

### Personal Capillary Electrophoresis System

Model 3850 Electrograph is a compact system designed to bring the power of capillary electrophoresis (CE) to the individual researcher. It supports a full range of CE modes including micellar electrokinetic cap-



illary chromatography and conventional free-solution methods with coated and non-coated capillaries. Model 3850 features a 30-kV reversible-polarity power supply and 190- to 360-nm variable detection with femtomole sensitivity. Isco. Circle 437.

### Interactive Plotting Software

Version 4.0 of TECPLOT, and interactive three-dimensional (3D) scientific plotting package for Unix workstations adds powerful 3D visualization capabilities to the previous version's capability for creating 1D and 2D plots. Users can now plot technical data on general surfaces such as color-flooded pressure contours on aircraft bodies, wind velocity vectors and streamlines around automobiles, heat-flux contour lines on buildings, and light-source-shaded views of finite element models of the human heart. In TECPLOT's multiwindow environment, 1D, 2D, and 3D plots can be created simultaneously and superimposed, embedded, or placed side by side for display with one or more sets of data. Version 4.0 can be used

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.

on most workstations manufactured by Digital Equipment, HP/Apollo, IBM, Silicon Graphics, Sun Microsystems, and others. A 2D version is available for personal computers. Amtec Engineering. Circle 453.

### T Cell Site Prediction Software

TSites is a program available free of charge that incorporates four published procedures for the prediction of antigenic T cell sites on protein sequences. Sequences up to 10,000 amino acids long can be analyzed, and any part of the sequence can be selected for analysis. TSites comes in two versions: TSites.Plus runs on Macintosh Plus and other models; TSites.II is faster and runs on the Macintosh SE/30 and II. MedImmune. Circle 448.

### Automated Tattoo Delivery

The APD System's microinfusion pump delivers animal tattoo pigments directly to the point of the tattoo needle in precise, microliter quantities. The pump is activated by a foot switch and is used when tattooing rats, mice, and other laboratory animals for identification. Automated pigment delivery can double tattooing speed and improve tattoo legibility by providing uniform quantities of pigment. Animal Identification and Marking Systems. Circle 438.

### Monoclonal Antibody Purification Kit

The IgM Affinisorb Kit contains everything needed for a one-step affinity chromatographic procedure for purification of mouse immunoglobulin M (IgM) monoclonal antibody: an IgM affinity purification column, binding buffer, elution buffer, and instructions. Binding and elution occur under mild conditions at pH 7.6. Windsor Park Laboratories. Circle 451.

### Amino Acid Analyzers

The HP AminoQuant Series II amino acid analyzer can resolve all amino acids found in proteins along with two internal standards (a previous version covered only those amino acids found in protein hydrolysates). A lower priced version is also available without a computer. The user can specify analysis by either ultraviolet absorbance detection at 100 pmol/ $\mu$ l or with fluores-

cence detection at 10 pmol/ $\mu$ l. The minimum detectable quantity is fewer than 5 pmol for the former and fewer than 150 fmol for the latter. A comprehensive performance guarantee covers all the steps automated by the HP AminoQuant, beginning with the chemical derivatization of the samples with the reagents O-phthalaldehyde and 9-fluorenylmethyl chloroformate, and includes the chromatographic separation and quantification. Hewlett-Packard. Circle 454.

### Monoclonal Antibodies

Phycoerythrin-coated monoclonal antibodies to human CD markers and HLA antigens for flow cytometry and immunohistochemical analysis are provided in 200-test vials. Olympus Corp. Circle 446.

Monoclonal antibody UCHL1, for identifying T cells, can be used on routinely fixed and processed tissues. The antibody is useful for identifying normal T cells and the neoplastic T cells of T lymphoblastic lymphoma, peripheral T cell lymphoma, and *Mycosis fungoides*. Only rare cases of B cell lymphomas react with UCHL1. Enzo Diagnostics. Circle 447.

### Literature

*PSI Probe* is a new technical newsletter. Recent articles covered scanning force microscopy (SFM) to study microplastic deformation, scanning tunneling microscopy (STM) for structural information, and applications of STM and SFM to superconductivity. Park Scientific Instruments. Circle 466.

*S&S Disposable Filtration Devices for Cell Culture Applications* is a guide to selecting the correct filter for a particular application by examining all the factors relevant to making the choice. Schleicher & Schuell. Circle 467.

*201 and 202 Multi-mode Fraction Collectors* is a brochure that describes instruments that combine multi-mode operation, system control, and high capacity. They are suitable for either isocratic or gradient systems. Gilson Medical Electronics. Circle 468.

*Bio-Radiations 74* is a newsletter that introduces the Model 450 Microplate Reader, a compact instrument that provides solid optical performance, on-board software, and a broad range of standard features. Bio-Rad Laboratories. Circle 469.

*Centrifuges for the Pharmaceutical and Biotechnology Industries* is an eight-page brochure describing a range of instruments. Sharples Division, Alfa-Laval Separation Inc. Circle 472.

# Personnel Placement

**SCIENCE** publishes each Friday, except the last Friday of the year, and is mailed on issue date. Personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference. **SCIENCE** reserves the right, in its discretion, to decline to publish advertisements submitted to it.

## LINE CLASSIFIED ADVERTISEMENTS

**DEADLINE:** Thursday, 10 a.m., 2 weeks prior to issue date. Advertising is accepted only in writing.

**POLICIES:** All classified ads will be edited and typeset according to **SCIENCE** style guidelines. NO ABBREVIATIONS. Any deadline for applications stated in ad must be at least 2 weeks after date of publication.

**CLASSIFICATION:** **SCIENCE** publishes line classified ads under the following headings: **Positions Open, Employment Agencies, Situations Wanted, Courses and Training, Meetings, Announcements, and Marketplace.** Advertisers should specify classification desired; however, **SCIENCE** reserves the right to decline classification requests which it believes may be misleading to readers.

**SUBMISSION:** Prepare double-spaced typewritten ad copy on a separate sheet. On cover sheet, state name and telephone number of contact person, desired date(s) of publication, and billing information, including any special invoicing requests. Mail or FAX to:

**SCIENCE Classified Advertising**  
1333 H Street, NW, Room 940  
Washington, DC 20005  
Telephone: 202-326-6555  
FAX: 202-682-0816

**RATE:** \$41 per line, \$410 minimum, per week. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces per line. No charge for use of blind box number. No agency commission for ads less than 40 lines. To ESTIMATE ad cost, structure ad copy on a 52-character line; include any desired heading on 32-character lines. Each line of heading, one line of white space between heading and body of ad, and all partial lines (including centered reply information, if desired) are counted as full lines. Multiply total number of lines x \$41 = approximate cost of ad, per week. (This is an approximate cost ONLY. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment. **SCIENCE** cannot provide proofs of typeset ads.)

**PREPAYMENT DISCOUNT:** A 3% cash discount is granted to all prepaid line ads. Prepayment in U.S. dollars by checks drawn on U.S. banks is required for all foreign ads.

**CREDIT CARDS:** **SCIENCE** accepts MasterCard and VISA. Both personal and corporate cards may be used. The prepayment discount does not apply to credit card ads.

**BOXES AND LOGOS:** Any 1-column line classified ad can be boxed and/or published with logo. No extra production charge for use of box or logo. For boxed ads, one line equals 48 characters and spaces; two additional lines will be added to cost of ad to allow for top and bottom rules. Logos are billed according to number of lines needed to accommodate logo.

**CANCELLATIONS:** Deadline for cancellations is 10 a.m. Tuesday, 10 days prior to issue date.

## DISPLAY PERSONNEL ADVERTISEMENTS

For rates, deadlines, and information about fractional display ads (1/6 page and larger) and all Marketplace listings of available products and services, contact:

**Scherago Associates, Inc.**  
1515 Broadway  
New York, NY 10036  
Telephone: 212-730-1050  
FAX: 212-382-3725

## RESPONSES TO EMPLOYMENT ADS

Applicants should read Positions Open ads carefully in order to submit all required material when responding, and should especially check for any stated deadline for receipt of applications. **SCIENCE** encourages applicants for positions to investigate employment laws, non-discrimination policies, visa requirements, and cultural differences in the country advertising for employees.

To reply to a blind box ad, address correspondence to

**Box (give number)**  
**SCIENCE Classified Advertising**  
1333 H Street, NW, Room 940  
Washington, DC 20005

## POSITIONS OPEN

### ASSISTANT PROFESSOR

The Department of Anatomy and Neurobiology has a faculty vacancy available. The earliest starting date is 1 July 1991. Applicants should have at least 3 years of postdoctoral experience, and should be able to participate in the teaching of either neuroscience and microscopic anatomy, or gross anatomy. Applicants should have an active and ongoing research program. Send applications, together with a statement about research interests and the names of three referees by 17 March 1991 to: **Faculty Search Committee, c/o Dr. Alan Peters, Chairman, Department of Anatomy and Neurobiology, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118. Equal Opportunity Employer.**

### PHARMACOLOGY AND TOXICOLOGY

The Department of Pharmacology and Toxicology at the Philadelphia College of Pharmacy and Science (PCPS) anticipates the availability of a tenure-track faculty position at the rank of **ASSISTANT PROFESSOR** beginning 15 August 1991. A Ph.D. degree and 2 years of postdoctoral training are required. Responsibilities will include teaching pharmacology and/or toxicology to graduate and undergraduate students. Candidates are expected to develop an independent research program supported by extramural funding. Applicants with research interests in all areas of pharmacology and toxicology will be considered. Deadline for applications is 31 March 1991. Candidates should submit curriculum vitae, statement of research goals, and the names of three references to: **Search Committee Chair, Department of Pharmacology and Toxicology, Philadelphia College of Pharmacy and Science, Woodland Avenue at 43rd Street, Philadelphia, PA 19104. PCPS is an Equal Opportunity/Affirmative Action Employer.**

### SALMONID ECOLOGIST

The University of Washington's School of Fisheries is soliciting applications for the position of salmonid ecologist at the level of **ASSISTANT PROFESSOR**. Candidates with experience in ecology, population biology, behavior, zoogeography, or related disciplines are invited to apply. The successful applicant will be expected to take a leadership role in a long-standing university-industry cooperative program of field research on the production and ecology of salmon in Alaska and teach two courses per year. The University of Washington maintains field camps on three undisturbed lake systems in Alaska and candidates must be willing to conduct research at these sites. This is a 9-month, tenure-track position subject to final university approval. Candidates may apply by submitting curriculum vitae, letter of interest, reprints of three publications, and names, addresses, and telephone numbers of four references to: **Dr. Ellen K. Pikitch, Chair, Search Committee, School of Fisheries, WH-10, University of Washington, Seattle, WA 98195. Deadline for receipt of applications is 15 March 1991. The University of Washington is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are encouraged to apply.**

### BIOLOGY, ASSISTANT PROFESSOR

The joint Biology Department of St. John's University and the College of St. Benedict invites applications for two sabbatical replacement positions at the assistant professor level. One of the two positions may be renewable for up to a maximum of 3 years.

Teaching responsibilities for both positions will include introductory biology for majors. In addition, one position could require the participation in environmental science or life science for nonmajors and an upper division course in ecology; the other, life science, human biology, anatomy/physiology for nonmajors, and upper division physiology. Specific teaching responsibilities will depend upon departmental needs. A normal teaching load is two courses with laboratories each full term and one course during January.

Both positions require a Ph.D., demonstrated interest and ability in teaching, and a strong undergraduate background in biology.

