

### Faraday Cage Shields Experiments

Model FDC3036 Faraday Cage protects sensitive electrophysiology experiments from electromagnetic noise emanating from light fixtures, electric motors, and other electrical equipment. The cage is designed for use with the 30 by 36 inch Newport Vibration Isolated Workstation, Model VW-3036, and is freestanding to conveniently fit over the workstation. The ultrafine bronze mesh material in the side and top panels provides shielding. Resistance between the panels and frame is less than 0.1 ohm, allowing for efficient broadband attenuation of frequencies from 60 Hz to more than 10 MHz. Newport Bio-Instruments. Circle 516.

### Bioreactor for Monoclonal Antibody Production

A new bioreactor for producing monoclonal antibodies in quantities sufficient for research or for cell screening can replace the ascites fluid from 20 to 40 mice and can deliver the product at about 50% greater purity than other bioreactors. In the Mini Flo-Path hollow fiber reactor, mammalian cells grow on or around the exterior of artificial capillaries, which promote high rates of nutrient supply and waste removal. The result can be a cell density approaching that of packed tissue mass. The bioreactor can produce 5 to 50 mg of monoclonal antibodies per day, up to 95% pure, at a concentration of 1 to 10 mg/ml. Amicon Division, W. R. Grace. Circle 514.

### Biotechnology Patent Information

GENESEQ is a computer database of protein and nucleic acid sequences from published patent applications filed in the United States, Europe, Japan, and the world's other major patent offices. In addition to the sequence itself, a GENESEQ

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.

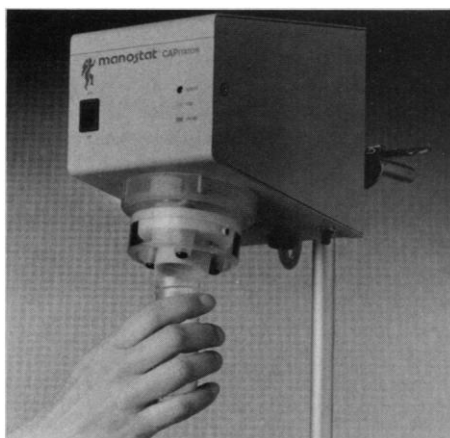
entry includes scientific and experimental information and bibliographic data specific to the patent, such as patent number and date of application. GENESEQ also contains links to Derwent Publications' other online patent databases, such as World Patents Index and Biotechnology Abstracts. Intelligenetics and Derwent Publications. Circle 520.

### Plate Tectonics Modeling Software

Time-Machine Earth is a software program designed to bring plate tectonic software modeling to the personal computers of scientists and educators. The program simulates the geological history of the planet on an IBM-compatible personal computer. It displays a computer-generated satellite image of the globe, showing the position of oceans and continents at any selected period. Users can glimpse the earth up to 550 million years ago or 40 million years in the future with accuracy, or up to 2 billion years in the past or future on a speculative basis. Sageware Corp. Circle 532.

### Device for One-Handed Capping

The Capitator is a device designed to allow laboratory workers to put on and take off the screw caps of vials, bottles, test tubes, and flasks using only one hand. The Capitator adjusts to work with any size screw cap



with an outside diameter from 13 to 38.5 mm. The Capitator mounts on a ring stand. Pressing the capped vial automatically initiates uncapping. It holds the cap until recapping is initiated by pressing the container back into the cap. The Capitator can also be set to repeatedly cap or uncapped only. Light-emitting diodes indicate the direction the cap holder will turn when next activated. Manostat Corp. Circle 518.

### Mobile Environmental Monitor

The Mobile Environmental Monitor (MEM) is a gas chromatograph-mass spectrometer (GC-MS) designed specifically for field analysis. The MEM has been shown to operate reliably installed in a four-wheel drive vehicle, driving over rough terrain under extreme conditions of temperature and humidity. Power requirements are limited to 24-V direct current, which can be supplied by rechargeable batteries. Based on a quadrupole analyzer and electron-impact ionization, operation of the MEM is simple, designed for use by field crews with no GC-MS experience. Many different sampling accessories are available, including a direct air and surface sampler for identifying and quantitating organics in air, water, or soil and a capillary GC for direct analysis of water, soil, or air with a minimum of sample preparation. Bruker Instruments. Circle 511.

### Literature

*The Water Encyclopedia, Second Edition*, includes information on ground-water contamination, drinking water, floods, waterborne diseases, climate change, irrigation, water agencies and organizations, precipitation, oceans and seas, rivers, lakes, waterfalls, and water use and reuse. Lewis Publishers. Circle 538.

*Sigma 1990 Product Index* makes it easier to locate product listings by arranging them in product number sequence and indicating the appropriate General Catalog page number. Sigma Chemical Co. Circle 539.

*Infrared Accessories and Supplies* is a 48-page, four-color catalog providing complete information on an extensive range of sampling accessories and supplies for Fourier transform infrared spectroscopy. Spectra-Tech. Circle 540.

*Serological Methods for Detection and Identification of Viral and Bacterial Plant Pathogens: A Laboratory Manual* presents methods for preparing and treating antigens, polyclonal antisera, and monoclonal antibodies, as well as state-of-the-art serological principles, methods, step-by-step procedures, and applications for detection and differentiation of pathogens. APS Press. Circle 543.

*Announcing the Hewlett-Packard Unified Laboratory* describes how the company's comprehensive offering in laboratory-data handling, computer, and networking systems can help different instrument techniques, researchers, and laboratories work together more effectively. Hewlett-Packard. Circle 544.

# 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.

**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.)

**CREDIT CARDS:** **SCIENCE** accepts MasterCard and VISA.

**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.

**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.

**SITUATIONS WANTED ADS:** As a service to AAAS members in good standing, **SCIENCE** offers free placement of Situations Wanted ads for individuals seeking full-time or part-time employment. A blind box may be used. Ads must be submitted in writing with text of 20 words or less, not including address or box number, and are limited to two insertions per member in each calendar year. Please enclose **SCIENCE** mailing label including AAAS membership number when submitting ad.

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

Address ad copy or requests for information to:

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

## 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, ANATOMY

The Department of Surgery, Section of Anatomy, at Yale University School of Medicine invites applications for a tenure-track position at the level of assistant professor. Responsibilities include development of a strong independent research program and participation in the teaching of gross anatomy to medical students. Applicants should submit curriculum vitae with a summary of present and future research interests by 1 February 1991 directly to: **Dr. William B. Stewart, Department of Surgery, Section of Anatomy, Yale University School of Medicine, P.O. Box 3333, New Haven, CT 06510.**

*Yale University is an Equal Opportunity/Affirmative Action Employer and all women and members of minority groups are encouraged to apply.*

**ASSISTANT PROFESSOR OF BIOLOGY.** Tenure track. Ph.D. training in cellular/molecular biology and commitment to undergraduate teaching required. Teaching responsibilities will include introductory course and upper-division specialty course; research involving undergraduates is encouraged. The department is composed of six faculty and will occupy new facilities in 1991. Send curriculum vitae including reference list to: **R. I. Peters, Department of Biology, Lynchburg College, Lynchburg, VA 24501** by 23 November 1990. *Lynchburg College encourages applications from women and minority candidates.*

### DEPARTMENT OF BIOLOGY ASSISTANT PROFESSOR POSITION

The Department of Biology invites applications for a full-time, tenure-track position at the assistant professor rank at the University of Wisconsin Center (UWC)—Rock County, Janesville, beginning fall 1991. A doctorate is required, with strengths in teaching introductory genetics, botany, and microbiology. The UW Centers, which includes 13 campuses, is one of the institutions of the University of Wisconsin System. Its mission includes offering freshman/sophomore level instruction to students planning to transfer to a 4-year institution. UWC faculty are expected to offer quality instruction and be professionally active in their discipline. Send curriculum vitae and three letters of reference to: **Dr. Koby T. Crabtree, Chair, Department of Biology, UWC—Marathon, 518 South 7th Avenue, Wausau, WI 54401**, by 15 November 1990. *The UW Centers is an Affirmative Action/Equal Opportunity Institution.*

University of Pennsylvania. The Department of Psychology intends to make an appointment at the **ASSISTANT PROFESSOR** level in one of the following areas: neuroethology, animal behavior, animal learning, or biopsychology of motivation or learning. Individuals whose research combines more than one of these areas would be especially attractive. We seek candidates with demonstrated excellence in research and teaching. They should submit curriculum vitae, reprints and preprints, and a statement of research interests and teaching competence; they should also arrange for three letters of recommendation to be sent. All materials should be sent by 3 December 1990 to: **Search Committee A, Department of Psychology, University of Pennsylvania, 3815 Walnut Street, Philadelphia, PA 19104-6196.** *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.*

### COLBY COLLEGE

The Department of Geology at Colby College seeks to fill a tenure-track position in groundwater hydrology and environmental geology at the **ASSISTANT PROFESSOR** level, beginning 1 September 1991. Qualified women candidates will also be considered for appointment as Clare Boothe Luce Assistant Professor of Geology. Courses to be taught will include groundwater hydrology, environmental geology, structural geology, a course in the candidate's subdiscipline, and alternating duties in the introductory physical geology course. Average teaching load of four to five courses per year, including appropriate laboratories and the January term. Applicants should have completed all Ph.D. requirements and expect to have degree in hand by 1 September 1991. Please submit letter of application, résumé, undergraduate and graduate transcripts, and names of three references by 15 January 1991 to: **Associate Professor Robert E. Nelson, Chair, Department of Geology, Colby College, Waterville, ME 04901-4799.** *Colby is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR MOLECULAR AND CELLULAR BIOLOGY

The Department of Microbiology and the College of Medicine at the University of Illinois (Urbana-Champaign) seek candidates for a full-time tenure-track faculty position at the assistant professor level. Applicants should have a Ph.D. or M.D. degree, postdoctoral experience, and show exceptional promise in developing an active research program in molecular and cellular biology. Research areas of particular interest include, but are not limited to, molecular aspects of pathogenesis, microbial physiology and genetics, and molecular parasitology. Responsibilities include teaching medical and graduate students. Starting date: August 1991. Salary commensurate with experience.

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

Applicants should submit curriculum vitae and statement of research interests, and arrange to have three letters of reference sent to:

**Sondra G. Lazarowitz**  
Department of Microbiology  
University of Illinois  
131 Burrill Hall  
407 South Goodwin Avenue  
Urbana, IL 61801  
Telephone: 217-333-1736

Closing date for applications is 15 December 1990. Interviews may be conducted prior to 15 December; however, all applications received by the closing date will be given full consideration. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

**MICROBIOLOGIST.** The Department of Biology, New Mexico State University (NMSU), invites applications for a tenure-track position as **ASSISTANT PROFESSOR.** Applicants should have a Ph.D. and postdoctoral experience. We prefer research interests in prokaryotic systematics or applied/environmental/bioremediation microbiology. The department offers the B.S. in microbiology or biology as well as the M.S. and Ph.D. Faculty participate in a molecular biology graduate program. Review will begin 12 November 1990 and will continue until the position is filled. Send curriculum vitae, summary of research goals, statement of teaching interests, and names, addresses, and telephone numbers of three to five references to: **J. L. Botsford, Chairman, Microbiology Search Committee, Department of Biology, NMSU, Las Cruces, NM 88003-0001.** Telephone: 505-646-3726. *NMSU is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.*

### NEUROSCIENCE UNIVERSITY OF COLORADO SCHOOL OF MEDICINE

The Neuroscience Center invites applications for two new tenure-track faculty positions at the **ASSISTANT PROFESSOR** level, effective in late 1991. Newly constructed research space and start-up funds are available. We are particularly interested in molecular neurobiologists and developmental neurobiologists; however, outstanding candidates in any area of neuroscience will be considered. The Neuroscience Center has a strong research faculty with interests in cellular, molecular and developmental neurobiology, sensory systems, neuroreceptor pharmacology and neural transplantation. Other active interdisciplinary programs in molecular biology and immunology enhance the research environment. Successful candidates will be expected to conduct a vigorous independent research program and to participate in graduate teaching. Applicants should send their curriculum vitae, a brief description of their research interests, and the names of three references by 15 December 1990 to: **Dr. Nicholas W. Seeds, Director of the Neuroscience Center B-121, University of Colorado Medical School, Denver, CO 80262.** *Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR BIOLOGY DEPARTMENT WILLIAMS COLLEGE

Anticipated tenure-track position beginning July 1991 for a physiologist with strong interests in teaching and research. Ability to teach a range of courses including general biology desirable. Normally faculty members teach one course and two laboratory sections each semester. A research program in modern organismal or regulatory physiology which can attract extramural funding and involve undergraduates is expected. Special interests might include, but are not limited to, physiological ecology or evolutionary biology involving invertebrates or lower vertebrates.

Ph.D. required, some postdoctoral experience desirable. Please send curriculum vitae, statement of teaching and research interests, and three letters of reference by 9 November 1990 to: **Search Committee, Department of Biology, Williams College, Williamstown, MA 01267.**

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

### UNIVERSITY OF WISCONSIN-MADISON

The Department of Psychology anticipates making an appointment at the **ASSISTANT PROFESSOR** level in the area of **COGNITIVE NEUROSCIENCE** beginning August 1991. Candidates who are working in any of the various areas within this field will be considered, including neurophysiological studies of behaving primates, neuropsychological investigations of cognitive function in humans, and computational modeling of neural function. Scientists whose research includes more than one of these areas will be favored. Curriculum vitae plus three letters of evaluation and selected reprints should be sent to: **Chair, Cognitive Neuroscience Search Committee, Department of Psychology, University of Wisconsin-Madison, 1202 West Johnson Street, Madison, WI 53706.** *The University of Wisconsin-Madison is an Equal Opportunity/Affirmative Action Employer and especially encourages women and minorities to apply.* To ensure consideration, applications should be received by 1 January 1991.

### BARNARD COLLEGE ASSISTANT PROFESSOR, MICROBIOLOGY

The Department of Biological Sciences at Barnard College seeks an assistant professor for September 1991 to participate in undergraduate teaching and maintain an active research program in an undergraduate college that is affiliated with a large research institution, Columbia University.

Possible specialties may include physiology, ecology, or evolution of any group of prokaryotes; applied/environmental focus desirable. Candidates should be broadly trained and able to teach undergraduate lecture and laboratory courses in microbiology and courses in area of specialty.

Ph.D. required; postdoctoral research and prior teaching experience desirable. Submit curriculum vitae, list of publications, brief statements of research and teaching interests, up to three representative publications, and three letters of recommendation to: **Ms. Lorrin Johnson, Department of Biological Sciences, Barnard College, 3009 Broadway, New York, NY 10027** by 15 December 1990. *Women and members of minority groups are encouraged to apply.*

### FISHERIES BIOLOGIST

The Department of Biology at Southwest Missouri State (SMS) University invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level beginning August 1991. Applicants must possess a Ph.D., with evidence of productive research in fisheries biology. Teaching responsibilities will include a course in fisheries management, as well as courses in the individual's area of expertise. The successful candidate will be expected to seek outside funding to support an active research program. Applicants should send curriculum vitae, transcripts, and the names and addresses of three references by 1 December 1990 to: **Dr. John Havel, Fisheries Search Committee, Department of Biology, Southwest Missouri State University, 901 South National, Springfield, MO 65804.**

*As an Affirmative Action/Equal Opportunity Employer, SMS invites applications from minorities and women.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR.** The Department of Biology, Illinois Benedictine College, has a tenure-track position for fall of 1991; Ph.D. required; 15 November 1990 deadline. Duties include teaching cell biology, introductory biology (team taught), and molecular biology/biotechnology as well as directing some undergraduate research. Send curriculum vitae, transcripts and three letters of recommendation to: **Dr. Lawrence Kamin, Chairman, Search Committee, Illinois Benedictine College (IBC), 5700 College Road, Lisle, IL 60532.** *IBC is an Affirmative Action/Equal Opportunity Employer.*

**DEVELOPMENTAL NEUROBIOLOGIST.** The Department of Biology of the University of North Carolina at Greensboro (UNCG) has a 9-month, tenure-track position for an **ASSISTANT PROFESSOR OF BIOLOGY** to be filled by August 1991. We seek an individual to teach at the undergraduate and graduate levels and to develop a research program in developmental neurobiology. Postdoctoral experience is strongly preferred, and salary is negotiable. Applicants should submit, by 12 December 1990, a statement of research and teaching interests, curriculum vitae, reprints, and three letters of reference to: **Dr. Edward McCrady, Search Committee, Department of Biology, UNCG, Greensboro, NC 27412-5001.** *An Equal Opportunity/Affirmative Action/Title IX/504 Employer. Minority and female candidates are especially encouraged to apply.*

**SOIL CHEMIST/PLANT NUTRITIONIST.** The University of Wisconsin, Department of Soil Science, invites applications for a tenure-track **ASSISTANT PROFESSOR.** Incumbent will be expected to conduct collaborative research in soil chemistry/plant physiology to characterize and quantify processes that affect availability of plant nutrients in soils. Teaching responsibilities include a graduate course in soil chemistry/plant nutrition. Submit a one-page statement of professional goals; résumé; official transcripts; names, addresses, and telephone numbers of at least three references; and pertinent reprints/preprints to: **Dr. John Norman, c/o Sheri Speth, Department of Soil Science, University of Wisconsin-Madison, 1525 Observatory Drive, Madison, WI 53706.** Applicants will be reviewed beginning 2 November 1990. *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

Brown University seeks an **ASSISTANT PROFESSOR** of psychology with specialization in social or personality psychology. This is a tenure-track appointment that begins 1 July 1991 for an initial term of 3 years. Responsibilities include teaching at the undergraduate and graduate levels, directing undergraduate and graduate research, and conducting a strong experimental research program. *We strongly encourage applications from women and minority persons.* Applications should include curriculum vitae, reprints and preprints of scholarly publications, and a statement of research and teaching interests. The applicant should arrange to have at least three letters of recommendation sent directly to the search committee. Send all materials by 1 January 1991 to: **Search Committee, c/o Dr. Jack Wright, Department of Psychology, Brown University, Providence, RI 02912.** *Brown University is an Equal Opportunity/Affirmative Action Employer. Applications from minority persons and women are encouraged.*

