

ular neurobiology. A full appreciation of brain function remains a long way off, but the pace of advance has noticeably quickened. The volume will be useful to anyone, clinician or scientist, who wants to peruse the areas of basic neuroscience that are beginning to have profound impacts upon our understanding of clinical abnormalities.

JOSEPH B. MARTIN
Neurology Service,
Massachusetts General Hospital,
Boston, MA 02114

Books Received

Ancient Chalcatzingo. David C. Grove, Ed. University of Texas Press, Austin, TX, 1987. x, 571 pp., illus. \$75. Texas Pan American Series.

Applicable Differential Geometry. M. Crampin and F. A. E. Pirani. Cambridge University Press, New York, 1987. 394 pp., illus. Paper, \$34.50. London Mathematical Society Lecture Note Series, 59.

Applied Mathematics for Earth Scientists. T. Rikitake, R. Sato, and Y. Hagiwara. Terra Scientific, Tokyo, and Reidel, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xvi, 435 pp., illus. \$89. Mathematical Approaches to Geophysics.

Applied Statistics. Analysis of Variance and Regression. Olive Jean Dunn and Virginia A. Clark. 2nd ed. Wiley, New York, 1987. xiv, 445 pp., illus. \$36.95. Wiley Series in Probability and Mathematical Statistics.

Arterial System Dynamics. John K-J Li. New York University Press, New York, 1987 (distributor, Columbia University Press, New York). xxiv, 119 pp., illus. \$30. New York University Biomedical Engineering Series.

Blueprints for Thinking. The Role of Planning in Cognitive Development. Sara L. Friedman, Ellin Kofsky Scholnick, and Rodney R. Cocking, Eds. Cambridge University Press, New York, 1987. xvi, 559 pp., illus. \$75.50.

Cadmium in the Environment. Hans Mislin and Oscar Ravera, Eds. Birkhäuser Boston, Cambridge, MA, 1986. 144 pp., illus. \$34. *Experientia Supplementum*, vol. 50. Parts reprinted from *Experientia*, vol. 40 (1984).

Cataclysmic Variables. Recent Multi-Frequency Observations and Theoretical Developments. H. Drechsel, Y. Kondo, and J. Rahe, Eds. Reidel, Dordrecht, 1987 (U.S. distributor, Kluwer, Norwell, MA). xvi, 805 pp., illus. \$124. From a colloquium, Bamberg, F.R.G., June 1986. Reprinted from *Astrophysics and Space Science*, vols. 130 and 131 (1987).

Cataclysms on the Columbia. A Layman's Guide to the Features Produced by the Catastrophic Bretz Floods in the Pacific Northwest. John Eliot Allen, Marjorie Burns, and Sam C. Sargent. Timber Press, Portland, OR, 1986. 211 pp., illus. \$19.95. Scenic Trips to the Northwest's Geologic Past, no. 2.

Diseases of Trees and Shrubs. Wayne A. Sinclair, Howard H. Lyon, and Warren T. Johnson. Comstock (Cornell University Press), Ithaca, NY, 1987. 574 pp., illus. \$49.95.

Dynamics of Polymeric Liquids. Vol. 1, Fluid Mechanics. R. Byron Bird, Robert C. Armstrong, and Ole Hassager. xxii, 649 pp., illus. \$69.95. Vol. 2, Kinetic Theory. R. Byron Bird, Charles F. Curtiss, Robert C. Armstrong, and Ole Hassager. xxii, 437 pp., illus. \$65. 2nd ed. Wiley-Interscience, New York, 1987.

Eating Habits. Food, Physiology and Learned Behavior. Robert A. Boakes, David A. Popplewell, and Michael J. Burton, Eds. Wiley, New York, 1987. xii, 225 pp., illus. \$37.95. Based on a conference, Brighton, U.K., April 1984.

From Text to Speech. The MITalk System. Jonathan Allen, M. Sharon Hunnicutt, and Dennis Klatt. Cambridge University Press, New York, 1987. xii, 216 pp., illus. \$29.95. Cambridge Studies in Speech Science and Communication.

Fuel Cells. Trends in Research and Applications. A. J. Appleby, Ed. Hemisphere (Harper and Row), New York, 1987. xii, 295 pp., illus. \$64.50. From a workshop, Ravello, Italy, June 1985.

Gravitation in Astrophysics. B. Carter and J. B. Hartle, Eds. Plenum, New York, 1987. xvi, 399 pp., illus. \$69.50. NATO Advanced Science Institutes Series B, vol. 156. From an institute, Cargèse, France, July 1986.

Handbook of Adolescent Psychology. Vincent B. Van Hasselt and Michel Hersen. Pergamon, New York, 1987. xii, 508 pp., illus. \$75. Pergamon General Psychology Series, 142.

High Performance Liquid Chromatography in Plant Sciences. H. F. Linskens and J. F. Jackson, Eds. Springer-Verlag, New York, 1987. xx, 248 pp., illus. \$79. Modern Methods of Plant Analysis, vol. 5.

Information Sources in the Life Sciences. H. V. Wyatt, Ed. Butterworths, Stoneham, MA, 1987. xiv, 191 pp. \$84.95. Butterworths Guides to Information Sources. Revision of *The Use of Biological Literature*, R. T. Bottle and H. V. Wyatt, Eds.

Linear Programming in Infinite-Dimensional Spaces. Theory and Applications. Edward J. Anderson and Peter Nash. Wiley-Interscience, New York, 1987. x, 172 pp. \$44.95. Wiley-Interscience Series in Discrete Mathematics and Optimization.

Meaning and the Growth of Understanding. Wittgenstein's Significance for Developmental Psychology. Michael Chapman and Roger A. Dixon, Eds. Springer-Verlag, New York, 1987. xiv, 236 pp. \$59.50.

New Horizons in Platelet Activating Factor Research. C. M. Winslow and M. L. Lee. Wiley Medical, New York, 1987. xiv, 373 pp., illus. \$69.95.

Nuclear Weapons Databook. Vol. 2, U.S. Nuclear Warhead Production. Thomas B. Cochran *et al.* Ballinger (Harper and Row), Cambridge, MA, 1987. xvi, 223 pp., illus. \$39.95; paper, \$24.95.

Obstetrics, Gynecology, and Infant Mortality. Wrynn Smith. Facts on File, New York, 1987. xiv, 146 pp., illus. \$35. A Profile of Health and Disease in America, vol. 3.

Program Construction. R. G. Stone and D. J. Cooke. Cambridge University Press, New York, 1987. x, 372 pp., illus. \$49.50. Cambridge Computer Science Texts, 22.

Radar in World War II. Henry E. Guerlac. Tomash and American Institute of Physics, New York, 1987. Two volumes. xxviii, 1171 pp., illus. \$110. The History of Modern Physics, 1800-1950, vol. 8.

CONGRESSIONAL SCIENTIST FELLOWSHIP PROGRAM

1988-1989

THE AMERICAN PHYSICAL SOCIETY

Fifteenth Annual Competition

PURPOSE: Fellows will spend one year as a member of the staff of a Congressman or of a Congressional committee, thereby contributing an assessment of the technical aspects of public policy issues to the political process.

QUALITIES SOUGHT IN APPLICANTS: Prospective Fellows are expected to have demonstrated competence in some area of physics, have a background in science and technology, and have a strong interest and some experience in applying scientific knowledge toward the solution of social problems. Candidates are expected to be articulate and literate, willing to work on a variety of problems with a variety of people and to have some experience in or be willing to learn the governmental process.

TERM OF APPOINTMENT: Fellows serve for one year, beginning 1 January 1989. APS Fellows will join the Fellows selected by other scientific and engineering societies in Washington in September for a two-week orientation program organized by the American Association for the Advancement of Science. During the orientation, Fellows meet Senators, Representatives, and Congressional committee staff members, visit a number of government agencies, and receive detailed information about opportunities in Congressional offices. The choice of an assignment is unrestricted and reserved to the Fellows.

STIPEND ALLOWANCES: The maximum fellowship stipend is \$40,000. An appropriate allowance is made for vouchered relocation expenses and for vouchered travel expenses incurred during the fellowship year.

APPLICATION PROCEDURE: Applicants should submit a letter of intent and a resume and arrange to have three letters of reference sent directly to the program administrator. Candidates should include in the letter of intent a statement which tells why they have applied to the program and a brief description of their public service experience. Letters of reference should be solicited from people who can discuss not only the candidate's competence as a physicist but also the candidate's education and experience which would make the candidate particularly qualified to serve in a Congressional office.

Completed applications, including all letters of reference, must be received by 12 February 1988.

FOR FURTHER INFORMATION: Please contact Dr. Mary L. Shoaf, Administrator, Congressional Scientist Fellowship Program, The American Physical Society, 335 East 45 Street, New York, New York 10017, (609) 243-2104.



ANALYTICAL AND QUANTITATIVE LIGHT MICROSCOPY IN BIOLOGY, MEDICINE, AND MATERIALS SCIENCE

8th Annual Offering

May 12-19, 1988

Designed for professional researchers, industrial scientists and advanced graduate students. This course provides an in-depth examination of the theory of the microscope and application of electronic imaging for exploring subtle interactions between light waves and the specimen.

Through extensive hands-on experience with state-of-the-art optical, electronic, and electronic imaging equipment, coupled with illuminating demonstrations, laboratory exercises, and discussions guided by experienced staff from both universities and industries, the student gains comprehensive understanding of quantitative polarization, interference, confocal and fluorescence microscopy, as well as modern methods of imaging, recording, processing, and analysis by video.

Co-Directors: E.D. Salmon, D.L. Taylor

Faculty includes: S. Inoué, W.B. Amos, G.W. Ellis, F. Fay, R. Gonzales, F. Lanni, A. Waggoner

Costs: \$1,500 includes Tuition, Materials, Room/Board

Deadline: March 10, 1988

Limit: 22 students

For further information contact Office of Sponsored Programs, Marine Biological Laboratory, Woods Hole, MA 02543, (617) 548-3705, ext. 216.

Products & Materials

Mac Data-Acquisition Software

LABTECH NOTEBOOK is now available for Macintosh computers. The program provides the computer with multiple channels to gather data samples and send control information to attached instruments. The user can define control and display parameters. The program performs mathematical, statistical, and signal-processing calculations in real time. It can also replay data, collect data while other applications are in use, and accept data from many types of inputs, including both analog and digital signals and signals from strain and pressure gauges. LABTECH NOTEBOOK has the standard Macintosh interface. It can transfer its data to other programs, including spreadsheets and graphics programs. The program operates on Macintosh II computers with a data acquisition board. \$995. Laboratory Technologies. Circle 575.

Microscope Camera

The MC 100 is an electronically controlled camera that photographs microscope images. Exposure times from 0.01 second to more than 2 hours are possible without loss of quality from vibrations. The user can quickly switch the camera from 35-mm to large format or to instant film. Features include automatic exposure control, even under constantly varying conditions, that the user can override; automatic film transport; and motorized film return. Film speed may be as high as 6400 ASA. The MC 100 is designed to operate with Axioplan and Axioskop microscopes; it may be adapted for other Zeiss light microscopes. Carl Zeiss, Microscopy Division. Circle 576.

Pan-Application User Interface

Open Dialogue is a computer user interface that overrides each application's individual interface so that each presents a com-

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.

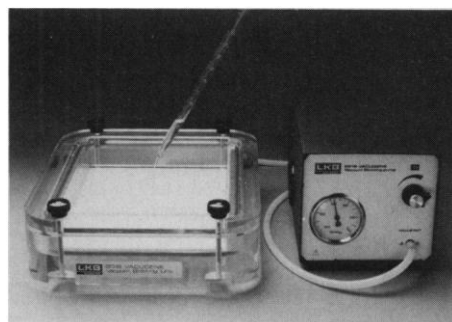
mon facade that features pop-up menus, icons, graphics, and mouse-driven commands. Open Dialogue is based on the X Window System and may be customized by the user. The program operates on Apollo, IBM, DEC, and Sun computers. Apollo Computers. Circle 557.

Fluorescence Detector

The FD-300 is a fluorescence detector with continuously variable excitation and emission wavelengths that is designed for applications in which the excitation and emission wavelengths are similar. The two monochromators have high throughput and low stray light. The FD-300 features touch-sensitive controls, a light-emitting diode display, automatic zeroing, and event marking. SpectroVision. Circle 558.

DNA Blotting Unit

The VacuGene Blotting System transfers nucleic acid molecules from agarose gels to membranes with a low-pressure vacuum



pump in 15 to 30 minutes. Molecules as small as 1 kilobase or as large as a chromosome may be transferred. Depurination, denaturation, and neutralization all occur within the VacuGene, and shakers, cassettes, wicks, and filter papers are not required. Reagents may be recycled. The VacuGene accepts gels as large as 18 by 23 cm. Pharmacia LKB Biotechnology. Circle 574.

Engineering Data Software

TECH*GRAPH*PAD is an integrated software package for data retrieval, manipulation, and output. The program can access data in spreadsheets, in ASCII files, from data acquisition software, or that are internally generated. Its graphic capabilities include linear, log, and R-theta plots; first- to fifth-order polynomial curve fitting; and Spline, Bezier, and Savitsky-Golay data smoothing. The user controls label loca-

tions, data notations, axes, labels, grid form, and scaling. TECH*GRAPH*PAD operates on the IBM PC family and compatible computers with 512 kilobytes of random-access memory and MS DOS 2.0 or later. \$275. Binary Engineering. Circle 605.