Send curriculum vitae, undergraduate and graduate transcripts, a statement of teaching and research interests, and three letters of recommendation to: **Director of Personnel, St. John's University, Collegeville, MN 56321.** Applications received after 22 February 1991 cannot be guaranteed consideration. *St. John's is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR.** We seek a broadly trained individual with expertise in population genetics, molecular genetics, or biochemical systematics for a tenure-track position in the Department of Biological Sciences. Area of research open. The candidate will be expected to conduct a research program involving graduate students and to interact with an active research group in environmental and evolutionary biology. Teach introductory genetics and upper-level courses in the area of specialization. Ph.D. required; postdoctoral experience preferred. Send curriculum vitae, statement of teaching and research interests, unofficial transcripts, and names and telephone numbers of three references by 11 March 1991 to: **Gary Childers, Department of Biological Sciences, Southeastern Louisiana University, Box 814, Hammond, LA 70402. Telephone: 504-549-2162.**

*Women and minority candidates are strongly encouraged to apply.*

### ASSISTANT PROFESSORS BACTERIAL MOLECULAR GENETICS MOLECULAR VIROLOGY

The Department of Microbiology and Immunology, Bowman Gray School of Medicine of Wake Forest University, invites applications for tenure-track faculty positions at the assistant professor level. The applicants should possess a Ph.D. or M.D. degree and have at least 2 years of postdoctoral training in bacterial molecular genetics or virology. The successful applicants will be expected to develop strong independent research programs and participate in the teaching of medical and graduate students. The department has substantial strength in the areas of molecular immunology and pathogenesis. Outstanding research facilities are available within the department as well as through interdepartmental programs and centers such as the Molecular Genetics Program and the Comprehensive Cancer Center of Wake Forest University. Applicants should send curriculum vitae, a statement of research interests and goals, and the names of three references to: **Dr. Steven B. Mizel, Department of Microbiology and Immunology, Bowman Gray School of Medicine, Winston-Salem, NC 27103. Wake Forest University is an Equal Opportunity/Affirmative Action Employer.**

### TWO ASSISTANT PROFESSORS OF PHYSIOLOGY OKLAHOMA STATE UNIVERSITY

The Department of Physiology and Pharmacology, College of Osteopathic Medicine (COM), invites applications for two tenure-track faculty positions from individuals who are well qualified to establish a quality research and teaching program in respiratory or renal physiology. Preference will be given to applicants interested in cardiopulmonary aspects of exercise, pathophysiology of airway disease, or renal mechanisms in hypertension. Applicants with other interests related to exercise, respiratory or renal physiology are encouraged to apply. The positions will be available 1 July 1991. Applicants should send curriculum vitae, a description of research interests, and the names, addresses, and telephone numbers of three references by 1 April 1991 to: **Dr. George M. Brenner, Chairman, Department of Physiology and Pharmacology, COM-OSU, 1111 West 17th Street, Tulsa, OK 74107.**

### ASSISTANT PROFESSOR DEPARTMENT OF HUMAN GENETICS MEDICAL COLLEGE OF VIRGINIA VIRGINIA COMMONWEALTH UNIVERSITY

Applicants are invited for a tenure-track position in the Department of Human Genetics. The successful candidate must have a doctoral degree (Ph.D., M.D., or M.D./Ph.D.) with training in molecular genetics, and demonstrate high potential for a successful research career. The candidate will be expected to participate in the professional, graduate, and clinical training programs of the department and to develop an independent research program in a relevant area of human genetics.

To apply, send curriculum vitae along with a description of research interests and three letters of reference to: **Dr. Barry Wolf, Department of Human Genetics Search Committee, Box 33, MCV Station, Richmond, VA 23298-0033. Telephone: 804-786-9632.**

*Virginia Commonwealth University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

## POSITIONS OPEN

### STOCKTON STATE COLLEGE MARINE SCIENCE PROGRAM

**ASSISTANT PROFESSOR OR INSTRUCTOR IN MARINE SCIENCE.** Full-time, tenure-track position in coastal physical and/or chemical oceanography begins 1 September 1991. Ph.D. preferred; will consider ABD. A strong commitment to undergraduate teaching and research is essential. Salary commensurate with experience. Screening begins 1 March 1991. Send letter of interest, curriculum vitae, and three letters of reference to: Barbara J. Byrne, Dean, Natural Sciences and Mathematics, Stockton State College, AA29, Pomona, NJ 08240. Stockton is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply. R101982

**MEDICAL GENETICIST.** The Department of Internal Medicine at the University of Michigan is seeking a tenure-track **ASSISTANT PROFESSOR**. Qualifications include M.D. with Board certification or eligibility in internal medicine and medical genetics, and demonstrated research activities in molecular genetics. Applicants should provide curriculum vitae, the names of three referees, and a description of research goals. Please address all correspondence to: Francis Collins, M.D., Ph.D., Division Chief—Medical Genetics, University of Michigan Medical Center, 4714 Medical Science II, Box 0618, 1150 West Medical Center Drive, Ann Arbor, MI 48109.

The Cancer Immunobiology Center and Department of Microbiology, University of Texas (UT) Southwestern Medical School, has a position for an **ASSISTANT PROFESSOR**, who will teach medical and graduate students, postdoctoral fellows, and perform research with group to develop new approaches to the biology and therapy of lymphoid tumors, including the development of genetically engineered reagents. Requires M.D. or Ph.D., 2 years of postdoctoral fellowship, major research achievements in molecular engineering of antibody molecules, antigen-specific receptors on T cells and their expression. Send curriculum vitae, cover letter, letter of reference, and statement of interests to: Ellen S. Vitetta, Ph.D. (Attention: Farrys Wood), UT Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-9048. An Affirmative Action/Equal Opportunity Employer.

### MOLECULAR BIOLOGIST STANFORD UNIVERSITY

The Department of Biological Sciences at Stanford University invites applications for a tenure-track faculty position. Applications will be considered at the **ASSISTANT PROFESSOR** level. Research interests should include emphasis on biochemical, biophysical, and molecular approaches to the study of macromolecular interactions such as those involved in biological regulatory processes. The successful candidate should have a sincere interest in teaching and will be expected to participate in undergraduate and graduate courses. Applications are encouraged from women and minority candidates. Applicants should send curriculum vitae, a letter summarizing research and teaching goals, selected reprints, and the names and addresses of three to five references to: Chair, Molecular Biology Search Committee, Department of Biological Sciences, Stanford University, Stanford, CA 94305-5020. Stanford University is an Equal Opportunity/Affirmative Action Employer.

The Department of Ophthalmology, Kresge Eye Institute, Wayne State University School of Medicine, invites applications for an **ASSISTANT PROFESSOR** position in basic eye research. Applications are encouraged from candidates (Ph.D. or M.D.) who are able to establish a funded, independent eye research program. Preference is given to candidates with expertise in molecular biology, immunology, and pharmacology, but other backgrounds will also be considered. Ample laboratory space and in-house research facilities are located on the top floor of a new building. Additional facilities (supported by a core vision grant and located in an adjacent basic medical science building), visual sciences training fellowships, and university macromolecular core facilities (sequencing and synthesis of peptides and oligonucleotides) are also available. Please submit a letter of interest with curriculum vitae and the names of three references to: Dr. Hitoshi Shichi, Chairman, Search Committee, Kresge Eye Institute, Wayne State University School of Medicine, 4717 St. Antoine, Detroit, MI 48201. Wayne State University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

The Department of Cell Biology, Stanford University School of Medicine, invites applications for two positions at the level of **ASSISTANT PROFESSOR**. The priority of the search is for individuals with significant accomplishments in structural biology, particularly in the areas of macromolecular structure determination by x-ray crystallography or electron microscopy.

Applicants should send curriculum vitae and description of research plans and should arrange to have three letters of recommendation sent to:

Dr. David McKay  
Chairperson of the Search Committee  
Department of Cell Biology  
Stanford University School of Medicine  
Fairchild Science Building  
Stanford, CA 94305-5400

Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.

Deadline for applications is 15 March 1991; applications received after this date may not receive full consideration.

The Department of Biochemistry and Biophysics is recruiting a **RESEARCH ASSISTANT PROFESSOR** to run a high-field NMR facility and train faculty, staff, and students. The candidate is expected to apply new NMR techniques to structural and biomedical problems, write application software, and maintain equipment. Qualifications include a strong chemistry and computer science background, knowledge of a UNIX operating system at a system administration level, at least 3 years of postdoctoral NMR research, and experience in directing an NMR facility. Send résumé and three letters of recommendation to: Dr. Franz Matschinsky, Department of Biochemistry and Biophysics, University of Pennsylvania, Philadelphia, PA 19104-6059. The university is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities. Deadline: 15 March 1991.

**ETHOLOGY/EVOLUTION. TEMPORARY INSTRUCTOR/ASSISTANT PROFESSOR.** Applications are being accepted for a 1-year sabbatical leave replacement for the 1991-92 academic year. Ph.D. and teaching experience preferred. Responsibilities include teaching upper level courses in animal behavior and evolution as well as introductory courses for majors and nonmajors. Screening of applicants will begin 1 March 1991 and continue until the position is filled. Submit a letter of application, curriculum vitae, transcripts, and three letters of recommendation to: Dr. John DePinto, Department of Biology, Bradley University, Peoria, IL 61625.

Bradley University is an Affirmative Action/Equal Opportunity Employer.

Department of Pathology, Medical College of Pennsylvania, seeks a cell or molecular biologist at the rank of **ASSISTANT OR ASSOCIATE PROFESSOR** (tenure track). Qualifications include Ph.D. and/or M.D., postdoctoral experience and research interests in cancer (metastasis, oncogenes, tumor cell regulation, etc.). Highly competitive salary, new space, and start-up package are offered. Opportunities for collaboration with experimental pathologists. Please submit curriculum vitae, current and future research plans, reprints, and the names of three references to: Dr. Mark Stearns, Department of Pathology and Laboratory Medicine, Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, PA 19129.

Equal Opportunity/Affirmative Action Employer.

**ASSISTANT/ASSOCIATE PROFESSOR (TWO POSITIONS) for BIOCHEMIST** to teach biochemistry and **MICROBIOLOGIST** to teach microbiology and work independently and/or collaboratively with other research/teaching faculty. Primary responsibilities: not more than 25% of time teaching medical students and at least 75% of time for research. Salary and academic appointment open and commensurate with training, teaching experience, and grant track record. Please send curriculum vitae detailing teaching experience, research interests, and current and past grant support information and the names of three references to: Dr. Arnold L. Nagler, Associate Dean, Basic Medical Sciences, New York College of Osteopathic Medicine, Old Westbury, NY 11568.

Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

The Department of Biology at Morehouse College invites applications for a tenure-track position at the **ASSISTANT/ASSOCIATE PROFESSOR** level, to begin 21 August 1991, for a **CELL BIOLOGIST** whose expertise is either in the plant sciences or in developmental biology. The successful applicant must hold a Ph.D. degree and be proficient in the use of the electron microscope. Teaching responsibilities will be consistent with the training of the individual. Faculty members are expected to maintain an active research program which involves undergraduate and graduate students. Closing date: 18 March 1991, or until suitable candidates are found. Applicants should submit their curriculum vitae and a statement of teaching and research goals and arrange to have an official graduate school academic transcript and three letters of recommendation sent to: Dr. J. K. Haynes, Chairman, Department of Biology, Morehouse College, 830 Westview Drive, S.W., Atlanta, GA 30314. An Equal Opportunity/Affirmative Action Employer.

### BOTANICAL ECOLOGIST

**ASSISTANT/ASSOCIATE PROFESSOR.** The Department of Biological Sciences will fill tenure-track position beginning fall 1991 for a person with research interests in botanical ecology. Will teach introductory biology courses for majors and nonmajors; also ecology and biogeography at undergraduate and graduate levels. An active research program involving undergraduate and graduate students is expected. Qualifications: Ph.D. in appropriate area and postdoctoral experience preferred. Salary: \$28,630 to \$37,308. Submit curriculum vitae and related materials to: Dr. Thomas E. Jensen, Professor and Chairman, Department of Biological Sciences, Lehman College/CUNY, Bronx, NY 10468-1589 by 8 March 1991. Lehman College is an Equal Opportunity/Affirmative Action Employer.

### HORTICULTURIST/PLANT PHYSIOLOGIST PLANT SCIENCES DEPARTMENT UNIVERSITY OF ARIZONA, TUCSON

Tenure-track appointment, **ASSISTANT, ASSOCIATE, OR FULL PROFESSOR**, 80% research, 20% teaching. Postdoctoral experience in related field. Responsible for developing an independent basic research program dealing with the physiological and genetic aspects of growth and development of horticultural plants. Research approach to integrate the application of genetics, molecular biology, and biochemistry to understanding fundamental mechanisms regulating these processes. Develop undergraduate/graduate course related to above research approach. Application deadline: 15 March 1991 or until suitable candidate is found. Application should include a brief statement of future applied research, copies of selected publications, and three letters of reference and should be sent to: Dr. Brian Larkins, Department of Plant Sciences, The University of Arizona, Tucson, AZ 85721. Equal Opportunity/Affirmative Action Employer.

### UNIVERSITÉ DE MONTRÉAL PROFESSOR IN BIOPHYSICS

The Department of Physics of the Faculté des arts et des sciences has an opening for a professorship in its membrane biophysics group of the Membrane Transport Research Group, a multidisciplinary research center composed of 17 researchers. The biophysics group wishes to tackle the conformational aspect of transport molecules functioning. Duties: research in the field of membrane transport, whether theoretical or experimental, at the level of the structure and functioning of membrane transporters using electrophysiological and spectrofluorometric methods; teaching at the undergraduate and graduate level, including M.Sc. and Ph.D. supervision; interact closely with colleagues; to be able to work in French within a period of 2 years. Qualifications: Ph.D. with postdoctoral experience or the equivalent. Beginning date: 1 June 1991 (subject to budget approval). Salary: according with the collective agreement. The applications should be sent with curriculum vitae, three letters of recommendation, and copies of reprints of the last publications, at the latest by 1 April 1991, to: Jean-Robert Derome, Chairman, Département de physique, Université de Montréal, C.P. 6128, succursale A. Montréal, Québec, Canada, H3C 3J7. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

## POSITIONS OPEN

### HARVARD MEDICAL SCHOOL PROFESSOR OF BIOLOGICAL CHEMISTRY AND MOLECULAR PHARMACOLOGY

Applications are invited for the position of professor of biological chemistry and molecular pharmacology at Harvard Medical School. Candidates should have outstanding accomplishments and research focus in the biochemistry and molecular pharmacology of viruses and antiviral agents. Major responsibilities will include supervision of an active research program and the teaching of the biochemistry and pharmacology of viruses to graduate and medical students.