### DEPARTMENT OF ZOOLOGY AND BURKE MUSEUM UNIVERSITY OF WASHINGTON MAMMALOGIST

A joint tenure-track faculty position as **ASSISTANT PROFESSOR IN ZOOLOGY AND CURATOR OF MAMMALS** in the Burke Museum (11-month salary). Those having research interests in the morphology, systematics, zoogeography, paleontology, molecular evolution, or comparative biology of mammals are especially encouraged to apply. Responsibilities include research, developing the mammal collection, and graduate and undergraduate teaching. Commitment to museum program is essential. Applicants should submit curriculum vitae, three publications, statements of specific interests, and three letters of recommendation to: **Dr. R. T. Paine, Chair, Department of Zoology NJ-15, University of Washington, Seattle, WA 98195,** by 4 January 1991. *The University of Washington is building a multicultural faculty and strongly encourages applications from female and minority candidates. Preference will be given to applicants who can serve well an increasingly diverse university community.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR NEUROPHARMACOLOGY

Applications are invited for a tenure-track position available in 1991 at the assistant professor level in the Department of Pharmacology at the University of Rochester. Because the candidate would be expected to interact with faculty in the departmental Experimental Therapeutics Unit, whose focus is neurodegenerative diseases, we seek applicants who address fundamental questions in neuropharmacology and who are interested in the pharmacology of neurodegenerative diseases. Applicants must have a Ph.D. or M.D. degree, or both, 2 years of postdoctoral experience, the potential to develop and maintain an independent research program, and an interest in professional and graduate education. Applicants should send their curriculum vitae, the names of at least three references, and a description of their present and future research interests to: **Experimental Therapeutics Search Committee, Department of Pharmacology, University of Rochester, 601 Elmwood Avenue, Rochester, NY 14642.** Applications will be received until 31 December 1990 or until the position is filled. *The University of Rochester is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### THE DEPARTMENT OF BIOLOGY AT MEMPHIS STATE UNIVERSITY

Applications are invited for a tenure-track position in the molecular biology of photosynthetic prokaryotes or chloroplasts. Appointment will be made at the rank of **ASSISTANT PROFESSOR.** Minimum qualifications are a Ph.D. degree and postdoctoral training. Applicants for this position are expected to have research experience in the molecular biology of photosynthetic bacteria, cyanobacteria, and/or chloroplasts. Successful candidates will be expected to develop a strong graduate research program and to provide quality teaching to undergraduate and graduate students. Review of applicants will begin on 1 November 1990 and continue until the position is filled. Interested candidates should send curriculum vitae, representative reprints, a statement of research plans, and should also request that three letters of recommendation be sent to:

**Dr. S. Edward Stevens, Jr., Chair of Search Committee, Department of Biology  
Memphis State University  
201 Life Sciences Building  
Memphis, TN 38152**

*Successful candidates must meet Immigration Reform Act criteria.*

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

**ORGANIC CHEMIST, PHYSICAL CHEMIST.** The Chemistry Department of Williams College invites applications for two anticipated positions at the **ASSISTANT PROFESSOR** level for fall of 1991. The organic chemistry appointment is a tenure-track position. The initial teaching assignments will include courses in organic chemistry. The physical chemistry position will be either a tenure-track position or a 3-year term (replacement) position with the initial teaching assignments involving courses in physical chemistry including quantum chemistry. For both positions additional assignments will be from other courses in the curriculum consistent with the individual's background and interests and the needs of the department. A semester teaching load normally includes complete responsibility for one course, including laboratory sections, and supervision of student research projects. Candidates should have a Ph.D. (postdoctoral experience is preferred) and a strong commitment to teaching at the undergraduate level and developing a productive research program. Appointment at a senior level is possible under special circumstances. Williams College is a highly selective, coeducational liberal arts institution of approximately 236 faculty and 1950 undergraduates, located in northwestern Massachusetts. The chemistry department, with nine faculty members and 25 to 35 majors each year, is accredited by the ACS and has excellent facilities for teaching and research. Send résumé, undergraduate and graduate transcripts, description of research projects for undergraduates, and three letters of recommendation to: **Dr. Lawrence J. Kaplan, Chairman, Department of Chemistry, Williams College, Williamstown, MA 01267,** by 30 November 1990. *As an Affirmative Action/Equal Opportunity Employer, Williams College is especially interested in identifying minority and women candidates.*

## POSITIONS OPEN

### ASSISTANT PROFESSORS NEUROSCIENCES CASE WESTERN RESERVE UNIVERSITY

The Department of Neurosciences at Case Western Reserve University School of Medicine has two tenure-track openings for assistant professors. Candidates should have at least 2 years of postdoctoral research experience and be ready to start their own independent research program. Teaching duties primarily involve lecturing on the neurosciences to graduate and medical students. One position is for an individual using modern biophysical techniques to study ion channels and/or receptors. The other position is less restricted and could involve a person in any area of neuroscience, particularly cellular, molecular, or developmental neuroscience. The department includes eight primary faculty and will expand over the next several years to a size of 12 to 15. Also, more than 15 neuroscientists from other departments play an active role in research and teaching. Interested candidates should send (by 1 December 1990) their curriculum vitae, names of four individuals willing to write letters of reference, and a brief summary of future research plans to: **Dr. Richard Zigmond, Chair, Search Committee, Department of Neurosciences, Case Western Reserve University School of Medicine, 2040 Adelbert Road, Cleveland, Ohio 44106.**

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

**INSECT MOLECULAR BIOLOGIST.** A target closing date is extended for a tenure-track position at the Department of Entomology, Michigan State University (MSU), previously advertised as molecular insect pathologist. This **ASSISTANT PROFESSOR** position is available in April 1991. Research responsibilities (75%) will entail the establishment of a vigorous program with potentials of developing novel methods in pest or vector management. Research program can be in areas such as: molecular pathology, insect virology, molecular aspects of insect-host or vector-pathogen interaction, molecular genetics of insecticide resistance, or biosystematics. Teaching (25%) includes participating in a graduate course in molecular entomology and developing a graduate course in the area of expertise. Qualifications: a Ph.D. in entomology, molecular biology, microbiology, virology, nematology, biochemistry, or related discipline with the background in molecular biology. Postdoctoral or similar experience is desirable. Applicants should forward: (i) letter describing qualifications and career goals, (ii) curriculum vitae, (iii) list of publications (including reprints), and (iv) names, addresses, and telephones of three to five references. Send applications to: **Dr. A. S. Raikhel, Search Committee Chairperson, Department of Entomology, Michigan State University, East Lansing, MI 48824-1115. Telephone: 517-355-7144. FAX: 517-353-5598.** Target closing date is 15 January 1991. *MSU is an Affirmative Action/Equal Opportunity Employer. Position #NS1047.*

**BIOLOGIST.** The Biology Department of William Jewell College invites applications for a tenure-track **ASSISTANT/ASSOCIATE PROFESSORSHIP** in biology beginning fall 1991. The applicant should have a Ph.D. in botany and a broad background in biology. A strong commitment to teaching and directing undergraduate research is required. *Women and minorities are strongly encouraged to apply.* Address letters of application by 30 November 1990 to: **Dr. Judith Dils, Chairperson, Department of Biology, William Jewell College, Liberty, MO 64068-1896. Telephone: 816-781-7700, ext. 5661. Affirmative Action/Equal Opportunity Employer.**

Florida International University (FIU), the State University of Florida at Miami. Tenure-track position effective August 1991 at **ASSISTANT OR ASSOCIATE PROFESSOR** level for a person with research interests in environmental chemistry. Position is a joint, 12-month appointment between the Department of Chemistry and the Drinking Water Research Center. Ph.D. required; postdoctoral experience desirable. Active research program expected. Teaching responsibilities at both graduate and undergraduate levels in candidate's area of expertise. Closing date: 6 December 1990. Send curriculum vitae, transcripts, research plans, and three letters of reference to: **L. Keller, Department of Chemistry, Florida International University, Miami, FL 33199.** FIU is rapidly growing with over 20,000 students. A new chemistry/physics building will open in late 1990. *FIU is an Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

**MICROBIOLOGIST.** Applications are invited for a tenure-track **ASSISTANT PROFESSOR** in microbiology. Position beginning as early as January 1991. A Ph.D. is preferred. Some research experience and training in molecular biology are preferred. The successful candidate is expected to develop an independent research program that actively involves undergraduate and master's level students. Curriculum vitae and three letters of evaluation should be submitted by 20 November 1990 to: **Dr. Anthony M. Garcy, Search Committee Chair, Biology Department, Chicago State University (CSU), 95th Street at King Drive, Chicago, IL 60628.** *CSU is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

### NATURAL RESOURCES BALL STATE UNIVERSITY MUNCIE, INDIANA

**ENVIRONMENTAL SCIENTIST** with an international focus is invited to join a nine-member department dedicated to maintaining environmental quality. The position requires the development of a natural resources international studies program which includes research, public service activities, and recruitment of foreign undergraduate and graduate students. The individual selected will have an opportunity to refine and teach an undergraduate general studies course in international resource management and to teach upper division and graduate courses in his/her specialty. This **ASSISTANT PROFESSOR**, tenure-track position requires an earned doctorate in natural resources or a related field, at least 5 years of teaching and/or administrative experience at the college or university level, professional experience working with a variety of academic disciplines, and research. Submit letter of application, transcripts, and three letters of reference to: **B. Thomas Lowe, Department of Natural Resources, Ball State University, Muncie, IN 47306.** Review of applications will begin 30 January 1991 and continue until the position is filled.

*Ball State University practices Equal Opportunity in Education and Employment.*

The Department of Biology at the University of Houston is seeking a fill several tenure-track positions at the **ASSISTANT OR ASSOCIATE PROFESSOR** level in cell or developmental biology, although excellent candidates who will develop active research and graduate training programs in any area of biology will be considered. The University of Houston is a state-supported institution located on an attractive 500-acre campus with an enrollment of 34,000 students and more than \$40 million in extramural research funds annually. Candidates should submit curriculum vitae, statement of research interest, and names of three references to: **E. H. Bryant, Department of Biology, University of Houston, Houston, TX 77204-5513.** Review of applications is expected to begin by 31 December 1990. *The University of Houston is an Affirmative Action/Equal Opportunity Employer.*

### PHYSICIAN SCIENTIST

To study rheumatic manifestations of HIV infection. Must be Board-certified in internal medicine and Board-eligible in rheumatology, and have established clinical experience with HIV-associated rheumatic diseases, reflected by first-authored publications. Proficiency in molecular immunogenetics of the HLA system is required, including proven familiarity with techniques of cDNA preparation, PCR, and DNA sequencing. Should have demonstrably mastered immunofluorescence techniques and flow cytometric analysis. Applicant must furnish substantial part of own salary with external funding. Contact: **Dr. Robert Winchester, Institute of Molecular Immunology, 301 East 17th Street, New York, NY 10003.** *An Equal Opportunity Employer.*

### BONUS CIRCULATION FOR YOUR CLASSIFIED AD

Our issue of 16 November 1990 will be distributed to scientists attending the meeting of the American Society for Cell Biology (ASCB) in San Diego, California, 9 to 13 December 1990. Deadline for submission of line classified ads: 1 November 1990.

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

## POSITIONS OPEN

### ANATOMIST

**ASSISTANT/ASSOCIATE PROFESSOR.** Position available 2 January 1991 in the anatomy department at the Los Angeles College of Chiropractic (LACC). Applicants should have a Ph.D. or its equivalent and a strong interest and 2 to 5 years of experience in teaching gross anatomy with dissection and either neuroanatomy or embryology. Research experience is desired. Send résumé and two letters of recommendation to:

**Personnel Office  
LACC  
16200 East Amber Valley Drive  
Whittier, CA 90609-1166**

**ASSISTANT/ASSOCIATE PROFESSOR.** The Department of Cell Biology, Neurobiology, and Anatomy at Loyola University Stritch School of Medicine is seeking a cell biologist to fill a tenure-track position at the assistant or associate professor level beginning 1 July 1991. Applicants should have completed postdoctoral training and be capable of establishing an independent research program supported by extramural funding, although sufficient seed money will be available for establishing a laboratory. Individuals utilizing molecular approaches in the fields of general cell biology, immunobiology, or neuroimmunology are encouraged to apply. Teaching responsibilities include medical histology/embryology and graduate cell biology. Applicants should submit a letter indicating qualifications and research goals, curriculum vitae, and the names of three references by 15 December 1990 to: **Dr. G. B. Schneider, Department of Cell Biology, Neurobiology, and Anatomy, Loyola University Stritch School of Medicine, 2160 South First Avenue, Maywood, IL 60153.** *Loyola University is an Equal Opportunity Employer.*

### DEPARTMENT OF BIOLOGY VASSAR COLLEGE

Applications are invited for two tenure-track positions at the rank of **ASSISTANT OR ASSOCIATE PROFESSOR** beginning August 1991. Candidates should have a commitment to undergraduate teaching and a record of research productivity.

- **Neurobiologist:** Research areas of particular interest include but are not limited to development, cell biology, and neuropharmacology.

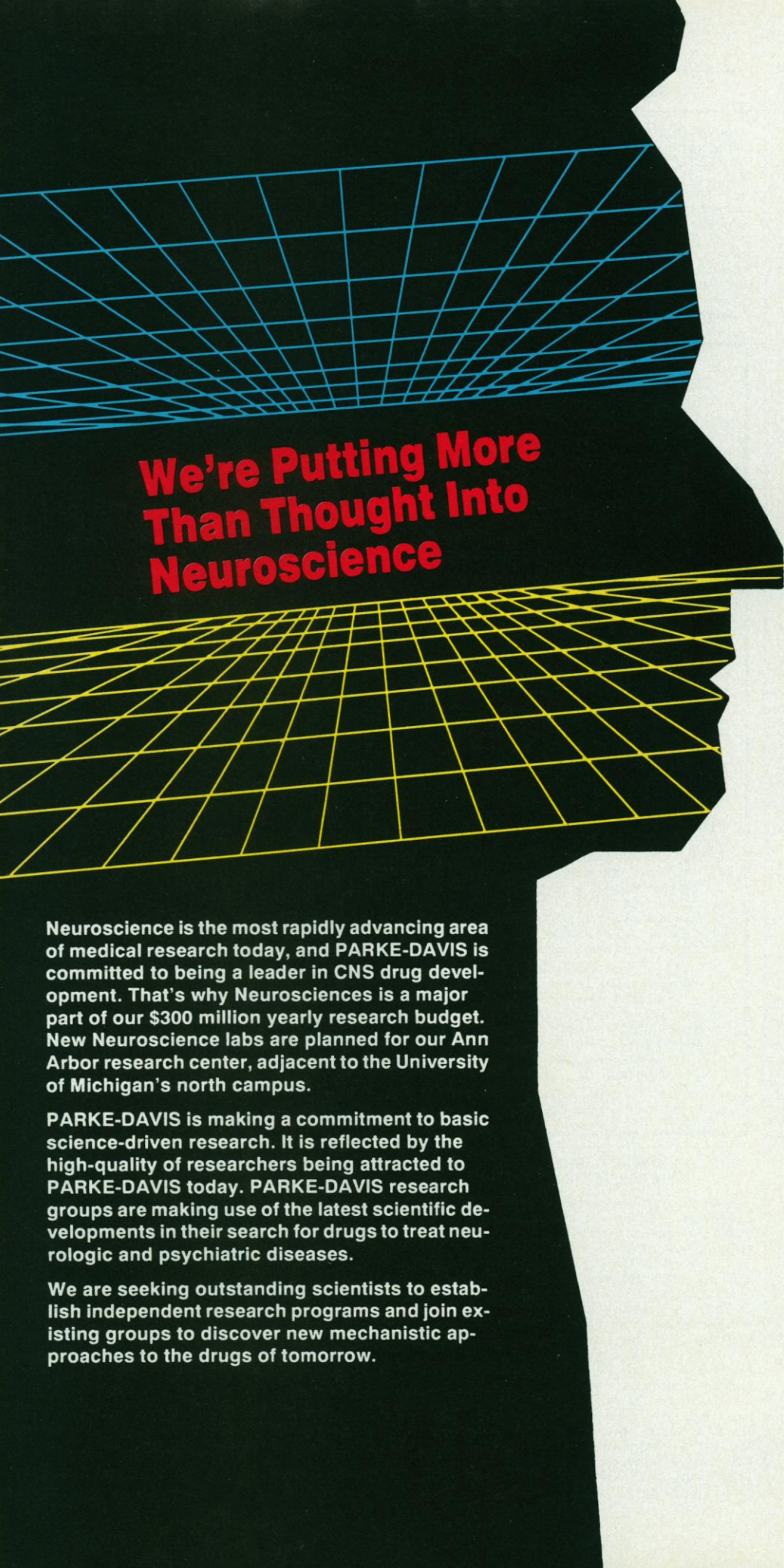
- **Vertebrate physiologist:** Research area is open but should include integration at the system level.

For both positions, a Ph.D. is required and postdoctoral work and teaching experience are desirable. Successful candidates will be expected to develop independent research programs and to engage students in research. The biology department offers excellent, modern laboratory and field facilities. *Vassar College is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.* Please send curriculum vitae, a description of current and planned research, a statement of teaching interests, and the names and addresses of three references to: **Robert B. Suter, Ph.D., Chair, Department of Biology, Vassar College, Poughkeepsie, NY 12601** by 14 November 1990.

### ECOLOGIST DUKE UNIVERSITY

Applications are invited for a **FACULTY POSITION** in ecology in the Department of Zoology of Duke University. The new appointment will begin in the fall of 1991. Screening of applicants will begin 1 November 1990. Applicants with high promise in research and teaching will be considered from any branch of ecology, but we are particularly interested in candidates who take an experimental approach to community, population, or evolutionary problems in field situations. We expect to fill the vacancy with a tenure-track assistant professor, but exceptional candidates at the tenured associate professor level will also be considered. In addition to a vigorous research program, duties will include an undergraduate course and a graduate course in the candidate's area of specialization. Interested applicants should send curriculum vitae, one-page descriptions of research and teaching goals, one research paper or manuscript, and the names, addresses, telephone, and FAX numbers of three references to: **D. A. Livingstone, Department of Zoology, Duke University, Durham, NC 27706.** *Duke University is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are strongly encouraged to apply.*





## We're Putting More Than Thought Into Neuroscience

Neuroscience is the most rapidly advancing area of medical research today, and PARKE-DAVIS is committed to being a leader in CNS drug development. That's why Neurosciences is a major part of our \$300 million yearly research budget. New Neuroscience labs are planned for our Ann Arbor research center, adjacent to the University of Michigan's north campus.