Streptavidin Probes

The Streptavidin-Biotin Amplification System detects and visualizes biotin-labeled DNA, RNA, antibodies, lectins, and other biotinylated molecules by means of enzyme- or fluorochrome-labeled streptavidin probes. Zymed Laboratories. Circle 604.

Recombinant Protein G

GammaBind G is a genetically engineered recombinant antibody-binding protein G. The protein differentiates between classes of antibodies and only binds to the subclasses of immunoglobulin G. Genex. Circle 577.

Antibodies

Polyclonal rabbit antibody to chloramphenicol acetyltransferase peroxidase conjugated to fluorescein isothiocyanate or horseradish peroxidase. 5 Prime → 3 Prime. Circle 579.

Affinity-isolated goat antibody to rat immunoglobulin G conjugated to R-phycoerythrin for flow cytometry and affinity absorbed to remove cross-reactivity to mouse proteins. CALTAG Laboratories. Circle 580.

Monoclonal antibodies to the receptors of epidermal growth factor. Amersham International (England). Circle 581.

Affinity-isolated secondary goat antibodies to mouse immunoglobulin G and its subclasses, immunoglobulin A, immunoglobulin M, kappa chain, and lambda chain. Bethesda Research Laboratories. Circle 582.

Affinity-isolated secondary goat antibodies to human immunoglobulin G (Fc) and immunoglobulin M. Bethesda Research Laboratories. Circle 583.

Literature

Biologically Active Peptides is a catalog of 230 peptides assembled by peptide synthesis techniques. Peptides International. Circle 590.

The *Quick Product Selector* evaluates 200 research-related software packages and add-on boards for IBM PC, IBM PS/2, and Macintosh II computers. PERX. Circle 591.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Any deadline in ad must be at least 2 weeks after date of issue in which ad appears. Also, 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.

LINE CLASSIFIED ADVERTISING DEADLINES:
Thursday, 10 a.m., 2 weeks prior to issue date (mailed on issue date).

POSITIONS WANTED: 40¢ per word, plus \$4 for use of box number, per week. \$10 minimum, per week. Prepayment required. This rate is available only to individuals seeking jobs.

LINE CLASSIFIED (POSITIONS OPEN, COURSES, FELLOWSHIPS, MARKETPLACE, and so forth): \$38.00 per line; \$380 minimum, per week (minimum charge covers one inch on a single column; one inch equals 10 lines of 52 characters and spaces per line). No charge for use of box number. No agency commission for ads less than 4 inches. No cash discount. Prepayment required for all foreign ads. Purchase orders and/or cover letter including billing address required for all other advertising.

To ESTIMATE ad cost:

Structure ad copy on a separate page, on lines of 52 characters and spaces. Include any desired heading. Each line of heading, and/or extra line spaces, and all partial lines (including centered reply information) are counted as full lines. Ad titles located within the text are printed in boldface caps and are only 32 characters per line. In ESTIMATING the cost, multiply total lines \times \$38.00 = approximate cost of ad. (This is an approximate cost ONLY: Allow for variation between estimated lines and actual typeset lines and the resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment.)

CANCELLATION POLICY:

NOTE: Ad cancellations made after Thursday, TWO weeks prior to issue date incur a 10% production charge. Final deadline for cancellations is 12 p.m. Tuesday, ONE week prior to issue date. Cancellations must be in writing.

Send copy for all **Positions Wanted** ads and **Line Classified** ads less than 1/6 page in size (39 lines) to:

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

Send copy for **Fractional Display** ads, 1/6 page and larger, and all **Marketplace** ads to:

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

Blind ad replies should be addressed as follows:

Box (give number)
SCIENCE
1333 H Street, NW
Washington, DC 20005

POSITIONS WANTED

Free-Lance Work (editorial, Russian to English, bibliographic . . .) or regular position. Scientifically knowledgeable, innovative Ph.D. (seventy publications, mostly applying mathematical and statistical methodologies to social sciences). Box 5, SCIENCE.

Law/Life Science. Reed College immunology graduate. Five years of clinical research experience. Member of the Oregon Bar seeks position combining legal and life science challenges. Box 10, SCIENCE.

Nuclear Medicine Physician, Microbiologist, M.D., Ph.D., A.B.N.M. (eligible). University-trained, available 1 July 1988. Academic, industrial, or clinical opportunities considered. Box 11, SCIENCE.

Physiologist, M.D. Research experience in nephrophysiology (hemodynamics, endocrinology). Clinical experience in general internal medicine. Teaching experience in medical physiology. Box 188, SCIENCE.

POSITIONS WANTED

Pharmaceutical Chemist D.Sc. (Ph.D.): actively involved in drug metabolism, pharmacokinetics and project development. IND/NDA and extensive analytical experience (GC-MS and HPLC especially) with working knowledge of current synthetic techniques. Currently based in Europe (U.S. citizen; permanent French resident). Three years of previous industry experience. Excellent knowledge of French. Seeks industry position in U.S.A. or Europe. Box 8, SCIENCE.

POSITIONS OPEN

APPLICATIONS SCIENTIST. Develop and test new methods for x-ray analysis on transmission electron microscopes and scanning electron microscopes; demonstrate company equipment to prospective customers on site and at customers' site; train customers and sales and engineering personnel on the proper use of company equipment; test new equipment and software to specifications; prepare materials for written and oral presentations for seminars, technical papers, users' manuals, training schools and brochures; answer technical questions from users either on operation of company equipment or solving application specific problems; advise the marketing and engineering segments of the company on the development of new products. Ph.D. in physical materials science required and 3 years of experience in the job offered or 3 years of experience as research scientist. As research scientist, must have utilized transmission electron microscopes and scanning electron microscopes as well as wavelength dispersive spectroscopy. Forty hours per week, Monday to Friday, 8:30 a.m. to 5:00 p.m., \$45,900 per year. Send résumé and Social Security number to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605, Attention: Len Boksa, Reference #7647-B. An Employer paid ad.**

AQUACULTURE EXTENSION/RESEARCH POSITION. Tenure-track, 12-month, beginning July 1988 at assistant or associate professor level. Ph.D. required. Eighty percent extension, 20 percent research. Program development will require cooperative work with existing and potential producers, county agents, agribusinesses, natural resource agencies, and academic departments. The candidate will develop an aquaculture research program in his/her area of interest. Open until 1 March 1988 or until filled. *Minorities encouraged.* Send résumé, career plans, and three letters of reference to: **Dr. Richard L. Noble, Chairman, Search Committee, North Carolina State University, Department of Zoology, Campus Box 7617, Raleigh, NC 27695. NCSU is an Equal Opportunity/Affirmative Action Employer.**

AQUATIC ECOLOGIST

The Academy of Natural Sciences of Philadelphia has an immediate opening in the Patrick Center for Environmental Research for a career-track position in aquatic ecology. We are particularly interested in applicants with a background in one or more of the following areas, although applicants with interests in any area of aquatic ecology may apply: microbial ecology, phytoplankton production, biogeochemistry, hydrology, or fish ecology. Applicants must have a Ph.D. in an appropriate discipline and preferably postdoctoral experience, demonstrated excellence in research, ability to attract grant support for research programs, and interest in participating in both basic and applied research. Submit curriculum vitae, statement of research interests, and names of three references by 15 March 1988 to: **Dr. Sybil Seitzinger, Chairperson, Curatorial Search Committee, Academy of Natural Sciences, Division of Environmental Research, 19th Street and the Parkway, Philadelphia, PA 19103.**

An Equal Opportunity Employer.

ASSISTANT PROFESSOR OF BIOLOGY. Tenure-track position for teaching and research. Ph.D. or M.S. with work toward doctorate. Familiarity with genetic molecular biology required. Starting date: late August 1988. Salary negotiable. Applicants will be reviewed beginning 24 February 1988. Position to remain open until filled. Inquiries to: **Jay Linam, Department of Life Sciences, University of Southern Colorado, 2200 North Bonforte Boulevard, Pueblo, CO 81001. Telephone: 303-549-2743.**

POSITIONS OPEN

The Department of Microbiology at The Ohio State University currently has two tenure-track vacancies to be filled at the **ASSISTANT PROFESSOR** level. Applications are invited from candidates with a Ph.D., postdoctoral experience, and demonstrated research productivity. Candidates with research interests in applied or ecological aspects of microbial physiology or in virology/viral immunology are particularly encouraged to apply; however, applications will be considered from candidates with expertise in any microbially oriented research area. The Department will recruit additional faculty in 1989, so this is an excellent opportunity to join a growing and changing Department. Excellent laboratory space and Departmental support are available to establish independent and interactive research programs. Participation in the Department's instruction of undergraduate and graduate students is expected. Candidates should submit curriculum vitae, a summary of research plans, and names of three referees to: **Dr. John W. Reeve, Chairperson, Department of Microbiology, 484 West 12th Avenue, Columbus, OH 43210.** Applications received before 1 March 1988 will be considered first; however, applications will be considered until the positions are filled. *The Ohio State University is an Affirmative Action/Equal Opportunity Employer and specifically invites and encourages minority and women applicants.*

The Department of Foods and Nutrition, University of Alberta, invites applications for a tenure-track **ASSISTANT PROFESSOR IN HUMAN NUTRITION.** 1987 to 1988 salary range: \$31,162 to \$45,310. Appointment: 1 August 1988.

This position will involve teaching at the undergraduate and graduate levels, and research in human nutrition. The successful candidate will be expected to develop an original and productive research program related to human nutrition in the area of specialization, as well as to obtain funding for research.

Interested applicants should submit résumé, academic transcripts, and three references to: **Dr. Zenia Hawrysh, Chairman, Department of Foods and Nutrition, Faculty of Home Economics, University of Alberta, Edmonton, Alberta, T6G 2M8.** Closing date for applications: 15 March 1988, or when filled.

The University of Alberta is committed to the principle of equity in employment.

ASSISTANT PROFESSOR OF BIOLOGY. Tenure-track. Ph.D. required. Teach organismal biology and ecology. Background in molecular biology of plants, or ecological physiology of plants or protists. Commitment to liberal arts education and scholarly activity. To apply, send detailed letter of application, curriculum vitae, graduate transcripts, and three letters of reference by 5 February 1988 postmark deadline to: **William G. Berberet, Dean, College of Liberal Arts, Willamette University, Salem, OR 97301. Equal Opportunity Employer. Women and minorities encouraged to apply.**

ASSISTANT PROFESSOR OF PLANT PATHOLOGY WASHINGTON STATE UNIVERSITY

The Department of Plant Pathology, Washington State University, Pullman, invites applications for a full-time (12 months per year) tenure-track appointment as assistant professor and assistant plant pathologist to conduct research and teach in the area of molecular biology/genetics of plant pathogenic fungi or bacteria or pathogen-host interactions. A Ph.D. is required; training in plant pathology is preferred. In case of candidates judged to have comparable abilities and potentials, those having expertise with fungi will be favored. Research duties (70% of appointment) will involve initiation and direction of a program in the specialty area. Teaching duties will include a graduate course in the specialty area and, eventually, contributions to other undergraduate and graduate courses; and direction of M.S. and Ph.D. students.

Applications must be received by 15 April 1988. Applicants should submit a résumé, copies of publications, and names of three references to:

**Professor Stephen D. Wyatt
Department of Plant Pathology
Washington State University
Pullman, WA 99164-6430**

WSU is an Equal Opportunity/Affirmative Action Employer. Protected group members are encouraged to apply and to identify their status.

POSITIONS OPEN

ASSISTANT PROFESSOR OF PHARMACOLOGY/TOXICOLOGY

Tenure-track faculty positions are available in the Department of Pharmacology and Toxicology at the Medical College of Georgia for individuals with strong promise for research and teaching in modern pharmacology or toxicology. Applicant should have a Ph.D. or M.D. degree, significant postdoctoral research accomplishments, and the ability to respond to new challenges. Current strengths of our department are in the cardiovascular and neuroscience areas. Appointees are expected to establish a strong research program and effectively educate medical and graduate students. Please send curriculum vitae, bibliography, summary of professional goals, and names of three references to: **R. W. Caldwell, Department of Pharmacology and Toxicology, Medical College of Georgia, Augusta, GA 30912. Equal Opportunity Employer/Affirmative Action Program.**



INSTITUTE OF CHEMICAL TOXICOLOGY WAYNE STATE UNIVERSITY

Wayne State University is pleased to announce the development of a new institute dedicated to research in toxicology. The Institute of Chemical Toxicology occupies newly renovated laboratory space consisting of 16,000 square feet within the Metropolitan Center for High Technology and features modern research and support facilities. Applications are invited for tenure-track faculty positions in the ranks of **ASSISTANT PROFESSOR, ASSOCIATE PROFESSOR, and PROFESSOR** in the areas of molecular, respiratory, and heavy metal toxicology. Emphasis will be accorded research which utilizes modern molecular and cellular approaches in the investigation of mechanism(s) of xenobiotic-mediated toxicity. Although initial emphasis is directed toward the aforementioned areas of research, applications from outstanding candidates in other areas of contemporary toxicology will be considered. Candidates should have an M.D. or Ph.D. degree, at least 2 years of relevant postdoctoral research experience, demonstrated productivity and be capable of conducting independent research and securing extramural support. Salary and rank commensurate with qualifications.