Please submit curriculum vitae and list of publications to:

**Professor Armen H. Tashjian, Jr., Chairman**  
Ad hoc Search Committee  
Laboratory of Toxicology  
Harvard School of Public Health  
665 Huntington Avenue  
Boston, MA 02115

*Harvard Medical School is an Equal Opportunity/Affirmative Action Employer. Qualified women and minority applicants are particularly encouraged to apply.*

### SIMON FRASER UNIVERSITY THE SHRUM CHAIR IN SCIENCE

Applications are invited for the Shrum Chair in the Faculty of Science at Simon Fraser University. This endowed chair is named after the late G. M. Shrum, the founding chancellor of the University. Candidates should be outstanding scholars whose research interests match those represented in the Departments of Biological Sciences, Chemistry, Physics, or Mathematics and Statistics. The chair is a 5-year appointment; the appointee will normally hold a tenured position as professor in the appropriate department. The salary will be commensurate with a distinguished chair appointment and the appointment will be effective 1 September 1992.

Applications, together with curriculum vitae and the names of four referees, should be sent by 1 May 1991 to:

**C. H. W. Jones, Dean**  
Faculty of Science  
Simon Fraser University  
Burnaby, B.C. V5A 1S6, Canada

*This advertisement is directed to those who would be eligible for employment in Canada. Simon Fraser University is committed to the principle of Equity in Employment and offers Equal Opportunity to all qualified applicants.*

### M.D. OR Ph.D. FOR RESEARCH PROGRAM

The Department of Gastroenterology at Presbyterian Medical Center of Philadelphia is seeking an M.D. or Ph.D. to DIRECT a research program. Primary interest in GI motility preferred. Please submit curriculum vitae to: **Anthony J. DiMarino, Jr., M.D., Presbyterian Medical Center of Philadelphia, 39th and Market Streets, Philadelphia, PA 19104.**

**ADMINISTRATOR.** For scientific society. Challenging position in organizational operations. Includes general administration and staff support for committees. Requires dedicated, detail-oriented person with undergraduate degree (graduate degree preferred), excellent writing and communications skills, and ability to handle multiple projects. Familiarity with computers essential; experience with data base management or BASIC helpful. Send résumé, writing sample, and desired salary range to: **P.O. Box 54335, Philadelphia, PA 19105.**

### DEPUTY DIRECTOR CANCER CENTER OF THE MEDICAL COLLEGE OF WISCONSIN

An individual to develop research programs in clinical and basic sciences. Develop core support facilities and assist in preparation of grants. Successful candidate will have an M.D. or Ph.D. and 10 years of experience in cancer biology or clinical research and academic or NIH administration.

Individuals interested should send curriculum vitae to:

**Ernest C. Borden, M.D.**  
Director  
Cancer Center of Medical College of Wisconsin  
8701 Watertown Plank Road  
Milwaukee, WI 53226

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

## POSITIONS OPEN

### PRODUCT MANAGER RESEARCH INSTRUMENTS

Full-time, permanent position in established company (40 employees) to market select scientific products. Previous business experience not as important as your motivation, writing, and interpersonal skills. Computer literacy required. Ph.D. in one of the physiological sciences desirable. Chicago location. Please submit curriculum vitae and salary history in confidence to: **Box 146, SCIENCE Classified Advertising, 1333 H Street, N.W., Room 940, Washington, DC 20005.**

**PUBLIC INFORMATION COORDINATOR.** For scientific society in Philadelphia. Challenging position in public affairs and relations for professional with excellent writing and communications skills. Responsibilities include liaison with government officials, scientists, lay persons, and the media. Relevant experience needed. Knowledge of congressional activities, media operations, public relations, biomedical science, or fund-raising preferred. Send résumé, writing sample, and desired salary range to: **P.O. Box 54335, Philadelphia, PA 19105.**

### PROGRAM DIRECTOR NATIONAL RESEARCH INITIATIVE COMPETITIVE GRANTS PROGRAM U.S. DEPARTMENT OF AGRICULTURE

The National Research Initiative Competitive Grants Program (formerly Competitive Research Grants Office), USDA, seeks a qualified scientist to serve as program director for grant review and administration in the areas of food safety and human nutrition. Candidates must have a Ph.D. or equivalent with major study in food, nutrition, or related disciplines.

Closing date is 25 February 1991. For further information on this full-time, permanent position, contact: **Dr. Rosemary R. Grady, NRICGP, Room 323E Aerospace Building, 901 D Street, S.W., Washington, DC 20250-2200. Telephone: 202-401-6234.** For information on application procedures/forms, contact: **Ms. Kathy Asmussen, Personnel Staff Specialist, 202-475-4811. USDA is an Equal Opportunity Employer.**

A position is available in molecular/cell biology of aging for a **JUNIOR FACULTY** tenure track, in the School of Gerontology with possible appointments in appropriate other departments. Strong research profile desired. Send curriculum vitae to: **Dr. Caleb E. Finch, University of Southern California, Ethel Percy Andrus Gerontology Center, 3715 McClintock Avenue, Los Angeles, CA 90089-0191.**

### ATTENTION SCIENCE ADVERTISERS

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## POSITIONS OPEN

### FACULTY POSITIONS IN EXPERIMENTAL PATHOLOGY

The Department of Pathology and Laboratory Medicine, Texas A&M University College of Medicine, invites applications for tenure-track teaching and research positions at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. The location of the department on the main university campus provides close interaction with other disciplines. Experimental areas such as aspects of endothelial cell function, oncogenes, membrane and intracellular receptors, and mechanisms of metastases are of central interest. The successful applicants will build an independent research program and contribute to the teaching programs at the medical student and graduate student levels. The positions may be filled as early as 1 July 1991, but later appointments are possible. Individuals should submit their curriculum vitae, any recent reprints, a brief description of their research interests, and the names of three references to:

**Dr. Julius A. Gordon**  
Chair, Department of Pathology  
and Laboratory Medicine  
Room 208, Reynolds Medical Building  
Texas A&M University College of Medicine  
College Station, TX 77843-1114

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### THE UNIVERSITY OF CALIFORNIA SAN DIEGO FACULTY POSITION IN PLANT POPULATION BIOLOGY

The Department of Biology, University of California (UC), San Diego, invites applications for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level in the general area of plant population biology. Possible areas of interest include plant population and community ecology, temperate or tropical forest structure, plant mating systems, evolution of plant architecture, plant physiological ecology, plant population genetics, plant pollination and seed dispersal coevolution, and plant paleontology. Applicants who combine quantitative/theoretical skills with experimental field and/or laboratory studies will be favored. Appointee must have a Ph.D. and postdoctoral training, and will be expected to conduct a vigorous research program and to participate in our teaching program. Salary, subject to availability of funding, will be commensurate with level of appointment and based on the published UC salary scale.

Applicants should send curriculum vitae, bibliography, and names of three references by 28 February 1991 to: **Ms. Carrie Garnett, Plant Population Biology Search Committee, Department of Biology 0346, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0346.**

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

### FACULTY POSITION IN EXPERIMENTAL PARASITOLOGY

The Department of Pathology in the College of Veterinary Medicine and Biomedical Sciences at Colorado State University invites applications, nominations, and inquiries regarding a regular, full-time, tenure-track faculty position in parasitology. Candidates must have a Ph.D. degree in parasitology or a closely related field. An established investigator is preferred. Candidates should have demonstrable capability and research interests in the immunology of eukaryotic parasite infections. The primary responsibilities associated with this position include the development of a competitive extramurally funded research laboratory, including collaborative interactions with existing investigators, and the training of graduate and postdoctoral students. Additional responsibilities include nominal teaching assignments in the professional veterinary medical curriculum, and involvement in other course offerings at the discretion of the appointee. Academic rank and salary will be competitive and commensurate with the qualifications of the individual selected. Applicants should submit curriculum vitae, a letter outlining professional interests and goals, and the names of three references capable of evaluating the candidate's potential. Applications will be accepted through 1 April 1991. Search may be extended if a suitable candidate is not identified. Address all correspondence to: **Dr. Robert Grieve, Search Committee Chairman, Department of Pathology, Colorado State University, Fort Collins, CO 80523. Colorado State University is an Affirmative Action/Equal Opportunity Employer.**

## DEAN, COLLEGE OF NATURAL SCIENCES UNIVERSITY OF ALASKA FAIRBANKS

The University of Alaska Fairbanks invites applications and nominations for the position of Dean of the College of Natural Sciences. The University of Alaska Fairbanks is the main campus of the University of Alaska system and the major center of science research and education. The College of Natural Sciences encompasses four academic departments (Biology and Wildlife, Chemistry, Geology and Geophysics, and Physics) as well as the University of Alaska Museum and the General Science degree program. The College is closely associated with major research institutes (Geophysical Institute and Institute of Arctic Biology) and the Alaska Cooperative Wildlife Research Unit and Alaska Cooperative Fishery Research Unit. UAF is a major center for both basic and applied research with outstanding opportunities for study of high latitude systems. The College of Natural Sciences currently enrolls 343 undergraduate majors and 169 graduate students in master's and doctoral programs and has 93 faculty members. Construction of a new Natural Sciences Building is in progress.

The Dean is the chief administrator of the College of Natural Sciences and reports to the Vice Chancellor for Academic Affairs. The Dean is responsible for curriculum development, budgeting and personnel in the College and must facilitate interactions with research institutes.

The UAF campus overlooks Fairbanks, a thriving progressive community of 72,000, rated fourth best small community in the nation. Fairbanks offers outstanding cultural diversity, unsurpassed natural beauty and outdoor recreation, and friendly local atmosphere. Fairbanks is a transportation hub served by major airlines. Public and private schools in Fairbanks have an excellent reputation.

Candidates for this position should have the following qualifications:

Earned doctorate and significant record of scholarly achievement sufficient for appointment at the rank of Professor in one of the departments of the College.

Ability to build and maintain strong academic programs and recruit outstanding faculty and students.

Experience in academic administration and budgeting.

Strong human relations and communications skills.

Vision and capacity to successfully develop nontraditional educational opportunities.

Send curriculum vitae; statement of interest; and names, addresses, and phone numbers of five references to: Dr. Mark W. Oswood, Chair, CNS Dean Search Committee, Department of Biology and Wildlife, 211 Irving Building, University of Alaska Fairbanks, AK 99775-0180, Phone: (907) 474-7972, FAX: (907) 474-6967.

Screening of applications will begin 11 February, 1991. Anticipated starting date for the position is July 1, 1991.

The University of Alaska is an Affirmative Action, Equal Opportunity employer and educational institution.

## DEAN

### School of Natural Resources The University of Michigan

Applications and nominations are invited for the position of Dean of the School of Natural Resources at the University of Michigan. The Dean is the chief academic and administrative officer of the School and reports directly to the Academic Vice President. The School of Natural Resources is an interdisciplinary, research-oriented, professional school, focusing on research and the development of policies and management programs that promote the conservation, protection, and sustainable use of natural resources. In addition, the School educates practitioners and researchers who will seek these ends. The School's activities include instruction at the undergraduate, master's, and doctoral levels and an active research program. Faculty interests are diverse: Resource Ecology and Management, Resource Policy and Behavior, and Landscape Architecture. The School is committed to an integrative, interdisciplinary, problem-solving approach in collaboration with related disciplinary departments and professional schools.

The Dean provides leadership in program planning, development, and evaluation. Qualifications should include an earned doctorate, a distinguished record appropriate for a tenured appointment in the School, and the ability to generate funds for programs at the local, state, national, and international levels. The committee will begin reviewing candidate files on February 4, 1991. Applications and nominations should be sent to: Professor Burton Barnes, Chair, School of Natural Resources, Dean Search Advisory Committee, The University of Michigan, 520 E. Liberty, Ann Arbor, MI 48104-2210. A non-discriminatory, affirmative action employer.



Wayne State University

### Center for Molecular Biology

**ASSISTANT, ASSOCIATE AND FULL PROFESSOR** – Applications and nominations are invited for university-funded research-track faculty positions at the assistant, associate or full professor level in the Center for Molecular Biology, an interdisciplinary program in the Division of Research and Graduate Studies. Research laboratories with excellent equipment and support facilities will be located in a new Biological Sciences Building on the main campus of the University in proximity to one of the largest medical centers in the United States. Substantial start-up funds are available for these positions. The Center currently has eight full-time and three half-time primary faculty and will be undergoing substantial expansion during the next few years. Candidates should have a Ph.D. degree in molecular biology or a related area or an M.D. or M.D./Ph.D. degree, and also have several years of postdoctoral training. The successful candidates will be expected to establish vigorous independent research programs that will be highly competitive for extramural funding. Candidates with interest and/or experience with promoting economic development through effective technology transfer are especially encouraged to apply. Applicants should send curriculum vitae, a brief description of current and future research interests (three to four pages), a bibliography and reprints of significant publications, and recommendations from at least three references by March 31, 1991, to:

Dr. Robert H. Rownd, Director  
Center for Molecular Biology  
Wayne State University  
2309 Scott Hall  
540 East Canfield  
Detroit, Michigan 48201

Wayne State University is an equal opportunity/affirmative action employer and invites applications from all qualified individuals.