PARKE-DAVIS is making a commitment to basic science-driven research. It is reflected by the high-quality of researchers being attracted to PARKE-DAVIS today. PARKE-DAVIS research groups are making use of the latest scientific developments in their search for drugs to treat neurologic and psychiatric diseases.

We are seeking outstanding scientists to establish independent research programs and join existing groups to discover new mechanistic approaches to the drugs of tomorrow.

### Neurosciences at PARKE-DAVIS

PARKE-DAVIS Neuroscience research ranges from molecular to behavioral pharmacology. Expansion has resulted in the following new positions:

#### Receptor Biologist

This individual will use binding techniques to assess functional aspects of CNS receptors and to investigate and characterize new receptors. Expertise with catecholamine, neuropeptide, cholinergic or excitatory amino acid receptors would be advantageous. An ability to apply molecular biology to the expression and characterization of receptors is desired.

#### Protein Biochemist

This scientist should have experience in protein purification, processing or expression, and an interest in neuroscience. Research experience with neurotransmitter receptor proteins, signal transduction processes, abnormal protein processing or calcium activated proteases would be advantageous.

#### Molecular Neurobiologist

The successful candidate will conduct basic neurobiological research employing molecular biology techniques. Research experience with cloned and expressed proteins that are of neurobiological interest is desired. Publications in the area of neuronal ion channels, growth factors, neurotransmitter receptors or neuropeptides would be advantageous.

#### Qualifications

Requirements for these positions include a Ph.D. or M.D. and evidence of productive postdoctoral work. Strong oral and written communication skills are essential. Senior research scientists with a published record of accomplishments are encouraged to apply.

Successful candidates should be able to establish and direct a laboratory and develop a strong independent research program. Collaboration with other neuroscientists as well as those in molecular genetics, biochemistry, signal transduction and medicinal chemistry groups are expected. Publications and presentations of findings at national and international meetings are encouraged and supported.

To learn more about your possible future on the frontier of Neuroscience research, send your resume or CV, with references to: **Mr. Bill Burmeister, PARKE-DAVIS, 2800 Plymouth Road, Ann Arbor, MI 48105.**

PARKE-DAVIS neuroscientists will interview candidates at the annual Meeting of the Society for Neuroscience in St. Louis. "Smoke-Free Work Environment"

"Equal Opportunity in Action"

## PARKE-DAVIS

Pharmaceutical Research Division Warner-Lambert Company

# WARNER LAMBERT

## POSITIONS OPEN

**ASSISTANT/ASSOCIATE PROFESSOR OF BIOCHEMISTRY.** The Department of Biochemistry seeks to fill a tenure-track position at the assistant or associate professor level. Responsibilities include participation in team taught courses in biochemistry and nutrition presented to osteopathic medical students. The successful candidate is expected to maintain a productive research program and to secure grants to support the research. Preference will be given to candidates with a background in molecular biology or nutrition and with a proven record of success in securing extramural funding. The department possesses excellent facilities and support services for research. Please submit curriculum vitae and the names of three individuals that may be contacted as references by 31 December 1990 to: **Richard J. Cenedella, Ph.D., Professor and Chairman, Department of Biochemistry, Kirksville College of Osteopathic Medicine, 800 West Jefferson, Kirksville, MO 63501.** *Equal Opportunity Employer/Affirmative Action.*

### ASSISTANT/ASSOCIATE PROFESSORS OF BIOLOGY

The Department of Biology, San Francisco State University (SFSU), invites applications for two tenure-track positions starting fall 1991. A Ph.D. is required and postdoctoral experience is desirable. We are particularly interested in candidates who are committed to achieving excellence in teaching and who have an established research record and the potential to maintain an extramurally funded research program that includes supervision of M.A. student research. The department has a faculty of 40 with active groups in ecology, botany, conservation, marine biology, microbiology, molecular biology, neurobiology, and physiology.

- **AVIAN BIOLOGY.** We seek an avian biologist whose primary responsibilities will be to (i) participate in graduate program in conservation biology; (ii) offer upper division and graduate courses in ornithology and vertebrate biology; (iii) participate in lower division courses on a rotational basis; and (iv) establish a research program in avian biology.

- **EUKARYOTIC VIROLOGY.** We seek a eukaryotic virologist whose primary responsibilities will be to (i) offer upper division and graduate courses in virology, cell biology, and related fields; (ii) participate in lower division courses on a rotational basis; and (iii) establish a research program in eukaryotic virology.

Send curriculum vitae, statement of teaching interests and research goals, and three letters of reference by 10 December 1990 to:

**Dr. John Hafernik, Chair, Hiring Committee**  
Department of Biology  
San Francisco State University  
San Francisco, CA 94132

*Women and minority candidates are especially urged to apply. SFSU is an Equal Opportunity/Affirmative Action Employer.*

### ENDOWED CHAIR IN PLANT MOLECULAR BIOLOGY

Iowa State University (ISU) invites applications for the chair in the molecular biology/genetics of maize endowed by Pioneer Hi-Bred International. We seek a research scientist with an established basic research program in molecular biology, genetics, and/or biochemistry to pursue research in plant molecular biology. The holder of the endowed chair will be expected to provide leadership in research in the plant sciences programs, especially in maize.

Opportunities exist for interactions with an ISU plant science research group, including geneticists, biochemists, plant breeders, and molecular biologists. The individual will have an important role in hiring new faculty in plant molecular biology and genetics. The recipient of the chair will receive generous start-up funds and annual support for research from the endowment. The individual will be given excellent space in the new molecular biology building and will have access to a large collection of superior quality germ plasm and genetic stocks for research in maize and other plants.

Applications are to be sent to: **D. J. Graves, Chair of the Search Committee, Department of Zoology and Genetics, Iowa State University, Ames, IA 50011,** and should include curriculum vitae, a description of current and future research activities, and three letters of reference. Application deadline is 15 January 1991 or until a suitable candidate is found.

*Iowa State, an Affirmative Action/Equal Opportunity Employer, encourages applications from women and minorities.*

## POSITIONS OPEN

Harvard University: The Department of Linguistics invites inquiries from persons qualified for appointment to a **FULL PROFESSORSHIP.** The candidate should be a theoretical linguist with a specialty in either phonology or syntax. Preference will be given to candidates with an interest in teaching in other related departments. The possibility of joint appointments exists for suitable candidates. A curriculum vitae and the names of potential referees should be sent by 30 November 1990 to: **Brendan Maher, University Hall 17, Harvard University, Cambridge, MA 02138.** *Applications from women and minorities are especially welcome. Harvard University is an Affirmative Action/Equal Opportunity Employer.*

### LABORATORY DIRECTOR ENVIRONMENTAL MONITORING SYSTEMS LABORATORY OFFICE OF MODELING, MONITORING SYSTEMS, AND QUALITY ASSURANCE LAS VEGAS, NEVADA

ES 401/801/1301  
\$71,200 to \$77,600

The U.S. Environmental Protection Agency (EPA) is seeking highly qualified candidates for the position of laboratory director, Environmental Monitoring Systems Laboratory, Las Vegas, Nevada (EMSL-LV), Office of Modeling, Monitoring Systems, and Quality Assurance (OM-MSQA). The EMSL-LV, a component of the Office of Research and Development, is responsible for research and development supporting a major segment of the agency's programs relating to human and ecosystem exposure to environmental pollutants. The laboratory conducts research and development in the areas of: analytical chemistry, immunochemistry, field monitoring methods and design, ecological status and trends, terrestrial ecology, integrated human exposure assessment, human biomarkers of exposure, remote sensing, geohydrology, and environmental radiation assessment.

Applicants for this Senior Executive Service (SES) position must have a bachelor's or higher degree in life sciences, physical sciences, or engineering, or a field relating to the work of the laboratory, and professional experience demonstrating leadership and technical competence in one of those fields. Applicants must also meet the technical and executive qualifications described in the Vacancy Announcement. For a copy of the Vacancy Announcement, call or write:

**Chaunta Gladney**  
Environmental Protection Agency  
Executive Resources and  
Special Programs Division  
Room M3910 (Mail Code: PM-224)  
401 M Street, S.W. (Waterside Mall)  
Washington, DC 20460  
Telephone: 202-382-3328

Applications must be postmarked by 6 November 1990. EPA is an Equal Opportunity Employer.

### CHAIR, DEPARTMENT OF FORESTRY UNIVERSITY OF KENTUCKY

Applications and nominations are invited for chair of a comprehensive department offering undergraduate and graduate degrees as well as conducting research and extension programs in forestry, natural resources conservation, and related specialties, plus managing a 15,000-acre university experimental forest and a wood utilization center. Applicants and nominees should hold the degree of Ph.D. in forestry or a related discipline; have a national reputation for scholarly achievement; demonstrate leadership and administrative abilities. Salary is open and competitive. Applications and nominations will be screened through 14 December 1990, or until a suitable candidate is found. Send applications (letter stating academic and administrative philosophies, curriculum vitae, list of three references) or nominations to: **Dr. D. A. Smith, Chair-Search and Screen Committee, S-305 Agricultural Science Building-North, University of Kentucky, Lexington, KY 40546-0091.** Telephone: 606-257-3901. FAX: 606-258-5842. *The University of Kentucky is an Equal Opportunity Organization.*

## POSITIONS OPEN

### SENIOR APPOINTMENT

The Department of Ecology and Evolutionary Biology at Princeton University plans to appoint a **FULL PROFESSOR** with theoretical or experimental interests in ecology, evolution, or behavior. Candidates should be willing to take on senior administrative responsibilities. The current faculty in the department are: Andrew Dobson, James Gould, Peter Grant, Henry Horn, Steven Hubbell, Martin Kreitman, Carlos Martinez del Rio, Naomi Pierce, Dan Rubenstein, Donald Stratton, and Ted Sullivan. The closing date for applications is 30 November 1990. Applicants should send curriculum vitae and arrange for three letters of reference to be sent to: **Peter Grant, Search Committee, Department of Ecology and Evolutionary Biology, Princeton University, Princeton, NJ 08544-1003.**

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

### CHEMISTRY DEPARTMENT CHAIR WICHITA STATE UNIVERSITY

Applications and nominations are invited for the position of chemistry department chair at Wichita State University. The department of 14 faculty members offers undergraduate and graduate programs leading to B.S., M.S., and Ph.D. degrees. Current research programs include analytical, biochemistry, inorganic, organic, physical, and polymer chemistry. The successful candidate will have an active research program and teaching experience at a Ph.D. granting department. The chair is expected to lead the department into continued new program development and to be effective in obtaining grant support. Submit curriculum vitae, statements of research interests, administrative goals and educational philosophy, and provide names and addresses of three references to: **Dr. William C. Groutas, Department of Chemistry, Wichita State University, Wichita, KS 67208.** Completed applications will be reviewed beginning 1 December 1990 and the first of each month thereafter until the position is filled. *Wichita State University is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

### DIRECTOR GRADUATE STUDENT RECRUITMENT AND ADMISSIONS

Experienced professional to supervise and administer a national graduate student recruitment program for the Graduate Division of Biological and Biomedical Sciences. Requires a master's degree and 1 year of experience as a teacher or recruiter in the sciences or a bachelor's degree and 3 years of experience. Strong preference for candidates with a degree in biological or biomedical sciences and familiarity with graduate training programs. Excellent writing, editorial, and verbal communication skills essential; knowledge of Lotus, DBase III, or equivalent computer programs.

Submit résumé, including names and addresses of three professional references, to:

**Job Search #130-1085**  
Emory University  
637 Asbury Circle  
Atlanta, GA 30322

*An Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR OF ANESTHESIOLOGY AND DIRECTOR OF MEDICAL INFORMATICS.** The Department of Anesthesiology invites application for the position of assistant professor of anesthesiology and director of medical informatics. He/she will be responsible for research and development of computer-based technology in anesthesiology and critical care medicine including: intelligent monitoring and controlling of mechanical ventilation, experimental data acquisition and real-time analysis systems, mathematical modeling of pulmonary and cardiovascular physiology processes, and computer-assisted instruction. Candidates must have M.D. degree; strong background in cardiovascular and pulmonary physiology; documented proficiency in 80x86 assembly, C, and Prolog programming languages; and artificial intelligence methods with special emphasis in neural networks. Send letter and curriculum vitae to: **John B. Downs, M.D., Department of Anesthesiology, University of South Florida (USF), 12901 Bruce B. Downs Boulevard, Tampa, FL 33612.** USF is an Equal Opportunity/Affirmative Action Employer.



## ASSISTANT PROFESSOR MOLECULAR NEUROBIOLOGY

### THE SALK INSTITUTE

The Salk Institute for Biological Studies invites applications for a faculty appointment in the Neurosciences. We seek candidates with research interests in the application of molecular genetics to the study of the nervous system. Current areas of research include ion channel biophysics (Chuck Stevens), neurotransmitter receptors (Steve Heinemann), vertebrate neural development (Dennis O'Leary), *Drosophila* neural development (John Thomas), neural induction (Chris Kintner), myelination (Greg Lemke), and visual system physiology (Charles Gray).

Interested individuals should submit a curriculum vitae, a brief statement of present and future research interests, and the names of three references to:

**Molecular Neuroscience Search Committee  
The Salk Institute  
P.O. Box 85800  
San Diego, CA 92186-5800**

Equal Opportunity Employer M/F/H/V.

## THE MEDICAL COLLEGE OF PENNSYLVANIA

### CHAIR DEPARTMENT OF ANATOMY AND NEUROBIOLOGY

The Medical College of Pennsylvania invites applications and nominations for the position of Chair, Department of Anatomy and Neurobiology. The department currently has ten full time Faculty members with a strong emphasis on Neuroscience research ranging from molecular to behavioral studies. The faculty is well funded and, in addition, has a NIH funded Program Project Grant on mechanisms of recovery from spinal cord injury and a funded postdoctoral program. The number of individuals, including staff, pre and postdoctoral students and faculty, totals sixty-three.

We seek a distinguished scientist and educator in cell, developmental, molecular, or neurobiology or genetics with proven ability in Administration who can lead and expand the department. The Medical College of Pennsylvania is undergoing an expansion phase of its physical facilities that will allow the potential for the addition of faculty and space to the department.

A letter of interest or nomination, curriculum vitae, and the names of at least three references should be sent by October 31, 1990 to **George L. Popky, M.D., Chair, Anatomy and Neurobiology Search Committee, Professor and Chairman, Department of Radiologic Sciences, The Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, Pennsylvania 19129.** Equal opportunity/affirmative action employer.



**MCP** The Medical College  
of Pennsylvania

College

## PROFESSOR AND CHAIR DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF KENTUCKY COLLEGE OF MEDICINE (SEARCH REOPENED)

Nominations and applications are invited for the position of Professor and Chair of the Department of Biochemistry at the University of Kentucky, College of Medicine. The Department currently includes 19 full-time faculty with teaching responsibilities for the M.D. degree program of the Medical School and the Ph.D. degree program in Biochemistry offered through the Graduate School. This is an exceptional opportunity to assume the leadership of a department which is well funded and equipped and has a vigorous graduate program but still provides opportunities for new development owing to current and future vacancies, a new research building, has a strong commitment to research in cancer and aging. We are seeking candidates with an M.D. or Ph.D. degree (or equivalent degree), an outstanding record of achievement in the fields of biochemistry and/or molecular biology, experience in or potential for academic administration and an ability to provide strong leadership. Candidates should submit a curriculum vitae and the names of references to:

**Alan M. Kaplan, Ph.D., Chair  
Biochemistry Chairman Search Committee  
Department of Microbiology and Immunology  
University of Kentucky, College of Medicine,  
Room MS 411  
Lexington, Kentucky 40536-0084**

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



**The University of Sydney**

AUSTRALIA

## CHAIR OF BIOLOGY

Reference No. 38/01

Applications and expressions of interest are invited for appointment to a Chair of Biology in the area of animal biology, in the School of Biological Sciences, which will become vacant on the retirement of Professor D T Anderson FRS in December 1991. There are three other Chairs in the School, with current responsibilities in vertebrate biology, plant and cell biology and genetics and molecular biology. The School has responsibilities for teaching in all areas of biology including physiology and ecology of animals, fungi and plants, marine biology, developmental biology, genetics and molecular biology. The Chair may be held in any area of animal biology, but preference may be given to applicants with an interest in teaching and research involving invertebrates.

Further general information is also available from the Association of Commonwealth Universities, 36 Gordon Square, London, WC1H 0PF.

The University reserves the right to appoint by invitation and not to proceed with any appointment for financial or other reasons.

**Salary:** \$A67,812 per annum.

Applications (in triplicate for Chairs) quoting reference no., and including curriculum vitae, list of publications and the names, addresses and fax. nos., of three referees, to the Registrar, Staff Office, University of Sydney, NSW, Australia 2006, from whom general information is available by 20 December, 1990.

Equal employment opportunity and no smoking in the workplace are University policy.

61661

## POSITIONS OPEN

**DIRECTOR, PROCESS DEVELOPMENT.** Responsible for management of proprietary tungsten sili-  
cide, blanket tungsten, and selective tungsten thin-film  
development. Duties include management of a propri-  
etary film development program to develop a single-  
water selective tungsten reactor and process and super-  
vision of project managers, process engineers, and  
technicians involved in the program. Requires Ph.D. or  
equivalent in physics or chemistry and 3 years of experi-  
ence in the job offered or 5 years of experience in  
integrated circuit processing engineering. Also requires  
experience with cold wall chemical vapor deposition  
(CVD) reactor, plasma-enhanced reactions, CVD of  
conducting films, and development of complete metal-  
ization system for integrated circuits, and interfacial  
behavior, specifically with selective types of depositions.  
Salary: \$85,000 per year. Job and interview site: Moun-  
tain View, California. Send this ad with résumé to: **Job  
#PC18817, Box 9560, Sacramento, CA 95823-  
0560** not later than 3 November 1990.

Nominations and applications are invited for the full-  
time position of **HEAD, DEPARTMENT OF PERI-  
ODONTICS**, The University of Illinois at Chicago,  
College of Dentistry. The position is available 1 January  
1991. The department is involved in predoctoral and  
postgraduate teaching programs and research.

