

**IBEX Technologies** is an equal opportunity employer located in the Montreal area. We offer a competitive compensation package that is combined with challenging work and the opportunity to make significant contributions to a growing company. To apply please send curriculum vitae to: IBEX Technologies, 5645 Chemin St. Francois, Ville St. Laurent, Quebec, H4S 1W6.

## IMMUNOPHARMACOLOGY/IMMUNOTHERAPEUTICS (Search Reopened)

Assistant/Associate/Full Professor. The University of Illinois College of Medicine at Peoria invites applications from individuals with expertise in immunopharmacology. Individuals should have a record of academic achievement. Skills should be in at least two of three areas: (1) basic and/or clinical research; (2) histocompatibility and immunogenetics with UNOS qualifications; and (3) clinical immunosuppressive therapy. The immunopharmacologist will complement a growing cadre of biomedical scientists and medical practitioners. The appointment will be full-time with the College of Medicine, with a fraction of time allocated to renal and cardiac transplant programs. A joint appointment with the University of Illinois College of Pharmacy in Chicago is possible. Clinical responsibilities will include the management of immunosuppressive regimens for adult and pediatric transplant patients and the supervision of immunosuppressive drug trials. Research activities should be focused on the clinical pharmacology of immunosuppression or on the basic mechanisms of immunosuppressive pharmacology, pharmacokinetics or on molecular processes of immunology.

Other requirements: Assistant Professor candidates should have a record of productive postdoctoral training and demonstrated promise of developing a strong, independent and fundable research program. Associate Professor and Professor candidates should be established independent investigators with peer-reviewed grants and research publications as well as experience in teaching and participation in national scientific affairs. Successful candidates will hold a Ph.D. in a relevant biomedical science, an M.D. and/or a Pharm.D. degree (or equivalent doctoral degree). Candidates seeking to fulfill the clinical management immunosuppression requirement will have evidence of appropriate postdoctoral residency or fellowship experience.

Peoria is the recipient of the "All American City" award. Some of the many benefits are: Lowest cost housing of any comparable size city; host to civic opera, symphony, museum, theaters, Turner Cup Champion hockey, professional baseball, college basketball, numerous shopping centers, outstanding regional park system, and a central location for ready access to Chicago, Indianapolis, and St. Louis. There are three hospitals: (1) approximately 1500 beds total; (2) second largest heart transplant program in the State; (3) an expanding transplant program that currently includes kidney and heart transplants; (4) expansion into other areas of transplant surgery is planned.

Positions are presently available and the search will continue until the positions are filled. Salary (funded from a continuing source) and rank are commensurate with qualifications. Recently constructed space and start-up funds are available. The University of Illinois is an Equal Opportunity/Affirmative Action Employer. Send curriculum vitae and names of three references to: Phillip C. Jobe, Chair, Department of Basic Sciences, University of Illinois College of Medicine at Peoria, P.O. Box 1649, Peoria, IL 61656. For information, call 309 671-8525.

## BROOKHAVEN NATIONAL LABORATORY

### Structural Biology Positions

New and unusual opportunities for structural biology are available in the Biology Department at Brookhaven National Laboratory. State-of-the-art facilities for x-ray and neutron diffraction at the National Synchrotron Light Source and High Flux Beam Reactor will have an important impact during the next decade. We are expanding our current program to exploit these facilities for structural studies and to make them useful to the community at large.

Openings are available for postdoctoral research associates and both junior and senior level staff scientists to participate in existing research programs or to initiate new ones, and to assist with outside user programs. Substantial expansion is anticipated and the appropriate senior scientist could have considerable impact on the overall program. The Biology Department has a range of programs in structural biology, molecular genetics and genome research, and scientific collaborations are encouraged.

Candidates should submit a curriculum vitae, an outline of research interests, and the names and addresses of three references to: F.W. Studier, Chair, Biology Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, NY 11973. Brookhaven National Laboratory is an Affirmative Action/Equal Opportunity Employer.



**BROOKHAVEN  
NATIONAL LABORATORY  
ASSOCIATED UNIVERSITIES, INC.**





## REGULATORY SPECIALIST

**Quantum Chemical Corporation**, a Fortune 200 Company located in Cincinnati, Ohio, has an opening in its corporate Health, Safety and Environment Department for a Regulatory Specialist.

The successful candidate will develop procedures and programs to affirm Company conformance with TSCA, FDA, OSHA Hazard Communications Standard regulations, and other standards impacting on product safety, stewardship and risk assessment. Qualified applicants will have a MS or Ph.D. in the health sciences (preferably toxicology) and 3 years recent work experience involving product safety and regulatory compliance. Candidates with a Bachelor's degree and significant relevant work experience will also be considered.

We offer a competitive salary and immediate participation in a flexible benefits program, 401(k) plan, tuition refund, and *liberal relocation policy*. For consideration please forward your resume with salary history and requirements to: **Manager of Recruiting, Dept. QC11**

**Quantum Chemical Corporation**  
11500 Northlake Drive  
Cincinnati, Ohio 45249

AN EQUAL OPPORTUNITY EMPLOYER

## BE A SCIENCE JOURNALIST FOR A SUMMER!

The American Association for the Advancement of Science (AAAS) invites students in the natural and social sciences and engineering to apply for the 1992 Mass Media Science and Engineering Fellows Program.

Fellows work as reporters, researchers and production assistants for 10 weeks during the summer at newspapers, magazines, and radio and television stations nationwide. A weekly \$400 stipend is awarded plus travel expenses paid. For information and application write:

**Mass Media Science and  
Engineering Fellows Program  
AAAS  
1333 H Street, NW  
Washington, DC 20005**

**Application deadline:  
January 15, 1992**

## Faculty Positions Department Of Biology

The NYU Department of Biology is undergoing a major program of expansion and development. Three positions are presently available (subject to budgetary approval), in the areas of molecular aspects of development or evolution, genetics and biochemistry. Outstanding candidates in other areas will also be considered. Two appointments will be made at the assistant professor level (tenure-track); one may be made to a tenured position. Candidates will be expected to establish an active, externally-funded research program and to participate in the department's teaching activities. Senior level appointments will be made to distinguished scientists with significant, funded research programs. Excellent start-up packages and newly renovated laboratory space are available. Application letter with curriculum vitae and names and addresses of three references should be sent to: **Chairman of the Search Committee, Department of Biology, New York University, Room 1009, Main Building, Washington Square, New York, New York 10003**. NYU encourages applications from women and members of minority groups.



## 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**

## POST-DOCTORAL POSITION

### National Institute of Diabetes and Digestive and Kidney Diseases Phoenix, Arizona

A post-doctoral fellowship is available for a recent Ph.D. in biochemistry or related discipline to participate in studies of the mechanism of insulin resistance in man. Results of studies conducted in our laboratory suggest that abnormal regulation of skeletal muscle protein phosphatase (PPI) activity by insulin may be a primary defect responsible for insulin resistance and subsequent development of non-insulin dependent diabetes mellitus in humans. Current projects include studies of mechanisms of insulin regulation of PPI activity and gene expression.

This position is funded through the NIH Intramural Research Training Award Program and has a starting annual stipend of \$25,000 - \$28,000, depending on length of previous post-doctoral experience.

Send curriculum vitae and letter of application to:

**David Mott, Ph.D.  
Clinical Diabetes and  
Nutrition Section  
National Institutes of Health  
4212 North 16th Street  
Room 541  
Phoenix, Arizona 85016**



NIH is an Equal Opportunity Employer

## Postdoctoral Position in Signal Transduction

The PARKE-DAVIS Pharmaceutical Research Division of Warner-Lambert Company has a postdoctoral position available immediately for an independent and highly motivated scientist with experience in biochemistry and cell biology to study signal transduction by endothelin receptors.

Ongoing work includes 1) modulation of tyrosine kinase activity by endothelin, 2) coupling of endothelin receptors to activation of phospholipase A<sub>2</sub>, 3) characterization of novel endothelin receptor subtypes and their receptor-effector coupling mechanisms.

Although the focus of the laboratory is on vascular cell biology, collaboration with other departments will be encouraged. Position offers extensive opportunity to develop expertise in several disciplines, including biochemistry, cell biology and molecular biology. Candidates should be recent Ph.D. graduates with a background in either biochemistry, pharmacology or cell biology.

Appointment is for one year, renewable for a second year. Compensation includes a competitive salary with an attractive benefits package as well as relocation assistance. Please send resume and references to **Human Resources, Box JDM-55, PARKE-DAVIS, 2800 Plymouth Road, Ann Arbor, MI 48105.** "Smoke-Free Work Environment"

"Equal Opportunity in Action"



**PARKE-DAVIS**

A DIVISION OF **WARNER-LAMBERT**

**AASTROM**

Biosciences, Inc.

AASTROM Biosciences, Inc. - located with the University of Michigan in Ann Arbor, MI. - is recruiting senior scientists as it prepares for clinical trials and commercialization of its human stem cell technology.

### VICE PRESIDENT RESEARCH AND DEVELOPMENT

Individual must be an accomplished scientist and manager, with experience in commercial product development in the fields of mammalian cell culture/tissue engineering, and preferably in bioreactor development. This person will be instrumental in the formulation and implementation of the company research direction and product development. This key management position is to be filled in early 1992.

### SENIOR RESEARCH SCIENTISTS

Research-savvy individuals with motivation, strong communication skills, and demonstrated productivity in: a) hematopoietic cell culture or primary mammalian cell culture, or; b) mammalian cell bioreactor development; to lead cell expansion and bioreactor development projects.

Compensation packages are excellent and include stock option plan participation, relocation assistance and other standard benefits.

Please submit resumé detailing qualifications to:

**AASTROM Biosciences, Inc.**

**P.O. Box 130469**

**Ann Arbor, MI 48113.**

## BIOTRANSPLANT INCORPORATED

At BioTransplant, our mission is to discover, develop, manufacture and market products and services for patients who require organ transplants. Our technology, which will minimize systemic immunosuppression and associated toxicities, will be applied to vascularized organ allografts and xenografts.