Curriculum vitae and three letters of reference should be sent by 31 March 1988 to:

Dr. Raymond F. Novak
Chairman, Search Committee
Institute of Chemical Toxicology
Wayne State University
1072 Mackenzie Hall
Detroit, MI 48202

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

An **ASSISTANT RESEARCH SCIENTIST** to participate in marine acoustic research using swath-mapping sonars. Candidates must have a Ph.D. in oceanography, physics, or geophysics, experience in seagoing research demonstrated by a publication record, and an eagerness to continue ship-based field programs using existing sonars and developments thereof. Permanent position. Forty hours per week. Salary: \$750 per week. Place of employment and interviews: La Jolla, California. Send this ad and a résumé stating your qualifications to: **Job #NOF 912, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 5 February 1988.

ASSOCIATE ENVIRONMENTAL HAZARDS SCIENTIST

The California Department of Food and Agriculture will hold a competitive exam for positions in the Environmental Monitoring and Pest Management Branch (Sacramento office). Requires M.S. and 2 years of research experience or a Ph.D. Starting salary: \$32,400. Exam final filing date: 4 March 1988. Excellent benefits. Areas of expertise: analytical chemistry, statistics, mathematics/modeling, computer science, soil science, microbiology/statistics, planning/implementation. For an application call/write: **John Sanders or Kathy Brunetti, California Department of Food and Agriculture, 1220 North Street A-149, Sacramento, CA 95814. Telephone: 916-324-8916** (leave name and address).

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSORS IN PHARMACOLOGY/PHYSIOLOGY—Tenure-track. The Department of Pharmacodynamics, College of Pharmacy, University of Florida, is searching for two to three assistant/associate professors to fill tenure-track positions and join an expanding department of pharmacologists, toxicologists, and physiologists. Applicants must hold a Ph.D. degree, have postdoctoral training and a proven ability to conduct independent research. The candidate will be required to develop an active independent research program, actively seek extramural funds, participate in team teaching of pharmacology, physiology and/or pathophysiology or pharmacy students and participate in graduate student training. Current research areas of the faculty in the department are aging, neuroendocrinology, cardiovascular pharmacology, toxicology and temperature regulation. Positions will be available by May, 1988. Applicants should send curriculum vitae, a description of research interests and career goals, and have three letters of reference sent by 1 March 1988 to: **Dr. Michael J. Meldrum, Chairman Search Committee, Department of Pharmacodynamics, Box J-487, JHMC, University of Florida, Gainesville, FL 32610. The University of Florida is an Equal Opportunity/Affirmative Action Employer.**

VACANCY FOR ASSOCIATE CHIEF OF STAFF FOR EDUCATION

Experienced academic to assume responsibility for coordination of educational programs, including a combined house staff in excess of 140 residents. Programs are in two VA Medical Centers in the Tampa Bay, Florida area. This position includes academic and administrative appointments at the University of South Florida, College of Medicine in Tampa. Salary and fringe benefits are commensurate with qualifications. Please send résumé and supporting documents to:

William E. Layden, M.D.
Chairman
Associate Chief of Staff Education Search Committee
c/o Chief of Staff (11)
James A. Haley Veterans Hospital
13000 Bruce B. Downs Boulevard
Tampa, FL 33612
An Equal Opportunity Employer.

ASSOCIATE RESEARCH SCIENTIST, NEUROPATHOLOGY

The Section of Neuropathology, Yale University School of Medicine, invites applications for an associate research scientist, a non-tenured faculty position for teaching and research. Applicants must have a comprehensive knowledge in the area of slow viruses, biochemical techniques, enzymology and basic biochemistry. A Ph.D. in biochemistry and 3 years of postdoctoral work are required. Send curriculum vitae, list of publications and three references to: **E. E. Manueldis, M.D., Chief, Section of Neuropathology, Department of Surgery, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510. Deadline for application: 22 February 1988. Women and minorities are encouraged to apply. Yale University is an Equal Opportunity/Affirmative Action Employer.**

BIOLOGY BALL STATE UNIVERSITY MUNCIE, INDIANA

ASSISTANT PROFESSOR, tenure-track position in the Department of Biology, available fall, 1988. Responsibilities: to teach ecology and forestry courses and participate in the introductory biology program; serve as curator for the University Herbarium; and to develop a strong research program in specialty area. Minimum qualifications: Earned doctorate in Biological Sciences and a B.S. or M.S. in Forestry. Preferred qualifications: Demonstrated teaching/research ability, publications and/or evidence of other scholarly contributions expected. Submit résumé, documentation of scholarly activity, e.g., reprints of publications, funded grant proposals, creative activities; three letters of recommendation and transcript to: **Dr. Carl E. Warnes, Chairman, Department of Biology, Ball State University, Muncie, IN 47306. Applicants will be evaluated commencing 19 February 1988, and continue until position is filled.**

Ball State University Practices Equal Opportunity in Education and Employment.

THE UNIVERSITY OF SYDNEY AUSTRALIA

Lectureship in Animal Biology Reference no. 51/01 School of Biological Sciences

Preference may be given to suitably qualified applicants with interests in the ecology of marine systems, especially the ecology of fish. The appointee will undertake teaching at both undergraduate and postgraduate level and will be expected to develop research programmes in ecology. The position is available from 1 July 1988.

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

Lectureship (Fixed-term) Reference no. 51/02 School of Biological Sciences

Applicants will be expected to have a PhD in animal biology and have some postdoctoral experience in teaching and research. A broad zoological interest is desirable, as teaching will be mainly in comparative zoology. Preference may be given to applicants with research interests in invertebrate biology, including functional morphology, parasitology, reproductive biology/endocrinology, taxonomy or behaviour. The appointment is for a fixed term of three years commencing early 1988 until 31 December 1990.

Salary: commencing salary in the range A\$28,381–A\$32,127 per annum, with progression to A\$37,122 per annum.

Applications, quoting reference no., including curriculum vitae, list of publications and the names and addresses of three referees, to the **Registrar, Staff Office, University of Sydney, NSW 2006, Australia, by 5 February 1988.**

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

Equal employment opportunity is University policy.

POSTDOCTORAL RESEARCH POSITIONS CELL BIOLOGY OF SECRETION IMMEDIATE HYPERSENSITIVITY NATIONAL INSTITUTES OF HEALTH

Postdoctoral positions are available for cellular and biochemical studies on the mechanisms of secretion from basophils and mast cells. Interest is in defining cell surface and other cellular components that are involved in immunoglobulin receptor mediated transmembrane signalling and the release of inflammatory mediators. Experience in tissue culture and biochemical techniques of protein separation are desirable. Appointments would be as Intramural Research Training Associates (United States citizens) for persons within 3 years of receiving their doctoral degree. These are renewable annually for a total of 3 years. Starting salary will be \$20,000 per year or higher depending on previous experience. Alternative appointments for candidates with more experience will be made as research associates in the Staff Fellow program. Interested candidates should send a curriculum vitae and the names of 3 references to: **Dr. Reuben Siraganian, Clinical Immunology Section, Laboratory of Microbiology and Immunology, NIH, Bldg 10, Rm 1A23, Bethesda, Md 20892.**

**NIH IS AN EQUAL OPPORTUNITY EMPLOYER
PERMANENT RESIDENCE OR
U.S. CITIZENSHIP REQUIRED**

POSITIONS OPEN

BIOLOGIST: Assistant Professor, tenure-track. Start August 1988, Ph.D. required. Teach genetics, cell biology, physiology, ecology, evolution, comparative anatomy; develop specialty and interdisciplinary courses; conduct modest on-site student oriented research. By 19 February 1988 send letter, résumé, three reference letters, transcripts, research plans, and evidence of undergraduate teaching effectiveness to: **Dr. Betty Baker, Biology, Belmont Abbey College, Belmont, NC 28012.** *Affirmative Action/Equal Opportunity Employer.*

BIOLOGY. Two tenure-track assistant professors beginning fall, 1988. Ph.D. required, college teaching experience preferred. Responsibilities: teaching major and non-major courses, advising, supervision of undergraduate research. (i) Cell Biology/Histology, Biochemistry, Anatomy. (ii) Genetics, Physiology (Plant and Animal), Environmental Science. Inquiries, applications, résumés, transcripts, and three reference letters to: **Dr. Sylvia Kerr, Department of Biology, Hamline University, St. Paul, MN 55104** by 10 February 1988. *An Affirmative Action/Equal Employment Opportunity Employer.*

CELL BIOLOGIST. The Bard College Biology Department seeks a broadly trained biologist with research experience, preferably through the postdoctoral level, in cell biology, immunology, developmental biology, or physiology. Candidates with experience in genetic approaches to these areas will be preferred. Candidates must have a commitment to quality undergraduate science education for both majors and non-majors, at an institution where interactions with non-science students and faculty are common, but also where approximately half of the undergraduate biology majors go on to graduate programs. The successful candidate will be expected to teach cell biology, immunology, developmental biology and physiology on a regular basis, and to conduct research in one of these areas. The candidate should be prepared to involve students in senior project research, and to develop courses for non-scientists which offer laboratory experience. Salary and rank will be commensurate with experience. Please send curriculum vitae, transcripts, and two letters of recommendation to: **Professor John B. Ferguson, Department of Biology, Bard College, Annandale-on-Hudson, NY 12504** by 15 March 1987. *Bard College is an Equal Opportunity/Affirmative Action Employer and encourages applications from minorities and women.*

CELL BIOLOGIST PLANT TISSUE CULTURE

Del Monte USA is seeking a plant cell biologist to fill a Senior Scientist level bench position in its Agricultural Biotechnology Program. This program is part of Del Monte's Agricultural Research and Seed Operations Division located in San Leandro, California. The Biotechnology Program contributes to Del Monte's variety development efforts as well as to germplasm improvement projects on other R. J. R. Nabisco affiliates such as the Del Monte Tropical Fruit Company, Nabisco Brands, and R. J. Reynolds Tobacco Company.

The incumbent will develop fundamental tissue culture protocol for a taxonomically diverse array of crops. This protocol includes a regeneration system compatible with genetic transformation. The incumbent will be responsible for novel and creative scientific thought, effective in project management, and bench execution. The incumbent also will be responsible for interfacing cell biology with other variety development activities, including plant breeding and molecular biology, as well as for bridging these activities.

Applicants should have earned a Ph.D. and completed at least 1 year of postdoctoral research in cell biology, physiology, biochemistry, cellular genetics, or molecular biology, and have hands-on experience with plant regeneration and transformation research. Knowledge/experience in enzymology, molecular chemistry, cytogenetics, anatomy/microscopy, computer science, and statistics will strengthen an application.

Our management style is people-oriented, encouraging individuality in a team environment.

Applications, inclusive of college transcripts and the name, address, and telephone number of four references should be sent to: **Dr. Varien R. Tilton, Principal Scientist/Biotechnology, Del Monte USA, Agricultural Research Center, P.O. Box 36, San Leandro, CA 94577.**

Del Monte is an Equal Opportunity/Affirmative Action Company.

POSITIONS OPEN

CELL BIOLOGIST/HISTOLOGIST CORNELL UNIVERSITY

The Section of Physiology is seeking an assistant professor (tenure-track) to teach an upper-level course (histology/organology) emphasizing the relation between structure and function at the tissue and organ level. The successful applicant is expected to develop a strong research program in some aspect of animal cell biology. Applicants should hold a Ph.D., M.D., D.V.M., or equivalent degree and have postdoctoral experience. Submit curriculum vitae, list of publications, the names and addresses of three references, and statements of teaching experience and research interests by 1 March 1988 to: **Dr. Ellis R. Loew, Chair, Search Committee, Section of Physiology, VRT 724, Cornell University, Ithaca, NY 14853.** *Cornell University is an Affirmative Action/Equal Opportunity Employer.*

CELL BIOLOGIST—PLANT PHYSIOLOGIST—MICROBIOLOGIST. Marietta College, a small 4-year, liberal arts college, is seeking to fill this tenure-track position at the assistant professor level, beginning August 1988. Ph.D. required with primary interest in teaching, but also a desire to carry on research with students. Principal duties include teaching cell biology, plant physiology, microbiology, and general biology. Review of applications will begin on 1 February 1988. Send résumé, undergraduate and graduate transcripts, and three letters of reference to: **Dr. Peter E. Hogan, Chair, Biology Department, Marietta College, Marietta, OH 45750.** *Marietta College is an Affirmative Action/Equal Opportunity Employer.*

CHAIRPERSON

Department of Physiology, School of Medicine, University of North Dakota. We invite applications from individuals holding a Ph.D. or M.D. degree with an outstanding record of extramurally funded research, a strong teaching record, and enthusiasm for medical student and graduate student education. We are seeking candidates from a wide spectrum of disciplines within physiology. In addition to several strong programs in cellular and molecular biology in the Medical School, opportunities exist for interactions with the USDA Human Nutrition Laboratory and with various aspects of aerospace sciences. The salary for the position will be competitive. The new Chairman will be expected to take action to fill two other positions in the Department. Review of applications will begin 15 March 1988. Interested applicants should send curriculum vitae, a summary of research goals, and names and addresses of references [minimum of three] to: **Dr. Harvey Knull, Physiology Search Committee Chair, Department of Biochemistry and Molecular Biology, School of Medicine, University of North Dakota, Grand Forks, ND 58202.**

The University is an Equal Opportunity/Affirmative Action Employer.