Qualifications include a D.D.S./D.M.D. or equivalent  
degree, a specialty certificate in periodontics and eligibil-  
ity for Illinois licensure. Demonstrated research capabil-  
ity and leadership qualities are essential. Salary and  
academic rank are commensurate with experience and  
qualification. Applications should be received by 15  
December 1990. *The University of Illinois is an Equal  
Opportunity/Affirmative Action Employer. Women and minor-  
ities are encouraged to apply.* Send curriculum vitae and  
the names of three references to: **Dr. Indru C. Punwani,  
Chair, Periodontics Search Committee, The Univer-  
sity of Illinois at Chicago, College of Dentistry (MC  
850), P.O. Box 6998, Chicago, IL 60680.**

## BIOCHEMIST/MOLECULAR BIOLOGIST

Beckman Instruments has a position available for a  
**PRINCIPAL APPLICATIONS BIOLOGIST** to partici-  
pate in the definition and development of analytical  
instruments and applications.

The position requires a Ph.D. with at least 3 years of  
postdoctoral training in molecular biology. Must have  
research experience using electrophoresis and/or isotopic  
and nonisotopic detection systems.

Please send your résumé, including salary history, in  
confidence to: **R. S. Metcalf, M.S. D-27-A, Beckman  
Instruments, Inc., 2500 Harbor Boulevard, Fullerton,  
CA 92634-3100.** Principals only, please. *An Affirmative  
Action Employer.*

BECKMAN

## PRECOLLEGE SCIENCE EDUCATION PROGRAM MANAGER

Associated Western Universities, a consortium of 41  
universities, is seeking a manager to coordinate its De-  
partment of Energy (DOE)-sponsored precollege sci-  
ence education programs including fellowship awards for  
faculty programs at 14 DOE laboratories. Qualifications:  
excellent communication, interpersonal, and organiza-  
tional skills; B.S. with strong background in science/  
engineering (advanced degree preferred); experience in  
sponsored program administration a plus. Position avail-  
able immediately; salary to \$40,000. Send application  
and names of three references to: **Associated Western  
Universities, Inc., 4190 South Highland Drive, Suite  
211, Salt Lake City, UT 84124.**

**FACULTY POSITION.** The Department of Biology  
at the University of North Carolina at Charlotte  
(UNCC) invites applications for a tenure-track faculty  
position in molecular genetics. This position is at the  
**ASSISTANT PROFESSOR** level and will begin in the  
fall semester 1991. Ph.D. required and postdoctoral  
experience preferred. The successful candidate will be  
expected to participate in teaching undergraduate and  
graduate courses and develop a strong research program  
which will attract external funding. Send letter, curricu-  
lum vitae, transcripts, evidence of teaching effectiveness,  
a summary of research plans, and names of three refer-  
ences by 1 December 1990 to: **Chair of the Molecular  
Genetics Search Committee, Department of Biology,  
UNCC, Charlotte, NC 28223.** *UNCC is an Equal  
Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### PHARMACOLOGIST UNIVERSITY OF COLORADO SCHOOL OF MEDICINE DENVER, COLORADO

Applications are invited for positions at the level of  
**ASSISTANT PROFESSOR, ASSOCIATE PRO-  
FESSOR, OR PROFESSOR** in an established and  
productive Department of Pharmacology. Candidates  
should have a Ph.D., M.D., or equivalent degrees, and  
demonstrated ability in research and teaching in one of  
the following areas: molecular biology, protein structural  
chemistry, computer-assisted drug design, neuropharma-  
cology, molecular and cellular aspects of alcohol and  
drug abuse, transmembrane signaling. Salary, space, and  
start-up funds commensurate with experience and rank.

Send curriculum vitae and names of three references  
to: **Faculty Search Committee, Department of Phar-  
macology (Box C236), University of Colorado  
Health Sciences Center, 4200 East 9th Avenue, Den-  
ver, CO 80262.** *The University of Colorado is an Affirmative  
Action/Equal Opportunity Employer.*

The Environmental Research Laboratory of the  
United States Environmental Protection Agency (EPA)  
in Gulf Breeze, Florida, invites applications for two  
positions:

**SUPERVISORY RESEARCH BIOLOGIST,**  
GM-14, who will serve as chief of the Ecotoxicology  
Branch, which conducts research, in the laboratory and  
the field, on the effects of chemicals on organisms and  
various aspects of ecological structure and function in the  
near-coastal, estuarine, and marine environments. Salary  
range for this position is \$50,342 to \$65,444.

**RESEARCH MICROBIOLOGIST,** GS-12/13,  
who will conduct research in molecular microbial ecol-  
ogy, developing molecular microbial ecology, developing  
molecular approaches to follow the fate and effects of  
introduced organisms and their recombinant molecules  
in aquatic environments. Salary range for this position as  
follows: GS-12: \$35,825 to \$38,855, GS-13: \$42,601  
to \$55,381.

*EPA is an Equal Opportunity Employer. Applicants must be  
U.S. citizens.* Send curriculum vitae postmarked by 15  
December 1990 to:

**U.S. Environmental Protection Agency  
Attention: Personnel Office  
Sabine Island  
Gulf Breeze, FL 32561**

## ENVIRONMENTAL MANAGEMENT

The Waste Policy Institute has immediate openings in  
its Blacksburg, Virginia, and Germantown, Maryland,  
offices for individuals with appropriate engineering  
and/or environmental science B.S./M.S. and at least 5  
years of experience, including project management,  
strong demonstrated analytical writing, and oral commu-  
nication skills. Persons with federal environmental inter-  
face are preferred, especially with the Department of  
Energy (DOE). Positions would support DOE in envi-  
ronmental technology integration and transfer, environ-  
mental technology development, environmental regula-  
tory policy and procedures, program planning and  
organizing, strategic planning, program development,  
and analytical studies. Excellent benefits. Salary commensurate  
with experience. *Equal Opportunity/Affirmative Action  
Employer, affiliated with Virginia Tech.* Send résumé  
with references to: **Dr. L. Dean Eyman, President,  
Waste Policy Institute, 1999 South Main Street,  
Suite 500, Blacksburg, VA 24060-6613.**

## BILINGUAL TECHNICAL ANALYST

Cooley Godward Castro Huddleson and Tatum, a  
major West Coast law firm specializing in high technol-  
ogy, has an immediate opening for a bilingual technical  
analyst. Duties will include translation and analysis of a  
wide range of documents, involving patents, laboratory  
notebooks, and related technical and corporate papers.  
Candidate must have background in the biological sci-  
ences, such as molecular biology, biochemistry, biophys-  
ics, or genetics, and preferably a graduate degree or  
laboratory experience, as well as a reading and speaking  
knowledge of Japanese. Candidate will be part of a  
dynamic team of litigators representing biotechnology-  
based companies. Excellent salary and benefits. Send  
résumé and salary requirements to: **Lisa M. Austin,  
Cooley Godward Castro Huddleson and Tatum, One  
Maritime Plaza, Suite 2000, San Francisco, CA  
94111.** *Equal Opportunity Employer.*

## POSITIONS OPEN



## TECHNICAL SALES REPRESENTATIVE

Stratagene, an innovative supplier of molecular biol-  
ogy research products, is expanding its sales force across  
the United States and is in search of qualified and  
experienced technical sales representatives. These posi-  
tions represent a unique opportunity for qualified indi-  
viduals to participate in a growing technical sales orga-  
nization. Positions are available immediately in the  
Midwest, northern California, and NIH areas and addi-  
tional openings will become available during 1991.

Candidates should have strong practical experience in  
molecular biology or related field. Prior sales experience  
is beneficial. Sales representatives will attend an extensive  
1-month training program at our beautiful coastal loca-  
tion in La Jolla, California. Stratagene offers an excellent  
company benefits package, including a 401(K) Plan, and  
a competitive salary and incentive program. All qualified  
candidates should forward résumé of qualifications to:

**Stratagene  
Attention: Human Resources  
111099 North Torrey Pines Road  
La Jolla, CA 92037**

*Stratagene is an Equal Opportunity Employer.*

## FACULTY POSITION IN BIOMEDICAL ENGINEERING AT NORTHWESTERN UNIVERSITY

The Biomedical Engineering Department of North-  
western University has a tenure-track position in systems  
physiology or biomechanics/transport at the **ASSIST-  
ANT PROFESSOR** level for the 1991-92 academic  
year. Candidates should have earned a Ph.D. in either  
engineering or in a related physical science or quantita-  
tive physiology. Interested applicants should submit by 1  
January 1991: curriculum vitae, outline of future re-  
search, teaching interests, and names and addresses of at  
least three references to: **Andrew E. Kertesz, Chair-  
man, Biomedical Engineering Department, North-  
western University, 2145 Sheridan Road, Evanston,  
IL 60208-3107.** *Northwestern is an Equal Opportunity/  
Affirmative Action Employer. Women and minorities are espe-  
cially encouraged to apply.*

## FACULTY POSITION PEDIATRICS (ENDOCRINOLOGY) AND BEN MAY INSTITUTE THE UNIVERSITY OF CHICAGO

Applications are invited for a tenure-track faculty  
position at the **ASSISTANT OR ASSOCIATE PRO-  
FESSOR** level. We seek candidates to set up an inde-  
pendent research program within the section of pediatric  
endocrinology, which has interests in the interactions  
among growth factors and androgen in the regulation of  
androgen secretion and action. A joint appointment in an  
appropriate basic science department can be anticipated.  
Candidates with a background in molecular biology are  
preferred. Applicants should submit curriculum vitae,  
statement of research interests, and have three letters of  
recommendation sent to: **Dr. Robert L. Rosenfield,  
University of Chicago Medical Center, 5841 South  
Maryland, Box 118, Chicago, IL 60637.** *An Equal  
Opportunity/Affirmative Action Employer.*

**BIOCHEMISTRY FACULTY POSITION,** Mid-  
dlebury College. The Department of Chemistry and  
Biochemistry at Middlebury College invites applications  
for a regular appointment (tenure track) at the rank of  
**ASSISTANT PROFESSOR.** Ph.D. chemists, bio-  
chemists, or molecular biologists with background and  
interests in experimental biochemistry are encouraged to  
apply. The successful candidate should be committed to  
teaching at the undergraduate level and developing a  
productive research program that will significantly in-  
volve undergraduates. Teaching responsibilities include  
biochemistry and chemistry courses. Please submit three  
current letters of reference that speak to experience as a  
teacher and potential for developing a research program,  
an up-to-date résumé, graduate and undergraduate tran-  
scripts, and a description of research interests to: **S. F.  
Sontum, Chairman, Department of Chemistry and  
Biochemistry, Middlebury College, Middlebury, VT  
05753.** Application deadline is 1 December 1990. *Mid-  
dlebury College is an Equal Opportunity Employer.*



## POSITIONS OPEN

### TENURE-TRACK FACULTY POSITION PLANT SCIENTIST

Tenure-track position in plant sciences for **ASSISTANT/ASSOCIATE PROFESSOR** beginning fall 1991, pending final approval. Applicants should have a broad background in the plant sciences, postdoctoral training, a commitment to undergraduate and graduate teaching, and will be expected to develop a strong research program supported by extramural funding, including graduate training.

The University of North Texas (UNT) is an emerging national research institution in the rapidly expanding Dallas-Fort Worth metropolitan area with over 700 regular faculty and over 27,000 students (one-fourth graduate students). Candidates should send detailed résumé, reprints, and a statement of research objectives and aspirations along with the names, addresses, and telephone numbers of five references to: **Chairman, Botany Search Committee, Department of Biological Sciences, University of North Texas, P.O. Box 5218, Denton, TX 76203**. Applications will be received until 15 February 1991.

UNT is an Affirmative Action/Equal Opportunity Employer.

### OPENINGS FOR SCIENTISTS

The Weizmann Institute of Science is now offering a limited number of temporary appointments to the position of scientist. Candidates must have completed 2 years of postdoctoral work. Appointments will be made in all the areas of scientific research at the institute:

Life sciences  
Chemistry  
Physics  
Mathematics  
Science teaching

Appointments are for a period of 1 year. However, they may be extended for a period not to exceed 5 years from receipt of Ph.D. degree (or equivalent). Successful appointees will be eligible to apply for promotion to the position of senior scientist.

Financial remuneration for a scientist is at the level of lecturer and includes all of the associated benefits. In addition, a relocation stipend is provided. Application forms and additional information may be obtained from:

The Feinberg Graduate School  
The Weizmann Institute of Science  
Rehovot 76100, Israel

Applications are reviewed twice each year:  
1 January and 15 May

### FACULTY POSITIONS

The Department of Biological Sciences at Clemson University is expanding and invites applications for three tenure-track positions:

• **ELECTRON MICROSCOPIST (ASSOCIATE OR FULL PROFESSOR)**. To direct an interdepartmental facility presently equipped with scanning and transmission scopes. The successful candidate will be expected to maintain a state-of-the-art facility used for biological and materials research and carry on an active research program in the area of cell structure.

• **EUKARYOTIC CELLULAR PHYSIOLOGIST (ASSISTANT PROFESSOR)**. Addressing problems in the relationship of structure with function and able to integrate cellular and molecular approaches. Postdoctoral experience is preferred.

• **BEHAVIORAL ECOLOGIST (ASSISTANT PROFESSOR)**. Addressing either proximate or ultimate mechanisms of behavior.

Candidates for all three positions are expected to develop and maintain a strong, independent, extramurally funded research program; direct graduate students; and teach at the graduate and undergraduate level on their field of expertise. Substantial space and start-up funds are available.

Applicants should send curriculum vitae, representative publications, a statement of research interest, and the names and telephone numbers of three references to: **Angela L. Crawford, Search Committee Coordinator, Department of Biological Sciences, Clemson University, Clemson, SC 29634**. All materials should be received by 1 December 1990 in order to assure consideration.

Clemson University, the land-grant institution of South Carolina, is an Affirmative Action/Equal Opportunity Employer.

19 OCTOBER 1990

## Director of Medical Virology

Applications are invited from qualified Pathologists whose degrees are recognised in Australia and who are experienced consultant virologists, for the position of Director of the major viral diagnostic and public health laboratory in the State of Victoria. Fairfield Hospital is located on a spacious campus 6 km from the city centre and is surrounded by a National Park. The Hospital has more than 100 inpatients and a large Day Care Unit and Outpatients' Clinic.

The virus laboratory has a staff of 45 and is housed in a modern, well equipped building. It receives 20,000 samples for virus isolation and 90,000 for serodiagnosis annually. The Department has national and international responsibilities and houses several reference centres, including the WHO Collaborating Centres for Virus Reference and Research; Biosafety; and HIV related retroviruses. The Department is also designed for viral diagnostic tests in the National High Security Quarantine Unit on campus.

The activities of the virus laboratory are closely associated with those of the Macfarlane Burnet Centre for Medical Research, which has a staff of 42 and currently shares the same premises. Planning for a new building to provide separate accommodation for research staff is under way.

The successful candidate will be responsible for provision of a modern and efficient diagnostic service, teaching medical students and training of graduate staff, consultation with clinicians and pathologists, and representing the laboratory at meetings within and outside the Hospital. Experience with computers would be an advantage. Opportunities for diagnostic epidemiological and applied research exist and are encouraged.

Appointments to the medical faculties of both the University of Melbourne and Monash University will be considered at a level to be determined by the background qualifications and experience of the successful applicant.

Salary in accordance with the Senior Medical Officers' Award, e.g. Specialist Class 4, \$A85,597 p.a. Subsidised superannuation is available.

For further details please contact the Director of Medical Services, Dr A. Kucers, on (61-3) 488 2299, Fax (61-3) 481 3816. Applications, including names of 3 referees, to the Executive Director by 30 November 1990.

arm41470

## Fairfield Hospital

Yarra Bend Road, Fairfield,  
Victoria, 3078, Australia

# Make A Discovery

## Lab Director In Vitro Fertilization

Discover Chicago's Grant Hospital, located in Lincoln Park. Currently, we seek an experienced medical professional to head our newly-established IVF laboratory.

Respondents should possess a relevant Ph.D. and significant experience with cell/tissue culture techniques and comprehensive knowledge of gamete and embryo biology.

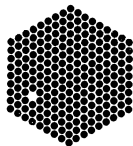
A highly competitive salary, generous benefits, research funds, support staff and academic appointment opportunities are all available.

Grant Hospital is a 502-bed state-of-the-art facility affiliated with Rush-Presbyterian-St. Luke's Medical Center. Lake Michigan, Lincoln Park Zoo, the Loop and excellent housing are all just minutes away, many are within walking distance.

For immediate and confidential consideration, please forward your CV. to: **W. Paul Dmowski, M.D., Ph.D., Director, Chicago IVF and Fertility Institute, Grant Hospital, 550 W. Webster Avenue, Chicago, IL 60614**. Equal Opportunity Employer M/F.

**Grant** Hospital  
of Chicago

More Things to More People



## EMBL

The European Molecular Biology Laboratory, an international research organization situated in Heidelberg, West Germany, has a vacant post in its **Outstation in Grenoble** for a

### SYNCHROTRON PROTEIN CRYSTALLOGRAPHER

The Grenoble Outstation of EMBL seeks an experienced protein crystallographer, with an interest in instrumentation, to establish a group orientated towards exploiting the intense synchrotron beams which will become available at the European Synchrotron Radiation Facility (ESRF) currently being built adjacent to the Outstation. It is hoped that EMBL will be directly involved in the construction and operation of at least two of the ESRF beamlines to be used for protein crystallography and the scientist appointed will play a major role in developing the collaboration between the EMBL and the ESRF. The scientist would be based in Grenoble but in the early stages would gain experience at the EMBL Outstation in Hamburg where new synchrotron beamlines are being built for biological research. He would also be responsible for the appointment of other group members (e.g. research assistant or engineer).

The Grenoble Outstation of EMBL is currently a biological support laboratory for the high-flux neutron source, the Institut Laue-Langevin, and is planned to play the same role for the ESRF. It also has an active in-house research programme in structural biology and has good facilities for molecular biology, electron microscopy, computing and protein crystallography (e.g. image-plate detection system). The successful scientist would be encouraged to complement this research programme.

An initial contract of 3-5 years will be offered with an attractive tax-free salary at a level consistent with qualifications.

Please write to the Personnel Section in Heidelberg for an application form, enclosing CV and quoting reference no. 90/38.

Closing date for applications:  
15.12.90

EMBL  
Personnel Section,  
Postfach 10.2209  
D-6900 Heidelberg  
Federal Republic  
of Germany

## STAFF SCIENTISTS - NEUROPHARMACOLOGY/ NEUROBIOLOGY

REGENERON PHARMACEUTICALS, a company dedicated to developing therapeutic agents for degenerative and traumatic neurological disorders, is seeking to apply recent advances in the understanding of neuronal growth and regeneration.