## BIOPROCESS SCIENTIST

SmithKline Beecham, a world leader in pharmaceutical research, has an opportunity in Bioprocess Sciences for a Scientist to participate in the development of methods and assays to assess the identity, purity, homogeneity and recovery of recombinant proteins. This work will directly support the purification, cell culture and fermentation groups in the development of biopharmaceuticals.

Requirements for this position include a Ph.D. in Chemistry or Biochemistry and 0-3 years experience with physico-chemical methods in protein characterization including amino acid analysis, peptide mapping, electrophoresis, HPLC of proteins and peptides, immunological assays and spectroscopic methods.

SmithKline Beecham offers a competitive compensation, benefits and relocation package and a stimulating environment in which to grow and excel. Our state-of-the-art research facility is located in suburban Philadelphia, PA. For confidential consideration forward your C.V. to: T. Gallagher, G0160, Senior Employment Administrator, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.



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# Toxicologist/ Group Leader

The PARKE-DAVIS Pharmaceutical Research Division of Warner-Lambert, a world leader in pharmaceutical development, has an immediate opening for a Toxicologist/Group Leader in the department of Pathology and Experimental Toxicology. This position requires an outstanding individual with an industrial or academic background and training in experimental toxicology. This individual will participate in designing, conducting and reporting preclinical toxicology studies with new drug candidates, will supervise the activities of other scientific staff in the conduct of these studies and will participate in drug discovery and development team activities.

The successful candidate must be able to work independently and as a member of a highly specialized team. The position requires a PhD or equivalent in toxicology and 3-5 years' experience in toxicology/safety evaluation research. Board certification in toxicology is highly desirable.

Our modern facilities are located adjacent to the University of Michigan campus. We invite interested, qualified applicants to consider this position offering excellent compensation, benefits and living and working environment with the research and development team at PARKE-DAVIS. Please reference Job #90-465 and forward curriculum vitae, salary requirements and a list of references to Mr. Abilio Gonzalez, Human Resources Department, PARKE-DAVIS, Warner-Lambert, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment"

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## DEAN, SCHOOL OF THE ENVIRONMENT

Applications and nominations are invited for the position of Dean of the Duke University School of the Environment. The new School of the Environment, to be implemented July 1, 1991, reflects a major University-wide commitment to bringing the university's diverse resources in environmental sciences, engineering, management and public policy to bear on national and global environmental problems. The new School will carry out basic and applied research and offer educational programs in the environmental sciences, management and policy. The School will incorporate the existing School of Forestry and Environmental Studies, the Duke Marine Laboratory, and several existing and proposed research centers.

The School will offer graduate programs leading to the Ph.D., M.S., and A.M. degrees, and will offer professional degrees including the Master of Environmental Management and Master of Forestry. There will be an undergraduate teaching component and an executive education program. The School will offer concurrent degrees with Duke University's Fuqua School of Business, the School of Law and the Institute of Policy Sciences and Public Affairs.

The Dean of the School of the Environment is its chief executive officer and is responsible to the Provost and the President for academic and administrative leadership of the School. The successful candidate is expected to have a Ph.D. degree, with an established reputation in a natural or social science field with an interest in, or identification with, the broad area of environmental science and management. Candidates must meet the standards for appointment at the rank of professor with tenure and have demonstrated abilities of leadership, administration, and fund raising. The projected starting date is July 1, 1991.

Applications and nominations, along with names of three references, should be sent no later than February 25, 1991 to: **Dr. Robert Healy, Chair, Dean Search Committee, Office of the Provost, Duke University, Durham, NC 27706. FAX (919) 684-4421.**

## Duke University

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Due to the popularity of *Science's* recent three-part series by Robert Pool examining the debate over the possible biological effects of electromagnetic fields, we put the articles together in one convenient and comprehensive reprint booklet. The first article looks at the epidemiological evidence for a link between electromagnetic fields and cancer. The second article deals with cell and animal studies, and the third examines policy questions and the politics behind the research.

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**Assay Development  
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Selected individuals shall assist in the development of assays and protein purification. Responsibilities also include organizing project plans, assay optimization, sourcing raw materials, data analysis, and writing technical papers/procedures.

We require a BS and 1-3 years experience in Immunology, Biochemistry, Microbiology or Virology. Knowledge of basic laboratory techniques, good communication, interpersonal and computer skills are essential.

### **SCIENTIST**

**Cell Biology/Virology  
Molecular Biology**

In this bench level position the selected individual will be responsible for developing new procedures, preparing reagents for use in immunoassays and/or gene cloning, assisting process scale up, sourcing raw materials, data analysis and writing technical papers/procedures.

We require a Ph.D in Biochemistry/Molecular Biology/Immunology or a related field and prefer 2-3 years of relevant industry experience.

In addition to a progressive scientific environment, we provide an excellent compensation package. For confidential consideration, please send resume with salary history indicating which position you are interested in to: **Human Resources, Baxter Healthcare Corporation, Pandex Division, 909 Orchard Street, Mundelein, IL 60060.** No phone calls please. Equal Opportunity Employer.

**Pandex Division**

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## **Associate Director Macromolecular Structure and Dynamics Program**

### **Battelle, Pacific Northwest Laboratories**

Battelle, Pacific Northwest Laboratories (PNL) is seeking a senior scientist to head a new multiuser center for research on macromolecular structure and dynamics (MSD). The MSD program is one component of the new Molecular Science Research Center (MSRC) at PNL, and will initially focus on structural analysis of biological macromolecules using advanced NMR, mass spectrometry and other spectroscopic techniques. Several ultrahigh-resolution instruments, including a 1000-MHz NMR spectrometer and a 14-Tesla ion cyclotron resonance mass spectrometer are currently under development as part of the MSD program. The program leader will hold the rank of Associate Director within the MSRC, and will be responsible for operation of the MSD program as a national user center containing a core PNL staff of approximately 40 scientists, technical specialists, and students.

PNL is one of five national multiprogram energy laboratories, and is operated by the Battelle Memorial Institute under a contract with the U.S. Department of Energy. The Laboratory has a staff of approximately 3,000 personnel conducting research in physics, chemistry, materials, engineering, mathematics and computer science, earth and environmental sciences, and the life sciences.

Applicants should send a resume, reprints of 3-5 recent publications, and the names, addresses, and telephone numbers of 4 references to: **Dr. T.S. Tenforde, Chief Scientist, Life Sciences Center (K1-50), Battelle, Pacific Northwest Laboratories, P.O. Box 999, Richland, Washington 99352.** Deadline for receipt of applications is March 1, 1991. An Affirmative Action. Equal Opportunity Employer



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## **Catalog Marketing Manager PCR Reagents**

Perkin-Elmer Corporation has an outstanding opportunity in our biotechnology joint venture, P-E Cetus, for a Catalog Marketing Manager for PCR reagents.

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Applicants for this position must have at least an M.S. degree in Molecular Biology, or a related field, some laboratory experience and at least 5 years experience in consumables marketing.

Perkin-Elmer rewards qualified professionals with outstanding growth opportunities, competitive salaries and a comprehensive benefits plan. Qualified applicants should send their resume, in strict confidence, to Mr. E.K. Hutton, Sr. Manager, Human Resources, The Perkin-Elmer Corporation, 761 Main Avenue, Norwalk, Connecticut 06859-0325.

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## POSITIONS OPEN

### FISHERIES AND WILDLIFE UTAH STATE UNIVERSITY

The Department of Fisheries and Wildlife at Utah State University is seeking applicants for three tenure-track **FACULTY POSITIONS** in wildlife. Applications accepted through 1 March 1991 or until suitable candidates are selected.

**CONSERVATION BIOLOGY. ASSISTANT/ASSOCIATE PROFESSOR** (9 months) to enhance program in conservation biology. Responsible for developing vigorous independent research program (50%) and effective teaching (50%). Ph.D. required. Specialties of particular interest include population biology, animal behavior, and landscape ecology. Emphasis on ecology and management on large geographic scales desirable. Available 1 September 1991. Application should include narrative explanation of the significance of applicant's research interests for modern wildlife/natural resource management. Send letter of application and résumé and request three letters of reference to: **Dr. B. K. Gilbert, CB Search Committee.**

**ANIMAL DAMAGE MANAGEMENT. ASSISTANT/ASSOCIATE PROFESSOR** (9 months) to staff a USDA-funded program for managing problems caused by vertebrate wildlife. Responsible for developing vigorous extension and teaching program in animal damage management. Ph.D. required. Experience in agriculture production systems, wildlife population biology, experimental ecology, or wildlife policy and economics desirable. Available 1 July 1991. Narrative statement required as part of the application. Please call for information before applying. Contact: **Dr. J. A. Bissonette, ADM Search Committee, 801-750-2511.**

**WILDLIFE EXTENSION SPECIALIST. ASSISTANT PROFESSOR** (12 months) responsible for wildlife extension program and applied research in area of specialty. Responsible for effective information transfer to land-owners, public agencies, the general public, and youth groups. Ph.D. required. Experience in Cooperative Extension education, formal teaching, and applied research desirable. Available 1 July 1991. Send letter of application and résumé, and request three letters of reference to: **Dr. J. A. Kadlec, WES Search Committee.**

Department of Fisheries and Wildlife, Utah State University, Logan, UT 84322-5210.

Utah State University is an Affirmative Action/Equal Opportunity Employer.

### CELLULAR AND MOLECULAR PATHOBIOLOGY

Applications are invited from outstanding candidates for **JUNIOR AND INTERMEDIATE LEVEL TENURE-TRACK POSITIONS** within the recently established Molecular Pathobiology Section of the Department of Pathology, Baylor College of Medicine. The Molecular Pathobiology Section is quartered in new laboratories which currently house seven independent investigators plus shared facilities. Our goal is to recruit exceptional investigators to an interactive environment centered around molecular approaches to disease mechanisms. Successful candidates should have Ph.D., M.D., or equivalent degree plus at least 2 years of postdoctoral research training and will be expected to establish and maintain independent, extramurally funded research programs. Interested individuals should submit curriculum vitae, a brief description of prospective research plans, and three letters of recommendation to:

**Chairman, Molecular Pathobiology  
Search Committee  
Department of Pathology  
Baylor College of Medicine  
Houston, TX 77030**

**POSTDOCTORAL POSITION** is available immediately to study molecular and genetic aspects of NK cell oncolytic activity. Candidates with experience in these areas should send summary of current research, curriculum vitae, and the names of three references to: **Chief, Section of Natural Immunity, Department of General Surgery, The University of Texas, M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Box 18, Houston, TX 77030.**

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## POSITIONS OPEN

### FACULTY POSITION IN ANATOMY FLORIDA STATE UNIVERSITY

The Department of Biological Science is seeking a new faculty member to complement and enhance its current strengths in organismal and evolutionary biology, physiology and neurobiology, or molecular and cellular biology. The appointment will be a 12-month appointment at the level of **ASSISTANT PROFESSOR** and the successful applicant will be expected to develop an active program of research and graduate training. The major teaching responsibility will be a human gross anatomy course for first-year medical students. Every other academic year, the applicant will be expected to teach an upper-level undergraduate or graduate course in areas such as histology, parasitology, comparative anatomy, or in the area of the applicant's research. We encourage applications that represent a diverse array of research interests and subdisciplines of biology. The Department of Biological Science has extensive, staffed research and support facilities, including laboratories for nucleotide sequencing and analytical chemistry, electron microscopy, hybridoma technology, computer graphics, a machine shop, an electronics shop, two greenhouses, and a small farm. Send a letter of application, curriculum vitae, copies of publications, statements of research and teaching interests, and names and addresses of three references by 10 March 1991 to: **Search Committee, c/o Dr. L. G. Abele, Chairman, Department of Biological Science B-142, Florida State University, Tallahassee, FL 32306-2043. Florida State University is an Affirmative Action/Equal Opportunity Employer. Applications from women and minorities are encouraged.**

### RESEARCH FACULTY/NEUROSURGERY UNIVERSITY OF KENTUCKY

A **FACULTY POSITION** is available for a basic scientist with expertise in the role of arachidonic acid, free radicals, cytokines, or polyamines in the pathophysiology of the brain response to ischemia and injury. Candidates must have a Ph.D. with postdoctoral experience and be capable of supervising existing laboratories. The candidates will also be expected to develop a research program in their area of expertise and to successfully compete for external funding. Send curriculum vitae and references to: **Dr. Robert Dempsey, MS105A UKMC, 800 Rose Street, Lexington, KY 40536. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION.** Available to participate in development of novel methods of large-scale purification of membrane proteins. Ph.D. in chemistry, biochemistry, or immunochemistry desirable. Preference given to individuals with experience with protein purification. Send curriculum vitae and three references to: **L. Waskell, M.D., Ph.D., VA Medical Center (129), University of California, 4150 Clement Street, San Francisco, CA 94121. FAX: 415-750-6946. Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION.** University of Pennsylvania. One- or two-year position available immediately to study structure and activity of a novel transcription factor which regulates lymphokine gene expression. Background in biochemistry or molecular biology desirable. Send curriculum vitae and list of references to: **Dr. T. M. Williams, Department of Pathology, Hospital of the University of Pennsylvania, 3400 Spruce Street, 6 Founders, Philadelphia, PA 19104-4283. Telephone: 215-662-6503. Equal Opportunity Employer.**