DEAN, COLLEGE OF LIFE SCIENCES AND AGRICULTURE UNIVERSITY OF NEW HAMPSHIRE (UNH)

UNH seeks an energetic/innovative leader for its newly restructured College of Life Sciences and Agriculture which now includes all eight biological science departments as well as departments with emphasis in agriculture and natural resources. UNH is both a Land Grant/Sea Grant institution, with a total enrollment of approximately 10,500. In addition to ten departments, with 25 major curricula leading to B.S. or B.A. degrees, 13 M.S. programs, and 7 Ph.D. programs, the Dean has responsibility for the NH Agriculture Experiment Station and the Thompson School of Applied Science, which offers six 2-year programs leading to an A.A. degree. Applicants should possess an earned doctorate, a record of successful teaching/scholarly achievement and demonstrated talent for administration. A letter of interest, curriculum vitae, and the names of five references are requested. Non-citizens must include current visa status. Salary will be competitive and commensurate with experience. Nominations and applications should be sent to: **Joan Weeks, Secretary, Office of VP for Academic Affairs, Thompson Hall, University of New Hampshire, Durham, NH 03824.** Application screening begins 29 January 1988. *UNH is an Affirmative Action/Equal Employment Opportunity Employer.*

POSITIONS OPEN

CHAIRPERSON, DEPARTMENT OF PSYCHIATRY

Applications are sought from individuals to head the Department of Psychiatry at the University of Vermont College of Medicine. M.D. or equivalent degrees, with demonstrated capabilities in administration, patient care, teaching and research. The candidate must have demonstrated achievement in research which is recognized at the national level. Send résumé, including curriculum vitae, representative publications, a statement of research interests and names of three references by 1 April 1988 to: **Norman R. Alpert, Ph.D., Chairman, Department of Physiology and Biophysics, University of Vermont, Burlington, VT 05405.** *An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

DEAN UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE UNIVERSITY OF MARYLAND AT BALTIMORE

Applications and nominations are invited for the position of Dean, the University of Maryland School of Medicine, Baltimore, Maryland.

After 15 years as Dean, John M. Dennis, M.D., has announced his retirement effective 30 June 1988. During these years of service, Dr. Dennis had led the School of Medicine in extraordinary growth and development of its academic and clinical programs. Continuation of academic and clinical prominence will be aided greatly by the new Veterans Administration Hospital and new Shock-Trauma addition to the University of Maryland Hospital currently under construction on campus.

Candidates should have a strong academic background and be qualified for the rank of professor. Experience in administration is highly desirable.

The University of Maryland at Baltimore is a professional schools campus and includes Schools of Medicine, Dentistry, Nursing, Pharmacy, Law, and Social Work and Community Planning. Interdisciplinary programs are in progress and developing.

To assure consideration, nominations and applications, including academic résumés, and the names and addresses of three references, should be received no later than 28 February 1988 by the chairman of the Search Committee.

Carlyle Crenshaw, Jr., M.D.
Chairman

Dean's Search Committee
University of Maryland at Baltimore
520 West Lombard Street
Baltimore, MD 21201

UMAB is an Affirmative Action/Equal Opportunity Employer

DIRECTOR— LIMNOLOGICAL RESEARCH CENTER UNIVERSITY OF MINNESOTA

As a consequence of the retirement of Professor Herbert Wright as Director of the Limnological Research Center (LRC), the School of Earth Sciences of the University of Minnesota is searching for a new Director of the LRC. The LRC is an interdisciplinary center engaged in the study of lakes worldwide. Research in the center encompasses the full range of lake studies. We seek a new director who can maintain and expand a highly successful program based upon external funding. The Director will be a full-time faculty member at the professorial rank in the Department of Geology and Geophysics with appropriate responsibilities for direction of graduate students and teaching. The field of specialization of the new director is open, although preference will be given to applicants with interest in the geological or paleoecological aspects of limnology. Minimum qualifications are 8 years of experience beyond the Ph.D. Send curriculum vitae and names of five referees to: **G. H. Shaw, LRC Search Committee Chair, Department of Geology and Geophysics, University of Minnesota, 310 Pillsbury Drive SE, Minneapolis, MN 55455.** Deadline for applications is 15 April 1988. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

Career Opportunities In Plant Biology

The Plant Genetics Department at Pfizer Central Research, in conjunction with numerous plant breeding stations worldwide, conducts research and development for DeKalb-Pfizer Genetics, a leading agricultural seed company. We invite applications from qualified scientists to join our multidisciplinary team focused on the genetic improvement of corn.

You must have either an MS or BS in an appropriate biological discipline with experience in one or more of the following areas:

- molecular biology
- plant transformation technology
- plant tissue culture, cell biology

In addition to a stimulating scientific environment, we offer a competitive compensation/benefit package and relocation assistance to an attractive southeastern Connecticut shore community. Qualified applicants should submit their resume with a list of technical proficiencies and the names, addresses and phone numbers of three professional references to: Mrs. Lorraine C. Corr, Personnel Associate, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



An equal opportunity employer

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 - ☐ \$163 air-surface delivery via Holland

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*Improving the
quality of life
is our business.*

Staff Toxicologist

We currently seek a Staff Toxicologist to manage acute and subchronic toxicology tests to be performed at contract laboratories. Responsibilities will include writing protocols, monitoring studies, interpreting data, and writing reports and summaries. The successful candidate will also serve as an in-life investigator for studies performed within Glaxo Inc. after construction of our toxicology facility.

A Ph.D. or equivalent degree is required, as well as 3-5 years' experience as a toxicologist in the pharmaceutical or chemical industry. D.A.B.T. certification is desirable.

Glaxo offers highly competitive salaries, outstanding advancement potential, and superior benefits, including a complete recreation and fitness program. **For prompt consideration, please send your resume, including salary history and the types of products with which you have had experience, to: Department 8100X819, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709.** An Equal Opportunity Employer M/F/H/V. (No phone calls, please.) No private agency referrals, please.

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maceutical firm
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as the perfect
environment for
professionals
whose ideals
are as high as
their level of
talent.*

*If you share our
philosophy, and
you're qualified
for the following
opportunity, make
it your business
to join us.*



Glaxo Inc.
Working Toward a Healthier World

POSITIONS OPEN

CLINICAL ANDROLOGIST

The Clinical Laboratory of the Brigham and Women's Hospital is seeking an experienced andrologist to supervise standard clinical laboratory tests for male factor infertility (semen analysis, hamster egg test, immunologic testing), develop new test technology, and provide consultation to active infertility and in vitro fertilization programs. Requirements include a Ph.D. or M.D. with at least 1 year of experience in clinical andrology. Academic appointment in an appropriate department at the Harvard Medical School. Please send résumé to:

Dr. Robert Barbieri
Reproductive Endocrinology Laboratory
Brigham and Women's Hospital
10 Vining Street
Boston, MA 02115
Equal Opportunity Employer

DEPARTMENT HEAD AND SENIOR RESEARCH AGRONOMIST

The Experiment Station of the Hawaiian Sugar Planters' Association (HSPA) invites applications for a senior research agronomist and head of the department of Crop Science. The Experiment Station is located in Aiea, Hawaii, near Honolulu, on the Island of Oahu. The Crop Science Department conducts research in agronomy, herbicide testing, plant nutrition, soil tillage, entomology and by-products. The primary emphasis is on sugarcane, but other diversified crops, such as coffee, alfalfa, forestry, etc. are investigated. Applicants must be distinguished scientists with a solid scientific background and demonstrated leadership and administrative skills. Outstanding candidates in all areas of agronomy/crop physiology will be considered with preference given to researchers with innovative research in plant nutrition, crop development or modeling. The position is immediately available with an attractive salary and excellent benefits. Closing date for applications is 1 March 1988. Applicants should send their curriculum vitae to: **Paul H. Moore, Search Committee, Experiment Station, Hawaiian Sugar Planters' Association, P.O. Box 1057, Aiea, HI 96701. Telephone: 808-487-5561.** *Affirmative Action/Equal Opportunity Employer.*

DIRECTOR LUNAR AND PLANETARY INSTITUTE

A search is being conducted for a Director of the Lunar and Planetary Institute (LPI). The LPI is a unique facility for study of the formation, evolution, and current state of the Moon, planets, and other solar system objects. It provides an academic atmosphere for scholarly research by staff and visiting scientists. The LPI also serves as a focal point for planetary geoscience and planetary-scale Earth science investigations. In recent years, the LPI has been charged with the responsibility of leading multidisciplinary, inter-institutional research projects in these areas. Major scientific thrusts at the LPI are related to the terrestrial planets and include projects on lunar petrology; Martian tectonic, volatile, and volcanic evolution; early planetary crusts; cratering; geochemistry and active tectonics of Venus and the Earth.

LPI facilities include a center equipped with a VAX 11/780, an image processing facility equipped with a Gould/DeAnza IP 8500, a geophysical data facility with interactive graphics capability, extensive library holdings in the geosciences, and a major collection of space photography.

The LPI, funded by NASA through the Universities Space Research Association (USRA), is located adjacent to the NASA/Johnson Space Center near Houston. Salary and benefits are competitive and attractive and will depend on the applicant's qualifications. The applicant should be an active research scientist with a record of leadership in major research projects. The applicant should be able to assume the Directorship on a full-time basis no later than 1 October 1988; an earlier appointment can be arranged.

Apply no later than 15 February 1988 with complete résumé of academic, professional and personal data, including three references, to:

W. D. Cummings, Executive Director
Universities Space Research Association
212 American City Building
Columbia, MD 21044

USRA is an Equal Opportunity Employer.

POSITIONS OPEN

ENERGY POLICY

Position in The Science and Public Policy Program, with joint appointment in an appropriate department of engineering or geosciences. Salary open and tenure-track available if desired; preferred rank is **ASSISTANT OR ASSOCIATE PROFESSOR**. Duties begin in August 1988. Job requirements include completed Ph.D. by starting date, commitment to team-oriented interdisciplinary research, substantive expertise in an academic field of engineering or geosciences, and an ability to secure funded research. Candidates with experience in energy policy research and science/technology policy are preferred. Job responsibilities include policy research, teaching, and service. Send curriculum vitae and three letters of reference to: **Steve Ballard, Director, Science and Public Policy Program, 601 Elm Avenue, Room 431, University of Oklahoma, Norman, OK 73019.** Deadline is 1 March 1988.

An Equal Opportunity/Affirmative Action Employer

ENVIRONMENTAL CHEMIST—New York State Attorney General's Environmental Protection Bureau deals with problems of hazardous waste, air and water pollution, pesticides, and related issues through litigation, legislative proposals and other initiatives. We seek an energetic, broadly trained, environmental advocate with refined communication skills. Ph.D., or M.S. and 2 years of experience, or B.S. and 3 years required; \$34,000. Submit résumé by 12 February 1988 to:

Environmental Protection Bureau
Suite 26-96
New York State Department of Law
120 Broadway
New York, NY 10271

ENVIRONMENTAL SCIENTIST

Environmental Health Associates is recruiting for an established scientist to conduct quantitative health risk assessments. Growing consulting firm in north central New Jersey. Easy commute by train or car from New York City. Ph.D. or master's with experience. Familiar with EPA HRA methods. Strong technical writing and verbal skills. Great opportunity for growth in a strong market. Contact **Dr. E. Holstein** or **B. Wolf: 201-225-1370.**

FACULTY POSITION in Veterinary Medical Diagnostic Laboratory and Department of Veterinary Microbiology. The Veterinary Medical Diagnostic Laboratory and the Department of Veterinary Microbiology, College of Veterinary Medicine, University of Missouri-Columbia, are accepting applications for an open tenure-track position at the assistant professor level. The applicant should have interest in research in molecular biology with emphasis on applying advanced biotechnology/immunologic techniques (i.e., monoclonal antibody-ELISA technology, probes) and development of methods for laboratory diagnosis of animal diseases. There is teaching and professional service opportunity in pathogenic microbiology.

Qualifications include Ph.D. and/or D.V.M./Ph.D. trained in molecular biology/immunology/pathogenic microbiology. The salary is open and commensurate with training and experience of the applicant. Applicants should submit curriculum vitae and names of three references to: **Dr. William H. Fales, Chairman, Search Committee, Veterinary Medical Diagnostic Laboratory, P.O. Box 6023, Columbia, MO 65205.** Application deadline is 29 February 1988, or thereafter until the position is filled.

An Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION. The Department of Biology at Viterbo College invites applications for a tenure-track position at the assistant professor (Ph.D.) level. The successful candidate should have experience in teaching microbiology, biochemistry, and immunology. The position will remain open until filled. Application, including curriculum vitae, three letters of reference, copies of undergraduate and graduate transcripts, and a one-page statement of teaching and research interests should be sent to: **Dr. Linda Malick, Chairperson, Department of Biology, Viterbo College, 815 South 9th Street, La Crosse, WI 54601.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

FACULTY RESEARCH POSITION

We seek an outstanding biologist to conduct a basic research program on the biology of aquatic animals and to complement a developing program in aquaculture at North Carolina State University (NCSU). We will consider candidates from a broad range of disciplines. Twelve-month, tenure-track position, preferably at the assistant professor level. The successful applicant will be expected to maintain a productive research program and participate in graduate training. A Ph.D. is required and postdoctoral experience is preferred. Open until 1 March 1988 or until filled. Send curriculum vitae, three letters of recommendation, selected publications and a statement of research interests and their potential relevance to aquaculture. **Chairman, Aquatic Research Search Committee, North Carolina State University, Zoology Department, Campus Box 7617, Raleigh, NC 27695.** *NCSU is an Affirmative Action/Equal Opportunity Employer.*

FIELD/GREENHOUSE TECHNICIAN

Position is open in the Bioscience Section for an individual with a B.S. or M.S. degree in a plant science-related field, and preferably with experience in field and/or greenhouse research. Skills required will include: accurate observation and data collection, understanding of good experimental technique, assist in the interpretation of results, maintenance of seed inventories, as well as the hiring and supervision of temporary help. Position may occasionally require some laboratory research. Preference will be given to individuals with a strong interest in science especially in the fields of genetics, plant breeding, botany, and/or biotechnology, and who have strong interpersonal skills. Research facility is located in Slater, Iowa, approximately 10 miles south of Ames. Send résumé and letter of application to: **The Bioscience Section Secretary, Garst Seed Company, P.O. Box 500, Slater, IA 50244.** When responding use reference number EB-4.

FRESHWATER MANAGEMENT

The Department of Biological Sciences of l'Université du Québec à Montréal is seeking candidates for a tenure-track position in freshwater management. Candidates must have a Ph.D. in this field as well as postdoctoral experience. Proven ability in research and teaching in freshwater management is required. Teaching responsibilities (in French) will be in the fields of aquatic management, wildlife management, general biology and/or animal, plant or freshwater ecology. The position is to be filled by 1 June 1988. Send curriculum vitae (in French) and three letters of reference, before 19 March 1988, to: **Dr. Jean Gingras, Directeur, Département des Sciences Biologiques, Université du Québec à Montréal, C.P. 8888, Succursale A, Montréal, Québec H3C 3P8 Canada.**

LENTIC FISH POPULATION ECOLOGIST

The Illinois Natural History Survey invites applications from Ph.D. level scientists for a full-time state-supported research position at the rank of assistant professional scientist. Preference will be given to applicants experienced in fish population dynamics and community ecology. The successful candidate will be expected to attract extramural funding and to develop an innovative research program. Residence for this position is located at the Lake Shelbyville field laboratory, 70 miles south of Champaign. Send résumé, a statement of future research interests, and the names, addresses, and telephone numbers of at least four references to: **Dr. David P. Philipp, Aquatic Biology Section, Illinois Natural History Survey, 607 East Peabody Drive, Champaign, IL 61820, 217-244-5055.** Applications will be accepted until 15 February 1988, or until the position is filled. *The State of Illinois is an Equal Opportunity/Affirmative Action Employer.*

MICROBIOLOGY—Full-time position, **RESEARCH TECHNICIAN IV**, available immediately. Salary \$20,820 per year. Requires B.S. degree—chemistry-biology, and 1 year of experience in hybridoma research. Work involves production and characterization of monoclonal antibodies. Contact: **Dr. Robert Cherniak** at 404-651-3125 for additional information. *Georgia State University, a unit of the University System of Georgia, is an Equal Educational and Employment Opportunity Institution.*

Faculty Position

Department of Urology Mayo Clinic

Tenure Track Position in Urologic Cancer Research, Cell Biology/ Cancer Immunology/Molecular Biology. Ph.D. or M.D. to establish and direct a research laboratory.

Please submit resume to:
P. P., Kelalis, M.D.
Chairman,
Department of Urology,
Mayo Clinic,
Rochester, MN 55905



Mayo Foundation
Rochester, Minnesota 55905

NATIONAL INSTITUTES OF HEALTH Service Fellow Positions

The positions are located in the Pulmonary Pathobiology Laboratory of the Division of Intramural Research, National Institute of Environmental Health Sciences (NIEHS), in the Research Triangle Park, North Carolina. Incumbents will design and conduct studies on the mechanisms of neoplastic transformation. Particular emphasis will be placed on molecular processes underlying the phenotypic changes during multistage carcinogenesis, alterations in growth factor production and expression of growth factor receptors.

Applicants should have a Ph.D. or equivalent and a background in carcinogenesis, developmental biology, cell differentiation or regulation of cell replication. Research experience in molecular biology, regulation of gene expression, growth factor and growth factor receptor biochemistry, or biochemical regulation of cell differentiation is required.

The initial appointments are for two years with additional annual extensions up to 5 years for a talented researcher with salary ranges between \$20,000 and \$37,000, commensurate with experience. Please send curriculum vitae and a statement of research interests and laboratory experience to:

Elena D'Orazio (Code: HNV26)
NIEHS Personnel Office
PO Box 12233
Research Triangle Park, NC 27709

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

POSTDOCTORAL POSITION

Immediately available for **Ph.D. Cellular Immunologist or Biologist** to study human antibody formation in vitro and for production of human monoclonal antibodies. Prior research experience in Immunology or related field required.

Write to:

PD Dr. Kurt Blaser
Laboratory of Molecular Immunology
University of Berne
Freiestrasse 3
CH-3012 Berne / Switzerland

ASSOCIATE/FULL PROFESSOR Senior Behavioral Scientist University of Minnesota

The Division of Epidemiology School of Public Health, University of Minnesota seeks a full-time *tenure-track* or *tenure* Associate or Full Professor as a Senior Behavioral Scientist.

Specific requirements for the position are: 1) earned doctoral degree, 2) extensive research experience on health behavioral phenomena in populations, including addictive behaviors, and 3) teaching experience including curriculum development and doctoral student advising. Primary criteria for appointment must be demonstrated ability through grant awards for significant research, demonstrated skills in research administration, a relevant publication record in peer-reviewed journals, and evidence through student evaluations of successful teaching. The Associate Professor level would require at least five years of post-doctoral research and teaching experience; the Full Professor level requires at least ten years' experience.

Primary responsibilities of this position will be to pursue a full academic program of research and training for the Community Health Education and Behavioral Epidemiology researches and demonstrations of the School of Public Health. Leadership in Health Education and Behavior courses of the School is required, with participation likely in the following courses: Behavioral Epidemiology PH 5391, Analysis of Alcohol/Drug Problems PH 5043, and Public Health Approaches to Health Behavior Change PH 5392. Advising master's, doctoral and post-doctoral students is also required.

The position is available on or about **July 1, 1988**. Interested applicants should submit a curriculum vitae, publications list, and a list of at least three references by **April 1, 1988**, to Dr. Ronald Prineas, c/o Kathy Ramel, Division of Epidemiology, School of Public Health, University of Minnesota, Stadium Gate 27, 611 Beacon St., SE, Minneapolis, MN 55455.

Please reference Job Number 283.

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

Research Scientists Molecular Genetics



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Pfizer, a U.S. based multinational pharmaceutical company, is seeking qualified scientists to expand its Molecular Genetics Department. These positions involve original experimental research into the application of molecular biology skills to exploratory biomedical research projects.

You must have an MS or BS degree with relevant postgraduate experience and the desire to work independently in one of the following areas:

Cell Biologist: Experience in recombinant DNA methodology, tissue culture or virology. You will conduct experiments in the antiviral research area.

Mammalian Molecular Biologist: Experience with mRNA isolation and cDNA library construction/characterization. You will conduct research in either the metabolic or cancer research areas.

Molecular Biologist: Experience in protein purification and/or cell culture together with relevant expertise in the transcriptional regulation area. You will study transcriptional regulation in the metabolic disease area.

In addition to a stimulating scientific environment, we offer a competitive compensation/benefit package and relocation assistance to an attractive southeastern Connecticut shore community. Please send a resume, description of research experience and names of three references to: Mrs. Lorraine C. Corr, Personnel Associate, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.

NATIONAL SCIENCE FOUNDATION

NSF's *Divisions of Cellular and Molecular Biosciences* are seeking qualified applicants for Program Officers under the provisions of NSF's Rotator Program. Since responsibilities include research proposal evaluation, budget development and scientific planning, broad knowledge and specific research accomplishment are key qualifications. The positions are excepted from the competitive civil service and are filled on a one- or two-year rotational/temporary basis. The positions become available periodically and will be filled beginning in the summer or fall, 1988. The per annum salary ranges from \$27,172-\$72,500, depending upon the level of responsibility.

In Cellular Biosciences, there are openings in: (1) Cell Biology; (2) Developmental Biology; (3) Eukaryotic Genetics; and (4) Regulatory Biology. In Molecular Biosciences, there are openings in: (1) Biochemistry; (2) Biological Instrumentation; (3) Metabolic Biology; and (4) Prokaryotic Genetics.

Applicants should send resumes to: **National Science Foundation, Personnel Administration Branch, Room 212, 1800 G St. NW., Washington, DC 20550, Attn: Catherine Handle.** For further information call Dr. Mary Clutter, Cellular Biosciences (202) 357-7905 or Dr. James H. Brown, Molecular Biosciences (202) 357-9400. Hearing impaired individuals should call (202) 357-7492. *NSF is an Equal Opportunity Employer.*

DIRECTOR, DIABETES RESEARCH INSTITUTE

Eastern Virginia Medical School invites applications and nominations for the position, Director, Diabetes Research Institute. The Diabetes Research Institute is part of a comprehensive regional diabetes center that also includes clinical and educational components. The Institute has already received substantial initial support through an aggressive local and national fund-raising effort. The successful candidate will possess an extensive academic background, an established record of excellence in diabetes research and the skill, capacity, and entrepreneurial instinct to assure the long-term success of the Research Institute. Responsibilities of the position include developing a research program that will make significant contributions to the field of diabetes as well as directing research projects, program administration, and outreach. Full faculty status and benefits are available; conditions and salary are negotiable. Please reply to:

Leon P. Georges, M.D.
Acting Center Director
The Diabetes Center of Eastern Virginia
P.O. Box 1980
Norfolk, Virginia 23501

Scientific Opportunities

Take an important role in the promise of tomorrow with the DuPont Company. We're a world leader in the manufacture and distribution of radiolabeled compounds and systems used in scientific and medical research. As a dynamic, Fortune 100 company, our commitment to advancing quality of life is reflected in the stable, rewarding environment we provide for our employees, and in the fine career opportunities we offer you.

Molecular Biologist

This position will develop new molecular biology products and improve production methods for the Research Products Division. Examples of products to be developed and improved are oligonucleotide probes and DNA hybridization reagents, cloning vectors, labeled nucleotides, DNA sequencing products, and reagents for protein translation. DNA techniques, such as cloning and sequencing, are highly desirable. This position requires a Ph.D in Molecular Biology.

Lipid Chemist

The focus of our research and development concerns biologically active lipid research products. Responsibilities will include synthesis, purification and characterization of complex lipids. A Ph.D. in Biochemistry/Organic Chemistry is required with a strong background in both organic and enzymatic synthesis. Relevant experience in biochemistry/organic chemistry, immunology, pharmacology or related applications of synthesis of biomolecules is expected. Demonstrated ability for innovative synthesis and purification of lipids is a must.

Immunoassay Chemist

This position will involve the development of immunoassay kits and reagents for products intended for the research market. The person will oversee antibody production, optimize immunoassays, act as a liaison for transfer of new kits from development into manufacturing and support this product line through customer interactions and consultations. Requires a Ph.D in Immunology, Biochemistry or Bioanalytical chemistry.

Interested, qualified candidates please forward your resume to:
Janice Bubbers, DuPont, 549 Albany St., Boston, MA 02118.



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ImmuCell Corporation is a young, publicly held company engaged in the development of diagnostics and vaccines for the animal health industry. Recent growth has created several new positions within our development staff.

Infectious Disease Program Manager

Qualified candidates for this senior research management position must have a Ph.D. in microbiology and at least 5 years of successful commercial product development experience. Strong organizational and communications skills are required. This position offers the opportunity to participate in shaping the future direction of the organization.

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These positions require ambitious, energetic, results-oriented Ph.D. level scientists with either relevant postdoctoral training or commercial experience in the following areas:

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Residue Detection Products: To develop novel, rapid tests for drug and residue detection for agricultural/animal health applications.

Vaccines/Immunoprophylactics: To manage both internal and client supported development projects in these areas.

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ImmuCell

Please send resume and salary history to
Ms. Virginia Hebert, Administrator
ImmuCell Corporation
966 Riverside Street
Portland, ME 04103

DEPARTMENT CHAIRPERSON MICROBIOLOGY AND CELL SCIENCE THE UNIVERSITY OF FLORIDA

The University of Florida is seeking applicants for the Chairperson of the Department of Microbiology and Cell Science, the primary basic sciences department in the College of Agriculture, Institute of Food and Agricultural Sciences.

The Department of Microbiology and Cell Science is responsible for the largest undergraduate major in biological sciences at the University of Florida, and includes strong graduate education and research programs.

The successful candidate will be expected to have an earned doctorate in Microbiology or related field, to lead an expanding Department in the pursuit of excellence, and to maintain an active research program.

We invite nominations of, or applications from individuals with a strong record of achievement in scholarship and research.

Interested individuals should provide a letter of application, a curriculum vitae, a brief description of current activities, and a list of three or more colleagues from whom letters of reference may be solicited.

Address all correspondence concerning this position to: **Lonnie O. Ingram**

Search Committee Chairman
1059 McCarty Hall
University of Florida
Gainesville, Florida 32611

The closing date for applications is May 15, 1988. The University of Florida is an Affirmative Action/Equal Opportunity Employer.