REGENERON offers an exciting, collegial environment in which state-of-the-art molecular skills are brought to bear on outstanding problems in neurobiology and medicine. Key projects focus on the discovery, purification and molecular cloning of novel neurotrophic growth factors, and on the assessment of their biological roles as well as therapeutic potentials using innovative cell culture methods and animal models.

Positions in Pharmacology require a Ph.D. in Pharmacology or related discipline and a minimum of four years' post-doctoral experience in the absorption, distribution and metabolism of drugs (preferably polypeptides and proteins). Previous experience in pharmacokinetic modeling, knowledge of protein and peptide separation techniques, and delivery of drugs to the CNS are essential. Previous industrial experience is highly desirable.

Positions presently available in Neurobiology require a working knowledge of animal models of neurodegenerative disease and trauma. Parkinson's Diseases, Spinal Cord and PNS Trauma and Sensory and Motor Neuropathies are areas of particular interest. An M.D. or Ph.D. degree and a minimum of 3 yrs. postdoctoral experience is required.

REGENERON's modern facility is located on a 275-acre wooded campus in Westchester County, 20 miles north of Manhattan, near major universities and medical centers. We offer excellent compensation packages, including generous stock options. Suburban Westchester features attractive and affordable housing, outstanding public schools and recreational facilities along with ready access to the culture and business centers of New York City.

Please forward your resume,  
in confidence to: **Ms. Carol Deaken,**  
**REGENERON PHARMACEUTICALS, INC.**  
777 Old Saw Mill River Road  
Tarrytown, NY 10591-6706  
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**REGENERON**  
**Pharmaceuticals, Inc.**

## TENURE-TRACK ASSISTANT PROFESSORSHIPS DEPARTMENT OF BIOLOGY TUFTS UNIVERSITY

The Department of Biology at Tufts University invites applications for two new tenure track positions at the assistant professor level, to start Sept., 1991. These positions represent part of an expansion of the department made possible in part by a grant under the Howard Hughes Medical Institute Undergraduate Initiative.

The Department presently has 20 full-time faculty members committed to offering a broadly-based biology curriculum. We seek candidates with training in specialties that will complement our existing research and teaching programs at the undergraduate and graduate levels. Successful applicants will be expected to pursue independent extramurally-funded research programs, and to sponsor doctoral-level graduate research. Ph.D. required; postdoctoral experience preferred. In addition to the specialized teaching listed for each position, applicants will be expected to participate on a rotating basis in team-taught introductory and intermediate level biology courses. Applicants will be sought for the following specific positions:

**BIOCHEMIST**, with research interests in protein structure or function. Instructional duties will include sharing an intermediate level course in biochemistry and teaching an advanced seminar course.

**IMMUNOLOGIST**, with research interests in molecular or cellular immunology. Instructional duties will include participation on a regular basis in an introductory biology course for majors and teaching an advanced course in his or her specialty.

Women and minorities are encouraged to apply. Applicants should include a curriculum vitae, a concise statement of research interests and goals and have letters sent by three references who can comment on research potential and teaching ability. Address, as appropriate, to either: Chair, Search Committee for Biochemist or Immunologist, Department of Biology, Tufts University, Medford, MA 02155. Deadline for completed applications, including letters of reference, is December 3, 1990. Tufts University is an Equal Opportunity/Affirmative Action Employer.



TUFTS UNIVERSITY

NEW JERSEY  
COMMISSION



ON SCIENCE AND  
TECHNOLOGY

## CHIEF OPERATING OFFICER

New Jersey Commission on  
Science and Technology

Serves as Chief Operating Officer for the New Jersey Commission on Science and Technology, the New Jersey government agency for the promotion of technology based economic development activities. Reports to the 18 member bipartisan Commission through its chairperson.

Experience must include and demonstrate:

- High level public policy involvement.
- Management/Administration of a Public or Private Agency, Business, Higher Education Institution/Agency or Research Groups.
- Thorough understanding of the linkages between business location decisions; academic infrastructure; research excellence; availability of trained work force; and pathways for technology and business development.
- Ability to manage a grant program (\$25 million annually and capital funds approaching \$100 million).
- Ability to manage a self-initiating Professional staff.

Liberal benefits package – salary commensurate with experience.

Please send resume to: Shirley A. Jackson, Ph.D., Chairperson, Search Committee, AT&T Bell Laboratories, Room 1D-337, 600 Mountain Ave., Murray Hill, NJ 07974. Filing deadline October 29, 1990. EEO/AA Employer.

Join Wyeth-Ayerst Laboratories, one of the world's largest pharmaceutical research and development groups. Now is your opportunity to become an integral member of our fast-paced, innovative team at our research facility in Princeton, NJ.

## SENIOR SCIENTIST - PhD Drug Metabolism

You will be primarily responsible for developing a drug interaction program in support of the development of new drug candidates. Your evaluation will be based on both in vitro and in vivo studies.

Position requires a PhD in a related discipline with a drug metabolism background. Must have up to 3 years experience conducting in-vitro assays, drug interaction studies and analysis of Phase I and II drug metabolizing enzyme systems.

Wyeth-Ayerst offers an excellent compensation and benefits package. Please forward your resume with salary requirements to: **WYETH-AYERST RESEARCH, Personnel Manager, CN 8000, Princeton, NJ 08543-8000.** An Equal Opportunity Employer, M/F/H/V.



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## PRINCIPAL SCIENTIST Group Leader

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As a Group Leader/Principal Scientist you will lead and direct photobiology research to support the sun-care/skin care business. The scope of your responsibilities will include applied research: specifically, developing methods for product and prototype evaluations, and identifying and implementing new technologies as they relate to the product development group.

An MS or PhD in Photobiology/Biochemistry and at least 5+ years related experience is required along with excellent oral and written communication skills and the ability to supervise 3-4 scientists. Publication and academic affiliation are encouraged. Some travel required.

Located outside of Princeton, we offer a dynamic working environment as well as highly competitive compensation and benefits, including an on-site corporate fitness program.

If you are an emerging authority in your field seeking to join a company where your skills are recognized and rewarded, forward a resume, including salary history and requirements to: Human Resources, Department: Photo

Johnson & Johnson  
CONSUMER PRODUCTS, INC.

Grandview Road, Skillman, NJ 08558

Equal Opportunity Employer M/F/H/V



## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR

Applications are invited for a professionally rewarding tenure-track faculty position in the Department of Microbiology and Immunology at the School of Medicine of the University of South Carolina. Preference will be given to applicants working in the area of bacterial pathogenesis, but other disciplines (virology, immunology) will be considered. Expertise in molecular biology is essential. Salary and start-up funds for establishing a laboratory are available. Duties include developing/maintaining a strong research program and teaching medical and graduate students. The level of appointment will depend upon the applicant's experience and research achievement. The department is housed in an attractive building with fine facilities. Please send curriculum vitae, a description of research interests, and the names of three references by 15 December 1990 to: **Dr. William E. Bowers, Chairman, Department of Microbiology and Immunology, School of Medicine, University of South Carolina, Columbia, SC 29208.**

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

**FACULTY POSITIONS.** Section of Genetics, Duke University Medical Center. A newly created Section of Genetics at the Duke University Medical Center invites applications for several tenure-track, junior level faculty positions. Although individuals utilizing molecular genetic approaches to questions in most any important area of biology will be considered, we are particularly interested in those applying genetic approaches to the study of development. Applicants should forward curriculum vitae, a statement of research plans, and the names of three references to: **Dr. Joseph R. Nevins, Head, Section of Genetics, Duke University Medical Center, P.O. Box 3054, Durham, NC 27710.** *Duke University is an Equal Opportunity/Affirmative Action Employer.*

### MOLECULAR NEUROSCIENTIST

A tenure-track **FACULTY POSITION** is available in the Department of Neuroscience at the University of Virginia. This will be one of several appointments to be made to staff this new basic science department. We are especially interested in individuals addressing questions of neuronal development or plasticity using molecular biological techniques. Contact:

**Oswald Steward, Ph.D., Professor and Chairman**  
Department of Neuroscience, Box 230  
University of Virginia Health Sciences Center  
Charlottesville, VA 22908

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

### FACULTY POSITION IN GASTROINTESTINAL RESEARCH: INVESTIGATOR IN THE BASIC OR CLINICAL SCIENCES

A faculty position is available for a basic or clinical investigator in the gastroenteric sciences in a large academic Department of Gastroenterology. Applicants should possess M.D. or Ph.D. degree and have evidence of an independent program of research with extramural, peer-reviewed funding. Those with clinical training in gastroenterology can develop within this large department flexible ways whereby these skills can be maintained and utilized. Faculty ranking is also flexible, commensurate with the successful applicant's experience and academic standing.

The field of study is not restricted. Current faculty have interests in basic and applied research in liver function and disease, pancreatic function and disease, gastrointestinal peptides, gastrointestinal motility, epidemiology of digestive diseases, and the functional bowel diseases. Outstanding support services are available, and the opportunities for collaborative research are excellent. Applicants would be expected to have, or to establish, credentials in the national arena of academic gastroenterology.

Please forward applications, including curriculum vitae, bibliography, a summary of research interests, and the names of three references, to:

**Sidney F. Phillips, M.D.**  
Gastroenterology Unit  
Mayo Clinic  
Rochester, MN 55905

*An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### FACULTY POSITION IN NEUROSCIENCE

The Department of Neuroscience at the Albert Einstein College of Medicine seeks a molecular neurobiologist at the **ASSISTANT PROFESSOR** level. Applicants must show exceptional promise of establishing a vigorous, independent research program. To apply, please submit curriculum vitae, bibliography, brief description of research plans, and names of three references to: **Michael V. L. Bennett, Professor and Chairman, Department of Neuroscience, Albert Einstein College of Medicine, 1410 Pelham Parkway South, Bronx, NY 10461.** *The Albert Einstein College is an Affirmative Action/Equal Opportunity Employer.*

The University of Chicago is forming a group to study the cell cycle and its potential application to human disease. Three **TENURE-TRACK POSITIONS** will be committed to individuals with experience in molecular and cell biology studying cell cycle regulation in eukaryotic systems including mechanisms of DNA replication, recombination, and repair. Although applicants are expected to obtain grant support, continuous salary and operating funds are available. Joint appointments will be encouraged in basic science and clinical departments. Contact: **Dr. R. Weichselbaum, University of Chicago, 5841 South Maryland Avenue, Box 442, Chicago, IL 60637.** *Equal Opportunity Employer.*

### EMORY UNIVERSITY FACULTY POSITIONS IN DEVELOPMENTAL BIOLOGY

As part of a major expansion, the Department of Biology will make several tenure-track appointments in developmental biology. Presently, available positions are at the **ASSISTANT PROFESSOR** level, although an appointment at a higher rank will be considered in exceptional circumstances. The area of research should encompass the study of mechanisms relevant to differentiation and morphogenesis. Applicants should provide evidence that they will develop a strong, independent research program and that they possess a broad knowledge of developmental biology. *Applications from minority and female candidates are strongly encouraged.* The successful candidate will occupy a laboratory in the newly constructed O. Wayne Rollins Research Center and will be provided with competitive start-up funds. Please send curriculum vitae, reprints of publications, a statement of present and future research plans, and four letters of recommendation to: **Dr. John Lucchesi, Chairman, Developmental Biology Search Committee, Department of Biology, O. Wayne Rollins Research Center, Emory University, Atlanta, GA 30322.** To ensure full consideration, applications should be received by 31 December 1990. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

### MOLECULAR EVOLUTIONIST SMITHSONIAN INSTITUTION

The National Museum of Natural History, Smithsonian Institution, seeks a junior or senior scientist specializing in theoretical or empirical analyses of molecular genetic data for the study of systematics and evolution. We seek a scientist with broad knowledge and experience ranging from phylogenetic inference to population genetic theory. This position will carry a joint appointment in the newly established Laboratory of Molecular Systematics and one of the following departments: anthropology, botany, entomology, invertebrate zoology, paleobiology, or vertebrate zoology. The incumbent will develop an independent research program, maintain strong ties to the adjunct department, and interact with other scientists and staff of the laboratory to promote an atmosphere of excellence. Technical assistance and research support are provided. Preferred applicants will have a Ph.D., experience at the postdoctoral or tenure-track faculty level or its equivalent, and an outstanding record of research and publication.

Salary and grade level will be commensurate with experience and professional accomplishments. Applications should be received by 30 November 1990. *U.S. citizenship is required.* Send curriculum vitae, federal application form (SF-171), selected publications, and three references to: **Office of Personnel Administration, Attention: Branch 1, MPA 90-1178, Smithsonian Institution, P.O. Box 23294, Washington, DC 20226-3299.** For more information, contact: **E. A. Zimmer, 301-238-3444.** *The Smithsonian Institution is an Equal Opportunity Employer.*

## POSITIONS OPEN

### FACULTY POSITION IN CANCER BIOLOGY

The Cancer Biology Section of the Radiation Oncology Center, Mallinckrodt Institute of Radiology, Washington University School of Medicine, St. Louis, Missouri, has an opening for an individual with training and experience in experimental oncology. Ideally, the candidate should have expertise in the areas of radiation biology and cell proliferation. The opening is available 1 January 1991. This academic position is tenure-tracked. The salary and rank are negotiable, dependent upon experience and qualifications of the individual. The qualified individual should have the ability to conduct independent research and experience in teaching. The individual will be expected to function as an independent investigator and participate in the training program of the Radiation Oncology Center. Please send curriculum vitae, one or two sample reprints, and the names, addresses, and telephone numbers of three references to: **Dr. Joseph L. Roti Roti, Section of Cancer Biology, Washington University School of Medicine, 4511 Forest Park Boulevard, St. Louis, MO 63108.**

### TWO FACULTY POSITIONS IN BOTANY

Northeast Missouri State University (NMSU) invites applications for two tenure-track positions, starting August 1991, in botany. We seek a plant structural biologist who will be responsible for teaching plant anatomy and other specialty courses and a plant systematist who will be responsible for teaching plant systematics and a course on local flora. Successful candidates for both positions will be expected to participate in teaching introductory botany and biology courses. The plant systematist should use both classical and modern approaches in research and be committed to maintaining and expanding the university's herbarium that presently contains approximately 19,000 specimens. The successful candidates must be committed to excellence in teaching and to involving undergraduate and M.S. students in an active research program. Laboratory space, basic instrumentation, and initial funding for research will be provided. The mission of Northeast Missouri State University, the state's liberal arts and sciences university, is to provide an outstanding educational environment to an academically talented student body while remaining economically accessible. Candidates must possess a Ph.D., an excellent undergraduate record from a liberal arts and sciences institution, strong graduate experiences, and must display leadership and service qualities. *Women and minorities are encouraged to apply as NMSU seeks to culturally broaden and diversify both faculty and student bodies.* Applications, including curriculum vitae, statements of teaching and research goals, undergraduate and graduate transcripts, and three letters of recommendation, should be sent to: **Dr. L. Scott Ellis, Division of Science, Northeast Missouri State University, Kirksville, MO 63501.** Telephone: 816-785-4597. Complete applications will be reviewed starting 20 November 1990.

### PHYSIOLOGIST

Northeast Missouri State University (NMSU) offers a tenure-track position, starting August 1991, in physiology. Applications are particularly invited from candidates with training and interest in neurophysiology; however, all qualified physiologists will be considered. Teaching responsibilities will include introductory and advanced courses in physiology, as well as rotation into introductory biology. Teaching and research are mutually supportive activities at NMSU; thus, the successful candidate must be committed to teaching and will be expected to involve undergraduate and M.S. students in an active research program. Laboratory space, basic instrumentation, and initial funding for research will be provided. The mission of Northeast Missouri State University, the state's liberal arts and sciences university, is to provide an outstanding educational environment to an academically talented student body while remaining economically accessible. Candidates must possess a Ph.D., an excellent undergraduate record from a liberal arts and sciences institution, strong graduate experiences, and must display leadership and service qualities. *Women and minorities are encouraged to apply as NMSU seeks to culturally broaden and diversify both faculty and student bodies.* Applications, including curriculum vitae, statements of teaching and research goals, undergraduate and graduate transcripts, and three letters of recommendation, should be sent to: **Dr. L. Scott Ellis, Division of Science, Northeast Missouri State University, Kirksville, MO 63501.** Telephone: 816-785-4597. Complete applications will be reviewed starting 19 November 1990.

## Environmental Microbiologist or Engineer

Procter & Gamble has an immediate entry-level opening for an Environmental Microbiologist or Engineer in the Environmental Safety Department (ESD). ESD is a corporate organization, responsible for the Company's environmental research programs. Candidates should have a Ph.D. degree and relevant experience. Responsibilities will include investigating the biodegradation of organic chemicals in wastewater treatment systems and in aquatic and terrestrial environments. The ideal candidate should have background in microbial ecology, microbial physiology and wastewater treatment. Experience with radioisotopes and application of GC, TLC and HPLC separation techniques also is desirable.

Applicants must be presently authorized to work in the U.S. on a full-time basis. Resumes should be forwarded to:

**Dr. T. J. Logan**  
Microbiologist/Engineer Position/Box S  
The Procter & Gamble Company  
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Cincinnati, Ohio 45239-8707

*Allow 6-8 weeks for response.*

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# Procter & Gamble

Biology

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Skokie, IL 60077

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## ELECTROPHYSIOLOGIST

The Laboratory of Clinical Studies, National Institute on Alcohol Abuse and Alcoholism, invites applications for an electrophysiologist to carry-out human studies designed to investigate brain mechanisms underlying the behavioral effects of alcohol. Ongoing studies involve adult and child normal volunteers and patients with organic brain syndromes associated with alcoholism. We are looking for an individual capable of participating in an interdisciplinary group well-versed in the techniques of brain imaging, electrophysiology, pharmacology, and behavior. Selected individual will have sole use of a laboratory consisting of four separate set-ups of 32, 25, 24, and 16 leads under the control of DEC 11/73 acquisition computers; Vax 3400 and 3520 serve as analysis computers. Technical support is already in place and committed to electrophysiological studies.

Applicants must have a Ph.D. or M.D. or equivalent experience. Position is offered, depending on experience, at a salary range of \$24,000 to \$46,800.