As a newly founded, well-funded biotechnology firm with a strong scientific and management background, and a distinguished scientific advisory board, we know how critical scientific leadership and experience are to success.

### DIRECTOR OF MOLECULAR BIOLOGY

Ph.D. in Molecular Biology with expertise in cloning and expression of mammalian proteins, transgenic and ES technologies.

### DIRECTOR OF CELLULAR IMMUNOLOGY/HEMATOLOGY

Ph.D. Immunology or Hematology with expertise in bone marrow manipulation and/or animal allograft or xenograft models. **Both positions must have 5+ years' industrial supervisory experience.**

### SENIOR SCIENTISTS

Several openings exist for Ph.D.'s with 2+ years' industrial experience in immunology, molecular biology, transgenic and ES techniques, or hybridoma development.

In addition to a stimulating professional environment, we offer a competitive compensation and benefits package. Please send your resume, indicating the position, to: **Human Resources, BioTransplant, Inc., Building 96, 13th Street, Charlestown Navy Yard, Charlestown, MA 02129.** We are an equal opportunity employer.

## DIRECTOR Management Decision and Research Center (MDRC)



Broad experience in health services administration or management research is required to provide solid leadership for our newly created Management Decision and Research Center. As a component of the HSR&D Service, the Center will provide consultation to managers; development and administration of a management research program, including the establishment of a research agenda and coordination of VA data sources; and development of an information dissemination program.

Overseeing each of these areas, you'll be responsible for all aspects of the Center's operations; coordinate the Center's services with existing VA programs; and work with VACO senior management to develop research areas and to support management decisions.

You must have a doctorate in one of the management, health or social sciences, or be a physician with post-doctoral training in health services research. Strong methodological skills, a demonstrated research background, and the ability to coordinate competing interests and to bring groups together are essential. Your management and interpersonal relations skills will be evaluated through project management experience; service as the principal investigator on large, multi-disciplinary grants; and experience working in administrative settings.

Located in Boston, MA, you'll be employed by the Department of Veterans Affairs, and an appropriate academic affiliation will be negotiated. You'll also enjoy a competitive salary and generous benefits. Please send your resume to:

**Daniel Deykin, M.D.,**

**Director, Health Services Research and Development Service,  
Department of Veterans Affairs Medical Center**

**150 South Huntington Avenue, Boston, MA 02130.**

We are committed to equal employment opportunities M/F/H/V.

## POSITIONS OPEN

### PROFESSOR AND HEAD DEPARTMENT OF BIOLOGICAL SCIENCES CARNEGIE MELLON UNIVERSITY

The Department of Biological Sciences invites applications and nominations for the position of professor and department head. We seek a person with an established reputation in biological research and the demonstrated ability to provide leadership in the continuing growth of this department. Review of applications will begin 1 February 1992, and it is anticipated that the successful candidate will be appointed by 1 July 1992. However, our search will continue until an outstanding candidate has been recruited.

Applications or inquiries should be sent to:

Biology Search Committee  
Carnegie Mellon University  
4400 Fifth Avenue  
Pittsburgh, PA 15213

*Carnegie Mellon University is an Affirmative Action/Equal Opportunity Employer.*

### MIT CENTER FOR CANCER RESEARCH

Applicants are sought for **TWO TENURE-TRACK FACULTY APPOINTMENTS** at the Massachusetts Institute of Technology jointly in the Center for Cancer Research and the Department of Biology. Candidates should have significant research accomplishments in the areas of molecular and/or cellular mechanisms of growth control, cell differentiation or behavior. Suitable areas of interest include: intercellular signaling, signal transduction, oncogenes, cell cycle regulation, cell adhesion and migration, and regulation of immune cells. Successful candidates will be expected to establish an active research program and to participate in teaching.

Applicants should send curriculum vitae and a summary of proposed research and arrange to have letters sent by three scientists who can evaluate the candidate's accomplishments and future potential for both research and teaching. Applications and letters should be sent to:

CCR Search, Room E17-110  
Center for Cancer Research  
Massachusetts Institute of Technology  
77 Massachusetts Avenue  
Cambridge, MA 02139-4307

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

### LABORATORY INSTRUCTOR BIOLOGICAL SCIENCES THE UNIVERSITY OF CHICAGO

The Biological Sciences Collegiate Division at The University of Chicago seeks a qualified biologist to assist faculty in the laboratory teaching of evolutionary biology to undergraduates beginning fall 1992. We will consider applicants for appointment to one of two positions. Applicants who are interested in combining teaching with postdoctoral research will be considered for appointment as **POSTDOCTORAL TEACHING FELLOW** and will spend half-time in undergraduate teaching and half-time carrying out postdoctoral research under the supervision of a faculty member. Applicants who wish to develop a career in teaching biological sciences will be considered for appointment as **LECTURER** and will devote full-time to laboratory and classroom teaching. Applicants for either position should have a Ph.D. in the biological sciences. Initial appointments to either position will be for 1 year with an option for renewal. Salary will be commensurate with experience. Applicants should submit curriculum vitae, statement of research and teaching experience and interests, and names of three references to: **Dr. Robert Perlman, Biological Sciences Collegiate Division, The University of Chicago, 1116 East 59th Street, Chicago, IL 60637.** Applicants for the postdoctoral position should, in addition, submit the name of a prospective University of Chicago research sponsor. Application deadline: 15 January 1992. *The University of Chicago is an Affirmative Action/Equal Opportunity Employer.*

**POSITIONS AVAILABLE, POSTDOCTORAL** through **ASSISTANT PROFESSOR** level. Gene expression and structure in colon cell differentiation and transformation. Forward résumé and names of references to: **Leonard H. Augenlicht, Ph.D., Director, Molecular Oncology Program, Albert Einstein Cancer Center, Montefiore and Albert Einstein Medical Centers, 111 East 210th Street, Bronx, NY 10467.**

## POSITIONS OPEN

### PROFESSOR AND CHAIR FOOD SCIENCE AND HUMAN NUTRITION

Applications are invited for chair/head of the Department of Food Science and Human Nutrition. The department is composed of 38 faculty members, 200 undergraduate and 80 graduate students. Affiliated with two research centers having \$20 million in new capital funding. The research budget is in excess of \$4 million with >\$2 million in external funding for fiscal year 1991. Responsibilities: provide leadership and participate in teaching, research and extension programs; promote procurement of extramural funding for research and innovative educational programs; facilitate faculty development and cooperation. Qualifications: earned doctorate, established record of scholarship, national leadership in area of expertise, administrative experience and teaching experience. Research start-up funding available. Submit letter of application, résumé, names of five references to: **Dr. Patricia A. Murphy, Chair, DEO Search Committee, Department of Food Science and Human Nutrition, 2312 Dairy Industry Building, Iowa State University, Ames, IA 50011-1060. Telephone: 515-294-1970. Deadline: 29 February 1992 or until position is filled. Iowa State University is an Equal Opportunity/Affirmative Action Employer.**

### VISITING POSITION BIOLOGY DEPARTMENT WILLIAMS COLLEGE

Beginning July 1992, a 2- or 3-year visiting position, funded by a grant from the Howard Hughes Medical Institute, to help teach in and develop a new introductory biology sequence. Additional teaching in an upper-level course in the applicant's general area of specialty is expected. Ph.D. required.

Please send curriculum vitae, statement of teaching interests/experience, and two letters of recommendation, by 15 January 1992 to: **William DeWitt, Department of Biology, Williams College, Williamstown, MA 01267.**

*An Equal Opportunity/Affirmative Action Employer, Williams College especially welcomes applications from women and minority candidates.*

The Department of Pathology at the University of Texas-Medical Branch (UTMB) at Galveston invites applications for a full-time tenure-track **CLINICAL VIROLOGY** position, Division of Clinical Microbiology and Immunology. UTMB employs 8,400 people and consists of four schools, seven hospitals and two research institutes. Applicants should be ABMM Board-certified or Board-eligible Ph.D. virologist, or M.D. Board-certified or Board-eligible pathologist. Responsibilities include assisting with the scientific and administrative direction of the division, an AAM-approved postdoctoral program, providing direction for the Clinical Virology and Serology sections, and establishing a nationally recognized basic research program in viral diseases. The position will offer an opportunity to pursue an academic career in basic and clinical research, teaching, and clinical services at a large primary and referral care university medical center. Other responsibilities will include the teaching of both medical and graduate students, and residents. A strong, independent research program and interactions with other faculty are anticipated. Interested applicants should send detailed curriculum vitae, an outline of current clinical and research interests, and three letters of reference to: **Ronald Zabransky, Ph.D., Director, Clinical Microbiology and Immunology, Department of Pathology, UTMB, Galveston, TX 77555-0743. UTMB is an Equal Opportunity/Affirmative Action Employer, M/F/V/H. UTMB hires only individuals authorized to work in the United States.**

### POSTDOCTORAL POSITION IN EUKARYOTIC TRANSCRIPTION AND ITS CONTROL

A position is available to study initiation and regulation of eukaryotic transcription using viral and cellular systems. Previous experience in transcription, RNA isolation, protein purification, recombinant DNA technology or baculovirus expression of proteins is highly desirable. Candidates genuinely interested in transcription and its control should apply with complete curriculum vitae, research interest and three letters of reference to: **Dr. Swati Deb, Department of Microbiology, The University of Texas Health Science Center at San Antonio (UTHSCSA), 7703 Floyd Curl Drive, San Antonio, TX 78284-7758. UTHSCSA is an Affirmative Action, Equal Opportunity Employer.**

## POSITIONS OPEN

### EARTH AND OCEAN SCIENCES UNIVERSITY OF VICTORIA BRITISH COLUMBIA

Applications are invited for at least two new faculty positions in the School of Earth and Ocean Sciences. The research focus of the school is on fundamental transdisciplinary studies of earth system science, dealing particularly with the solid earth and the oceans. These appointments are part of a multi-year expansion program; rank of positions is open; preferred starting date is July 1992.