Biochemist/ Bioorganic Chemist

Abbott Laboratories' Diagnostics Division is recognized throughout the world for its reknown research and development in medical diagnostic testing. Our success is the result of creative problem-solving and independent research backed by award-winning management. We currently seek an outstanding doctoral or post-doctoral biochemist to join this group, conducting original biochemical/bioorganic research.

Responsibilities involve investigations aimed at developing new immunoassay technologies, as well as improving existing methods. This includes supervising technical personnel and communicating research results to project supervisors. A Ph.D. in Bioorganic Chemistry or Biochemistry with knowledge of protein chemistry, purification, chemical modification and kinetics is required. Working knowledge of organic synthesis is desirable.

Abbott is headquartered in an attractive suburban area on the Lake Michigan shoreline 30 miles north of Chicago. In addition to an outstanding scientific environment, we provide excellent salaries, and full benefits including profit sharing, stock retirement plan, and relocation assistance, as well as exceptional opportunities for professional growth. For confidential consideration, please send your resume with salary history to: **Peggy Taylor, Corporate Placement, Dept. SCI/1-22.** Abbott is an Affirmative Action Employer.

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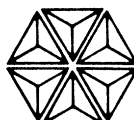
RESEARCH SCIENTISTS

The Bristol-Myers Pharmaceutical Research and Development Division has excellent career opportunities in its Syracuse, New York Pharmaceutical Product Development Department.

These positions are in areas of the department which are responsible for basic pharmaceuticals research as well as formulation research and development. Successful candidates will be engaged in the determination of physical chemical properties and development of pharmaceutical formulations for newly discovered drug substances.

To qualify, you should have a PhD in Pharmaceuticals, Physical Pharmacy, Pharmaceutical Chemistry or Physical Organic Chemistry and 0-3 years of experience in basic pharmaceuticals or formulation research. Experience with anticancer drugs, proteins, peptides or biotechnology-derived products would be highly desirable.

We offer excellent salaries, comprehensive benefits including relocation assistance to a superb upstate NY living area and a working environment conducive to professional growth. For prompt, confidential consideration, forward your resume with salary requirement, to: **EMPLOYMENT MANAGER**



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POSITIONS OPEN

The Department of Pediatrics, Wright State University School of Medicine and the Children's Medical Center, Dayton, Ohio are seeking a third **GASTROENTEROLOGIST**. This is a full-time faculty position at the assistant professor level. Applicants must be licensable to practice medicine in Ohio, Board-eligible or certified in pediatrics and completing a 2- or 3-year fellowship in pediatric gastroenterology. The successful candidate will be capable of performing all common disfigurements procedures, conducting independent research in the areas of cholestatic liver disease or disfigurements transport and showing interest and skills in the teaching of medical students and residents. Applications received by 15 February 1988 will be considered; if the position is not filled therefrom, applications will be considered as received until the position is filled. Interested candidates should send curriculum vitae and references to: **Stephen L. Newman, M.D., Director, Division of Gastroenterology and Nutritional Support, Department of Pediatrics, Wright State University School of Medicine, The Children's Medical Center, One Children's Plaza, Dayton, OH 45404-1815.** *Wright State University School of Medicine and the Children's Medical Center are Affirmative Action and Equal Opportunity Employers.*

MARINE SCIENTIST THE INTERUNIVERSITY INSTITUTE OF EILAT, ISRAEL THE H. STEINITZ MARINE BIOLOGY LABORATORY

Invites applications for one and possibly more, full-time tenure-track faculty positions at a junior or senior level, in the following areas:

- 1) MARINE BIOLOGY
- 2) MARINE CHEMISTRY

The successful scientist(s) will be affiliated with the Hebrew University of Jerusalem.

The candidate(s) will be expected to conduct independent research in the Red Sea and take part in the teaching program of the Interuniversity Institute.

Preference will be given to applicants with postdoctoral experience. Submit curriculum vitae, list of publications, future research objectives, and three letters of recommendation.

Professor B. Luz
Scientific Director
The Interuniversity Institute of Eilat
P.O. Box 469
Israel, 88103

Closing date for applications is 1 March 1988.

MEDICINAL CHEMISTRY/ MOLECULAR PHARMACOLOGY FACULTY OF PHARMACY, UNIVERSITY OF TORONTO

Applications are invited for an **ASSISTANT PROFESSOR** tenure-stream position beginning 1 July 1988 or thereafter. The successful candidate will be expected to establish an independent research program related to the structural and mechanistic determinants of drug action. Individuals with interests and experience in the study of macromolecular structure and function are encouraged to apply. Participation in the supervision of graduate students and in the teaching of graduate courses is required. The candidate will be expected to teach medicinal chemistry at the undergraduate level.

Within the University of Toronto interdepartmental collaboration is strongly encouraged and is supported at the graduate level by cross-appointments, a system of joint courses, and interdisciplinary programs. Start-up support is available from faculty and university sources.

The successful candidate is likely to hold a Ph.D. degree and to have at least 2 years of postdoctoral experience. Interested persons should submit a current curriculum vitae, a short outline of future research interests and arrange to have three letters of reference sent to: **Dean D. G. Perrier, Faculty of Pharmacy, University of Toronto, 19 Russell Street, Toronto, Ontario, M5S 1A1, Canada.**

Applications will be considered beginning 15 April 1988.

In accordance with Canadian Immigration requirements, priority in the first instance will be given to Canadian citizens and landed immigrants. In accordance with the Employment Equity Policy of the University of Toronto, applications are invited from all qualified women and men.

POSITIONS OPEN

MARINE POSTDOCTORALS

Two postdoctoral positions are available at the Interuniversity Institute of Eilat, Israel; The H. Steinitz Marine Biology Laboratory, in the following areas:

- 1) Zooplankton or phytoplankton ecology; coral reef ecology.
- 2) Eco-physiology and biochemistry of marine and hypersaline microorganisms.
- 3) Carbonate chemistry of hypersaline environments.

The positions are available for a period of 1 year and may be extended for longer periods. The successful candidates are expected to carry out independent research in affiliation to on-going research programs in Eilat. Submit curriculum vitae, list of publications, a description of research interests, and three letters of recommendation to:

Professor B. Luz
Scientific Director
The Interuniversity Institute of Eilat
P.O. Box 469
Eilat
Israel, 88103

The closing date for applications is 1 March 1988.

MOLECULAR CELL BIOLOGIST. Tenure-track assistant/associate professor, fall 1988. Requires Ph.D. in cell biology or closely related field; postdoctorate preferred. Duties include teaching molecular cell biology, general biochemistry, participation in general biology program, and supervision of master's candidates. Research in eukaryotic cell structure and function expected. Application including curriculum vitae, a brief statement of research interests, graduate transcripts, and three letters of recommendation should be sent by 15 February 1988 to: **Dr. Leonard Robertson, Chair of Search Committee, Department of Biological Sciences, P.O. Box 23, 590A, East Tennessee State University (ETSU), Johnson City, TN 37614.** *ETSU is an Equal Opportunity/Affirmative Action Employer and employs only U.S. citizens and aliens authorized to work in the United States.*

MOLECULAR GENETICIST

Children's Hospital and Health Center is interested in recruiting a junior faculty level molecular geneticist to manage its Molecular Diagnosis Laboratory and to conduct independent research.

Applicants should have M.D. or Ph.D. degrees and recent experience in methods of molecular genetics. Clinical experience is desirable but not essential.

To apply, send curriculum vitae, list of publications and two letters of reference to: **Deana Pielak, Human Resources Department, Children's Hospital and Health Center, 8001 Frost Street, San Diego, CA 92123.** For additional information, call: **Dr. J. T. Mascarello at 619-576-5809.** *An Equal Opportunity Employer.*

MOLECULAR SYSTEMATIST POSITION SMITHSONIAN INSTITUTION

The National Museum of Natural History, Smithsonian Institution, is seeking a systematic or evolutionary botanist who specializes in molecular or biochemical techniques. Applicants must have an active research program in systematic or evolutionary biology, and expertise in a variety of nucleic acid or natural-product chemistry techniques; preference will be given to candidates with postdoctoral experience using nucleic acid methodologies.

This position will be located in the Laboratory to be established at the Museum Support Center in Suitland, Maryland. Salary and grade level of this position will be commensurate with experience and/or education. The incumbent may also serve as Laboratory director. Anticipated starting date is no later than October 1988. Send curriculum vitae, names of three references, selected publications, and an Office of Personnel Management Standard Form 171 to: **The Office of Personnel Administration, Smithsonian Institution, Washington, DC 20560.** Attention: MPA-87-550-F. Closing date for receipt of applications is 5 February 1988. For more information please contact: **Dr. Gary Graves, Chair, Molecular Systematics Search Committee, Department of Vertebrate Zoology, Smithsonian Institution, National Museum of Natural History, Washington, DC 20560.** Telephone: 202-357-2335. *The Smithsonian Institution is an Equal Opportunity Employer.*

POSITIONS OPEN

MOLECULAR BIOLOGY CELL PHYSIOLOGY DEPARTMENT OF BIOLOGY

The Department of Biology invites applications for two tenure-track positions at the assistant professor level to begin during the 1988 to 1989 academic year. One position is in cell physiology and the other, in genetics and molecular biology. The applicants are expected to have postdoctoral experience. The department has strong interests in experimental biology. This includes faculty and graduate research in neuroscience, physiology, biochemistry and developmental, molecular and cell biology, and genetics. The appointee is expected to maintain an independent research program and contribute to graduate and undergraduate education. Interaction between faculty at both the teaching and research levels is encouraged. Please send curriculum vitae, copies of representative publications, a summary of previous and proposed research, and the names and addresses of three references to: **Dr. Ralph Hillman, Chairman, Department of Biology, 015-00, Temple University, Philadelphia, PA 19122.** Closing date for application is 30 April 1988. Applications will be reviewed upon receipt.

Temple University is an Equal Opportunity/Affirmative Action Employer.

United States Department of Agriculture (USDA), Agricultural Research Service (ARS). **NMR SPECTROSCOPIST** position at the Northern Regional Research Center, Peoria, Illinois. Successful candidate will operate a new Bruker MSL 300 solid-state NMR spectrometer equipped with a CRAMPS probe, as well as multinuclear probes for CP/MAS and wide line NMR studies and will participate with multidisciplinary teams (i) investigating molecular dynamics of phospholipids and enzyme interactions in plant cell membranes, (ii) characterizing plant components such as starches, vegetable oils and polyisoprenes and (iii) determining structure of lipid films and coatings and starch-synthetic polymer composites. Applicants need a working knowledge of physical, organic, polymer, and analytical chemistry and an in-depth knowledge of solid-state NMR spectroscopy. A Ph.D. in chemistry with postdoctoral work in solid-state NMR applications or equivalent is required. Position is a permanent position with beginning salary of \$32,567 (GS-12). For additional information on the research program contact: **James Cavins, USDA/ARS/NRRC, 1815 North University Street, Peoria, IL 61604.** Telephone: 309-685-4011. For information on application procedures contact: **Barbara Lamm, USDA/ARS, Personnel Operations Branch, North Central Section, Building 419, BARC-East, Beltsville, MD 20705.** Telephone 301-344-1542. Applications in response to this advertisement should be marked 8N003 and sent to: **Barbara Lamm.** Applications must be received by 15 March 1988. U.S. citizenship required. *Equal Opportunity Employer.*

PHARMACOLOGIST: The Department of Physiological Sciences, College of Veterinary Medicine, invites applications for a tenure-track assistant professor level position in pharmacology (VM8704), available 1 July 1988 or thereafter. The Ph.D. degree in pharmacology or related discipline is required. Responsibilities include development of a high quality independent research program and teaching in basic pharmacology. Curriculum vitae, including citizenship status, the names of three references, and a statement of career goals should be submitted by 1 April 1988 to: **Dr. John U. Bell, Chairman, Search Committee, Department of Physiological Sciences, College of Veterinary Medicine, Box J-144, JHMH, University of Florida, Gainesville, FL 32610-0144.**

POSTDOCTORAL POSITION open now to study de novo assembly of a simple human virus. Requires expression of hepatitis B viral antigens in frog oocytes and mammalian cells, study of interactions between different antigens and sequential building of the viral substructures [Strandberg *et al.*, *PNAS* 83, 9338 (1986)]. HRI (Director, **William J. Rutter**) employs state-of-the-art methods to study various biological problems. Molecular or cell biology experience essential. Curriculum vitae and references to: **Dr. David Strandberg, Hormone Research Institute, Department of Biochemistry and Biophysics, University of California, San Francisco, CA 94143-0534.** Telephone: 415-476-8548.

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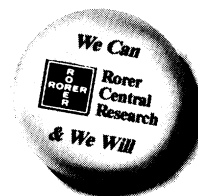
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- **Department Manager, Toxicology** - Reporting directly to the Director, Toxicology, the successful candidate for this important mid-level management position will direct the activities of a staff of supervisors, scientists and technicians; design, conduct and review preclinical toxicology studies and interact with the FDA and/or other regulatory bodies. A PhD in Toxicology or related field is required with a minimum of one year formal post-doctoral training and 5 years industrial experience in toxicology. This experience must include interaction with federal regulatory agencies, preparation of IND's and NDA's and supervision of drug safety laboratory functions.