The Laboratory is located at the National Institutes of Health in Bethesda, Maryland just north of Washington, D.C. If you have an interest in this position, please send a letter describing yourself and include a statement of scientific interest, a resume, and the names of three references to:

**Dr. Michael Eckardt**  
Laboratory of Clinical Studies  
NIAAA  
Building 10, Room 3C102  
9000 Rockville Pike  
Bethesda, MD 20892



*The position is available now.*

NIAAA is an Equal Opportunity Employer



**The University of Sydney**

AUSTRALIA

## LECTURER IN PLANT BIOLOGY

**School of Biological Sciences**

**Reference No. 29/02**

Applications are sought for the position of Lecturer in the School of Biological Sciences in the field of Plant Biology. The successful applicant will be expected to contribute to undergraduate teaching in one or more of the following fields: biology of non-flowering plants, plant anatomy and plant ecology. Preference may be given to applicants with expertise in non-flowering plants (apart from algae and fungi). The appointee will also be expected to teach at the postgraduate level and develop a research program in one of these fields.

Appointments to lectureships have the potential to lead to tenure and are usually probationary for three years.

Further information from Professor N. A. Walker +612 692 2385, fax. +612 692 4771 or Associate Professor W. G. Allaway +612 692 2280, fax. +612 692 4771.

**Salary:** \$A33,163-\$A43,096 per annum.

**Method of application:** Applications, quoting Reference no., and including curriculum vitae, list of publications and the names, addresses and fax. nos., of three referees, to the Registrar, Staff Office, University of Sydney, NSW 2006 Australia, fax. +612 692 4316 by 29 November 1990.

*Equal employment opportunity and no smoking in the workplace are University policy.*

61479

## POSITIONS OPEN

### MOLECULAR GENETICIST/ PSYCHOPHARMACOLOGIST

Mayo Clinic/Mayo Medical School invites applicants for a **FACULTY POSITION** in the Department of Psychiatry and Psychology, in close collaboration with members in the Department of Pharmacology and/or the Department of Biochemistry and Molecular Biology. Candidates should have primary interests in major psychiatric disorders and be pursuing these interests with the methods of molecular genetics and/or molecular pharmacology. M.D. and clinical training in psychiatry are desirable but not required. Mayo will provide generous space and start-up funds in addition to an attractive package of salary and benefits. Academic rank will be determined by qualifications; established investigators are also encouraged to apply. Submit curriculum vitae with names and addresses of three or more references to: **Toshihiko Maruta, M.D., Chairperson of Search Committee, Department of Psychiatry and Psychology, Mayo Medical School, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Employer.**

### Ph.D. MOLECULAR GENETICISTS B.S./M.S. SCIENTISTS THE UNIVERSITY OF MICHIGAN HUMAN GENOME CENTER

The University of Michigan has recently received funding for a Human Genome Center. Entitled "Genomic Technology and Genetic Disease," the center will focus on the development of technological advances in physical mapping, genetic mapping and DNA sequencing, and the application of these approaches to human disease. Positions are available immediately for: (i) Four Ph.D. level molecular geneticists with experience in PCR methods, automation, molecular cytogenetics, advanced DNA sequencing, and/or yeast artificial chromosomes; (ii) a Ph.D. statistical geneticist to develop advanced statistical methods for human gene mapping; and (iii) six B.S./M.S. level scientists, with experience in molecular genetics techniques and applications. Please send résumé and names of three references to: **Dr. Francis Collins, GTGD, Human Genome Center, The University of Michigan, Medical School, 4570C MSRB II, Ann Arbor, MI 48109-0650.**

**POSTDOCTORAL POSITIONS.** Joint project between the Cardiovascular Research Institute (CVRI) and Drs. Charles Craik and Robert Fletterick of the University of California, San Francisco, Biochemistry Department. Structure/function studies on lipoxigenases (inflammation and atherosclerosis). Experience in molecular biology required. Send curriculum vitae and three references to: **Elliott Sigal, M.D., Ph.D., CVRI, Box 0911, University of California, San Francisco, CA 94143-0911. An Equal Opportunity Employer.**

Two **POSTDOCTORAL POSITIONS** available, one to study the genetics of affective disorders using linkage analyses, the other to participate in the development of a physical map of a region of the human genome. Candidates with experience in molecular biology techniques are preferred. Send curriculum vitae and at least two letters of recommendation to: **Daniela S. Gerhard, Department of Genetics, Washington University School of Medicine, 4566 Scott Avenue, St. Louis, MO 63110.**

### POSTDOCTORAL POSITIONS MOBILE SELF-SPLICING INTRONS

Nucleic acid rearrangements of group I introns are studied at the RNA and DNA levels. Projects include analysis of self-splicing RNAs and DNA-based intron mobility in prokaryotes using genetic and biochemical approaches [see Belfort, *Trends in Genetics* 5, 209 (1989)]. Protein-nucleic acid interactions are also under investigation. Experience in genetics, protein, and/or nucleic acid chemistry desirable. Competitive, federally funded salary (through Health Research, Inc.).

Interested candidates should forward their curriculum vitae and have three letters of reference sent to:

**Dr. Marlene Belfort  
Wadsworth Laboratories and  
School of Public Health  
State University of New York  
Box 509, Empire State Plaza  
Albany, NY 12201-0509**

*Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Available in January 1991 to foreign or nationals to work on ionic channel modulation in smooth muscle. We use patch clamp and single channel reconstitution in bilayers. Salary commensurate with qualifications according to NIH guidelines. Send curriculum vitae to: **Dr. Enrico Stefani, Professor, Department of Molecular Physiology and Biophysics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. Equal Opportunity Employer.**

**POSTDOCTORAL POSITION IN NEUROBIOLOGY.** A staff position is open for a period of 2 years. Projects are focused on nicotine and caffeine: reward mechanisms and interactions with different transmitter systems in the rat. Applicants with a Ph.D. and with relevant experience in behavioral pharmacology and neurobiology are invited to send curriculum vitae and the names and telephone numbers of three references to: **Dr. Karl Bättig, Behavioral Biology Laboratory, Swiss Federal Institute of Technology (ETH), Turnerstrasse 1, ETH-Zentrum, CH-8092 Zurich, Switzerland.**

**POSTDOCTORAL POSITION IN PARASITE MOLECULAR BIOLOGY.** A position is available for an individual with a Ph.D. or equivalent degree in biochemistry, molecular biology, parasitology, or microbiology to investigate the molecular biology of erythrocyte invasion by the rickettsia parasite, *Anaplasma marginale*. *A. marginale* is unique among rickettsia in its invasion of a non-nucleated cell type. Parasite surface proteins involved in the invasion process will be identified, molecularly cloned, and characterized. Recombinant products based on these surface proteins will be isolated and tested for their immunoprotective efficacy in cattle. Interested individuals should send curriculum vitae, statement of research goals, and three letters of reference to: **Dr. David R. Allred, Department of Infectious Diseases, Building 471 Mowry Road, IFAS 633, University of Florida, Gainesville, FL 32611. The University of Florida is an Equal Opportunity/Affirmative Action Employer.**

**MOLECULAR ENDOCRINOLOGY. A POSTDOCTORAL POSITION (M.D. or Ph.D.)** to study thyroid hormone action and c-erbA structure/function. The appointee will conduct research on the characterization of human thyroid hormone receptor mutants and on the role of thyroid hormones and c-erbA proteins in cellular growth and transformation. Experience in molecular genetics, tissue culture, and/or protein biochemistry desired. Please send curriculum vitae to: **Stephen J. Usala, M.D., Ph.D., Department of Medicine, East Carolina University, Greenville, NC 27858. An Equal Opportunity/Affirmative Action Employer. Federal law requires proper documentation of identity and employability at the time of employment. It is requested this documentation be included with your application.**

**POSTDOCTORAL APPOINTMENTS.** The Isotope and Structural Chemistry Group (INC-4) at the Los Alamos National Laboratory seeks candidates for an immediate opening to study the biochemistry of pyrroloquinoline quinone (PQQ). The successful candidate will join an active group of researchers associated with the National Stable Isotope Resources and will use <sup>13</sup>C labeling and NMR techniques to examine either (i) the biosynthesis of PQQ in the methylotrophic bacterium *Methylobacterium extorquens* AM1 or (ii) the catalytic mechanism of the PQQ-dependent methanol dehydrogenase. The group maintains well-equipped fermentation and biochemistry laboratories as well as three modern NMR spectrometers. Candidates must have a Ph.D. in chemistry, biochemistry, microbiology, or related field. The candidate need not have experience in NMR spectroscopy. For more information on the research projects, contact: **Clifford J. Unkefer, INC-4, MS C345, Los Alamos National Laboratory, Los Alamos, NM 87545. Telephone: 505-665-2560.** Postdoctoral appointments are for 1 year, may be renewed for a second year, and pay \$34,920 to \$36,780 per annum. U.S. citizenship is required. Appointees receive employee benefits, including incoming travel and moving expenses. To formally apply, send curriculum vitae, three letters of reference, graduate and undergraduate transcripts, and Los Alamos National Laboratory application to: **Ms. Ronnie Cohen, Human Resources Development Division, PD-90-074, MS P280, Los Alamos National Laboratory, Los Alamos, NM 87545. Equal Opportunity/Affirmative Action Employer.**

## EMORY UNIVERSITY

### Vice President for Arts and Sciences and Dean of Emory College

Emory University invites applications and nominations for the position of Vice President for Arts and Sciences and Dean of the College. The Dean is responsible for providing educational leadership and helping to focus intellectual vision within the College, for planning and overseeing the development of programs in the Arts and Sciences, and for the administration of the College, including appointments and budget.

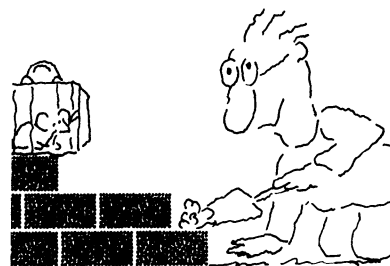
The College currently enrolls approximately 4300 students. It is one of eleven schools and divisions within the University. Approximately 350 FTE faculty teach in a total of 28 departments and several interdisciplinary bachelor's degree programs, as well as in the Graduate School of Arts and Sciences.

Candidates must have a record of teaching and scholarship commensurate with appointment to the rank of professor. Evidence of administrative interest and aptitude is required, as is commitment to rigorous liberal arts education.

Applicants should submit a letter detailing their interest and pertinent experience, including some statement of views concerning educational leadership, together with a current curriculum vitae and the names of several references. Applications and letters of nominations should be sent to Professor Frank Manley, Chair, College Dean Search Committee, Office of the Provost, Emory University, 404 Administration Building, Atlanta, GA 30322. The search committee will begin reviewing dossiers November 1 with a view to making the decision by mid-March.

Applications from women and from minority candidates are encouraged. Emory is an Affirmative Action, Equal Opportunity Employer.

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The Global Weekly of Research  
**SCIENCE**



**THE UNIVERSITY OF BRITISH COLUMBIA  
HEAD**

**DEPARTMENT OF MEDICINE**

The Faculty of Medicine, University of British Columbia invites applications and nominations for the position of Head of the Department of Medicine.

We seek an academic leader to be responsible for directing and developing the teaching and research programs of the department which functions in four teaching hospitals in Vancouver. The Department has 75 Full-time and 189 Clinical/Part-time Faculty members and attracts research support of \$8.5 million annually. A candidate should hold a specialty qualification in Medicine and have a proven record of scholarly activity, extensive clinical experience and a commitment to undergraduate and graduate medical education. Starting date will be July 1, 1991. Salary will be commensurate with experience and qualifications.

The University of British Columbia is committed to the Federal Government's employment equity program and encourages applications from all qualified individuals. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents.

Applications, accompanied by a detailed curriculum vitae and the names of two references, should be directed by November 30, 1990 to:

Dr. M.J. Hollenberg  
Dean, Faculty of Medicine  
Room 317, Instructional Resources Centre  
University of British Columbia  
2194 Health Sciences Mall  
Vancouver, B.C. V6T 1W5

**BIOCHEMISTRY  
FACULTY POSITION  
LEHIGH UNIVERSITY**

Lehigh University has recently added 30,000 square feet of laboratory space committed to a Center of Molecular Biosciences and Biotechnology, an interdisciplinary program comprised of three divisions: biochemistry, molecular biology and biochemical engineering. **Applications are invited from outstanding individuals with at least two years of postdoctoral experience for an open-rank tenure-track faculty position in the Division of Biochemistry within the Department of Chemistry.** The successful applicant is expected to participate in teaching undergraduate and graduate courses and to establish a strong, independent externally-funded research program. Research area is open but special consideration will be given to those involved in areas which overlap and complement existing programs within the Center and/or Department. **Applicants should send curriculum vitae, list of publications, brief description of research objectives and arrange to have three letters of reference sent to Dr. J.A. Alhadeff, Biochemistry Search Committee, Department of Chemistry, Lehigh University, Bldg. A, MTC, Bethlehem, PA 18015. Applications which are not complete (including letters) by November 30, 1990, cannot be guaranteed full consideration.** Lehigh University is an Affirmative Action/Equal Opportunity Employer.

**BIOLOGY RESEARCH ASSOCIATES**

The **CARDIOVASCULAR RESEARCH GROUP** of the Upjohn Company is seeking applications for the full-time position of Biology Associate. Under the direction of a research scientist, the selected candidate will investigate the action of novel pharmaceutical agents on myocardial blood flow and function. Studies will be performed in pathophysiological models of ischemia and infarction. Applicants with surgical experience preferred. A B.S. or M.S. degree in Biology or closely related discipline plus relevant, recent laboratory experience is required. Refer to position No. 5710-HA.

The **DERMATOLOGY RESEARCH GROUP** of Upjohn Laboratories has an opening for a Biology Associate. A B.S. or M.S. in a biological science plus experience in skin and/or hair growth research are necessary. Candidates must have skills in TLC, HPLC and modern morphological procedures, and be free of animal-related allergies. Will conduct in vivo research using animal models as well as test and evaluate chemical agents that regulate hair growth. Position No. 5712-HA.

Upjohn offers a competitive compensation and benefits package in addition to a stimulating, multi-disciplinary research environment at our modern laboratories. Qualified applicants are invited to submit their resumes, cover letters and a copy of transcripts to: The Upjohn Company, Corporate Recruiting, 7000 Portage Road, Kalamazoo, MI 49001-0199. Refer to one of the above position numbers in your cover letter. An Equal Opportunity Employer M/F.

*Our Commitment to Scientific Excellence Continues...*

**Upjohn**

**Postdoctoral Scientist**

**Analytical Research**

Genentech, a leader in the field of biotechnology research, has a one year appointment available for a Postdoctoral Scientist with an option for renewal.

You will join a research group, directed by Dr. William Hancock, applying modern analytical methods (HPLC, LC/MS, tryptic mapping, capillary electrophoresis, protein chemistry) to the characterization of recombinant - DNA produced proteins. To qualify, you must have experience in protein chemistry and chromatographic techniques and will explore the use of new analytical methods to identify and characterize protein and nucleic acid variance.

Genentech offers an extensive benefits package which includes child care facilities, free health club membership, an employee stock purchase plan and fully paid medical/dental/vision coverage. For immediate consideration, please send your resume to Yvonne Davino, Genentech, Inc., Human Resources Dept. SBH, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

**Genentech, Inc.  
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Genentech, Inc.**

# The Art of Discovery.

Syntex has discovered, developed and marketed a number of successful new products that testify to our commitment to basic and applied research. We continue to develop innovative new therapies for today's complex medical problems, and rely on research that combines the vision of a talented scientific team with state-of-the-art drug discovery and evaluation techniques. Toward this end, we devote 30% of our staff and 18% of our profits to R&D.

The following exciting career challenges await talented, energetic and motivated scientists at our headquarters and main research facility in the San Francisco Bay Area.

## Analytical Chemist

In this role, you'll lead a team responsible for performing analyses to control raw materials and monitor reactions. We require a PhD and a strong HPLC and analytical chemistry background. You will also need good communication skills and the ability to head the development of new analytical methods.

## Group Leader Computational Chemistry

In our Computer Aided Drug Design Group, you'll direct a multi-faceted team of chemists in the discovery of new medicinal agents. You must possess a PhD in Chemistry and 5 years' related post graduate experience. Proven skills in integrating the application of computational chemistry with other structural techniques such as 2D-NMR and single crystal X-Ray diffraction is a must. Strong management background essential.

## Computational Chemists

In our collaborative environment, you will work closely with other scientists to solve drug design problems. To do so, you'll perform molecular modeling of structural types ranging from small molecules to proteins. Your PhD must be backed with 1-5 years' experience in computational chemistry.

We offer competitive compensation and relocation including incentive bonus. For prompt consideration, please send resume to:

Syntex, Professional Staffing,  
Dept. KH/SC/2,  
3401 Hillview Ave., Palo Alto,  
CA 94303. We are an equal opportunity employer.



## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Available immediately to study developmentally regulated penicillin-binding proteins in *Bacillus subtilis*. Project combines molecular biology and microbial physiology. Send curriculum vitae and names of three references to: **Dr. C. Buchanan, Department of Biological Sciences, Southern Methodist University, Dallas, TX 75275. Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION.** Available immediately focusing on hepatitis B viruses and growth factors in the etiology of hepatocellular carcinoma. Experience in tissue culture, molecular biology, transformation, and/or transgenics is desirable. Competitive salary commensurate with experience. Send curriculum vitae and names of three references to: **Dr. Charles E. Rogler, Department of Medicine, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, NY 10461. Telephone: 212-430-2607. Equal Opportunity Employer.**

**POSTDOCTORAL POSITION.** Available immediately for biochemists/molecular biologists to participate in studies of growth regulation and signal transduction by growth factor receptors and kinases. Projects involve molecular and genetic analyses of receptor/kinase structure and function, and elucidation of other elements in the signaling pathways. Previous experience with protein analysis and recombinant DNA techniques is desired. Salary is negotiable, depending upon experience. Send curriculum vitae, statement of interests, and names of three references to: **Dr. Marsha Rosner, Ben May Institute, Box 424, University of Chicago, 5841 South Maryland Avenue, Chicago, IL 60637. Equal Opportunity/Affirmative Action Employer.**

## POSTDOCTORAL POSITIONS

Postdoctoral positions supported by an NIH Postdoctoral Training Grant are available for suitably qualified candidates with experience of biochemical and/or biophysical methods. Excellent opportunities to apply state-of-the-art biochemical/biophysical methods to important membrane/lipoprotein problems. The areas of interest are:

Plasma lipoproteins: LDL and HDL structure, apoprotein structure prediction/analysis, lipoprotein reconstitution methods, lipid-protein interactions, etc. (Dr. D. Atkinson).