*In accordance with Canadian Immigration and Employment regulations, this notice is directed in the first instance to Canadian citizens and permanent residents. The University of Victoria is committed to an employment equity program; women especially are encouraged to apply. Send inquiries or applications, with curriculum vitae and names of three referees to: Dr. Chris R. Barnes, Director, School of Earth and Ocean Sciences, University of Victoria, P.O. Box 1700, Victoria, British Columbia V8W 2Y2, Canada. Deadline for application is 31 January 1992, or until the positions are filled.*

**POSTDOCTORAL POSITION** available immediately to study the recognition mechanisms of restriction-modification enzymes using molecular biological and biophysical techniques. Excellent facilities and research environment. Ph.D. in molecular biology, biophysics, biochemistry, chemistry or relevant experience in a related discipline is required. Send curriculum vitae and names of three references to: **Dr. S. Chandrasegaran, Department of Environmental Health Sciences, School of Hygiene and Public Health, The Johns Hopkins University, 615 North Wolfe Street, Baltimore, MD 21205. Telephone: 410-955-0023 or FAX: 410-955-0617. Candidates must be U.S. citizens or permanent residents of the United States. The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.**



### Deaconess Hospital

**POSTDOCTORAL POSITION IN HEMATOPOIESIS.** Excellent opportunity in cellular and molecular biology of hematopoiesis with special emphasis on stromal cell biology and signal transduction. The laboratory has a number of highly productive ongoing projects which could be expanded. Excellent salary and stimulating intellectual and scientific environment. Contact: **Hava Avraham, Ph.D., Hematology/Oncology, New England Deaconess Hospital, 185 Pilgrim Road, Boston, MA 02215.**

### POSTDOCTORAL POSITION IN BIOCHEMICAL/CARDIOVASCULAR PHARMACOLOGY

Available for Ph.D. in biochemistry, biology, pharmacology or physiology. Project relates to the biochemistry of nitric oxide generation from nitrovasodilators, mechanisms of vasodilator tolerance, neurohormonal regulation. Position available immediately. Send curriculum vitae and two letters of recommendation to: **Dr. H.-L. Fung, Department of Pharmacetics, State University of New York, Buffalo, NY 14260. FAX: 716-636-3693. Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available immediately for protein engineering of IgG Fc receptor proteins. Experience in molecular biology and work with proteins is required. The successful applicant must be able to start prior to February 1992. Salary will be \$26,000 per year; position duration will be for 2 years, renewable yearly. Applicants should send curriculum vitae with names and telephone numbers of three references to: **Dr. William R. Trumble, Department of Bacteriology and Biochemistry, University of Idaho, Moscow, ID 83843. Telephone: 208-885-8977, FAX: 208-885-5741. An Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available to study the regulation of ion transport in human epithelial cell lines. Current activities concern the role of the kallikrein-kinin system in this process, and regulation of the system through control of kallikrein synthesis, receptor-coupled transduction events and kinin degradation. Candidates should have a background in cell biology and a familiarity with receptor and/or second messenger techniques. Send curriculum vitae and names of references to: **Dr. Donald H. Miller or Dr. Harry S. Margolis, Department of Cell and Molecular Pharmacology and Experimental Therapeutics, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION** in the National Center for Spin Trapping and Free Radicals. Must have recent Ph.D. training and experience in modern tandem mass spectrometry with a variety of LC inlet systems. Send résumé and copies of applicable publications to: Edward G. Janzen or Coit M. DuBose, Molecular Toxicology Research Program, National Center for Spin Trapping and Free Radicals, Oklahoma Medical Research Foundation, 825 N.E. 13th Street, Oklahoma City, OK 73104.

**POSTDOCTORAL POSITION BACTERIAL PATHOGENESIS.** Available to begin 1 January 1992 to 1 July 1992 to study molecular aspects of pathogenesis in *Vibrio cholerae*, *Escherichia coli* or *Corynebacterium diphtheriae*. Research emphasizes molecular genetics of toxin structure and function, regulation of toxin and associated virulence factors, molecular epidemiology, and vaccine development. Methods include DNA cloning/sequencing, transcriptional analysis, site-directed mutagenesis, protein engineering, immunochemistry, physical mapping of bacterial genomes, etc. Recent Ph.D. graduates with strong backgrounds in genetics, molecular biology, microbiology, or biochemistry are encouraged to apply. Foreign nationals will be considered if qualified United States citizens are not available. Send curriculum vitae and names of three references to: Dr. Randall K. Holmes, Department of Microbiology, Civilian Personnel Office, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799. Equal Opportunity/Affirmative Action Employer.

### ASSISTANT RESEARCH SCIENTIST

Assistant research scientist **OR POSTDOCTORAL POSITION** to study the molecular biology and mechanism of entry of *Bartonella bacilliformis*, a pathogenic human parasite of red cells and capillary endothelium [Benson *et al.*, *Infect. Immun.* 54, 347 (1986)]. Research will involve identification of the receptor on human red cells, the bacterial surface protein involved in binding and entry, the characterization of the fibrous meshwork which binds the bacteria together, and cloning and study of *Bartonella* genome. Of special interest is the mechanism by which the bacterium stimulates endothelium cell proliferation. Send curriculum vitae and names of references to: Dr. Garret M. Ihler, Department of Medical Biochemistry and Genetics, Texas A&M College of Medicine, College Station, TX 77843-1114.

Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION** now available to study membrane and cellular signaling pathways that govern ion and fluid traffic across airway epithelia. Emphasis on mechanisms that underlie fluid transport in cystic fibrosis and other diseases involving chronic airway inflammation. Techniques include but are not limited to cell culture, intracellular recording, fluorescence, and the direct measurement of fluid movement across intact epithelial sheets. Send résumé to: Dr. Sheldon Miller, Department of Molecular and Cell Biology, 237 LSA, University of California, Berkeley, CA 94720. FAX: 510-643-5109. The University of California is an Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available immediately to apply nucleic acid hybridization probe technology to the estimation of growth and physiological state of marine fish and zooplankton. Applicants should have a Ph.D. in biochemistry, molecular biology or a related discipline, and experience with production of nucleic acid probes, PCR and extraction, purification and analysis of RNA. Salary is \$35,000 per year. Submit curriculum vitae, names of at least three references, and reprints of recent publications to: Dr. Lawrence Buckley, Graduate School of Oceanography, South Ferry Road, Narragansett, RI 02881. An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION.** Available immediately to study aspects of gene regulation by nuclear hormone receptors. Work in our laboratory focuses on both receptor structure/function, and the identification of genes directly controlled by specific receptors during cellular differentiation. Applicants should have a strong background in biochemistry and molecular biology. Please send curriculum vitae, including three references, and a summary of previous research, to: Dr. Leonard P. Freedman, Cell Biology and Genetics Program, Box 470, Sloan-Kettering Institute, 1275 York Avenue, NY, NY 10021.

## VICE PRESIDENT FOR RESEARCH UNIVERSITY OF UTAH

The University of Utah, the state's flagship public institution of higher education, seeks an experienced and dynamic person to foster and support the university's growing research programs. Located in Salt Lake City, the University of Utah has attracted an enrollment of 22,000 undergraduates and nearly 5,000 graduate students, as well as over 120 million dollars in sponsored research and related programs.

The Vice President for Research reports to the President and, working with the Vice President for Academic Affairs and the Vice President for Health Sciences, advises the President in all matters involving research policy and support. The Vice President oversees and coordinates the strategic planning, budgetary, and facilities development processes within these various programs. Under the direction of the President and in coordination with other cognizant vice presidents, the Vice President for Research is involved in a variety of University functions and, in particular, coordinates the research support and development efforts of the University's faculty, and recommends and administers the allocation of University cost-sharing and cost-matching funds for research projects.

*Successful applicants must have the following qualifications:*

- \*An earned doctorate degree.
- \*Proven record of management and scientific research skills.
- \*Leadership abilities that enhance academic research programs.
- \*Knowledge of technology transfer.

Salary will be commensurate with experience and qualifications. A collateral appointment at faculty rank, possibly with tenure or on tenure-track, may be considered. Review of applications will begin on February 1, 1992, and will continue until the position is filled.

Please send nominations or application letter, along with three letters of recommendation and supporting material to: Dr. Eugene C. Loh, Chair, Search Committee, 201 James Fletcher Building, University of Utah, Salt Lake City, UT 84112 Phone: (801)581-5505 / FAX: (801)581-4801 / E-mail: loh@mail.physics.utah.edu

*The University of Utah is an Affirmative Action, Equal Opportunity Employer and encourages nominations and applications from women and minorities.*

Amylin Pharmaceuticals, Inc. in San Diego, CA is a development stage pharmaceutical company working on products for diabetes and related metabolic disorders, initially based on amylin, a recently discovered pancreatic beta cell hormone (see Cooper *et al.*, *Biochemica et Biophysica Acta* (1989) 1014:247-58). The Department of Process Development is currently recruiting for a staff scientist,

## ANALYTICAL PROTEIN CHEMIST

The selected candidate will have the responsibility for methods development and the purification of recombinant proteins, as well as expertise in analytical protein/peptide chemistry, and will have the opportunity to work closely with members of molecular biology and chemistry. Qualified candidates must have a M.S. or Ph.D. in Biochemistry/Chemistry and 5 to 8 additional years of industrial GLP/GMP experience in the analytical evaluation and purification of recombinant proteins.