- **Veterinary Pathologist** - The incumbent will report to the Director, Pathology and will participate in the design and interpretation of routine drug safety/toxicity assessment studies as well as special studies to investigate mechanisms of toxicity. Our successful candidate will have a DVM plus a residency or graduate training in veterinary pathology and be ACVP certified. Ideally, the candidate will also have a minimum of 2 years experience in toxicologic pathology and an interest in clinical pathology.

DISCOVERY, CARDIOVASCULAR PHARMACOLOGY OPENINGS:

- **Research Scientists** - The two immediate opportunities in Discovery are in cardiovascular pharmacology, each requiring a PhD in Pharmacology or related field and at least 2 years experience beyond the PhD. One incumbent will concentrate on **atherosclerosis**; the other will concentrate on **hypertension/myocardial ischemia**. Both will need a demonstrated expertise of the respective disease process, be capable of introducing and developing novel research programs, and establish *in vivo* models.

Rorer offers a competitive salary, a fully paid benefits package and a work environment which offers opportunity for professional growth. Qualified applicants should submit resume to **Barbara F. Lippmann, Rorer Central Research, 640 Allendale Road, King of Prussia, PA 19406**. Equal opportunity employer, M/F.



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POSITIONS OPEN

PLANT AQUATIC ECOLOGIST

The Augustana College Biology Department has a tenure-track opening for an assistant professor (Ph.D.) in September 1988. Applicants must be prepared to teach aquatic ecology, principles of ecology, and participate in an introductory biology course. Staff members are expected to maintain active research programs that involve undergraduate students. Augustana is a liberal arts college related to The Evangelical Lutheran Church in America. Applications should include curriculum vitae, complete transcripts, three letters of professional evaluation including critical comments on past teaching performance and research ability, and the applicant's statement of plans for future professional development. Applications accepted until 1 February 1988, or until position is filled. Send applications to:

Mrs. Jeanne Kruse
Administrative Assistant
Augustana College
Sioux Falls, SD 57197

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE to study herpes virus replication. Recent Ph.D. or M.D. Experience needed in molecular biology, genetics, virology. Send curriculum vitae and three references to: Dr. Denise Galloway, Fred Hutchinson Cancer Research Center, 1124 Columbia Street, Seattle, WA 98104.

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

POSTDOCTORAL POSITION ANTITUMOR DRUG RESISTANCE

Postdoctoral position immediately available for 3 years to study determinants of resistance to antitumor drugs in multidrug resistant cells. Emphasis of ongoing studies include investigations on cellular pharmacology, modulation of cytotoxic response, and regulation of calcium-calmodulin dependent proteins and phosphorylation systems. Applicants should have a Ph.D. in pharmacology, biochemistry, or cell biology. Salary is competitive and commensurate with experience. Send curriculum vitae and names of three references to: Dr. Ram Ganapathi, Research Institute, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44106.

POSTDOCTORAL POSITIONS. To join a multidisciplinary group consisting of eleven faculty interested in mechanisms of hemostasis, fibrinolysis, and thrombosis involving both basic research and clinical investigation. Areas of study from which to choose include (i) assembly, function, and regulation of supramolecular enzymatic complexes on both synthetic and physiological surfaces, (ii) relationships between protein structure and function using molecular cloning, isolated natural and synthetic polypeptides, and immunological probes, (iii) cell biology of hematopoiesis, (iv) platelet intracellular signaling, and (v) diagnostic assay development. These positions will provide valuable training in an area of interest to the academic community, biotechnology, and the pharmaceutical industry. Send curriculum vitae, selected papers and names of three references to: Kenneth G. Mann, Ph.D., Professor and Chairman, Department of Biochemistry, Director, Specialized Center of Research in Thrombosis, College of Medicine, Given Building, University of Vermont, Burlington, VT 05405-0068.

POSTDOCTORAL POSITIONS (\$20,000 to \$22,500) available immediately to study: (i) Acute and chronic cardiovascular actions of CNS stimulant/local anesthetic drugs in conscious animals. R. D. Wilkerson, Ph.D. and (ii) Regulation of neurotransmitter and drug receptors, relation to behavior. H. C. Rosenberg, M.D., Ph.D. Applicants should send curriculum vitae and names of references to: Department of Pharmacology, Medical College of Ohio, C.S. #10008, Toledo, OH 43699.

POSTDOCTORAL/RESEARCH ASSOCIATE position available immediately to study early B lymphocyte development and immunoglobulin gene expression at the cellular and molecular levels. Send curriculum vitae and names of three references to:

Dr. Owen N. Witte
Howard Hughes Medical Institute
Molecular Biology Institute
UCLA
Los Angeles, CA 90024-1570

POSITIONS OPEN

POSTDOCTORAL POSITION IN STREPTOMYCETES to investigate nitrogen regulation of glutamine synthetase and antibiotic production with emphasis on transcriptional mechanisms. Position available immediately. Experience in molecular biology, genetics, and/or protein purification desirable. Send curriculum vitae and names of three references to: Dr. Susan Fisher, Department of Microbiology, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118.

Affirmative Action/Equal Opportunity Employer.

TWO POSTDOCTORAL POSITIONS available immediately; one to study organelle DNA segregation and recombination in cytoplasmic hybrids formed by fusion of plant protoplasts, the other to study gene expression in plant mitochondria. Successful applicants will join a research group whose findings have been commented on recently in *Science* [233, 624 (1986)]. Applicants for the former position should have experience in plant tissue culture; for the latter in nucleic acids and recombinant DNA techniques. Send curriculum vitae and names, addresses and telephone numbers of two referees to: Dr. Gregory G. Brown, Department of Biology, McGill University, 1205 Docteur Penfield Avenue, Montreal, P.Q., Canada H3A 1B1.

PROFESSOR AND DIRECTOR CENTER FOR STREAMSIDE STUDIES IN FORESTRY, FISHERIES AND WILDLIFE

The College of Ocean and Fisheries Sciences and the College of Forest Resources, University of Washington, invite applications for the position of Director of the recently established Center for Streamside Studies. This is a 12-month, tenure-track appointment available immediately with rank dependent upon qualifications. The initial appointment is for a period of 5 years.

The Center for Streamside Studies manages an interdisciplinary (Fisheries, Forestry, Wildlife) program supported by a combination of private and state funds, and cooperative research programs of the USDA Forest Service (more information on Center available upon request).

The candidate must have a Ph.D. in fisheries science, forestry, or wildlife management or related fields, with demonstrated research and publications in one or more of these areas. The candidate is expected to have experience in developing or administering programs in the natural resources area.

The successful candidate will be expected to: a) expand the Center's teaching and research program in the ecology of riparian zones in relation to forest, wildlife, and fisheries management (particularly in the management of the salmonids), b) assist in developing stable funding sources for addressing fundamental and applied research in watersheds, c) provide leadership in enhancing the Center's role as a link between the fisheries and wildlife management community and the forest and timber industries, and d) instruct and supervise graduate and/or undergraduate students.

Interested applicants should send curriculum vitae, a statement of research and education interests, reprints of three publications, and three or more letters of recommendation to: Gerard Schreuder, Chair, Search Committee, College of Forest Resources, AR-10, University of Washington, Seattle, WA 98195. Telephone: 206-543-6920.

Deadline for application: 1 April 1988.

The University of Washington is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are encouraged to apply.

The Department of Biochemistry and Biophysics of the University of Pennsylvania invites applications for the position of **RESEARCH ASSISTANT PROFESSOR**. Applicants should have a strong background in inositol phospholipid metabolism including expertise in single cell fluorescence microscopy, electrophysiology, HPLC, and protein purification. Postdoctoral experience in these areas necessary. Candidates should forward curriculum vitae, a summary of research experience and interests and arrange for three or more letters of reference to be sent to: Franz Matschinsky, M.D., Chairman, Department of Biochemistry and Biophysics, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6059. Deadline for applications is 1 March 1988. *The University is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority candidates.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS ON BEHAVIORAL NEUROSCIENCE TRAINING GRANT available immediately in Biopsychology Division and Neural and Behavioral Biology Program at the University of Illinois at Urbana-Champaign. Laboratories include those of Michael Gabriel (electrophysiology of learning), Martha Gillette (neurophysiology of circadian rhythms), Rhanor Gillette (motor patterning), William Greenough (CNS plasticity), Janice Juraska (sex differences in brain and behavior development), Victor Ramirez (regulatory endocrinology), Edward Roy (neuroendocrinology and behavior), Michael Salmon (sensory patterning), and Evelyn Satinoff (sleep, thermoregulation and circadian rhythms). Stipend \$16,000 to \$23,000. Applicants must be citizens or non-citizen nationals of the U.S. Send curriculum vitae and three letters of recommendation to: Dr. Edward Roy, Department of Psychology, University of Illinois, 603 East Daniel Street, Champaign, IL 61820. *The University of Illinois is an Equal Opportunity Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATE position available immediately at Baylor College of Medicine, Houston, Texas, to study the molecular genetics of lipid and lipoprotein metabolism. Research project includes regulation of expression of genes related to lipid metabolism at the whole animal as well as tissue culture levels, structure-function relationships using recombinant DNA techniques, and the molecular genetics of human lipid disorders. Candidates should have a Ph.D. in a biochemical science. Experience in molecular biology techniques desirable. Salary commensurate with experience. Send curriculum vitae and three letters of reference to either: Dr. Lawrence C. B. Chan, Department of Cell Biology, Baylor College of Medicine, 1 Baylor Plaza, Room 21-E, Houston, TX 77030. Telephone: 713-799-4478; or Dr. Joel D. Morrisett, Department of Medicine, The Methodist Hospital, MS/A601, 6565 Fannin Street, Houston, TX 77030. Telephone: 713-799-4164.

Baylor College of Medicine, Houston, Texas is an Equal Opportunity/Affirmative Action Employer.

PROTEIN BIOCHEMISTS/ BIOORGANIC CHEMISTS

BioProbe International, Inc., a leader in Bio-Affinity Separation, has openings for creative research biochemists.

Responsibilities include developing new affinity ligands, new solid supports, new activation and coupling chemistries.

Qualified applicants, who will report directly to Dr. T. T. Ngo, Director of Research and Development, should have a minimum of a Ph.D. in biochemistry or bioorganic chemistry, with expertise in protein and enzyme chemistry and 2+ years of hands-on and relevant postdoctoral experience in the synthesis of affinity ligands, preparation of affinity matrix and applications in biopurification.

BioProbe International Inc. is a rapidly growing biotechnology company, located in a desirable area of Southern California. These positions offer excellent growth opportunities for outstanding scientists who prefer to do research in a young, dynamic, team-work oriented company.

Please forward your résumé including salary history and names of three references to

Ms. E. Hayden
BioProbe International, Inc.
2842 C Walnut Avenue
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RESEARCH ASSOCIATE

Research associate required to prepare transgenic mice and mouse chimeras and to participate in biochemical and molecular analyses of the resulting animals and tissues. This project, which is concerned with preparation of animal models of human chromosomal disorders, requires skills in embryology, molecular biology and mouse genetics, and the ability to work independently. Bachelor's degree in an appropriate science plus 1 year of related experience or equivalency required. Send résumé/curriculum vitae to: UCSF Personnel, 1350 7th Avenue, LH-150, San Francisco, CA 94143. Refer to job number MW 50229.

Affirmative Action/Equal Opportunity Employer/MFHV.

UNIVERSITY OF CALIFORNIA
SAN FRANCISCO

POSITIONS OPEN

POSTDOCTORAL POSITIONS

Postdoctoral and graduate student positions available in molecular biology and vaccine development in parasitic diseases. Research areas include mechanisms of immune protection against *Anaplasma* and *Babesia*; improved disease diagnosis by subunit serologic tests or nucleic acid probes; expression and analysis of *Anaplasma* and *Babesia* surface protein genes. Experience in molecular techniques for analysis of proteins and nucleic acids is desirable. Salary is commensurate with experience and training. Send curriculum vitae outlining academic training, citizenship, research experience, a list of publications, a statement of professional goals, and names of three referees to: **Dr. A. F. Barbet, University of Florida, Department of Infectious Diseases, Box J-137, JHMHS, Gainesville, FL 32610.** *The University of Florida is an Equal Opportunity/Affirmative Action Employer.*

The Immunology Group of the Robarts Research Institute which focuses its research on the immune mechanisms of autoimmunity and transplantation (including cellular transplantation) is adding a group of four **SCIENTISTS** with interest and expertise in the molecular events of these responses.

University Hospital and the Robarts Research Institute create an environment of scientific pursuit in a facility conducive to the scientist's work with excellent salary and benefits and in an atmosphere of optimism and collaboration.

London, a medical and university city of 300,000, is one of the most attractive communities in Canada with excellent cultural and family-oriented activities.

The appointees will receive appropriate appointments in the Department of Immunology and Microbiology of the University of Western Ontario and will be Scientists of the Robarts Research Institute.