### POSTDOCTORAL POSITION

Available July 1991 for 2 years to study monoclonal antibody-mediated therapy of leukemia, including detection of minimal residual disease using molecular probes, defining mechanisms of cellular cytotoxicity, and purification of hematopoietic stem cells as well as related studies in myeloid differentiation examining proto-oncogene and surface antigen changes mediated by cytokines and other mediators. Experience in molecular biology is essential. Working environment includes close proximity to numerous basic and clinical researchers in hematology/oncology and the Pittsburgh Cancer Institute Bone Marrow Transplantation Program. Send curriculum vitae with three references to: **Dr. Edward D. Ball, c/o Dr. Alan Winkelstein, Division of Hematology, University of Pittsburgh, Montefiore University Hospital, 3459 Fifth Avenue, Pittsburgh, PA 15213 or call Dr. Ball at: 603-646-7671.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION

Available immediately to study the biochemical and molecular mechanisms for regulation of fatty acid composition in the triacylglycerols of plants. Prefer an individual with experience in lipid biochemistry and/or plant molecular biology. Send curriculum vitae and at least two letters of recommendation to: **Dr. Jan G. Jaworski, Chemistry Department, Miami University, Oxford, OH 45056. Miami University is an Equal Opportunity Employer.**

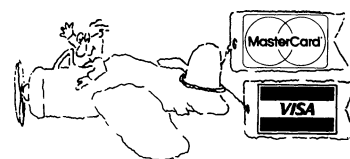
**POSTDOCTORAL POSITION.** A position is available to study the mechanisms underlying the selective effects of carcinogen-induced DNA damage on gene transcription in vivo [*Mol. Carcinogen.* 2, 274-286 (1989)]. Experience in basic molecular biology techniques is required. Send curriculum vitae and three letters of reference to: **Dr. Joshua W. Hamilton, Department of Pharmacology and Toxicology, Dartmouth Medical School, Hanover, NH 03756. Dartmouth College is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION.** Available immediately to pursue studies addressed towards discerning mechanisms underlying the aberrant expression of proto-oncogenes which is thought to be involved in carcinogenesis. The qualifications include a recently earned Ph.D. degree in one of the biomedical sciences plus a demonstrated familiarity with current techniques in molecular biology. The initial appointment will be for 1 year, with the possibility of a continuation for a second year. Applicants should submit their curriculum vitae, and a brief description of research experience, plus the name, address, and telephone number of three individuals who can serve as references to: **Dr. Jay I. Goodman, Department of Pharmacology and Toxicology, Michigan State University, B-440 Life Sciences Building, East Lansing, MI 48824. MSU is an Affirmative Action/Equal Opportunity Institution.**

### POSTDOCTORAL POSITION

Available for investigations of cellular/molecular mechanisms of neurodegenerative diseases. Our laboratory uses a variety of approaches to study several human neurodegenerative diseases, including Alzheimer's disease and motor neuron disease, and related animal models. This position is part of a research program dealing with several research areas, including the neuronal cytoskeleton, transmitter systems, the amyloid precursor protein, and trophic factors.

Send curriculum vitae and two letters of recommendation to: **Donald L. Price, M.D., Neuropathology Laboratory, The Johns Hopkins University School of Medicine, 509 Pathology Building, 600 North Wolfe Street, Baltimore, MD 21205-2181. Affirmative Action/Equal Opportunity Employer. We encourage applications from minorities. Because of funding requirements, applicants limited to U.S. citizens/permanent residents.**



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# 1991 Programs of the Center for Microbial Ecology

*A National Science Foundation Science and Technology Center*  
**Michigan State University**

The Center for Microbial Ecology (CME) conducts multidisciplinary research on microorganisms in natural and controlled environments, including soil, water, and engineered systems. Fields include microbiology, molecular biology, biochemistry, chemistry, ecology, soil science, bioengineering, and environmental engineering. The research program is conducted by groups focused on the following thrust areas: *Gene Flow and Molecular Evolution, Population Diversity, Community Diversity, Novel Organisms and Processes, Biotransformation, and Environmental Control of Gene Expression.*

## ■ Microbial Ecology Forum, May 29, 1991

Research conducted by the Center and related programs will be presented in posters and round table discussions. The impact of microbial ecology research of practical importance will be discussed by scientists from academia, industry and government.

## ■ Annual Symposium, June 7-10, 1991

"Microbial Community Structure: Concepts and Principles" will be the theme of the Symposium. The program will be Gordon Conference style and feature sections on characterization of diversity, population interactions, the species concept, population diversity, evolution of and the practical implications.

## ■ Gene Probe Workshop, June 10-28, 1991

The three week workshop provides hands-on training for 20 graduate students, postdocs or faculty who wish to use nucleic acid methodology

in environmental research. Scholarships are available based on need and proposed program of use.

## ■ Graduate study

- Graduate students conduct research in one of six thrust areas. The Center considers only students whose goals are a Ph.D. and a career in research.

- Full stipends are provided to all students.

- Minority fellowships are available.

## ■ Postdoctoral study

Several postdoctoral positions are available each year. The appointment is for two years with extensions possible. The multidisciplinary nature of the Center is an excellent opportunity to broaden one's background.

## ■ Undergraduate internships

Summer internships are offered on a competitive basis to applicants after their second or

third year of college. The instructional mode is one-on-one in the laboratories of Center staff, supplemented by group activities. The stipend covers living and travel expenses.

For additional information, contact:

**Center for Microbial Ecology**  
**Michigan State University**  
**540 Plant & Soil Science Building**  
**East Lansing, MI 48824-1325**

**Phone: (517) 353-9021**

**Fax: (517) 353-2917**

**Bitnet Address:**

**21394jmt@msu.bitnet**

**Internet Address:**

**jmtiedje@psssun.pss.msu.edu**

## CANCER RESEARCH INSTITUTE INVESTIGATOR AWARDS

The Cancer Research Institute is planning to grant its investigator Award to a minimum of five qualified immunologists in 1991. 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 May 1, 1991. Funding for the Investigator Awards will commence on July 1, 1991.

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, 1991. Please note that individuals who will begin their third year as assistant professor on July 1, 1991, 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. Ursula Hahn, Grant Administrator**  
**Cancer Research Institute**  
**133 East 58th Street**  
**New York, NY 10022**  
**212-688-7515**

## Physiologic Modelling and Image Analysis

The Biomedicine and Health Program at Ansto is seeking applicants in Physiologic Modelling and Image Analysis to join a national multidisciplinary effort focusing on cyclotron-produced radiopharmaceuticals for PET and SPECT. Applicants must have an advanced degree in Applied Mathematics, Engineering, or a related discipline. Familiarity with image analysis, virtual reality, pattern recognition, tracer kinetics and physiologic modelling is desirable. The candidate would be a member of a team developing a high resolution imaging system for research with animal models. A global link-up of a Fujitsu VP-2200 Supercomputer for collaboration with other medical centres is another objective.

Facilities under construction in 1991 include the VP-2200 at Lucas Heights, the National Medical Cyclotron (Cyclone-30) and a Siemens 951 PET located at the joint Royal Prince Alfred Hospital/Ansto PET Centre in Sydney.

Term and permanent appointments are available. Individuals eligible for sabbatical leave are encouraged to contact the Program Director. Australia offers a temperate climate and a relaxed social environment which combine to provide an attractive quality of life.

Expressions of interest along with resume should be sent to:

**Dr Richard M. Lambrecht**  
**Director, Biomedicine & Health Program**  
**Private Mail Bag 1, Menai, NSW 2234, Australia**  
**Fax: 61 2 543 9262, Phone: 61 2 543 9079**

*ANSTO is an Equal Opportunity Employer.*  
*Smoking in the workplace is prohibited.*

**Ansto**

**AUSTRALIAN NUCLEAR SCIENCE  
& TECHNOLOGY ORGANISATION**

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Available to join in the identification and purification of ribonuclease activities, and cloning the genes encoding these activities, that are required for messenger RNA decay in *B. subtilis*. Previous experience with protein purification is desirable. Send curriculum vitae plus names and telephone numbers of references to: **Dr. David Bechhofer, Department of Biochemistry, Box 1020, The Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.** An Equal Opportunity Employer.

### MOLECULAR BIOLOGISTS

**POSTDOCTORAL** appointment is available to join group actively engaged in studies on the tissue-specific gene expression of acutely regulated murine serum amyloid P component. Research project will focus on identification of regulatory elements of the gene and characterization of DNA binding proteins. The ideal candidate should be well versed in recombinant DNA techniques, although all applicants will be considered. Salary is \$25,000 to \$30,000. Please forward curriculum vitae to: **Dr. John E. Mole, Department of Biochemistry, University of Massachusetts Medical Center, Worcester, MA 01655.**

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

### POSTDOCTORAL POSITION DEVELOPMENTAL BIOLOGY

Applications are invited for a postdoctoral scientist to work as an **ASSOCIATE** on a *Drosophila* neurobiology project in the Institute for Molecular Genetics at Baylor College of Medicine. Research projects will involve studying essential genes that have been identified with P-element-mediated enhancer detection [BioEssay 12, 199 (1990) and G & D 3, 1285 and 1301 (1989)] and that are expressed in the peripheral and central nervous system of embryos or larva. Candidates should possess a Ph.D. in molecular biology, genetics, or biochemistry. Please forward your curriculum vitae and three letters of recommendation to: **Dr. Hugo Bellen, Institute for Molecular Genetics, One Baylor Plaza, Baylor College of Medicine, Houston, TX 77030.** An Equal Opportunity Employer.

### POSTDOCTORAL POSITION IMMUNOLOGY

Exciting new approach to specific immunotherapy in autoimmune disease model myasthenia gravis. Ph.D. in immunology or equivalent. Experience in cell culture, immunoassays, immunocytochemistry, etc. required. Send curriculum vitae and names of references to: **Daniel B. Drachman, M.D., Johns Hopkins School of Medicine, 600 North Wolfe Street, 5-119 Meyer, Baltimore, MD 21205.**

**POSTDOCTORAL POSITION.** Postdoctoral position is available immediately with the Forest Service, USDA, to study the replication and basis of host specificity of the *Lymantria dispar* nuclear polyhedrosis virus at the molecular level, and to work towards the development of enhanced viral biological control agents for use against forest insect pests. A background in molecular biology with experience in gene cloning, gene sequencing, site-directed mutagenesis, and mRNA analysis is desirable. Starting salary at \$31,000 plus benefits. Send curriculum vitae and the names, addresses, and telephone numbers of three references to: **Dr. James M. Slavicek, USDA Forest Service, 359 Main Road, Delaware, OH 43015.** The USDA is an Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL POSITIONS

Immediate openings for **POSTDOCTORAL FELLOWS** to study the molecular components of excitation-contraction coupling in skeletal muscle. Current research projects involve structural and functional studies of the  $Ca^{2+}$  release channel/ryanodine receptor; purification and cDNA cloning of junctional sarcoplasmic reticulum proteins involved in the regulation of  $Ca^{2+}$  release; and co-expression of junctional sarcoplasmic reticulum proteins with the subunits of the transverse-tubule dihydropyridine receptor. Background in molecular and/or cellular biology is desirable but not essential. Send curriculum vitae and names and addresses of three references to: **Dr. Kevin P. Campbell, Department of Physiology and Biophysics, University of Iowa College of Medicine, 400 EMRB, Iowa City, IA 52242.** Equal Opportunity Employer.

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** To study the control mechanisms of complement activation on cell surfaces. Experience in cell biology and biochemistry is desirable. Send curriculum vitae and names of three references to: **Dr. Victor Nussenzweig, Department of Pathology, NYU Medical Center, 550 First Avenue, New York, NY 10016.** New York University is an Equal Opportunity Employer.

**POSTDOCTORAL POSITION.** Available to study a proto-oncogene human *c-src* (SRC): Regulatory mechanisms for expression of normal and transforming SRC Tyr-protein kinases through in vitro mutagenesis of SRC cDNAs and studies of SRC interacting proteins. A strong background in protein chemistry is preferred, although not required. Send curriculum vitae, names, and addresses of three references by 15 March 1991 to: **Akio Tanaka, Ph.D., Center for Molecular Medicine and Immunology, 1 Bruce Street, Newark, NJ 07103.** An Equal Opportunity Employer.