Amylin Pharmaceuticals, Inc. offers a stimulating and challenging opportunity to participate in a new area of biomedical science, as well as an excellent benefits package which includes equity ownership participation. Please send your curriculum vitae and names and addresses of three references to: Ms. Audrey McGovern, Human Resources Administrator, Amylin Pharmaceuticals, Inc., 9373 Towne Centre Dr., Suite 250, San Diego, CA 92121, or FAX (619) 552-2212. Amylin Pharmaceuticals, Inc. is an Equal Opportunity Employer.





## POSITIONS OPEN

### PREDOCTORAL TRAINING IN NEUROSCIENCE



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NEW ORLEANS**

The Neuroscience Center of Excellence in New Orleans is accepting inquiries concerning graduate training leading to a Ph.D. in neuroscience. The Neuroscience Center is an interdisciplinary unit of the Medical School with over 40 basic and clinical neuroscience faculty whose research expertise extends from molecular to behavioral neuroscience. The curriculum of this new and exciting Ph.D. program reflects this comprehensive range of research interest and activity. The program will start in the fall of 1992. Generous stipend support is available on a competitive basis. Highly qualified individuals should send inquiries about the program to: **Dr. Nicolas G. Bazan, Director, Neuroscience Center of Excellence, 2020 Gravier Street, LSU Medical Center, New Orleans, LA 70112 or telephone: 504-568-6700, ext. 321; FAX: 504-568-5801.**

**POSTDOCTORAL POSITION** available February 1992 in molecular microbiology to join an interdisciplinary approach to *Salmonella* pathogenesis using molecular genetics, cell biology, and immunology to study plasmid-mediated virulence genes [*Mol. Microbiol.* 5, 307 (1991)]. Two-year funding is assured. Ph.D. degree and experience in molecular biology techniques are required. Please send curriculum vitae, research summary, and the names of three references to: **Dr. Donald G. Guiney, 8416, University of California, San Diego Medical Center, 225 Dickinson Street, San Diego, CA 92103. Affirmative Action, Equal Opportunity Employer.**

**DOCTOR OF ARTS IN BIOLOGICAL SCIENCES, FELLOWSHIPS** are available for persons interested in the D.A. degree in biological sciences. The program stresses preparation for undergraduate teaching at colleges and universities. Applicants must hold a master's degree in some area of biology. Deadline for receipt of application is 1 March 1992. For more information contact: **Chairman D. A. Committee, Department of Biological Sciences, Idaho State University, Pocatello, ID 83209. An 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.**

### C. H. BEST INSTITUTE POSTDOCTORAL FELLOWSHIP

In diabetes research, molecular endocrinology, molecular biology, differentiation, reproductive biology, immunology, structure and function of membranes or lipid metabolism. Tenable in the Banting and Best Department of Medical Research for 2 years after 1 July 1992 with a competitive stipend available to new Ph.D.s or candidates with less than 2 years of postdoctoral training by 30 June 1992. Send curriculum vitae, transcripts and three letters of reference, preferably before 15 January 1992 to: **Dr. Jennifer Dorrington, Fellowship Committee Chairman, Banting and Best Department of Medical Research, University of Toronto, Toronto, Ontario, Canada M5G 1L6.**

## POSITIONS OPEN

**POSTDOCTORAL FELLOWSHIP.** Immediate and 1 July 1992 openings for M.D., Ph.D. or D.V.M. in NINDS-funded training program. The training program includes senior investigators with interests in neuroscience, molecular biology, genetics, virology and immunology. Research is oriented toward the molecular and cellular basis of degenerative diseases of the nervous system. Emphasis is on multiple sclerosis and the immunologic aspects of Alzheimer, ALS, tissue injury and transplantation. *Applicants must be citizens or permanent residents eligible for NIH Training Fellowship. USC is an Affirmative Action Employer and minorities are encouraged to apply.* Please send curriculum vitae and the names of three references to: **Dr. Leslie P. Weiner, Department of Neurology, USC School of Medicine, Los Angeles, CA 90033-4606.**

### POSTDOCTORAL RESEARCH FELLOW

Research into the possible multifocal origin of human ovarian cancers. Involves the study of specific genetic alterations and markers in surgically removed tumors and tissues from different anatomical sites using immunoperoxidase and alkaline phosphatase staining and molecular biology techniques including *in situ* hybridization, cDNA cloning and DNA sequencing.

Requirements: Ph.D. in Anatomy. Three years experience in molecular biological research. Knowledge of gross anatomy, histology and embryology, expertise in laboratory techniques including scanning and transmission electron microscopy, monoclonal antibody production, immunohistochemistry involving frozen and paraffin sectioning, immunoperoxidase and alkaline phosphatase staining, tissue and cell culture techniques involving establishment of spheroid cell culture and soft agar cloning. Expertise in molecular biology techniques such as *in situ* hybridization, cDNA cloning, DNA sequencing and mobility shift assay.

Salary: \$27,000 per year for a 40 hour week. Please apply with two copies of a résumé to:

**Job Order #2100  
P.O. Box 8968  
Boston, MA 02114**

**POSTDOCTORAL RESEARCH ASSOCIATE** position available in mid-March 1992 for Plant Molecular Biologist and/or Plant Pathologist to study disease resistance in *Septoria*-infected wheats. Specific objective is to identify and isolate the disease resistant gene(s) at the USDA, Agricultural Research Service (ARS), Plant Molecular Biology Laboratory, Beltsville, Maryland. Preference to candidates with Ph.D. in plant molecular biology or plant pathology and knowledge in host-parasite interaction. Experience in cDNA library construction and gene manipulation is required. Salary commensurate with experience (\$31,116 to 37,294 per year). Send curriculum vitae and three letters of recommendation to: **Dr. Peter Ueng, USDA, ARS, Plant Molecular Biology Laboratory, Building 006, Room 118, 10300 Baltimore Avenue, Beltsville, MD 20705-2350. Telephone: 301-344-3308. Only U.S. citizens need apply. ARS is an Equal Opportunity Employer.**

**POSTDOCTORAL RESEARCH ASSOCIATE.** A 2-year research position available immediately. Areas of research include (i) cellular/molecular aspects of human ocular cell lines (in normal and degenerative diseases), and gene expression in neuronal/glial cell development. (ii) HIV/CMV interactions in ocular tissue cell lines.

Candidate should have a Ph.D. degree and a strong background in molecular biology/virology and/or immunology. Submit curriculum vitae and references to: **Dr. Kamla Dutt, Associate Professor, Department of Pathology, Morehouse School of Medicine, 720 Westview Drive, S.W., Atlanta, GA 30310. Telephone: 404-752-1769.**

**POSTDOCTORAL RESEARCH ASSOCIATE** position available immediately in an NIH-supported Clinical Dental Research Center. The project involves the development of cloning systems for defensins and related molecules, which show antibacterial activity against gram negative bacteria. Ph.D. required and experience in vector construction highly desirable. Send curriculum vitae, copies of relevant publications, statement of research and career goals, and the names and addresses of three references to: **Dr. Mark C. Herzberg or Dr. Ambika Mathur, Molecular and Cell Analysis Core, 17-164 Moos Tower, University of Minnesota, Minneapolis, MN 55455. The University of Minnesota is an Equal Opportunity Educator and Employer.**

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH FELLOW.** Primary mammalian epithelial cell culture. Steroid hormone receptor localization/regulation of cell proliferation. Role of growth factors and proto-oncogene expression. Starting salary: \$20,000 depending on experience. Position available 28 December 1991. Send curriculum vitae and names of three references to: **Dr. Jonathan J. Li, Hormonal Carcinogenesis Laboratory, College of Pharmacy, Washington State University, Pullman, WA 99164-6510. Washington State University is an Equal Opportunity/Affirmative Action Employer. Protected group members are encouraged to apply.**

### THE MORRISON MEMORIAL POSTDOCTORAL FELLOWSHIP

The Department of Biochemistry, St. Jude Children's Research Hospital (SJCRH), is enlarging its research efforts in the area of the molecular and cellular biology of signal transduction. As part of this expansion, the Board of Governors has established a memorial fellowship in honor of Dr. Martin Morrison, the founding chairman of the department. The research programs within the department are well equipped and offer recent Ph.D. or M.D. graduates the opportunity to participate in energetic multidisciplinary groups dealing with a range of basic and clinically oriented research. SJCRH offers a competitive stipend and annual review for reappointment. Current research programs within the department include:

- W. Y. Cheung: Regulatory properties and biological functions of calmodulin,  $Ca^{2+}$ -regulated enzymes and other  $Ca^{2+}$ -binding proteins.
- J. Cleveland: Transcriptional regulatory factors which control myeloid cell cycle progression.
- J. N. Ihle: Mechanisms of hematopoietic stem cell growth regulation, differentiation and transformation
- S. Jackowski: Cell cycle regulation of membrane phospholipid biosynthesis.
- C. Rock: Role of phospholipid-derived second messengers in growth factor action.

Applicants should submit a brief statement of their research interests, curriculum vitae, reprints, and the names of three references to:

**The Morrison Postdoctoral Fellowship  
Department of Biochemistry  
St. Jude Children's Research Hospital  
332 North Lauderdale  
Memphis, TN 38101**

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### Calendar of Upcoming Meetings

SCIENCE will be distributed to scientists attending the following meetings:

**MIAMI WINTER SYMPOSIUM**  
19 to 24 January 1992, Miami  
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**HPCE**  
9 to 13 February 1992, Amsterdam  
Issue date: 24 January 1992

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

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## Assistant Professor—Molecular Neurobiology Institute of Neurological Sciences University of Pennsylvania

Applications are invited for a tenure track position. The successful candidates will be expected to have several years of highly productive post doctoral research experience, be prepared to develop a vigorous independent research program in molecular neurobiology and participate in limited teaching of graduate and medical students. The successful candidate will have newly constructed laboratory space in the Institute of Neurological Sciences. Adjacent faculty in this space are involved in molecular studies of ion channels, optical measurements of excitable tissues, and molecular determinants of development. The Institute for Neurological Sciences includes more than 120 investigators located in many departments and provides a strong and diverse neuroscience community.