Submit a copy of curriculum vitae and a description of research interest to: **C. R. Stiller, Director, Immunology Group, Robarts Research Institute, P.O. Box 5015, London, Ontario N6A 5K8; or telephone: 519-663-3354.**

POSITIONS OPEN

RESEARCH FELLOW: Research and development in hollow infrared waveguides and infrared waveguide lasers. Design of hollow waveguides for particular wavelengths or broadband operation. Waveguides may be optimized for TE₀₁, EH₁₁, or whispering-gallery mode propagation. Fabrication of waveguides by electroforming and deposition of multilayer thin film. Characterization of waveguide transmission by: (i) measurement of quality of output beam; (ii) measurement of temperature rise by thermocouples and infrared camera. Waveguide transmission tests under high power (>1 kW). Design, fabrication, and operation of a waveguide laser for TE₀₁-mode operation to test hollow waveguide transmission with that mode. Requires Ph.D. degree in physics, education to include 2 years of research in design and construction of waveguide CO₂ lasers of mode EH₁₁ and mode TE₀₁ and measurements of temperature and mode distribution of a whispering gallery waveguide for CO₂ laser power transmission. Hours: 9:00 a.m. to 5:00 p.m. Forty hours per week at \$25,000.00 per year salary. This job is a university position. Please send résumé to: **Illinois Department of Employment Security, 401 South State Street-3 South, Chicago, IL 60605. Attention: Len Boksa, Reference #7728-B.** An employer-paid ad.

VERTEBRATE BIOLOGIST—VISITING ASSISTANT PROFESSOR OF BIOLOGY. St. Lawrence University. One-year replacement; Ph.D. required. Duties commence 24 August 1988, and include teaching comparative anatomy and ornithology with labs, and courses in speciality at population or organismic level. Non-sectarian liberal arts college of 2000; department of nine. Application including curriculum vitae and three letters of recommendation by 1 March 1988 to:

**Ms. Carol Budd
Biology Department
St. Lawrence University
Canton, NY 13617**

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

POSITIONS OPEN

UNIVERSITY OF THE VIRGIN ISLANDS

The University of the Virgin Islands is seeking candidates for the following faculty position, **BIOCHEMISTRY. A VISITING POSITION** (renewable subject to federal funding) at the assistant or associate professor level on the St. Thomas campus of the University of the Virgin Islands, starting 15 August 1988. (Salary range \$27,965 to 39,514.) A doctorate in biochemistry with the ability to teach undergraduate senior-level courses in biochemistry and cell biology, and introductory courses in chemistry are required. Strong interest and experience in undergraduate instruction is required. Interest in undergraduate research and ability to teach organic chemistry are desirable. A letter of application, curriculum vitae, short statement of research interests, transcripts, and three letters of recommendation should be sent to: **Dr. William P. MacLean, Vice President for Academic Affairs, University of the Virgin Islands, St. Thomas, VI 00802.** The closing date is 15 March 1988, but late applications will be considered until the position is filled.

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SEARCH REOPENED UNIVERSITY OF THE VIRGIN ISLANDS

The University of the Virgin Islands, is seeking candidates for the following faculty position, beginning 15 August 1988. **VISITING ASSISTANT OR VISITING ASSOCIATE PROFESSOR OF BIOLOGY** (Renewable). Doctorate and experience teaching physiology and vertebrate zoology. Field experience in tropics and research interest in region desirable. Salary range \$27,965 to \$39,514 plus benefits. Address letter of application, up-to-date résumé, statement of research interests, official college transcripts and three letters of recommendation by 4 March 1988 to: **Dr. William P. MacLean, Vice President for Academic Affairs, University of the Virgin Islands, St. Thomas, VI 00802.**

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Microbial Ecologist



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species and populations able to metabolize unique classes of organic compounds. The use of these cultures to accelerate biodegradation of such compounds in laboratory and field trials will be evaluated.

To qualify, you should have a strong educational background in microbiology, particularly microbial ecology as evidenced by a graduate degree as well as relevant laboratory experience (1-3 years) at either the academic or industrial level.

Lederle is located in Rockland County, one-half hour from New York City. We offer competitive salaries, a superior benefits package, including a 401k savings option, and a stimulating scientific atmosphere. Please send resume to: Ms. Maureen Quigley, Professional Employment Representative, Lederle Laboratories, Medical Research Division, American Cyanamid Company, Pearl River, NY 10965. An equal opportunity employer m/f.



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POSITIONS OPEN

VIROLOGIST

Hands-on bench position working with HIV and other viruses. Research involves quantitating the destruction of infectious virus by chemical disinfection. Good industrial opportunity. Salary is \$35,000 to \$40,000 (commensurate with experience). Send a detailed résumé with a letter of application to: **Microgen, Inc., 122 Fairfield Road, Fairfield, NJ 07006.**

SEARCH REOPENED UNIVERSITY OF THE VIRGIN ISLANDS

The University of the Virgin Islands is seeking candidates for the following faculty position, beginning 15 August 1988. **VISITING ASSISTANT OR VISITING ASSOCIATE PROFESSOR OF BIOLOGY** (Nontenure-track, renewable). Doctorate and experience teaching invertebrate biology and evolution or population biology are required. Field experience in tropics and research interest in region desirable. Salary range \$27,965 to \$39,514 plus benefits. Address letter of application, up-to-date résumé, official college transcripts and three letters of recommendation by 7 March 1988 to: **Dr. William P. MacLean, Vice President for Academic Affairs, University of the Virgin Islands, St. Thomas, VI 00802.**

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JPL/NASA VISITING SENIOR SCIENTIST SPACE BIOMEDICAL RESEARCH MUSCULOSKELETAL EMPHASIS

The Jet Propulsion Laboratory invites applications to the Visiting Senior Scientist Program in the area of Space Biomedical Research. The position requires a Ph.D. or equivalent degree, along with research experience in the neurovestibular area, a record of research publications in the refereed literature, and strong communication skills. Although any qualified person may apply, tenured faculty members with experience in NASA's Biomedical Research Program in the area of neurovestibular physiology are the preferred choice. Responsibilities include aiding in the planning and implementation of the Biomedical Research Program within the Life Sciences Division at NASA Headquarters. Duties include extensive contacts with the research community, conducting peer reviews of research proposals, recommending selection of investigations as well as assisting in the maintenance of a balanced and productive program within budgetary resources. The appointee is expected to work closely with managers at several NASA centers, and to advise potential investigators from the university community how their plans relate to the NASA Biomedical Program. Frequent travel and residence near NASA Headquarters (in the Washington, D.C. area) will be required. Appointees must be U.S. citizens or permanent residents, and are expected to return to their home institution following their NASA assignment. Please provide curriculum vitae, bibliography and the names of four references to:

**Dr. Harry Ashkenas, 180-900
Department U33
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, GA 91109
Telephone: 818-354-8251**

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FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP IN LEUKOCYTE BIOLOGY

Position now available for a postdoctoral research candidate in the Section of Leukocyte Biology, Departments of Pediatrics and Cell Biology, Baylor College of Medicine, Houston, Texas. Competitive salary, flexible starting date and 2 to 3 years of support guaranteed. Previous experience in tissue culture and/or hybridoma methods preferred. Investigative program will generally focus on assessments of the molecular determinants of cellular adherence reactions with some applications to genetic or acquired clinical pathologic inflammatory states. Address inquiries to: **Donald C. Anderson, M.D., Leukocyte Biology Laboratory, 8080 North Stadium Drive, Suite 2100, Houston, TX 77054. Telephone: 713-794-2521.**

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11 to 24 July
Molecular Probes of the Nervous System
19 July to 8 August
Molecular Biology of the Nervous System
26 July to 8 August
Molecular Cloning of Neural Genes
10 to 30 August
For further information write:

**Registrar
Cold Spring Harbor Laboratory
Cold Spring Harbor, NY 11724
Telephone: 516-367-8343**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP—Molecular and cellular biology of childhood neoplasms. A postdoctoral position is available immediately for a Ph.D. and/or M.D. to investigate the role of oncogenes in pediatric solid tumors. Prior experience in molecular and/or cellular biology, gene transfer technology, or in situ hybridization would be helpful, but is not essential. Please send inquiries to: **Perry Nisen, M.D., Ph.D., Division of Hematology Oncology, Schneider Children's Hospital of Long Island Jewish Medical Center, New Hyde Park, NY 11042. An Equal Opportunity Employer.**

THE ARNOLD ARBORETUM OF HARVARD UNIVERSITY THE KATHARINE H. PUTNAM FELLOWSHIPS IN TREE SCIENCE

Applications are invited from established scholars seeking sabbatical opportunities or from young scientists, who wish to pursue research which would substantially benefit from access to the living woody plant collections of the Arnold Arboretum, and their supporting herbaria and libraries. Fellowships are tenable for up to 1 year. Fields of research can include theoretical and applied botany, horticulture, forestry, landscape architecture and relevant social sciences. Appointees must be willing to teach a course in the University. The fellowship will provide a salary plus fringe benefits according to Harvard University norms. Travel costs to Boston will be reimbursed.

Applications for 1988 to 1989 should be forwarded to: **Peter S. Ashton, The Arnold Arboretum of Harvard University, 22 Divinity Avenue, Cambridge, MA 02138, by 29 February 1988.**

BUGHER FOUNDATION— AMERICAN HEART ASSOCIATION FELLOWSHIPS IN CARDIOLOGY AND MOLECULAR BIOLOGY

The Bugher Foundation and the American Heart Association have recently established a Center for Research on the Molecular Biology of the Cardiovascular System at the University of Texas Southwestern Medical Center at Dallas. A number of fellowships are available to people interested in establishing a career in basic cardiovascular research. Successful candidates will work for 2 or 3 years in laboratories at the Southwestern Medical Center that are using the techniques of molecular biology to study the cardiovascular system in health and disease. Selected candidates will also be given the opportunity to extend their clinical training in cardiology. Applicants holding recently awarded M.D. or M.D./Ph.D. degrees should send copies of their curriculum vitae, and two letters of reference from their mentors to:

**Dr. J. Sambrook, Chairman
Biochemistry Department
University of Texas Southwestern Medical Center
at Dallas
5323 Harry Hines Boulevard
Dallas, TX 75235-9038**

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FELLOWSHIPS

INTERNATIONAL CANCER RESEARCH FELLOWSHIP

The Hayashibara Mutual Aid Fund, a non-profit-making organization within the Hayashibara Group announces a fellowship program. Two awards will be made annually. Fellowship will be taken up at the newly opened Fujisaki Cell Center which is devoted to basic and applied research related to problems in human cancer. The fellowship is normally made for 1 year and is renewable for up to 5 years. The fellowship will be expected to commence within 6 months of the announcement of the awards. The awards are for high quality research work in one of the three categories described below.

- 1) Fundamental Leukemia-Lymphoma Research,
- 2) Cytokine-Lymphokine Research,
- 3) Hematopoietic Cell Cultures.

Qualified person who has a Ph.D., an M.D. or equivalent qualifications will be awarded on merit to suitably qualified research proposal and experiences. Additional information and application forms will be obtained from **Jun Minowada, M.D., Director, Fujisaki Cell Center, 675-1, Fujisaki, Okayama 702, Japan.**

POSTDOCTORAL FELLOWSHIP positions available—The University of Michigan, Department of Pathology. Postdoctoral fellowship positions are available in spring 1988 to study the general area of the immunopathologic mechanisms of pulmonary disease. Applicants need to have a professional degree (M.D., Ph.D., D.M.D.) and some background in immunology is desirable. Send curriculum vitae and names of three references to: **Kent J. Johnson, M.D., Department of Pathology, University of Michigan Medical School, 1301 Catherine Road, Ann Arbor, MI 48109-0602. The University of Michigan is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOWSHIP—COASTAL MARINE SCHOLAR: The Marine Sciences Research Center is seeking a recent Ph.D. for a postdoctoral research position in any aspect of marine science, coastal zone management, or related disciplines. Twenty-one months of stipend will be provided (\$23,000 for 12 months). Scholars are encouraged to pursue their own research interests and to contact potential faculty sponsors regarding supplementary support. Preference will be given to candidates whose interests overlap with those of the faculty. All requirements for Ph.D. must be completed by time of appointment. Submit résumé, detailed statement of research interests and three letters of recommendation by 31 March 1988 to: **Dr. R. M. Cerrato, Marine Sciences Research Center, SUNY Stony Brook, Stony Brook, NY 11794-5000. SUNY Stony Brook is an Affirmative Action/Equal Opportunity Employer and Educator. AK# 322-A.**

POSTDOCTORAL FELLOWSHIP IN EVENT-RELATED POTENTIAL TOPOGRAPHIC MAPPING, Harvard Medical School. Two-year position, open February 1988, for experimental or clinical psychologist or physiologist to work with **Dr. Robert McCarley** and a team of researchers in the study of P300, other ERPs, and sustained attention in schizophrenics and normals. Experience with EEG recording techniques essential, background in cognition useful. Research potential more important than clinical experience. NIMH stipend levels. Send curriculum vitae, names of three references, and relevant reprints to: **Karen D'Amato, Box S, Clinical Research Training Program, 74 Fenwood Road, Boston, MA 02115. Telephone: 617-734-0031.**

POSTDOCTORAL FELLOWSHIPS IN CHEMISTRY OR BIOLOGY OF POLYPEPTIDE HORMONES (2 OR 3 YEARS), BEGINNING JULY 1988

Opportunities for Ph.D.'s in interdisciplinary group, studying polypeptides of pituitary or other tissues, using HPLC, gas phase microsequencing, peptide synthesis, GC/mass spectrometry, RIA/EIA, bioassay, etc., to isolate, identify, synthesize, and characterize function of unknown pituitary (or other) peptides. Stipend: \$32,000 plus relocation expenses. Send curriculum vitae and three references to:

**Dr. A. F. Parlow
Harbor-UCLA Medical Center
1000 West Carson Street
Torrance, CA 90509**

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