**POSTDOCTORAL POSITION.** Available immediately to study mechanisms of systemic and cellular/organ damage, mortality, and effects of anesthetics during hemorrhagic shock. Strong background in physiology and/or pharmacology desired. Interest in tissue ischemia and reperfusion helpful. Send curriculum vitae and three references to: **M. Dan McKirman, Ph.D., Department of Pathology, 0612, University of California, San Diego, 92093-0612.** An Affirmative Action/Equal Opportunity Employer.

### MEDICAL RESEARCH COUNCIL (MRC) NATIONAL INSTITUTE FOR MEDICAL RESEARCH POSTDOCTORAL SCIENTIST

Applications are invited for a 3-year postdoctoral appointment funded by the Muscular Dystrophy Group to work with Dr. F. A. Lai in the Division of Physical Biochemistry. The project involves the isolation, structure/function studies, and cDNA cloning of the membrane glycoprotein components of the dystrophin complex. Candidates are expected to have experience in molecular biology, protein purification, and/or membrane biochemistry. Starting salary will be in the range of £15,085 to £18,522 inclusive of London allowance (dependent on experience). MRC pension scheme option.

Applications, including curriculum vitae, list of publications, and two professional referees, should be sent to: **Mr. C. R. Russell, Administrative Manager, National Institute for Medical Research, The Ridgeway, Mill Hill, London NW7 1AA, England,** not later than 22 February 1991 quoting reference PPB/MDG/PD. Informal inquiries may be made to: **Dr. Tony Lai on 081-959-3666, ext. 2154.**

*The MRC is an Equal Opportunities Employer. Smoking is actively discouraged.*

The Basic Science Departments (Cell Biology and Neuroanatomy, Biochemistry, Microbiology, Pathology, Pharmacology, Physiology), Medical School, University of Minnesota, periodically have openings for **POSTDOCTORAL TRAINING.**

For information about possible openings in these programs, write, specifying department of interest, to:

**University of Minnesota Medical School  
Box 293 UMHC  
420 Delaware Street, S.E.  
Minneapolis, MN 55455  
Attention: James C. Nelson**

*The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

### POSTDOCTORAL TRAINEESHIP

A 2-year NICHD-funded position is available for a recent Ph.D. to study expression of neuron- and glial-specific proteins in the developing CNS. Background in molecular biology and in situ hybridization histochemistry preferred. Applicant must be U.S. citizen or permanent resident. Please submit curriculum vitae, statement of research interest, FAX number, and address of three references to: **Dr. Barbara Crandall, 300 UCLA Medical Plaza, Room 3160, Los Angeles, CA 90024.**

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

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Available immediately to investigate the molecular mechanisms of phagocyte chemotactic receptor signal transduction. Our program involves the molecular cloning, structure-function analysis, and signal transduction properties of the formyl peptide and other G-protein-coupled receptors of human phagocytic cells, using the *Xenopus* oocyte and other heterologous expression systems. Salary: \$25,000 to \$28,000.

Contact and send curriculum vitae to:

**Philip Murphy, M.D.  
Laboratory of Clinical Investigation  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
Building 10, Room 11N112  
Bethesda, MD 20892  
Telephone: 301-496-1343  
NIH is an Equal Opportunity Employer.**

### POSTDOCTORAL POSITIONS BONE CELL DIFFERENTIATION

Two positions available to study mechanisms of differentiation-specific gene expression in cultured osteoblasts. Applicants should have a recent Ph.D. in cell/molecular biology or a related field and a long-term interest in bone cell biology. Please submit curriculum vitae and names of three references to: **Dr. Renny T. Franceschi, Department of Biological Chemistry, UTHSC Dental Branch, P.O. Box 20068, Houston, TX 77025.** The University of Texas is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

**POSTDOCTORAL AND RESEARCH ASSOCIATE POSITIONS.** Available immediately for highly qualified individuals to participate in multidisciplinary studies of molecular virology and immunology of animal (murine leukemia virus) and human (HIV) retroviruses. Excellent location and research facility. Salary will be commensurate with experience. Send curriculum vitae and names of three references to: **Dr. A. Pinter, Department of Retroviral Biology, Public Health Research Institute, 455 First Avenue, New York, NY 10016.**

**POSTDOCTORAL RESEARCH ASSOCIATE, NUTRITION RESEARCH.** The Western Human Nutrition Research Center (WHNRC), U.S. Department of Agriculture (USDA), needs a biochemist, nutritionist, or statistician to solve problems in vitamin research. The associate would analyze data for a project that measures vitamin A status and defines the major factors that cause it to change. GS-11, \$32,282 to \$41,963 plus benefits; 40 hours per week. Send résumés to: **Dr. Betty Burri, WHNRC, Presidio of San Francisco, CA 94129** by 15 February 1991. An Equal Opportunity Employer.

### POSTDOCTORAL RESEARCH POSITION AVAILABLE

The Department of Neurosciences, University of California, San Diego, is seeking a qualified Ph.D. or M.D. for a postdoctoral position to work in pharmacology of stroke. Studies concern animal models and clinical trial experience is available for appropriate candidates. The position requires background in pharmacology and ability to perform animal surgery. Knowledge of behavioural testing and histology is desirable. The position is available immediately. Salary is based on the University of California published pay scale. Send curriculum vitae and names of three referees to: **Justin Zivin, M.D., Ph.D., University of California, San Diego, Department of Neurosciences 0624, 8500 Gilman Drive, La Jolla, CA 92093-0624.** The University of California is an Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL AND RESEARCH FELLOWS.** To study the regulation of isoprenoid metabolism. Several positions are available in our Division of Lipid and Lipoprotein Metabolism to study a variety of aspects of the regulation of biosynthesis of cholesterol and other isoprenoids. Prenylation of proteins is also of particular interest. Applicants with backgrounds in lipid metabolism, protein chemistry, and molecular biology are welcome. Principal investigators participating in this program include Drs. S. R. Panini, I. Shechter, and M. Sinensky. Stipends range from \$17,000 to \$25,000 depending on experience. Write to: **Dr. Michael Sinensky, Eleanor Roosevelt Institute, 1899 Gaylord Street, Denver, CO 80206.**

*Affirmative Action/Equal Opportunity Employer.*

**dkfz**

Deutsches  
Krebsforschungszentrum  
Stiftung des öffentlichen Rechts

The Foundation Deutsches Krebsforschungszentrum Heidelberg (German Cancer Research Center) is a National Research Center (Großforschungseinrichtung), mainly funded by the Federal Ministry of Research and Technology and by the state of Baden-Württemberg. About 1500 people work in the center including more than 300 scientists. At present a position is offered for a

### PROFESSORSHIP (C3)

in

### Tumovirus-Immunology

The successful applicant is expected to head a research division in a new building for Applied Tumor Virology. The appointment will be made jointly with the **Faculty of Theoretical Medicine of the University of Heidelberg**.

Applicants should be well qualified and experienced in the field of tumovirology and/or immunology related to tumoviruses; they should have a qualification equivalent to the German "Habilitation". Candidates with experience in cell-mediated immunity and/or vaccine development are particularly invited.

Written applications should be sent by March 31, 1991 to Vorsitzender des Stiftungsvorstands, Deutsches Krebsforschungszentrum, Im Neuenheimer Feld 280 D-6900 Heidelberg, Germany. Fax: 00 49 (0)6221-412071

## RESEARCH ASSOCIATE CELL CULTURE PROCESS DEVELOPMENT

**Amgen**, an innovative leader in the discovery, development, and marketing of human therapeutics through applied biotechnology, has an immediate opportunity for a Research Associate in our Cell Culture Process Development Group.

We are seeking a highly motivated, independent individual for a challenging position involving studies relating to culture alterations on protein glycosylation. Additional responsibilities will entail investigation of novel attachment factors for application toward serum-free medium development. A BS/BA degree in Biological Sciences is required. A background in cell culture, gel electrophoresis and Western blot analysis as well as 1-2 years' experience in industry are preferred.

**Amgen** offers a stimulating and challenging research environment on the leading edge of biotechnology as well as an excellent compensation and benefits package. We are located in an attractive community northwest of Los Angeles and free of the concerns normally associated with the LA area. Candidates should address their CV to:

**AMGEN, INC.**  
Recruitment, Dept. #569  
Amgen Center  
Thousand Oaks  
CA 91320-1789

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## MATHEMATICAL SCIENCES Staff Director

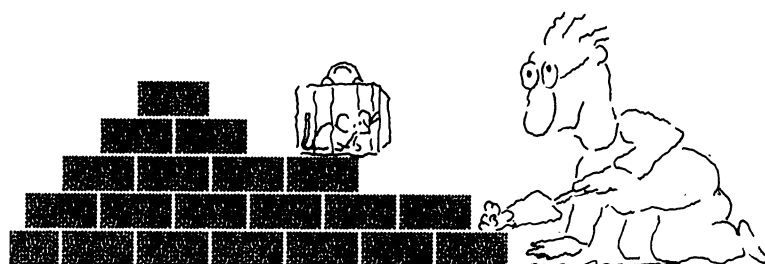
The NATIONAL RESEARCH COUNCIL is seeking a Staff Director for its Board on Mathematical Sciences. Responsibilities include directing a professional staff, conducting a diverse set of studies in the mathematical sciences, and implementing those studies in concert with university, governmental, and industrial sectors. Requires Ph.D. or equivalent in a directly relevant field; 7-10 years relevant experience, extensive working familiarity with research in pure and applied mathematics and statistics; experience with administration and/or study project management; and demonstrated management and communications skills.

Please submit a resume and the names of three references to: NRC/CPSMA, NAS 285 (NM-644.001), 2101 Constitution Avenue, N.W., Washington, D.C. 20418. An Equal Opportunity Employer.

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## POSITIONS OPEN

**POSTDOCTORAL RESEARCH FELLOW.** In molecular cell biology. Skilled in basic recombinant DNA techniques, experience in mammalian cell culture, mRNA isolation and characterization (i.e., Northern blotting and in situ hybridization), and protein purification. Interest in the changes of connective tissue genes (collagen, fibronectin, and actin) as a function of tissue injury. Salary: \$25,000 to \$30,000. Excellent research environment, health benefits, and scientific travel funds. Send résumé and reference letters to: **Professor David Amiel, Director, Orthopaedic Biochemistry, UCSD 0630, La Jolla, CA 92093-0630.**

### FELLOWSHIP POSITION IMMUNOPATHOLOGY

The University of Arizona Department of Pathology invites applications for a clinical fellowship in immunopathology. This fellowship will combine experience with biopsies of renal and skin immune diseases as well as active referral service for tumor marker studies of lymphoreticular and solid neoplasms. Applicants must possess M.D. degree with at least 2 years training in anatomic pathology required. Position available 1 July 1991. Submit curriculum vitae and three letters of reference to: **Dr. Raymond B. Nagle or Dr. Thomas M. Grogan, Department of Pathology, Arizona Health Sciences Center, Tucson, AZ 85724.** The University of Arizona is an Equal Employment Opportunity/Affirmative Action Employer.

### POSTDOCTORAL FELLOW/ RESEARCH ASSOCIATE POSITIONS AVAILABLE IMMEDIATELY

For work on serotonin, galanin, and NPY and their receptors and second messenger systems in the control of ion channels and exocytosis. Candidates should have a Ph.D. or equivalent degree with experience in electrophysiology, biochemistry, biophysics, cell physiology, or pharmacology. Applications, including curriculum vitae and the names of three referees, should be sent to:

**Dr. Geoffrey W. G. Sharp  
Department of Pharmacology  
College of Veterinary Medicine  
Cornell University  
Ithaca, NY 14853-6401**

*Cornell University is an Affirmative Action/Equal Opportunity Employer/Educator.*

### POSTDOCTORAL FELLOW RESEARCH ASSOCIATE

The Neonatal Research Laboratory at Tulane University School of Medicine seeks a qualified individual to study the developmental regulation of the heparin-binding growth factor-1 gene. The successful candidate will also have the opportunity to develop his/her own research ideas and to supervise research by neonatal fellows. Familiarity with the techniques of molecular biology is required. Master's or doctoral degree preferred. Funding is secure and salary is negotiable based on qualifications. Apply to: **Dr. Thomas Storch, Pediatrics Department, Tulane University Medical Center, 1430 Tulane Avenue, New Orleans, LA 70112.** Affirmative Action/Equal Opportunity Employer.

### RESEARCH ASSOCIATES (B.S./M.S.) IN CHEMISTRY AND BIOCHEMISTRY

AgriGenetics Company, a division of the Lubrizol Corporation with a major research facility in Madison, Wisconsin, is seeking applicants for two positions in its biochemistry group. A major focus of this group is the study of plant oils and natural products. The first position is for a **CHEMIST** to develop analytical methods and enzyme assays, to identify unknown components, and to perform chemical and biochemical syntheses. A working knowledge of chromatography is essential, with some experience in organic synthesis preferred. The second position is for a **BIOCHEMIST** to participate in all biochemical aspects of projects directed at gene isolation. A working knowledge of enzymology and protein purification and electrophoresis is required, while some experience in immunological methods is preferred. Both positions require a B.S. or M.S. in chemistry and biochemistry, respectively (or related disciplines), with several years of laboratory experience. Send résumés to: **Dr. Mike Pollard, AgriGenetics Company, 5649 East Buckeye Road, Madison, WI 53716-2499.** An Equal Opportunity Employer.