Applicants should submit a curriculum vitae including a list of publications and selected reprints, a short statement of past experience and future research plans, and ask three references to send letters to: **Dr. Jon Lindstrom, Chairman of the Molecular Neurobiology Search Committee, Mahoney Institute for Neurological Sciences, Medical School of the University of Pennsylvania, 217 Stemmler Hall, 36th & Hamilton Walk, Philadelphia, PA 19104-6074.** The University of Pennsylvania is an equal opportunity employer, and we encourage applications from qualified women and minorities.



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## STANFORD UNIVERSITY RESEARCH ASSOCIATE POSITION IN X-RAY ABSORPTION SPECTROSCOPY AT SSRL

The Biotechnology Group at the Stanford Synchrotron Radiation Laboratory (SSRL) has an opening for a Ph.D. scientist with research interests and experience in x-ray absorption spectroscopy (XAS). SSRL has a vigorous program with a large user base in XAS using synchrotron radiation from the dedicated 3 GeV storage ring SPEAR. There are currently 9 dedicated or time-shared XAS hard x-ray stations on SPEAR, for which facilities have been developed for dilute protein XAS data collection (as well as for other materials applications). Each of these stations is computer-controlled by a VAXstation through CAMAC. The instrumentation provided includes solid state array detectors, LHe cryostats and other standard equipment. Extensive user support is given in the use of this instrumentation, experimental setup, training and advice. This includes support of the use of XAS data acquisition software and computer hardware. The RA will have the opportunity to participate in the further development of new instrumentation and techniques for XAS studies. Included are developments of advanced, computer-controlled multi-element solid state array detectors, time-resolved XAS spectroscopy, advanced methods for XAS data analysis, and XAS studies in the soft x-ray spectral region. SSRL offers an RA 50% of her/his time to pursue individual and/or collaborative research projects. Funds for materials/supplies and capital equipment, as well as staff priority beam time, are also provided. For the other 50% time, the RA will advise and assist visiting users and participate in beam line and experimental facility (and methodology) development projects such as those described above. A willingness to provide good quality user support is considered to be a very important part of this staff position. Extensive experience in x-ray absorption spectroscopy is required. Experience in software development on VAX systems in Fortran and C, and in real time instrument control would be helpful. Salary will be determined by level of experience. The initial appointment period could be for up to 3 years, and the position includes full Stanford University staff benefits. Interested applicants should send a CV, a list of publications and the names and telephone numbers of three references, together with a brief description of their research interests to Dr. Britt Hedman, SSRL, Stanford Linear Accelerator Center, P.O. Box 4349, M.S. 69, Stanford University, Stanford, California 94309, USA. Application deadline is February 1, 1992; however, early application is recommended since applications will be reviewed as received. For further information, contact Dr. Hedman at (415) 926-3052; Internet: Hedman@ssrl01.slac.stanford.edu; Bitnet: Hedman@ssrl750. Stanford University is an equal opportunity, affirmative action employer.

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For consideration, please send your resume to: Bio-Rad Laboratories, Attn: Michael Yoon, Dept.#552, 1000 Alfred Nobel Dr., Hercules, CA 94547. EOE M/F/H/V.

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## NEW YORK STATE ENERGY RESEARCH & DEVELOPMENT AUTHORITY

### PRESIDENT

The New York State Energy Research and Development Authority, nationally recognized for energy programs, seeks candidates for the position of President. The Authority is a public benefit corporation with programs in energy and related environmental research, radioactive and hazardous waste management and tax-exempt bond financing. The successful candidate will have a commitment to public service, a proven track record of leadership in an energy/environment/economic development setting, and strong management skills, with the ability to develop cost-efficient, quality programs. Five years senior management experience including policy development, demonstrated public policy sensitivities, strong communication skills and advanced degree required. Financing experience a plus. Salary in the \$80s and good benefits package. Send a resume, fully describing training and experience, to NYS Energy Research and Development Authority, Attn: JCK, Two Rockefeller Plaza, Albany, NY 12223. *an equal opportunity employer*

## National Institutes of Health RESEARCH SCIENTIST/ POSTDOCTORAL FELLOW (Molecular Biologist)

The Laboratory of Cellular Development and Oncology, National Institute of Dental Research seeks an outstanding candidate with graduate education and/or experience in Pharmacology, Biochemistry or Molecular Biology for a senior postdoctoral fellowship position. Applicants should have at least 2 years postdoctoral training and research experience in signal transduction through G proteins and G protein-coupled receptors as well as signalling through non-receptors and receptor-tyrosine kinases. Additionally, the applicant should be familiar with radioreceptor binding assays, in-vitro receptor radioautography, in-vitro and in-vivo pharmacology, tissue culture techniques including biological assays for mitogens and transforming genes, DNA recombination techniques including construction of cDNA libraries, construction of mutant and chimeric molecules and expression of cloned genes in mammalian cells using recombinant retroviral vectors. A substantial record of publications of original work in these areas is required. Starting salary will be commensurate with qualifications and experience. Interested candidates should submit a curriculum vitae, several reprints, summary of research interests and names of three references no later than **January 17, 1992**. Material should be sent to: **Faye M. Harbrant, Personnel Management Specialist, National Institute of Dental Research, National Institutes of Health, Bldg. 31, Rm. 2C23, 9000 Rockville Pike, Bethesda, MD 20892.**

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## POST-DOCTORAL SCIENTISTS

SmithKline Beecham Animal Health, a world leader in innovative research and development, has openings for Post-Doctoral Scientists to join its expanding animal biological research and development effort.

Research opportunities exist in virology, bacteriology, parasitology for immunologists, virologists, molecular biologists, biochemists and protein chemists.

Biological Research and Development is centered in Lincoln, NE with a team of immunoparasitologists and molecular biologists located in Philadelphia, PA. We are seeking post-doctoral scientists at both locations for two years, beginning January, 1992.

### Philadelphia

#### IMMUNOLOGIST

- Ph.D. in immunology with 2-3 years experience in isolation and characterization of immune regulatory functions.
- Strong background in bioresponse assays to measure immune regulatory response from vaccinated animals.

#### BIOCHEMIST

- Ph.D. in biochemistry with 2-3 years experience in isolation and characterization of parasite or host cell macromolecules.
- Strong background in receptor/ligand biochemistry.
- Experience in parasitology and molecular biology.

#### MOLECULAR CELL BIOLOGIST

- Ph.D. in molecular or cell biology with 2-3 years experience in cell growth differentiation.
- Strong background in molecular and cellular regulation of transcription and translation.
- Experience in utilization of microcarrier or suspension systems for cell line amplification.

Further information can be obtained from Dr. Timothy J. Miller at 215/276-7204. For confidential consideration, please send your C.V. and the names of three references to: Dr. Timothy J. Miller, SmithKline Beecham Animal Health, 709 Swedeland Road, L34, King of Prussia, PA 19406-0939.

### Lincoln

#### MOLECULAR BIOLOGIST

- Ph.D. in molecular biology, preferably with 2-3 years of experience in yeast expression.
- Experience in the development and application of analytical methods to track expressed proteins.
- Experience in the physicochemical characterization of expressed proteins.

#### VIROLOGIST (2 positions)

- Ph.D. in virology, preferably with 2-3 years experience in the molecular virology or immunology of coronaviruses or retroviruses.
- Experience in animal experimentation and cell culture.
- Experience in the development of immunoassays, both humoral and cellular, or the applications of PCR technology.

#### IMMUNOLOGIST/MOLECULAR IMMUNOLOGIST

- Ph.D. in immunology or molecular immunology with 2-3 years of experience in the identification of protective immunogens of viral pathogens.
- Experience with both humoral and cell-mediated immune assays in animal models.
- Experience in antigen identification, characterization, purification and quantitation.

Further information can be obtained from Dr. Kevin Fahey at 402/473-2553. For confidential consideration, please send your C.V. and the names of three references to: Mr. Eric Erickson, SmithKline Beecham Animal Health, 601 West Cornhusker Highway, Lincoln, NE 68501-0809.

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## IMMUNOCHEMIST, ANTIBODY PERFORMANCE ENGINEERING TEAM

*The successful candidate will develop methods capable of effectively identifying, selecting, and characterizing the activity of engineered antibodies, and bio-synthetic receptors, along with conventional antibodies. Will be pivotal member of the project team.*

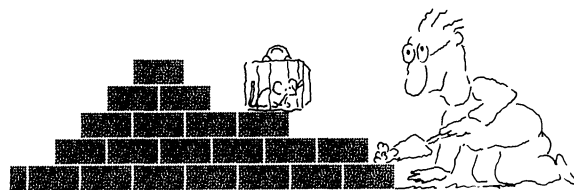
*Requires Ph.D. in Molecular Immunology or Immunochemistry, as well as a published record of accomplishment including state of the art assay methods. Must have 3 to 5 years of experience utilizing a variety of immunoassay systems. Strong quantitative and analytical skills with mathematical and statistical background to address binding constant derivatization also needed. Industrial experience with immunoassay applications preferred. A working understanding of modern molecular biology techniques and their potential for antibody development and experience with recombinant-derived material would be a plus.*

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# Associate Director Immunology

Wyeth-Ayerst Laboratories, a major division of Fortune 100 American Home Products Corporation, is currently seeking an established investigator with expertise in cellular immunology or cell adhesion molecule research. The successful candidate will possess a proven track record of innovative research and will have a clear vision of future drug discovery opportunities in Immunology.

Build upon our success with rapamycin to develop and manage research efforts in immunosuppression, autoimmunity, and cell adhesion molecules. Collaboration with other investigators, and maintenance of an active presence in the scientific community will be expected.