Membrane receptor-ligand interactions: LDL receptor isolation/reconstitution, LDL receptor-LDL interactions, protein kinase C-membrane interactions, etc. (Dr. G. G. Shipley).

*NIH regulations require U.S. citizenship or permanent residence.* Interested candidates should send their curriculum vitae and two letters of recommendation to: **Dr. D. Atkinson or Dr. G. G. Shipley, Department of Biophysics, Boston University School of Medicine, Boston, MA 02118.**

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

**POSTDOCTORAL FELLOWSHIP.** Immediate opening on NIH-funded training grant for study of molecular mechanisms of regulation of ovarian steroid secretion. Interdisciplinary program in departments of pediatrics, medicine, and biochemistry/molecular biology. Requirements: *U.S. citizen or permanent immigrant*, Ph.D., and experience in relevant discipline. Submit curriculum vitae, a short summary of research interests, and names of three references to: **Dr. Robert L. Rosenfield, University of Chicago Medical Center, 5841 South Maryland, Box 118, Chicago, IL 60637. An Equal Opportunity/Affirmative Action Employer.**

## SMITHSONIAN INSTITUTION FELLOWSHIP PROGRAM

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

## POSITIONS OPEN

**POSTDOCTORAL APPOINTMENT.** The Isotope and Structural Chemistry Group (INC-4) at the Los Alamos National Laboratory seeks a candidate for an immediate opening to develop 15-N NMR as a tool for the study of protein/DNA interactions. The successful candidate will join an active team of researchers associated with the NIH-supported National Stable Isotope Resources having strong backgrounds in synthetic organic chemistry, biochemistry, and NMR spectroscopy. Group INC-4 maintains well-equipped organic chemistry facilities, fermentation and biochemistry laboratories, as well as three modern NMR spectrometers. Candidates must have a Ph.D. in chemistry, biophysics, biochemistry, or related field. Preference will be given to candidates with a strong background in bioorganic/nucleic acid chemistry. For more information on this project, please contact either **James A. Fee** or **Louis A. Silks, INC-4, MS C345, Los Alamos National Laboratory, Los Alamos, NM 87545; 505-667-0774 or 505-667-5324.** Postdoctoral appointments are for 1 year, may be renewed for a second year, and pay \$34,920 to \$36,780 per annum. *U.S. citizenship is required.* Appointees receive employee benefits, including incoming travel and moving expenses. To formally apply, send curriculum vitae, three letters of reference, graduate and undergraduate transcripts, and Los Alamos National Laboratory application to: **Ms. Ronnie Cohen, Human Resources Development Division, PD-90-076, MS P280, Los Alamos National Laboratory, Los Alamos, NM 87545. Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL FELLOWSHIP IN VASCULAR BIOLOGY.** Potential areas of study in the Vermont Center for Vascular Research include peptides and vascular function, mechanisms of myogenic tone, smooth muscle electrophysiology, and resistance artery function in health and disease (hypertension, vasospasm). Send inquiries, including curriculum vitae and names of three references, to: **Dr. Joseph E. Brayden, Department of Pharmacology, Given Building, The University of Vermont, Burlington, VT 05405. An Equal Opportunity/Affirmative Action Employer.**

## POSTDOCTORAL FELLOWSHIP WASHINGTON UNIVERSITY SCHOOL OF MEDICINE ST. LOUIS, MISSOURI

The Atherosclerosis and Lipid Research Division of the Department of Internal Medicine is seeking two qualified M.D.'s and/or Ph.D.'s to work in the area of molecular genetics and lipoprotein metabolism. This is a funded project with a competitive salary range based on experience and expertise. Start date would be 1 July 1991 or as soon thereafter as possible. These projects seek to ascertain molecular defects of patients and to characterize consequences for lipoprotein metabolism. Send curriculum vitae and outline of research interests to:

**Dr. Gustav Schonfeld  
Washington University School of Medicine  
Atherosclerosis and Lipid Research Division  
4566 Scott Avenue, Box 8046  
St. Louis, MO 63110**

## BIOPHYSICIST/PHYSICIST/BIOCHEMIST

**POSTDOCTORAL RESEARCH ASSOCIATE** (Ph.D. or M.D.) and **TECHNICIAN** (minimum B.S.). Positions available immediately and in near future to study structure-function relationships of hemoglobin using state-of-the-art techniques. Experience required in protein purification or laser spectroscopy (fluorescence/Raman). Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Drs. R. E. Hirsch and J. M. Friedman, Department of Medicine, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, NY 10461.**

## POSTDOCTORAL RESEARCH POSITION

A position is available immediately for a Ph.D. biochemist or pharmacologist with interest in Parkinson's disease and expertise in enzymology, receptor regulation, metal binding proteins, and especially molecular biology. Salary is commensurate to research accomplishment. Apply: curriculum vitae and three references by 30 November 1990 to: **Dr. M. Ebadi, Department of Pharmacology, University of Nebraska College of Medicine (UNMC), 600 South 42nd Street, Omaha, NE 68198-6260. UNMC is an Affirmative Action/Equal Opportunity Employer.**

# IMMUNO

AKTIENGESELLSCHAFT FÜR  
CHEMISCH-MEDIZINISCHE PRODUKTE

## Senior Biostatistician

We are a producer and provider of ethical pharmaceuticals, biologics and diagnostics with international marketing and sales outlets. Our Clinical Research Group in Vienna, Austria, has an opening for a Senior Biostatistician who will provide statistical consultation and collaboration on research projects, participate in the design, quality control, analysis and reporting of pre- and postmarketing clinical trials.

The successful candidate will be a native English speaker, has a Ph. D. in Biostatistics/Statistics and several years experience in a similar position. Programming skills in SAS, BMDP and/or SPSS will be an added plus.

We offer a competitive salary and an excellent benefits package.

If you would like to be considered for this excellent opportunity, consultancy is conceivable, please send your resume and salary history in strictest confidence to:

### IMMUNO AG

Dr. Elisabeth Pullez  
Industriestraße 67  
A-1220 Vienna, Austria  
Ref. 132/90



## Molecular Biologist/ Molecular Virologist

The Hepatitis Research Unit in the Macfarlane Burnet Centre for Medical Research is internationally recognised for the study of hepatitis A and hepatitis B virus replication and has recently attracted significant funding to continue and extend this research.

A vacancy exists in the unit for a senior scientist with experience in molecular biology to join a growing team and undertake studies on the molecular genetics of viral replication and assembly. The appointee will require expertise in CDNA cloning, site-directed mutagenesis, DNA sequencing, and the construction of recombinant DNA molecules for transfection of mammalian cells and transcription of RNA *in vitro*.

The position is funded for three years in the first instance, with a possible extension for a further three years. Salary will be commensurate with qualifications and experience, with appointment up to the level of Senior Research Officer or Senior Research Fellow (NH&MRC Guidelines).

For further information contact Dr Stephen Locarnini on (61-3) 488 2239 or Dr David Anderson (61-3) 488 2395, fax (61-3) 481 3816. Written applications including names of 3 referees to Employee Relations Manager by 30 October 1990.

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## Fairfield Hospital

Yarra Bend Road, Fairfield, Vic. 3078, Australia.

## ENVIRONMENTAL PROFESSIONALS

Ebasco Environmental, a division of EBASCO Services, Inc., a rapidly growing environmental consulting firm, currently has the following outstanding professional opportunities available:

### AQUATIC ECOLOGISTS (SR. & STAFF LEVELS)

Technical background in aquatic ecology, fisheries, population dynamics and/or limnology required. Hydrate relicensing, IFIM, HEP and related experience desirable. Staff positions, requiring 0-3 years' experience and senior positions, requiring a minimum of 3 years' experience are available. MS/Ph.D. preferred. Additionally, candidates must possess good written and oral skills. Knowledge of statistics and computer skills desirable, impact assessment (EIS) experience preferred.

### JR./SR. WETLANDS ECOLOGISTS

The successful candidates should have knowledge of field delineation of wetlands using multi-parameter methodology. Experience with freshwater wetland mitigation plans and regulatory compliance also desired. Effective oral and written communication skills are essential. Advanced degree preferred but not necessary.

THESE POSITIONS ARE AVAILABLE AT OUR LYNTHURST, N.J. HEAD-QUARTERS AS WELL AS MANY OF OUR OTHER OFFICES THROUGHOUT THE COUNTRY.

We offer excellent growth opportunities and potential for career advancement as well as competitive salaries and a comprehensive benefits package. Please send resume including salary requirements and area of geographic preference, to: Christine M. Sullivan, Ebasco Services Incorporated, 160 Chubb Avenue, Lynthurst, NJ 07071. An equal opportunity employer m/f/h/v.

# EBASCO

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## TOXICOLOGIST

McNeil Specialty Products Company, a Johnson & Johnson Company located in New Brunswick, New Jersey, has an opening for a Toxicologist. Successful candidate will provide support in a start-up specialty food company.

Responsibilities include assisting in the development of safety protocols for animal toxicology studies conducted at contract laboratories. Prepare and present safety data information both internally and externally, including interfacing with management and governmental regulatory agencies. In addition, assist in the preparation of scientific publications of interest to McNeil Specialty and author publications of scientific work performed.

This position requires a Ph.D. in toxicology or closely related discipline. Candidates with 0-3 years of post-doctoral experience preferred. Candidates should have a broad background in general toxicology and an interest or experience in the pre-clinical safety assessment of new chemicals, drugs or food additives.

McNeil Specialty Products Company provides a competitive salary and benefits package. For consideration, please forward your resume with salary history to: McNeil Specialty Products Company, 501 George Street, New Brunswick, NJ 08903, ATTN: Human Resources.

McNeil Specialty Products Company

# Johnson & Johnson

Equal Opportunity Employer M/F/H/V

Leadership Beyond Compliance



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If you want to get on the fast track, come join us at XOMA! Our unique monoclonal antibody-based medical research is producing treatment for life-threatening diseases. As we move from research to commercial products, we're anticipating tremendous growth. Here is your chance to be a part of it:

### PHARMACOLOGIST

In this integral position, you'll design, conduct and interpret pharmacological studies on new products for the treatment of immune-related diseases.

Qualified candidates should have a PhD in pharmacology or related discipline with 1-3 years' post-doctoral training. Experience in in vivo pharmacologic evaluation is essential. Background in immunological model systems, computer use and technical supervision is desirable.

### CHECK OUR DATA.

At XOMA, you'll find a supportive 300-person company that's doing exceptional science. We offer competitive salaries and benefits — plus plenty of room for growth. Send your resume to: Technical Recruiter, XOMA Corporation, 2910 7th Street, Berkeley, CA 94710. EOE.

# XOMA



## W.M. Keck Center for Computational Biology Postdoctoral Fellowships



Baylor College of Medicine and Rice University have been funded by the W.M. Keck Foundation to initiate a new research training program in the application of innovative computing technologies to biological problems. We are establishing an integrated interdisciplinary program with participation of a broad spectrum of faculty.

The primary training faculty include:

- C.T. Caskey** (Baylor), *Human genome sequencing*
- W. Chiu** (Baylor) *3-D reconstruction of macromolecular assemblies*
- G. A. Gorry** (Baylor) *Artificial intelligence*
- K. W. Kennedy** (Rice) *Parallel processing in computing*
- G. C. King** (Rice) *Macromolecular structure/dynamics and NMR*
- C. B. Lawrence** (Baylor) *Computer analysis of sequence data*
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Baylor College of Medicine  
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or FAX 713-798-3729

Dr. George N. Phillips, Jr.  
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Participate in a research program aimed at identifying and exploiting bacterial processes for the discovery of novel antimicrobial agents. The selected candidate will have a background in protein biochemistry. Experience in molecular biology or bacterial genetics/physiology highly desirable. POSITION CODE 5713-HA.

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This project interfaces with the efforts of a number of our biotechnology and CNS laboratories. Aspects of this Alzheimer's research program include genetic analysis, expression of recombinants in a variety of cellular and transgenic systems, studies of post-translational modifications and metabolism of expressed proteins, in situ hybridization and immunocytochemical analysis. POSITION CODE 5716-HA.

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Participate in DNA sequencing projects and computer-aided analysis of nucleotide and protein sequences. The successful candidate will have experience in the manipulation of recombinant DNA clones, plasmid, lambdas, and cosmids, in performing both chemical and enzymatic sequencing, and the analysis of nucleotide and protein sequence data using computer software. Background and knowledge in computer programming and data base searches are desirable. POSITION CODE 5715-HA.

At Upjohn, we are committed to your scientific development, your participation in scientific publications, with participation at scientific meetings encouraged. Our laboratories are located in downtown Kalamazoo, a mid-sized community in southwestern Michigan, midway between Detroit and Chicago. The region is surrounded by rolling hills, numerous lakes and woodlands and provides immediate access to abundant culture and recreational pursuits. Upjohn offers a highly competitive compensation and benefits package in a community with reasonable housing and living costs. Qualified candidates are invited to submit their resumes, cover letters, reference names and copies of transcripts to: **The Upjohn Company, Corporate Recruiting, 7000 Portage Road, Kalamazoo, Michigan 49001-0199.** Please refer to one of the Position Codes in your correspondence. An Equal Opportunity Employer M/F.

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The Feinberg Graduate School  
The Weizmann Institute of Science  
Rehovot 76100, Israel

Applications are reviewed twice each year:  
1 January and 15 May

### POSTDOCTORAL RESEARCH ASSOCIATE GENE EXPRESSION

Position available immediately to study elements controlling globin gene activity at the molecular level using expression vectors. Candidates must have Ph.D. with experience in recombinant DNA technology. Salary to \$30,000. Send résumé to: **Dr. R. F. Rieder, Department of Medicine, State University of New York Health Science Center, 450 Clarkson Avenue, Box #20, Brooklyn, NY 11203. Equal Opportunity/Affirmative Action Employer.**

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Positions available immediately to study genetic control of tumor progression in intracranial tumors and tumor-derived cell lines. The project will focus on genomic instability in addition to definition and isolation of genes involved in brain tumor cell invasiveness and neovascularization. Expertise in cell culture, basic molecular biology, and recombinant DNA techniques is required. Applicants must be highly motivated individuals. Send curriculum vitae and names of three references to: **Gregory J. Duigou, Ph.D., Department of Neurosurgery, Box 147-NI, Columbia University, College of Physicians and Surgeons, 710 West 168 Street, New York, NY 10032. Columbia University takes Affirmative Action to ensure Equal Opportunity.**

### POSTDOCTORAL RESEARCH ASSOCIATE MOLECULAR BIOLOGY OF SMALL NUCLEOLAR RNAs

Position available early mid-1991 for research on yeast small nucleolar RNAs. Focus is on snoRNAs required for ribosomal RNA production, especially U14 RNA [*Mol. Cell Biol.* 10, 1145-1152 (1990)]. Biochemical and genetic strategies are used to study the biogenesis and function of U14 RNA and RNP, pre-rRNA maturation, functional mapping and solution structure of U14, and characterization of U14 suppressor genes. Candidates should have a Ph.D. and experience with relevant technologies. Salary commensurate with experience. Deadline for applications: 1 December 1990 or until a suitable candidate has been identified. Please send résumé, brief summary of research experience, publications, and three letters of reference to: **Dr. Maurille J. Fournier, Department of Biochemistry, Lederle Graduate Research Center, University of Massachusetts, Amherst, MA 01003. The University of Massachusetts is an Affirmative Action/Equal Opportunity Employer.**

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Available immediately in High-Energy Nuclear Physics. Appointee will work on data acquisition/analysis for electron/muon scattering experiments at SLAC and CERN. A Ph.D. and experience in electronuclear physics are required. Experience in large package data acquisition/analysis, mini and main frame computers, large spectrometer and particle detection techniques. Background in both nuclear and particle physics is needed. Starting salary: \$29,000 per year. Send curriculum vitae and three letters of reference by 30 November 1990 to: **James S. McCarthy, Department of Physics, University of Virginia, Charlottesville, VA 22901. Equal Opportunity Employer.**

## POSITIONS OPEN

**RESEARCH ASSOCIATE IN VIROLOGY/CLINICAL MOLECULAR BIOLOGY** sought by Maryland Medical Laboratory, Inc. This person would utilize findings and techniques from basic research and institute them into a progressive virology department. Applicants should have a Ph.D. or equivalent qualifications with direct experience with a wide variety of nucleic acid detection techniques. Inquiries should be made by 2 November 1990 to: **William A. Meyer, III, Ph.D., at 800-368-2576, ext. 239, or to: Maryland Medical Laboratory, Inc., 1901 Sulphur Spring Road, Baltimore, MD 21227.**

**CANCER CELL BIOLOGY.** The Department of Surgery, Cornell University Medical College, invites applications for the position of **RESEARCH ASSOCIATE** in a laboratory studying site-specific metastasis. The position is available immediately. Informal inquiries should be directed to: **Dr. Giles Whalen, Department of Surgery, telephone: 212-746-5434.** Applicants should send curriculum vitae with the names of at least two references to: **Veronica Johannesson, Department of Surgery, 525 East 68th Street, Room F-739, New York, NY 10021.**

**RESEARCH ASSOCIATE.** To conduct research in the area of the molecular basis of disease progression in HIV infection, including designing PCR primers and establishing optimal reactive condition, quantitative testing HIV proviral DNA sequence in brain and other tissue specimens, cloning and sequencing viral isolates of interest, developing RNA PCR or other advanced procedures, analyzing, and making statistics and correlations between the findings of the laboratory to the clinical status of AIDS patients. Knowledge of PCR machine, electrophoresis, ultracentrifuge, automatic DNA synthesizer, and spectrophotometer. M.Sc. or equivalent in microbiology/endocrinology/medicine with 1 year of experience. Demonstrated understanding of techniques and theory of molecular biology, the pathogenesis, and pathophysiology, especially in nervous system of AIDS disease and in clinical medical statistics. Salary: \$22,000 per year. Apply with résumé to: **Sandra Starnes, Alabama State Employment Service, 3440 Third Avenue South, Birmingham, AL 35222, Order No: 693496.**

### ASSISTANT RESEARCH PROFESSOR OR RESEARCH ASSOCIATE

**GENETIC EPIDEMIOLOGY/BIostatistics.** Candidate should have a Ph.D. in genetics, biostatistics, statistics, genetic epidemiology, or related field, with research interests in genetic methodology and its applications to human growth, body composition, and genetic linkage.