## POSITIONS OPEN

**ASSISTANT RESEARCH SCIENTISTS/POSTDOCTORAL FELLOWS.** Senior and junior positions available (3 years) to study proteolytic processes used by normal and neoplastic cells to traverse as well as degrade extracellular matrix barriers [J. Clin. Invest. 83, 1122 (1989); N. Engl. J. Med. 320, 365 (1989); J. Biol. Chem. 264, 13801 (1989); Science 249, 178-181 (1990)]. Strong background in either endothelial cell-extracellular matrix biology/molecular biology or leukocyte/tumor cell biology is absolutely required. Salary: \$35,000 to \$40,000 for assistant research scientists and \$20,000 to \$25,000 for postdoctoral fellows. Applicants for assistant research scientists must be U.S. citizen or permanent resident of the United States. Submit curriculum vitae and two letters of reference to: **Dr. Stephen J. Weiss, Upjohn Professor of Medicine and Oncology, University of Michigan, Simpson Memorial Institute, 102 Observatory Street, Ann Arbor, MI 48109.**



**Agricultural Research Service  
United States Department of Agriculture**

The Southern Weed Science Laboratory, Agricultural Research Service, U.S. Department of Agriculture (USDA), in Stoneville, Mississippi, is accepting applications for the following position: **MICROBIOLOGIST, GS-403-11/12.** Assignment presents an opportunity to conduct research on the interactions between herbicides and microorganisms in soils, plant rhizospheres, and subsoils and to apply knowledge of these interactions to reducing adverse effects of pesticides on crops, soils, and water quality. Must be a U.S. citizen. Salary: \$31,116 to \$48,481 based on qualifications and experience. B.S./M.S./Ph.D. or equivalent experience. Knowledge of soil science, chemistry, environmental microbiology, and microbial ecology is required. Usual federal government benefits apply. For further information, contact: **Dr. Stephen Duke, 601-686-5272.** For application packet, call: **Mrs. Darlene Fowler, 301-344-1504.** U.S. Department of Agriculture, Greenbelt, Maryland. Refer to **ARS-D15-023** when inquiring about vacancy. Completed applications must be received by 29 March 1991. USDA is an Affirmative Action/Equal Opportunity Employer.

**SENIOR ENTOMOLOGIST/INSECT PHYSIOLOGIST.** ISK-Mountain View Research Center (ISK-MRC), an agrochemical research facility located in Sunnyvale, California, has an immediate opening for a Ph.D. entomologist with postdoctoral experience in insect physiology. The position requires the design and implementation of innovative assays to assess the effects of novel bioactive compounds against insect pests. Candidates must have expertise in the dissection and preparation of insect organs and in the use of RIA and chromatographic techniques.

To be considered for this position, please send your curriculum vitae including salary requirements, list of publications, and the names, addresses, and telephone numbers of three references to: **Dr. James A. Klocke, ISK-MRC, 1195 West Fremont Avenue, Sunnyvale, CA 94087.**

### OCEANOGRAPHERS

Recent Ph.D. and/or postdoctoral fellows in fisheries/biological oceanography should apply for immediately available **4-YEAR RESEARCH POSITIONS** in oceanography at Dalhousie University and biology at McGill University. Successful candidates will join an established interdisciplinary group in the Ocean Production Enhancement Network (OPEN) that is taking an exciting new approach to researching biological and physical interactions affecting survival in cod larvae. The position at Dalhousie involves physical and biological measurements at sea and tracking larval cohorts on the Scotian Shelf. The position at McGill involves assessing phenotypic traits as survival probability indicators in larval cod (laboratory and sea). Shipboard experience, expertise in physical/biological interactions, and computing skills are assets. Salary is commensurate with experience. Send curriculum vitae, any publications, and three letters of reference (and telephone numbers) to the appropriate address: **Dr. C. T. Taggart, Oceanography, Dalhousie University, Halifax, N.S., Canada, B3H 4J1. Telephone: 902-494-8894, or Dr. W. C. Leggett, Biology, McGill University, Montreal, PQ, Canada, H3A 103. Telephone: 514-398-4211.** In accordance with Canadian Immigration policy, this advertisement is directed primarily to Canadian citizens or permanent residents.

## POSITIONS OPEN

**M.D./Ph.D. FELLOWSHIPS.** The Medical University of South Carolina (MUSC) offers stipends (\$10,000 to \$15,000) for studies leading to combined M.D./Ph.D. degrees in each of the basic biomedical sciences and molecular and cellular biology/medicine. Contact: **Director, Medical Scientist Training Program, College of Graduate Studies, MUSC, 171 Ashley Avenue, Charleston, SC 29425.**

**QUANTITATIVE ECOLOGIST.** The Smithsonian Institution has a career opening for an ecological modeler to join an interdisciplinary basic research team conducting long-term studies in the Chesapeake Bay region. Experience in developing and testing models, managing computer systems, the equivalent of a Ph.D., and research publications are required. Salary is \$37,300. Applicants must be U.S. citizens. Submit cover letter, curriculum vitae, and names of three professional references before 15 April 1991 to: **Dr. David L. Correll, Smithsonian Environmental Research Center, P.O. Box 28, Edgewater, MD 21037.** An Affirmative Action/Equal Opportunity Employer.

### TOXICOLOGIST

Office of Toxic Substances, Washington State Department of Health (WSDOH), invites applications for a full-time toxicologist I position. Postdoctoral experience and ability to communicate with the public required. The primary area of expertise is hazardous waste site evaluation, but experience in the areas of pesticides, air and water quality is desirable. Submit résumé, copies of two publications, and three letters of recommendation to: **Carl Sagerser, Department of Health, MS LD-11, Olympia, WA 98504,** by 28 February 1991. WSDOH is an Equal Opportunity Employer.

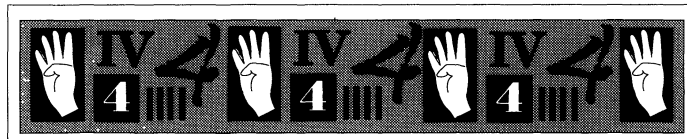
### ILLINOIS LEGISLATIVE SCIENCE INTERN

Sangamon State University invites applications from graduates of science or engineering programs (baccalaureate, master's, doctorate) for two 10.5-month science internships beginning 1 October 1991 as part of the Illinois Legislative Staff Internship Program. The science interns will be assigned to Springfield or Chicago offices of the Illinois Legislative Research Unit which provides legislators with information and research about policy issues. Science interns receive \$1450 per month in compensation. Interested persons should send curriculum vitae by 8 March to: **Dr. Kent Redfield, Coordinator, Illinois Legislative Staff Internship Program, Sangamon State University, Springfield, IL 62794-9243.**

**MIGRATORY BIRD RESEARCH.** The Smithsonian Institution is seeking to fill three professional positions for the newly established Smithsonian Migratory Bird Center. The center will conduct interdisciplinary research on the ecology and conservation of landbirds that breed in eastern North America and overwinter in the Caribbean region and Latin America. Field experience in one or more of these regions is required and knowledge of Spanish is desirable. Positions are available for two avian ecologists (Ph.D., postdoctoral experience, and relevant publications required; salary \$31,000 to \$44,000) and one habitat or conservation analyst (master's or Ph.D. and relevant experience required; salary \$26,000 to \$37,000). Applicants must be U.S. citizens. Submit cover letter, curriculum vitae, and names of three references before 1 April 1991 to: **Dr. James F. Lynch, Smithsonian Environmental Research Center, P.O. Box 28, Edgewater, MD 21037.** An Affirmative Action/Equal Opportunity Employer.

**IMMUNOGENETICS.** Applications are invited for a new position in a clinical immunogenetics laboratory supporting four major transplant programs. Responsibilities include technical direction of histocompatibility typing by DNA and development of a research program with relevance to transplantation or transfusion medicine. Position level dependent on experience. Applicants must have an M.D. or Ph.D. with strong skills in molecular biology. The successful candidate will be expected to attract extramural funding for their research program after 18 months. Applications consisting of curriculum vitae, summary of research interests, and two letters of recommendation should be sent by 15 February 1991 to: **Immunogenetics Search Committee, Human Resources Manager, Puget Sound Blood Center, 921 Terry Avenue, Seattle, WA 98104.**

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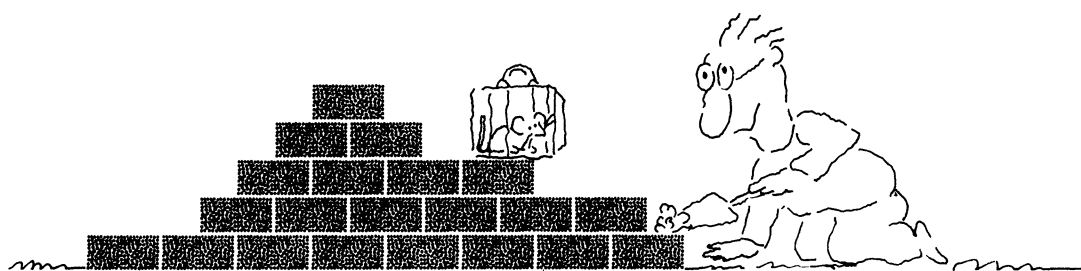
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## POSITIONS OPEN

### ENVIRONMENTAL HEALTH

The National Research Council (NRC) is seeking a staff scientist and two senior program officers for its Board on Environmental Studies and Toxicology.

**STAFF SCIENTIST.** Responsibilities include coordination, planning, and preparation for committee meetings, development of scientific data, writing scientific material for committee reports, and serving as staff scientist for several committees. Requires Ph.D. or equivalent and at least 2 years of experience in toxicology, risk assessment, epidemiology, environmental health science, or closely related biological or biomedical field, and ability to analyze and develop chemical and toxicology data in scientific reports.

**SENIOR PROGRAM OFFICERS.** One position involves acting as project director for a study on air pollutants; the second position involves acting as project director for a study on risk assessment methodology. Responsibilities include working with committee of experts, directing small research staff, and providing intellectual overview of report. Positions require a Ph.D. and at least 4 years of experience in research, teaching, or administration in toxicology, epidemiology, pharmacology, environmental health science, or a related science. Must understand utilization of scientific information in decision-making and have ability to integrate data from a wide variety of disciplines.

Please submit in confidence curriculum vitae and a recent publication or writing sample and names of references to: **NRC/BEST, HA 354 (RT), 2101 Constitution Avenue, N.W., Washington, DC 20418.** *Equal Opportunity Employer.*

**COGNITIVE NEUROSCIENTIST AND/OR NEUROPSYCHOLOGIST** with interests in neurobiology of aging and dementia, to set up an independent research program in conjunction with the Alzheimer's Disease Research Center (ADRC) of Los Angeles and Orange counties and the USC Program in Neural Information and Behavioral Sciences (NIBS). Tenure track, with preference given to investigators with established programs. Primary appointment in the Andrus Gerontology Center and affiliations with other departments as appropriate (e.g., psychology, neurology). Send curriculum vitae to: **Dr. Caleb E. Finch, USC, Andrus Gerontology Center, 3715 McClintock Avenue, Los Angeles, CA 90089-0191.**

**NEUROSCIENTIST.** Position available immediately for Ph.D. or M.D. applicant with immunology or pathology or biochemistry or pharmacology expertise related to brain tumor to complement ongoing research in interferon, blood-brain-barrier, and glioma. Level of faculty appointment and salary (\$30,000 to \$42,000) negotiable. Send curriculum vitae, a brief statement of current and future research interests, and three letters of reference to: **Marzenna Wiranowska, Ph.D., Department of Neurology, University of South Florida, College of Medicine, MDC Box 55, Tampa, FL 33612.** *The University of South Florida is an Equal Opportunity/Affirmative Action Employer.*

### RESEARCH SCIENTIST

The Division of Pediatric Surgery, Department of Surgery, Ohio State University College of Medicine at the Columbus Children's Hospital, is presently conducting a search for a research scientist. A position is available for a Ph.D. in biochemistry with at least 2 years of postdoctoral experience in polypeptide growth factor research, to study the nature and role of polypeptide growth factors in the female reproductive tract. Experience in protein characterization and purification (HPLC, FPLC, PAGE, Western blotting), cell culture, radio-receptor assays, DNA synthesis assays, and cell proliferation assays is essential. Applicants should have a strong interest in the biochemistry and cell biology of reproduction.