Qualifications include a PhD in Immunology or a related medical science plus at least 8 years of post-doctoral experience. A strong publications record in leading journals and well-developed interpersonal and verbal/written communications skills are required.

Wyeth-Ayerst offers an excellent compensation and benefits package in a highly professional environment. Our research laboratory is just minutes away from Princeton University and is convenient to many other cultural, educational and leisure activities. Please forward resume with salary requirements to: **WYETH-AYERST RESEARCH, Personnel Manager, Position #379, CN 8000, Princeton, NJ 08543-8000**. An equal opportunity employer, M/F/D/V responses encouraged. Principals only.



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We seek candidates to establish *in vivo* models of thrombosis and thrombolysis, and aid in the discovery of novel antithrombotic agents. Requirements include a PhD in Pharmacology, Physiology or related discipline and a minimum of 2 years post-doctoral experience. Drug discovery experience is highly desirable. (Position # RS-79-91)

## MOLECULAR VIROLOGY Research Scientist



We seek candidates experienced in virology, molecular biology and/or protein biochemistry to perform research on human viruses and assist in the development of screening assays for the discovery of new antiviral agents. Requirements include a BS in the Life Sciences and a minimum of 2 years related experience, or an MS. Laboratory experience in virology or molecular biology and experience in cell culture and radioisotope techniques are highly desirable. (Position # RS-75-91)

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## POSITIONS OPEN

**RESEARCH ASSOCIATE/POSTDOCTORAL.** Position in cerebral blood flow regulation and cerebral ischemia research, including therapy evaluation and autonomic function in cerebral ischemia available immediately. Nationally funded projects with competitive salary. Research will involve either (1) studying normal cerebral blood flow regulation and its application to cerebral ischemia, (2) potential therapies and diagnostic methods for very early focal cerebral ischemia, and (3) autonomic and endocrine dysfunction during cerebral ischemia. Techniques for cerebral blood flow include quantitative autoradiography, laser Doppler flowmetry or microthermal conductivity. A knowledge of animal physiology and surgery preferred. Send curriculum vitae, a summary of research interests and three references to: **Dr. S. C. Jones, Cerebrovascular Research Laboratory, NC3-104, The Cleveland Clinic Foundation, One Clinic Center, 9500 Euclid Avenue, Cleveland, OH 44195-5286. Smoke-free environment. An Equal Opportunity Employer, M/F/H/V.**

**POSTDOCTORAL/SENIOR RESEARCH ASSOCIATE POSITIONS(S) IN ELECTROPHYSIOLOGY** are available to researchers interested in a multidisciplinary approach to the regulation and neuromodulation of receptor-operated ion channels. Receptor systems under investigation include the glutamate, GABA and glycine receptors. Some of the techniques in use are whole-cell, patch-clamp, and oocyte electrophysiology combined with molecular biology. Salary: \$23,000 to \$35,000. Send curriculum vitae and references to: **Dr. David H. Farb, Chairman, Department of Pharmacology, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118. Equal Opportunity/Affirmative Action Employer.**

## RESEARCH ASSOCIATE

The Division of Bone and Mineral Metabolism, Medical University of South Carolina and Charleston VA Medical Center, seeks applicants with a Ph.D. and postdoctoral training in cell and molecular biology for a tenure-track position of research associate. The successful candidate is expected to join a well-funded laboratory at the VA Medical Center and collaborating scientists at the Medical University to investigate functions of osteoblasts and osteoclasts using modern biochemical techniques and to develop a strong research program. Application for an academic appointment in a basic science department at the Medical University is strongly encouraged. Send applications with curriculum vitae, list of publications, one-page summary of past accomplishments, and one-page plan of future research and have three letters of recommendation sent to: **Dr. Norman Bell, VA Medical Center, 109 Bee Street, Charleston, SC 29401-5799. The Medical University of South Carolina is an Affirmative Action/Equal Opportunity Employer.**

**RESEARCH ASSOCIATE** for university in central Ohio. Designs and performs laboratory research to study the regulation of prolactin gene expression in human decidua as compared to that in the normal pituitary; develops new methodologies to study gene expression at both the transcriptional and translational levels in the human decidua; purifies DNA/RNA from tissue, clones DNA, performs deletion analysis and Southern hybridization, handles radioisotopes and radiolabeling and other recombinant DNA and protein purification techniques; collects and analyzes data and assists in the preparation of grants/manuscripts for publication. No experience required in the duties described, but applicants will qualify with the following: M.S. in biology or molecular biology and 2 years of experience in processing human tissue, construction and screening of genomic libraries and DNA sequencing; or the 2 years, at least 1 year experience in amplification of DNA by polymerase chain reaction, purification of RNA, Northern blot analysis, protein purification and characterization and operation of IEF rotator; experience may be gained concurrent with degree. Or, in the alternative, a bachelor's degree in biology or molecular biology, 2 years of research experience in the field of molecular biology and the above-described experience requirements. Forty hours per week, 8:00 a.m. to 5:00 p.m., Monday through Friday (some evening and weekend work required); \$21,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **G. Maugans, JO#1260338, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

## POSITIONS OPEN

**RESEARCH ASSOCIATE.** Stanford University/Primate Facility, Laboratory of Developmental Psychobiology. Ph.D. to help direct NIMH-supported laboratory studying behavioral and endocrinological aspects of mother-infant relationships in squirrel monkeys. Knowledge of behavioral techniques and endocrinological methodologies is required. Send curriculum vitae and three references to: **Seymour Levine, Ph.D., Laboratory of Developmental Psychobiology, Primate Facility, 7-930T, Department of Psychiatry, Stanford University Medical School, Stanford, CA 94305-5095. Stanford University is an Equal Opportunity Employer through Affirmative Action.**

**RESEARCH ASSOCIATE.** Requirements are a Ph.D. in basic medical science with a major in pharmacology along with 2 years of experience in position or 2 years of diabetes research. Must demonstrate ability to conduct research which would be published in scientific journals. Will serve as an independent investigator to develop a suitable noninsulin-dependent diabetic rat model of human periodontitis, which would eventually address questions of clinical relevance to dentistry. Hours 9:00 a.m. to 5:00 p.m. Forty hours per week. Salary \$22,000 per calendar year. Apply or send résumé to: **Ms. Deborah Abernathy, Alabama State Employment Service, P.O. Box 190399, Mobile, AL 36619** or apply at any Alabama Employment Service Office. **Job Order #AL0625429. Equal Employment Opportunity.**

## UNIVERSITY MEDICAL SCHOOL PERMANENT POSITION SENIOR RESEARCH ASSOCIATE SECTION LEADER ACADEMIC APPOINTMENT POSSIBLE

Experienced biochemist/cell biologist at University Medical School, H. M. Bligh Cancer Research Laboratory. Bench work-oriented individual with meticulous working habits for in-depth investigations of role of human carcinoma cell membrane glycoconjugates in tumor establishment. Technical and postdoctoral help available. Especially outstanding salary and benefits in view of the importance of the research task, not grant-dependent. Send curriculum vitae, details of bench-work expertise, and bibliography to: **Box 538, Lake Bluff, IL 60044. Equal Opportunity Employer, M/F.**

## AQUATIC ECOLOGIST/LIMNOLOGIST ILLINOIS NATURAL HISTORY SURVEY

The Center for Aquatic Ecology at the Illinois Natural History Survey invites applications from Ph.D.-level scientists for an anticipated full-time, state-supported, career-track research position at the **ASSISTANT PROFESSIONAL SCIENTIST** level. Possible research areas cover a broad range of freshwater systems from small streams and ponds to large rivers and the Great Lakes. The position is at the Survey's Champaign, Illinois laboratories, located at the University of Illinois, where many Survey scientists have academic affiliations. Candidates should have demonstrated potential to initiate, perform, and obtain support for independent research. Postdoctoral experience preferred. Starting date: 1 June 1992. Please send curriculum vitae, statement of research interests and the names, addresses and telephone numbers of four referees to: **Ms. Jacqueline Sanders, Personnel Officer, Illinois Natural History Survey, 607 East Peabody Drive, Champaign, IL 61820.** For full consideration, applications should be received no later than 31 January 1992.

*The Illinois Natural History Survey is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.*

Immediate opening for a **PLANT SCIENTIST** to support research and development activities related to the Controlled Ecological Life Support System Program. Ph.D. with minimum of 3 years of experience in greenhouse or growth chamber work related to crop science or biomass production required. Experience in crop physiology, agroecology, agronomy, plant nutrition, plant physiological ecology or other related areas is preferred. Experience in use of crop or ecosystem modeling/simulation techniques desirable. Work with interdisciplinary team of engineers/scientists in research and operational studies of bioregenerative processes for food production and recycling of water, oxygen, and carbon dioxide. Submit résumé to: **Personnel, The Bionetics Corporation, BIO-1, Kennedy Space Center, FL 32899. Equal Opportunity Employer, M/F/V/H.**

## POSITIONS OPEN

**ASSOCIATE RESEARCH SCIENTIST,** New Haven, Connecticut. Work on the detailed stereochemistry of genetic regulation. Isolate relevant macromolecules from overproducing bacterial clones and synthetic sources. Form large, well-ordered crystals suitable for x-ray crystallography. Collect data on state-of-the-art detectors and process the data with high-speed computers. Determine the crystal structure of the macromolecular species and refine the molecular model to the point of visualization of the molecular mechanism of action. Ph.D. degree in medicinal chemistry. Experience in crystallographic research, protein isolation and purification, oligonucleotide purification, and crystallographic computing. Monday through Friday, 40 hours per week. Salary: \$25,000 per year. *Must have proof of legal authority to work in the United States.* Send résumé to: **Job Service Technical Unit, Connecticut, Department of Labor, 200 Folly Brook Boulevard, Wethersfield, CT 06109. Job Order No. 3094030. No calls please.**