**HUMAN BIOLOGY/PHYSICAL EDUCATION.** Candidate should have a Ph.D. in human biology, physical education, physical anthropology, or a related area to work in the Fels Longitudinal Study of physical growth, body composition, and risk factors for cardiovascular disease.

Consideration will begin 1 November 1990 and remain open until filled. Send curriculum vitae, description of interests, and list of three references to: **Roger M. Siervogel, Ph.D., Division of Human Biology, Department of Community Health, Wright State University School of Medicine, 1005 Xenia Avenue, Yellow Springs, OH 45387. Affirmative Action/Equal Opportunity Employer.**

### BONUS CIRCULATION FOR YOUR CLASSIFIED AD

Our issue of 16 November 1990 will be distributed to scientists attending the meeting of the American Society of Cell Biologists (ASCB) in San Diego, California, 9 to 13 December 1990.

Deadline for submission of line classified ads:  
1 November 1990

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A Ph.D. with a minimum of two years postdoctoral experience, good communication and data analysis skills, computer programming knowledge, and publication record are necessary.

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Statement required by the Act of 12 August 1970, Section 3685, Title 39, United States Code, showing the ownership, management, and circulation of:

1-6. *Science* is published weekly on Friday, except the last week in December, at 1333 H Street, NW, Washington, DC 20005. Date of filing: 2 October 1990. This is also the address of the publisher, the editor, and the managing editor, who are, respectively, Richard S. Nicholson, Daniel E. Koshland, Jr., and Monica M. Bradford.

7. The owner is American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Stockholders: None.

8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities: None.

9. The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during the preceding 12 months.

10. The average number of copies of each issue during the preceding 12 months is (A) Total number of copies printed: 165,571; (B) Paid circulation: (1) sales through dealers and carriers, street vendors, counter sales: None; (2) Mail subscriptions: 153,996; (C) Total paid circulation: 153,996; (D) Free distribution by mail, carrier, or other means: samples, complimentary, and other free copies: 3,293; (E) Total distribution: 157,289; (F) 1) Office use, leftover, unaccounted, spoiled after printing: 8,282; (F 2) Returns from news agents: None; (G) Total: 165,571.

Actual number of copies of single issue published nearest to filing date are (A) Total number of copies printed: 162,463; (B) Paid circulation: (1) Sales through dealers and carriers, street vendors, counter sales: None; (2) Mail subscriptions: 154,469; (C) Total paid circulation: 154,469; (D) Free distribution by mail, carrier, or other means: samples, complimentary, and other free copies: 2,825; (E) Total distribution: 157,294; (F 1) Office use, leftover, unaccounted, spoiled after printing: 5,169; (F 2) Returns from news agents: None; (G) Total: 162,463.

I certify that the statements made by me above are correct and complete. (signed) *Michael Spinella*, Director, Membership/Circulation.



**DIRECTOR  
DNA TECHNOLOGIES LABORATORY  
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TEXAS A&M UNIVERSITY**

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Dr. Timothy C. Hall, Chair  
DNA Search Committee  
Department of Biology,  
Texas A&M University  
College Station, TX 77843-3258  
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Interested candidates must have completed a B.Sc., M.D. or equivalent, or a higher degree with high academic standing, and must demonstrate interest and potential for a research career. Requests for application kits should be sent to the address below with a complete curriculum vitae (including publications and any other relevant information). Candidates must also arrange to send two confidential letters of reference, transcripts, Teaching of English as a Foreign Language (TOEFL) scores (if applicable) and Graduate Record Examination (GRE) results directly to:

Graduate Program Secretary, Department of Pharmacology & Therapeutics, 3655 Drummond Street, Montreal, Quebec, H3G 1Y6.

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Brookings, SD 57006  
Tel: 605/697-8500  
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### SENIOR RESEARCH ASSOCIATE SECTION LEADER PERMANENT POSITION

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Position available for a molecular, cell, or reproductive biologist at the **RESEARCH ASSOCIATE, RESEARCH INSTRUCTOR, OR RESEARCH ASSISTANT PROFESSOR** level in anatomy and cell biology at the University of Virginia Medical School. The appointment level will be determined by qualifications. An outstanding individual will be selected to join a team studying the cell and molecular biology of human spermatogenesis, toward the goal of contraceptive vaccine development. Candidates should have a Ph.D. or M.D. degree and a strong record of publications involving any of several approaches: recombinant DNA, protein expression, monoclonal antibody-antigen characterization, or primate reproductive biology. Send curriculum vitae and names of three references to: **Dr. John C. Herr, Department of Anatomy and Cell Biology, Box 439 Medical Center, University of Virginia, Charlottesville, VA 22908.** *Equal Opportunity/Affirmative Action Employer.*

**FLOW CYTOMETRY OPERATOR. RESEARCH ASSOCIATE** position available 1 January 1991 to operate and maintain a Coulter Epics Elite flow cytometer. A B.S. degree in biological or physical science is required. An M.S. degree and experience with computers and/or electronics are desirable. Preference will be given to applicants with experience as a flow cytometry operator or user. Salary is \$24,000 to \$28,000 per year. Application deadline is 1 December 1990 or until the position is filled. Applicants should submit curriculum vitae and names of three references to: **Dr. Sandra Ewald, Department of Pathobiology, Auburn University, AL 36849.** *Auburn University is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.*

**RESEARCH SCIENTIST.** To perform scientific research on physiology, pharmacology, and pathophysiology of the digestive organs in laboratory animal models and humans. The individual must have a Ph.D. or equivalent in biomedical sciences and have experience in bioassay of cholecystokinin using isolated guinea pig pancreatic acini, radioimmunoassay of gut hormones, development of high-performance liquid chromatography (HPLC). Previous experience must include at least 2 years of hands-on experience in HPLC; immunoassays (antibody production, characterization and purifications and conjugation, and radioimmunoassays); secretory studies of the stomach, intestine, and pancreas. Additional experience in motility research of the GI tract is required. Starting annual salary is \$30,000. Submit résumé or curriculum vitae to: **William Y. Chey, M.D., D.Sc., Isaac Gordon Center for Digestive Diseases and Sciences, The Genesee Hospital, 224 Alexander Street, Rochester, NY 14607.** *Affirmative Action/Equal Opportunity Employer.*

### WETLANDS SCIENTIST

A lead scientist is needed to plan and execute a national wetlands water quality research program. The program involves determining biogeochemical indicators of wetland health and the ability of wetlands to assimilate anthropogenic wastes while maintaining their structure and function. Research requires extensive cooperation with federal and state agencies and will be used to provide recommendations for developing protective standards and criteria for wetlands. Candidates must have a Ph.D. and postdoctoral experience in the above areas and a proven ability to publish. Salary will be commensurate with experience. Send curriculum vitae and names of three references to: **Alan Mozol, ASCL Corporation, 6201 Congdon Boulevard, Duluth, MN 55804,** by 20 November 1990. *ASCL is an Equal Opportunity Employer.*

## POSITIONS OPEN

### CENTER FOR ENERGY AND ENVIRONMENT RESEARCH UNIVERSITY OF PUERTO RICO

The Terrestrial Ecology Division invites applications for two **RESEARCH APPOINTMENTS** in (i) ecosystem ecology with expertise in watershed studies and (ii) invertebrate population ecology to participate in studies of forest ecosystems in connection with the Luquillo Experimental Forest Long-Term Ecological Research (LTER) Program. Requirements include a Ph.D. in a relevant field, a strong publication record, the ability to work closely with other scientists, and a willingness to develop a research program centered on tropical rain forest. A knowledge of Spanish would be useful.

Two **POSTDOCTORAL POSITIONS** are also available in the following fields: (i) modeling of ecosystem processes, (ii) geographic information systems/remote sensing, or (iii) plant ecology. These are 2-year positions with the possibility of extension.

Applicants should send a statement of research interests, three letters of reference, and curriculum vitae by 20 November 1990 to:

**Center for Energy and Environment Research (CEER)  
Human Resources Department  
College Station  
Mayaguez, PR 00708**

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## ANNOUNCEMENTS

**ALTERNATIVES IN EDUCATION.** Call for pre-proposals. Deadline: 15 January 1991. International Foundation for Ethical Research (IFER) has a grant available in the area of curriculum comparison. We are interested in seeing a comparison of instruction using animals *vs.* instruction using alternatives. Must include systematic program evaluation. Send 15 copies of a two-page pre-proposal to: **IFER, 53 West Jackson Boulevard, Chicago, IL 60604.** Telephone: 312-427-6025.

## MEETINGS

### OFFSHORE OIL SOCIOECONOMIC WORKSHOP

The workshop in Santa Barbara is to define a social science research agenda on the socioeconomic impacts of offshore oil exploration and drilling. Workshop dates are Thursday, 25 October; Friday, 26 October; and Saturday, 27 October 1990. There are no registration fees for the workshop. It is being funded by the Mineral Management Service of the Department of the Interior through a contract with the University of California, Santa Barbara, known as the Southern California Educational Initiative (SCEI). For further information, contact the SCEI conference managers, **Professor Harvey Molotch** or **Professor John Woolley**, or the workshop coordinator, **Teri Paulia**, at 805-893-8393.

## COURSES AND TRAINING

**THE JAMES S. MCDONNELL FOUNDATION SUMMER INSTITUTE IN COGNITIVE NEUROSCIENCE.** The 1991 Summer Institute will be held at Dartmouth College, 1 to 12 July. The 2-week course will examine how information about the brain bears on issues in cognitive science and how approaches in cognitive science apply to neuroscience research. A distinguished international faculty will lecture on current topics in attention and emotion, including neurological and psychiatric disorders; laboratories, demonstrations, and videotapes will offer practical experience with cognitive neuropsychology experiments, connectionist and computational modeling, and neuroanatomy. At every stage, the relationship between cognitive issues and underlying neural circuits will be explored. The institute directors will be **Michael I. Posner**, **David L. LaBerge**, **Joseph E. LeDoux**, **Michael S. Gazzaniga**, and **Gordon M. Shepherd**. The foundation is providing limited support for travel expenses and room and board. Applications are invited from beginning and established researchers, and must be received by 11 January 1991. For further information please write to: **McDonnell Summer Institute in Cognitive Neuroscience, HB7915-A, Dartmouth Medical School, Hanover, NH 03756.**

## SITUATIONS WANTED

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Whether you need simple or sophisticated collection techniques, the one thing you need is a collector that performs day-in and day-out. Without jamming. Without breaking down. That's the kind of reliability built into every Gilson fraction collector... from the very first in 1957 to the very latest introduced in 1986.

## Stationary rack system is one of our secrets to problem-free performance.

Many collectors have rotating carousel racks. Some of our earliest models did, too. But we soon recognized the advantages of a stationary rack. With fewer moving parts, the chance of mechanical problems is greatly reduced. The FC 203, since its introduction three years ago, has achieved a problem-free performance record of 98%. The stationary rack system is just one of the reasons why.

## Built for long-term use... inside and out.

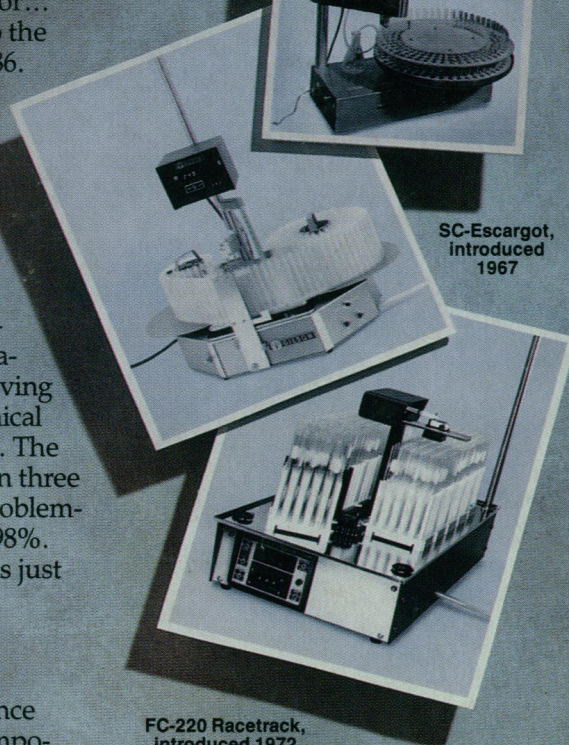
To assure optimal performance over time, internal drive components are designed for long-term use—even in the cold room. Critical components are metal, rather than plastic, for long-lasting operation.

And, the exteriors of Gilson fraction collectors are durable, too. For example, the FC 203 features a chemically-resistant molded case and keypad to protect the unit inside and out from spills.

SB-1,  
introduced  
1958



SC-Escargot,  
introduced  
1967



FC-220 Racetrack,  
introduced 1972



## Day-in and day-out convenience, too.

We also build Gilson fraction collectors for easy installation and use. It starts with compact design. The 202 has the largest capacity of any collector—540 tubes. Yet, it measures only 20 inches wide by 17 inches deep. And the FC 203 takes up only about a square foot of bench space.

Gilson fraction collectors can be used with any HPLC or LC system—ours or other manufacturers'. And three of the collectors can control peripherals such as pumps and chart recorders.

## Choose from five different models:


**FC 80 and FC100 micro-fractionators:** Proven performers for simple time and drop collection. Many of these units have been in use for more than 15 years. Racks hold 80 or 100 tubes. **FC 203:** Collects fractions by time or drop for simple analyses; peak and time windows enable more sophisticated applications. An affordable multi-mode unit capable of collecting up to 128 fractions.

**201 and 202:** With 15 operating modes, 15 rack options and capacities up to 540 tubes, no other fraction collector does more or handles more.

## Contact us for free literature today.

To learn more about Gilson fraction collectors and how they outperform others, simply mark the reader service number below. Or call us toll-free in the U.S. at 800-445-7661.

(In Wisconsin, call 608-836-1551.)

 **GILSON®**

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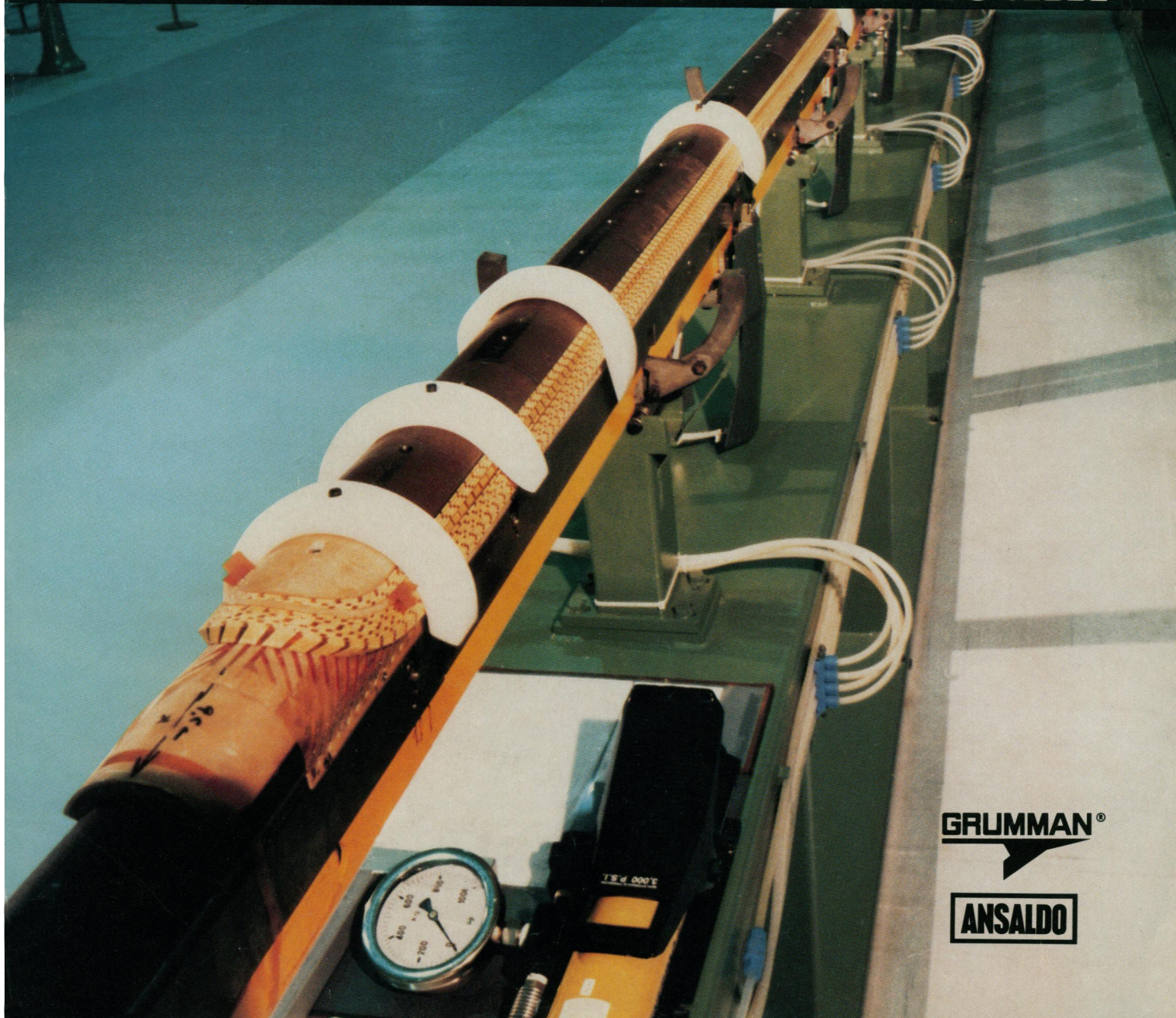


# SUPER TEAM FOR THE SUPER COLLIDER.

The Grumman-Ansaldo Team. No one is more qualified to produce dipole magnets in the U.S. for the Superconducting Super Collider (SSC). Our team combines extensive experience in magnet design and assembly, systems integration, cryogenics, and high-rate production. We represent the only company in business today to have built dipoles like those required for the SSC. And at rate production. We've built more superconducting magnets for high-energy physics and fusion applications than all other companies combined. In addition, we have a successful 30-year track record of providing technological support to the DOE's national laboratories. Together, Grumman and Ansaldo are determined to make the SSC a smashing success.

Grumman Space Systems,  
Bethpage, NY 11714.

## The Grumman Team



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