Forward curriculum vitae to:

**Olga Jonasson, M.D.  
Department of Surgery  
Ohio State University  
N747 Doan Hall  
410 West 10th Avenue  
Columbus, OH 43210**

*The Division of Pediatric Surgery, Department of Surgery, Ohio State University College of Medicine at the Columbus Children's Hospital, is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ELECTRON MICROSCOPY YERKES PRIMATE RESEARCH CENTER EMORY UNIVERSITY ATLANTA, GEORGIA

Individual is sought who can assist in operation of a multiuser EM research facility. Competence in TEM/ultramicrotomy is required. Some experience with STEM, SEM, x-ray microanalysis, and image analysis is highly desirable. The successful applicant will be expected to collaborate with primary investigators and provide EM data and interpretation. Commensurate with demonstrated skills and after in-house training, duties will be expanded to include STEM, high resolution SEM, technical photography, and image processing. A B.S. or M.A. degree in either the physical or biological sciences is necessary. Send résumé to: **Emory University Human Resources Department, Employment Center, 637 Asbury Circle, Atlanta, GA 30322. Telephone: 404-727-7611.**

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**ENVIRONMENTAL SCIENCE (EARLY JOB ALERT).** The Pacific Southwest Research Station, Riverside, California, seeks a permanent Ph.D. research scientist. This position will augment an existing research program conducted in California, the western United States, and internationally. Expertise in one or more of the following is required: biogeochemistry, forest genetics, forest ecology, root biology, soil microbiology, or soil chemistry. Experience in the area of effects of air pollution or global atmospheric changes on natural resources is preferred. Salary is commensurate with experience, GS 11-13 (\$32,000 to \$55,000). *U.S. citizenship is required.* Contact or send curriculum vitae to: **Dr. Mark Poth, USDA Forest Service, 4955 Canyon Crest Drive, Riverside, CA 92507-6099. Telephone: 714-276-6555.** This is not a vacancy announcement; the position will be advertised at a later date. *The USDA Forest Service is an Equal Opportunity Employer.*

### NEUROSCIENTIST

Neuroscientist needed to join basic research group studying epilepsy and other neurological disorders involving pathophysiology and pathology. Position is funded through Health Research, Inc., at New York State Department of Health Hospital affiliated with Columbia University and carries faculty appointment at College of Physicians and Surgeons of Columbia University. Applicants should have record of creative, high-quality research, and the potential for independent grant support. Send curriculum vitae and statement of experience and goals to: **Dr. R. S. Sloviter, Neurology Research Center, Helen Hayes Hospital, West Haverstraw, NY 10993.** *Columbia University and Helen Hayes Hospital are Affirmative Action/Equal Opportunity Employers.*

A major affiliate hospital of the Department of Radiology at the University of Minnesota is offering an annual, renewable contract appointment at the rank of **RESEARCH ASSOCIATE OF RADIOLOGY** (100% time) beginning 16 April 1991. This research position is integral to the Veterans Administration Medical Center (VAMC) and the University of Minnesota Health Center (UMHC) PET program with a major research focus in the quantification of PET data. The successful candidate must have a Ph.D. in physical sciences, engineering, or related field (including multidimensional signal processing) and at least 1 year of medical imaging research experience focusing on PET. Academic experience with tomographic reconstruction methods, UNIX development of C and FORTRAN-based image processing software is required. This position does include independent research. Salary is negotiable and competitive, and is dependent upon past scholarly productivity and postdoctoral experience. Applications will be accepted through 31 March 1991. Send curriculum vitae, bibliography, and letters of recommendation to: **S. C. Strother, Ph.D., Senior Physicist, VAMC/UMHC PET Program, Veterans Administration Medical Center, One Veterans Drive, Minneapolis, MN 55417.** *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

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### RESEARCH ASSOCIATE

Neurobiological research on determinates of neuroplasticity in aging and neurodegenerative diseases. Interpret data and the clinicopathological correlation with the morphological and molecular signals of brain plasticity. Perform immunocytochemical and histochemical stains, RNA and DNA isolation, cloning, Northern blot analysis, and in situ hybridization. Analyze data using neuron tracing system, supervise postoperative animal care, prepare results for publication. Supervise graduate and undergraduate students. Requirements: Ph.D. in neuroscience; knowledge of immunocytochemistry, electron microscopy, neuron tracing system computer software, RNA and DNA isolation, cloning, Northern and Western blot analysis, in situ hybridization. Salary: \$576.92 per week, 40 hours per week; entry level position. Job/interview site: Los Angeles, California. Send this ad and a résumé to: **Job #PML0022, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 16 February 1991.

**ASSISTANT NUCLEAR ENGINEER.** Ph.D. in Nuclear Engineering. Four years of experience as a researcher. Research experience should include: digital computer programming and at least one of the following specialized areas: fission reactor physics, engineering, or numerical analysis as evidenced by a minimum of ten publications in refereed journals. Develop, maintain, and extend digital computer codes for analyzing nuclear fission reactor performance. Produce the mathematical methods and computer codes for solving the equations which govern reactor performance. Developments are to be conducted on CRAY and IBM mainframe systems and on SUN workstations. Proficiency with Fortran language and in UNIX and IBM operating system is required.

Salary: \$4100 per month; 40 hours per week, 8:30 a.m. to 5:00 p.m. Send résumé to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605. Attention: L. Donegan. Reference #V-IL 2037-D.** *Must have proof of legal authority to work in the United States. An employer-paid ad.*

## Health Scientist Administrator in Diabetes

The National Institute of Diabetes and Digestive and Kidney Diseases seeks a biomedical scientist (Ph.D., M.D. or equiv.) with a record of research accomplishment and excellent communication skills to serve as Health Science Administrator (GS-12, -13 or -14) within the Diabetes Research Program. The position involves the programmatic management of grants and contracts in diabetes research. In addition, this position will have responsibility for the development of a new program of research support in the specific area of diabetes in minority populations. Therefore, this position will require enhanced sensitivity to the specific health-related problems of these populations. Emphasis will be placed on selecting a candidate who has demonstrated experience relevant to these populations and their concerns. The position is available at a salary range of \$35,825 to \$65,444 per annum. Physicians may be eligible for an additional allowance. Please submit an Application for Federal Employment (SF-171) and/or CV and bibliography as soon as possible to:

**Robert E. Silverman, M.D., Ph.D.**  
**Chief, Diabetes Programs Branch**  
**NIDDK**  
**National Institutes of Health**  
**Westwood Building, Room 626**  
**Bethesda, MD 20892**  
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## SCIENTIST

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## STAFF SCIENTIST

*Experimental Therapeutics Division*

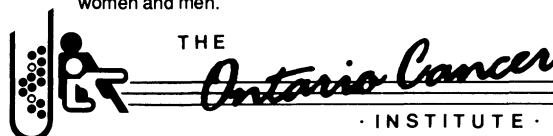
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The successful candidate will have an interest in the above experimental studies and possess expertise in molecular biology. The candidate will be expected to establish a research program within the Experimental Therapeutics Division and attract peer-reviewed research funds. This position will involve appointment to the Senior Scientific Staff of the Institute and candidates should be eligible for appointment to the Department of Medical Biophysics at the level of Assistant Professor.

Persons interested in this position should apply in writing to: **Dr. G.F. Whitmore, Head, Experimental Therapeutics Division, Research Department, The Ontario Cancer Institute, 500 Sherbourne Street, Toronto, Ontario M4X 1K9**, enclosing curriculum vitae, a statement of their expertise, current interests, proposed research program, and the names of three referees willing to provide references.

In accordance with the Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. In accordance with the Employment Equity Policy of the University of Toronto and The Ontario Cancer Institute, applications are invited from all qualified women and men.



## POSITIONS OPEN

### ASSISTANT RESEARCH SCIENTIST

Applications are invited for a postdoctoral assistant research scientist position to study the micro- and molecular biology of *Bartonella bacilliformis*, a pathogenic parasite of human red cells including capillary endothelium [Benson, *et al.*, *Infect. Immun.* 54, 347 (1986)], including identification of the receptor on human red cells and bacterial proteins involved in binding and entry. 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.

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**RESEARCH ASSOCIATE.** A position is available at the Biophysics Department, Roswell Park Cancer Institute (RPCI), for a person with a Ph.D. in peptide chemistry/chemistry. Experience in design and synthesis (by solution and solid-phase method) of helical and immunologically active peptides, in their purification (by HPLC), and in their characterization of peptides is essential. Experience in crystallization, x-ray analysis, NMR, and immunological studies is desirable. Salary: \$25,000 per year. Send curriculum vitae to: Dr. H. Box, Biophysics Department, Roswell Park Cancer Institute, Buffalo, NY 14263. *RPCI is an Equal Opportunity/Affirmative Action Employer.*

### RESEARCH ASSOCIATE POSITIONS

Immediate openings for four research associate positions for biomedical-related research in the areas of molecular biology, biochemistry, and organic chemistry. Qualified candidates must have a Ph.D. in the field of biomedical research or a related field. Salary commensurate with experience. Send applications with references to: Dr. Juarine Stewart, Clark Atlanta University, RCM Program, Box 68, James P. Brawley Drive at Fair Street, Atlanta, GA 30314. *Clark Atlanta University is an Equal Opportunity Employer.*

### RESEARCH ASSOCIATE IN MOLECULAR ENDOCRINOLOGY

Project to determine the mechanism by which estrogen receptor (ER) binding to regulatory element sequences (EREs) induces nearby promoters. Experiments involve measuring ER-ERE interaction in vitro and ER regulation of transcription from plasmids transfected into cultured cells. See *PNAS* 85, 1038 (1988); *Biochemistry* 28, 8671 (1989). Send curriculum vitae and references to: Drs. Russell Hilf and Robert Bambara, Department of Biochemistry, Box 607, University of Rochester, Rochester, NY 14642.

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**RESEARCH ASSOCIATE.** Harvard Medical School, Department of Cellular and Molecular Physiology. Scientist for research project concerned with the evolution of the gene for involucrin, an epidermal protein. The experiments to be carried out will require familiarity with mammalian cell culture, construction of genomic libraries, gene cloning and sequencing, analysis of nucleotide sequences. Note: Please send a cover letter and résumé to: Denise Zakher, Harvard Medical School, Department of Cellular and Molecular Physiology, 25 Shattuck Street, Boston, MA 02115. Minimum requirements: Doctoral degree with a minimum of 3 years of experience in molecular and cellular biology, and a strong publication record in molecular evolution.

## ANNOUNCEMENTS

### RESEARCH GRANTS

As part of its efforts to encourage the utilization of alternatives to traditional uses of animals in biomedical research, product safety testing, and educational demonstrations. The Demeter Fund is soliciting research proposals to develop such methods. Funding of up to \$50,000 each is available to support individual research efforts at U.S. universities and research institutions. The deadline for applications is 15 April 1991 with recipients to be announced on 15 July 1991. Funds may not be used for salary supplements of the principal investigator(s). For further information and application instructions contact: The Demeter Fund, Suite 204 Noble Plaza, 801 Old York Road, Jenkintown, PA 19046-1685. Telephone: 215-887-0816 or FAX: 215-887-2088.

## COURSES AND TRAINING

### POSTDOCTORAL TRAINING PROGRAM CELLULAR AND MOLECULAR ENDOCRINOLOGY

Postdoctoral traineeships are available starting in 1991 in an NIH-supported program. Trainees with a Ph.D. or M.D. degree having U.S. citizenship or permanent residence in the United States will participate in a research program with 1 to 14 faculty from the Biochemistry Department and the Division of Biomedical Sciences on the campus of the University of California, Riverside. The purpose of the program is to provide for research training at the postdoctoral level in the following five major areas of focus:

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- (iii) production of actions of lymphokines, hemopoietic growth factors and cytokines;
- (iv) molecular and cell biology of hormone synthesis and action; and
- (v) transductive and intracellular events in hormone action.

For detailed information and application forms, write to:

Dr. Anthony W. Norman, Program Director  
Division of Biomedical Sciences  
University of California  
Riverside, CA 92521  
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### POSTDOCTORAL TRAINING PROGRAM BIOLOGY AND CHEMISTRY OF EXTRACELLULAR MATRIX

Postdoctoral traineeships are available in an NIH-supported program which is in its twelfth year. Trainees will participate in an interdisciplinary program encompassing twelve faculty members in four departments. Trainees are encouraged to select a major preceptor in the areas of interest which include cellular, molecular, and developmental aspects of the extracellular matrix. Please contact:

Dr. Marvin L. Tanzer  
Department of BioStructure and Function  
University of Connecticut Health Center  
Farmington, CT 06030

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Deadline for applications June 1, 1991.

Individuals interested should send a curriculum vitae to:

**Ernest C. Borden, M.D.  
Director  
Cancer Center of Medical College  
of Wisconsin  
8701 Watertown Plank Road  
Milwaukee, WI 53226**

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**RESEARCH SCIENTIST POSITIONS.**

Candidates should have a Ph.D. or equivalent in a relevant area and 1-3 years of postdoctoral experience. Additional experience as an independent scientist in academic or industry settings is desirable but not essential.

**RESEARCH ASSOCIATE POSITIONS.**

A Bachelor's degree or equivalent and relevant work experience in neurobiology, including neuronal cell culture or neurohistochemistry, are necessary.

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