**ASSISTANT EXTENSION, VETERINARY ENTOMOLOGIST.** Eleven-month, research and extension career track. Research and arthropods of veterinary importance and integrated pest management of poultry and livestock. Ph.D. in entomology or related fields required. Research experience and interest in veterinary entomology desirable. Send curriculum vitae, bibliography, reprints, manuscripts in press, Ph.D. dissertation abstract, names of four references and research interest statement by 17 February 1992 to: **Dr. M. S. Mulla, Department of Entomology, University of California, Riverside, CA 92521. University of California is an Equal Opportunity/Affirmative Action Employer.**

**ASSISTANT SCIENTIST**—Perform research in organic synthesis, using NMR ( $^1\text{H}$  &  $^{13}\text{C}$ ), IR, UV, GC, HPLC; keep up to date on current developments; assist in managing and organizing laboratory and supervising students in thesis research. Ph.D. in organic chemistry. One year in job or 1 year as organic research chemist utilizing NMR ( $^1\text{H}$  &  $^{13}\text{C}$ ), IR, UV, GC, HPLC. Must have minimum three papers in refereed journals in organic synthesis. Forty hours per week; 9 a.m. to 5 p.m. Salary: \$22,000 per year. Send résumé to: **Job Service of Florida, 1307 North Monroe Street, Tallahassee, FL 32303. Ref: Job Order Number FL-0523044.**

## DEPARTMENT OF AGRICULTURE (USDA) AGRICULTURAL RESEARCH SERVICE (ARS)

**RESEARCH ENTOMOLOGIST/INSECT PHYSIOLOGIST,** Fruit and Vegetable Insect Research Unit, Yakima, Washington. ARS seeks a permanent full-time person to develop physiological aspects of a research program aimed at meeting quarantine requirements for arthropod pests of deciduous fruits. The successful candidate will be a part of a team developing new knowledge and using it to develop new and improved approaches to meeting quarantine requirements. Ph.D. is desirable. *Must be a U.S. citizen.* Salary is commensurate with experience, GS-11/12 (\$31,116 to \$48,481). For information on this position, contact: **Dr. James L. Krysan at 509-575-5945.** For information on application procedures/forms, contact: **Michael Wiggert at 509-575-5877, USDA-ARS, 3706 West Nob Hill Boulevard, Yakima, WA 98902.** Inquiries in response to this advertisement should be received by 27 December 1991. *ARS is an Equal Opportunity Employer.*

**TECHNICAL STAFF-PHYSICS.** Ph.D. in nuclear physics. One year, 6 months of experience in job offered or 1 year, 6 months of experience as a postdoctoral in theoretical nuclear physics. Experience should include the foundations of hadron physics and its connection to quantum chromodynamics; specifically study of quark confinement and dynamical chiral symmetry breaking in the continuum. Recognized nationally and internationally for work in this field. The above evidenced by a minimum of five publications in refereed journals. Perform basic research in the field of theoretical nuclear physics. Publish the results of this work in refereed journals. Interact with experimental nuclear physicists and other theorists at national laboratories and universities, both in this country and abroad. Recognized as a leader in theoretical research at the interface between nuclear and particle physics. Salary: \$3850 per month, 40 hours per week, 8:30 a.m. to 5:00 p.m. Send résumés to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605, Attention: Leon Donegan, Reference #V-IL 3773-D.** No calls. *Must have proof of legal authority to work permanently in the United States. An employer-paid ad.*

## Director of Division of Comparative Medicine

Washington University in St. Louis, a nationally recognized center for biomedical research and training, is seeking a Director for its Division of Comparative Medicine.

Applicants (DVM) should be board-certified by ACLAM with administrative experience, have an appreciation for biomedical research, and the ability to interact with a large faculty with diverse research interests.

Washington University has committed to a major replacement and expansion of animal facilities to 134,000 NSF over the next five to seven years. The initial phase of construction will begin in the Spring of 1992. The Director will be expected to participate in the decision-making and planning for these facilities.

Currently, Washington University employs five veterinarians. A veterinary pathologist has recently been recruited, and a diagnostic research facility established. A postdoctoral training program has also been developed with two additional veterinarians in residence.

The Director will be expected to recruit appropriate veterinarians and support staff; strengthen our postdoctoral training program; and participate in the development of all other programs consistent with developing a high quality animal care and use program.

Applicant should submit *curriculum vitae* and four letters of reference to:

Theodore J. Cicero, PhD  
Chairman, Veterinary Search Committee  
Washington University Medical School  
660 South Euclid Box 8025  
St. Louis, MO 63110

Washington University is an equal opportunity/affirmative action employer

## Molecular Biologist

### Institute for Biomolecular Science/ Department of Biology University of South Florida

The University of South Florida **Institute for Biomolecular Science**, an interdisciplinary consortium of University faculty and scientists, and the **Department of Biology** invite applications for a tenure-track position at the level of Assistant or Associate Professor. Candidates should have a Ph.D. and postdoctoral research experience in the area of **eucaryotic molecular biology** (plant or animal). This is one of four positions and an Endowed Chair that will be filled by the Institute over the next two years as part of a State-funded expansion program. The position is funded through the Institute, with academic appointment in the Department of Biology. Excellent laboratory facilities, start-up funds, and opportunities for collaboration are available. Title and salary (nationally competitive) will be commensurate with qualifications and experience. The successful candidate would be expected to establish a strong, externally-funded research program, to train graduate students at the Ph.D. level, and to teach an undergraduate course such as cell biology or general genetics and a graduate course in her/his area of specialty. The position offers an excellent opportunity for professional growth in an attractive living and working environment. The University of South Florida is a comprehensive research and teaching university located in the Florida Gulf Coast area, a region of the State recognized for its rapid growth and high technology focus. Applicants should forward a letter of interest, *curriculum vitae*, reprints of representative recent publications, and statements of research and teaching interests. Candidates should also arrange for three letters of recommendation to be forwarded. Deadline for receipt of applications, supporting documents, and letters is January 24, 1992. Address all materials and correspondence to: Dr. Gregory J. Stewart, Chairperson, Molecular Biology Search Committee, Institute for Biomolecular Science, LIF 136, University of South Florida, Tampa, Florida 33620-5150.

*The University of South Florida is an Equal Opportunity/Affirmative Action Institution and encourages applications from minorities, women, and the handicapped. According to Florida law, application files and meetings to review applicant files are open to the public.*

## CANCER RESEARCH INSTITUTE INVESTIGATOR AWARDS

The Cancer Research Institute is planning to grant its Investigator Award to a minimum of five qualified immunologists in 1992. The award is \$50,000 per year for four years. The funds may be used at the discretion of the recipient for salary, technical assistance, supplies, or capital equipment. The Cancer Research Institute does not provide funds for administrative overhead.

The deadline for receiving applications is March 1, 1992. Funding for the Investigator Awards will commence on July 1, 1992.

Candidates must hold a doctoral degree and work in the field of tumor immunology or general immunology. Eligibility is limited to scientists who will be in their first or second year as assistant professor (or equivalent rank) as of July 1, 1992. Please note that individuals who will begin their third year as assistant professor on July 1, 1992, are not eligible for the award. The Institute has no citizenship restrictions, and research supported by the award may be conducted anywhere in the United States or abroad, excluding private-sector for-profit laboratories.

For application details, please contact:

Ms. Lynne Harmer, Grant Administrator  
Cancer Research Institute  
133 East 58th Street  
New York, NY 10022  
212-688-7515

## UNIVERSITY OF CALIFORNIA, DAVIS

### Novo Nordisk Fellowships in Enzyme Technology/Molecular Biology

The College of Agricultural and Environmental Sciences, University of California, Davis invites applicants for two graduate fellowships in enzyme technology/ molecular biology to be funded by a grant from Novo Nordisk. The fellowship provides first-year funding of up to \$20,000, including tuition and fees. Applicants must submit a completed application for Graduate Admission and Fellowship, a Novo Nordisk Fellowship application, a Statement of Purpose, GRE scores, official transcript, 3 letters of recommendation, and a departmental application, if required. Applicants are encouraged whose areas of research interest include: **Food Science and Technology, Agricultural and Environmental Chemistry, Animal Science, Biochemistry, Enzymology, Microbiology**. For further information and applications, contact:



College of Agricultural &  
Environmental Sciences  
University of California  
Davis, CA 95616 (916) 752-0107



Novo Nordisk

Application deadline is January 15, 1992

UC Davis is an equal opportunity institution

## POSITIONS OPEN

**SENIOR SCIENTIST:** Conduct exploratory research in new materials. Prepare, characterize and perform applications test on new materials. Projects include preparation of dendritic polymers, porous polymers, sensors, novel monomers, and photoactive materials. Prepare written and oral presentations of research. Requirements: Ph.D. in polymer chemistry with background in polymer synthesis and characterization, fabrication and testing of electronic and sensor devices, morphology and trace-gas analysis and monitoring. Must have outstanding academic background. Forty hours per week; \$49,500 per year; curriculum vitae or résumé to: **Philadelphia Job Bank, 444 North 3rd Street, Philadelphia, PA 19123, JO #4430400.**

**RESEARCH SCIENTIST.** Saint Francis Hospital and Medical Center, located in Hartford, Connecticut, is seeking a candidate to join our Department of Research and Heart Institute to establish a new program in vascular biology. Candidates should have completed a doctorate degree and a postdoctorate fellowship and have prior experience in molecular aspects of vascular cells. Candidates will be eligible for an appointment at the University of Connecticut School of Medicine. Interested individuals should send a résumé and references to: **Dr. Ernesto Canalis, FAX: 203-548-5415, Saint Francis Hospital and Medical Center, 114 Woodland Street, Hartford, CT 06105-1299.** (Pre-employment drug testing.) *Equal Opportunity Employer/Affirmative Action, M/F/D/V.*

**RESEARCH TECHNOLOGIST.** Must perform neuropharmacological, toxicological and physiological studies, involving the assaying of brain cells, tissue culture and neurochemical analysis relating to such diseases as Parkinsonism and Alzheimers disease; must generate brain hybridoma cell lines by somatic cell fusion; must maintain hybridoma cells in culture and cryostorage; must perform neurodissection of discrete lesions in mouse brain to generate model system for Parkinson's disease; culture and maintenance of three-dimensional reaggregates culture system; use of High-Pressure Liquid Chromatography with Electrochemical Detection; assaying mRNA using Northern Blot analysis and preparation of radioactive cDNA probes for Northern Blot analysis and generation of cDNA probes using recombinant DNA technology in bacteria. Forty hours per week; 8:00 a.m. to 5:00 p.m.; \$22,460 per year; overtime as needed. Must have M.Sc. in a biological science and 1 year of experience in the offered position or as research technician (in a neuropharmacological, toxicological, or physiological laboratory). Required experience must have included use of High-Pressure Liquid Chromatography with Electrochemical Detection; assaying mRNA using Northern Blot analysis and preparation of radioactive cDNA probes for Northern Blot analysis and generation of cDNA probes using recombinant DNA technology in bacteria. *Must have proof of legal authority to work permanently in the United States.* Send two copies of résumé to: **Illinois Department of Employment Security, 401 South State, 3-S, Chicago, IL 60605; Attention: Jack Schaffer, Ref. No. V-IL-4117-J.** No calls. *An employer-paid ad.*

**TECHNICAL STAFF-PHYSICS.** Ph.D. in physics. Three years of experience in the job offered or three years of experience as a physics researcher. Research experience should include elementary particle physics, including high energy detector designs using Monte Carlo codes, algorithms, and physics analysis, high and low energy particle transport, and benchmarking prototype experiments with the Monte Carlo codes. All of the above evidenced by five to ten publications in refereed scientific journals. Responsible for contributing to the understanding and advancement of elementary particle physics by executing experimental research projects, specifically the design of and physics and calorimeter simulation of Super Collider detectors; software development and Monte Carlo simulation studies for detector design on the CRAY, VAX, IBM, and UNIX computers using simulation codes systems such as CALOR89, EGS4, PHTHIA, and GEANT. Areas of study in high energy physics include the development of computational algorithms for calorimetry simulations and planning, analysis of test beam prototype experiments, and calorimeter performance. Salary: \$3,550 per month; 40 hours per week; 8:30 a.m. to 5:00 p.m. Send résumés to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605, Attention: Richard Weston, Reference #V-IL 3487-W.** No calls. *Must have proof of legal authority to work permanently in the United States. An employer-paid ad.*

## POSITIONS OPEN

### MEDICAL PHYSICIST

Community Hospital seeks individual with M.S. in physics for progressive radiation therapy department equipped with a Mevatron 67 Linear Accelerator, simulator, and a Zephyr x-ray unit, offering all types of brachytherapy, including iodine, cesium, and iridium. Computer treatment planning using the ROCS system. Scanning water tank system is also available. Position is full-time, 8:00 a.m. to 4:30 p.m., hourly rate \$22.72—salaried.

*Must have proof of legal authority to work permanently in the United States. Send résumé to:*

**Illinois Department of Employment Security  
401 South State Street—3 South  
Chicago, IL 60605  
Reference # V-IL-4051-R no calls  
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## COURSES AND TRAINING

### CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain the Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education and research. Contact: **Dr. D. Chauncey, Program Director, Accelerated Program, The New England College of Optometry, Room 5, 424 Beacon Street, Boston, MA 02115.**

### BIOLOGY OF DISEASE VECTORS

14 June to 27 June 1992

**COLORADO STATE UNIVERSITY  
FORT COLLINS, COLORADO**

This unique course introduces students to the biology of vectors of infectious diseases, emphasizing current molecular biological, genetic, biochemical, and physiological research. Important aspects of vector biology, including host-seeking, blood-feeding, organ structure-function, gene regulation, vector manipulation and containment, and control, will be covered and followed by in-depth analyses of selected major vector-borne diseases systems. Faculty are from the MacArthur Foundation Network on the Biology of Parasite Vectors.

The course is designed for advanced graduate students, postdoctoral fellows, and independent investigators. The course can be taken for college credit. Accommodations are located on the main campus of Colorado State University (CSU), near lecture and laboratory facilities. Vector-pathogen experimentation and demonstrations will be conducted in the containment facility of the Arthropod-borne and Infectious Diseases Laboratory (AIDL) of the CSU Foothills Campus.

Limited to 30 students. Enrollment is competitive. Financial aid (based on need) will be available. Application deadline is 28 February 1992. For information and application forms, contact: **Dr. Barry Beaty (303-491-6794 or 491-8604), AIDL, Foothills Campus, Colorado State University, Fort Collins, CO 80523.**

## ANNOUNCEMENTS

### CALL FOR RESEARCH PROPOSALS

The Johns Hopkins Center for Alternatives to Animal Testing (CAAT) is soliciting proposals for the 1993-94 grant period. Projects should be focused on investigating the fundamental knowledge needed to develop alternative methods to the use of whole animals for safety/hazard evaluation, risk assessment and efficacy. CAAT encourages the investigation of in vitro approaches to evaluating cellular and target organ toxicity. Some examples are: developing new cell culture systems, applying current testing methodology to human cells/cell lines, and designing new, mechanistic, state-of-the-art methods that may utilize cultured cells, computer technology (e.g. structure-activity relationships), or any other system applicable to toxicity/efficacy evaluation. To apply, submit a one-page preproposal abstract (no specific format required) to: **Ms. Joan Poling, CAAT, 615 North Wolfe Street, Baltimore, MD 21205; Telephone: 410-955-3193; FAX: 410-955-0258.** If the preproposal is accepted, investigators will be invited to submit a full proposal and will receive application preparation guidelines. Deadline for submission of abstracts is 13 March 1992.

## POSITIONS OPEN

### MOLECULAR VIROLOGIST

Research scientist and postdoctoral positions available for individuals with expertise in molecular virology, cloning and expression of viral genes to join a group working on the molecular biology of herpesvirus, rotavirus, coronavirus and pestiviruses. Individuals with expertise in molecular pathogenesis, novel systems for vaccine delivery and immunology are also encouraged to apply.

Please send your curriculum vitae to:

**Dr. Lorne A. Babiuk  
Associate Director (Research)  
Veterinary Infectious Disease Organization  
124 Veterinary Road  
Saskatoon, SK  
S7N 0W0  
Canada**

**RESEARCH SCIENTIST.** To find and assist in commercial manufacture of biocide formulations for industrial applications including wood, leather, emulsion and metalworking, fluid preservatives, paint-film mildewcides and papermill slimes. R&D of stable liquid, solid, emulsion, microemulsion and colloidal formulations of biocides with emphasis on anionic, cationic, nonionic and amphoteric surfactants involving hydrophobic and hydrophilic molecules. Required Ph.D. in chemical engineering and 2 years of experience as research associate with strong postgraduate training in chemical engineering and physical chemistry. Experience must have included colloid chemistry and surfactant science as well as use of light scattering, electron microscopy and polarized microscopy with outstanding research and publication background. Forty hours per week; \$51,000 per year; submit résumé or curriculum vitae to: **Philadelphia Job Bank, 444 North 3rd Street, 3rd Floor, Philadelphia, PA 19123, Job Order No. 44-30387.**

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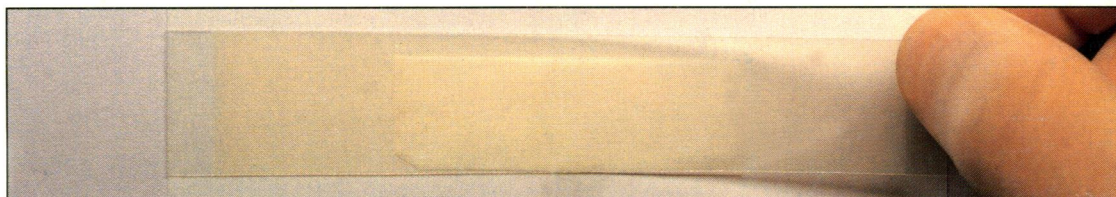


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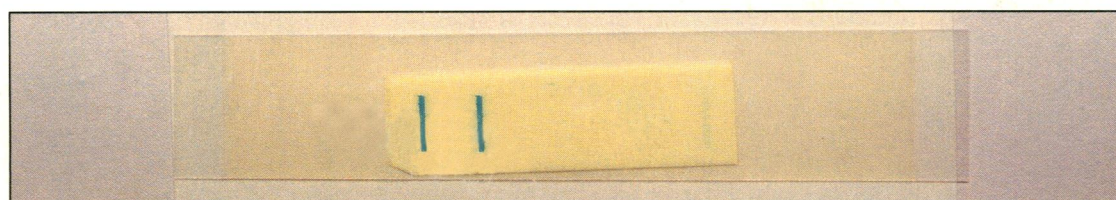
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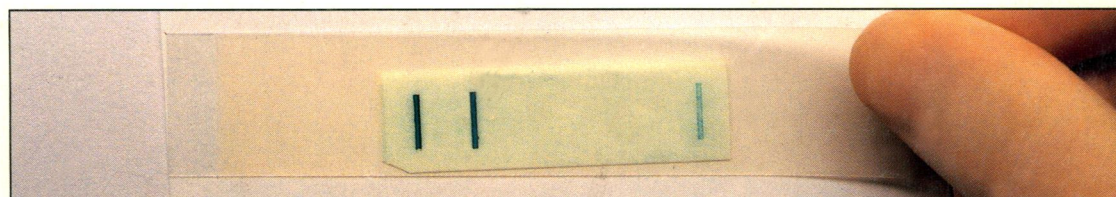
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