

and Voyager have greatly increased our understanding of the outer solar system, there are many questions still unanswered and a host of scientists independently searching for answers.

The book is best described as a topical review. The breadth of the topic has forced the author to limit associated reference citations to the areas of planetary photochemistry and, to a lesser extent, atmospheric thermodynamics. The sections on the photochemistry of Jupiter, Io, and Titan are particularly interesting and fairly complete. Radiative transfer and occultation measurement techniques are also discussed. Less satisfying and complete are the treatment of particle impact processes and discussions of the energetics of the thermospheres of the outer planets. One particular shortcoming is the lack of discussion of the Voyager infrared data analysis in the context of outer planet cloud physics.

The material in the book is reasonably up to date and includes preliminary results of the recent Voyager-Uranus encounter. The book contains some personal conjectures, for instance in the discussions of electrogrow, the Saturn thermal structure, and the upper atmospheric heating at Jupiter from charged particle impact, without sufficient caveat to the reader who is new to the field. This detracts little from the strength of the book, which is in its excellent review of photochemical processes at the outer planets. The book serves as a readable introduction to this area of research for both trained atmospheric scientists and graduate students. It is not particularly useful as a graduate textbook, however, because of its rather terse treatment of the basic chemistry and physics of planetary atmospheres. It provides a fascinating look at the chemical systems of the outer planets with an eye to where it all began. Anyone interested in the evolution of our solar system will want to read it.

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Books Received

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Beyond the Quantum. Michael Talbot. Macmillan, New York, 1986. xvi, 240 pp., illus. \$18.95.

Biochemistry of Sulfur. Ryan J. Huxtable with a contribution by W. Mark Lafronconi. Plenum, New York, 1986. xiv, 445 pp., illus. \$52.50. Biochemistry of the Elements, vol. 6.

Chemical Carcinogens. Some Guidelines for Handling and Disposal in the Laboratory. M. Castegnaro and

E. B. Sansone. Springer-Verlag, New York, 1986. x, 97 pp., illus. Paper, \$15.

Chemical Mediators of Inflammation and Immunity. Stanley Cohen *et al.*, Eds. Academic Press, Orlando, FL, 1986. x, 353 pp., illus. \$39.95. Based on a symposium, Hamamatsu, Japan, Aug. 1983.

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DNA Tumor Viruses. Control of Gene Expression and Replication. Michael Botchan, Terri Grodzicker, and Phillip A. Sharp, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 1986. xx, 620 pp., illus. Paper, \$75. Cancer Cells, 4. Based on a meeting, Cold Spring Harbor, NY, Sept. 1985.

Dopaminergic Systems and Their Regulation. G. N. Woodruff, J. A. Poat, and P. J. Roberts, Eds. VCH, New York, 1986. xvi, 501 pp., illus. \$119.50. Satellite Symposia of the IUPHAR 9th International Congress of Pharmacology (Southampton, U.K., Aug. 1984).

The Encyclopedia of Climatology. John E. Oliver and Rhodes W. Fairbridge, Eds. Van Nostrand Reinhold, New York, 1986. xviii, 986 pp., illus. \$89.95. Encyclopedia of Earth Sciences Series, vol. 11.

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Primate Ecology and Conservation. James G. Else and Phyllis C. Lee, Eds. Cambridge University Press, (Continued on page 732)

Products & Materials

Large Capacity Vial Crusher

The Mark 4M Maxi bottle crusher can crush and empty 40,000 to 60,000 large scintillation vials per hour. Liquid from the vials empties through a spout on the side. The stainless steel machine mounts on a wall. The unit's mechanically simple construction and operation generates few aerosols and minimizes hazards of electric motors and dangerous liquids, yet the Mark 4M Maxi is faster and safer than manual emptying of bottles. Balcan Engineering. Circle 585.

Ultrasonic Cleaners

The Ultrasonic Benchtop Cleaners have digital timers and temperature monitors that can be calibrated. They can gently clean fingerprints, rust, protein, serum, oil, ink, agar, and other particulates from pipette ends, cuvettes, test tubes, metal parts, bone or mineral samples, and other hard-to-clean objects. Cleaning cycles from 0 to 99 minutes are possible. The cleaners come in 0.5-, 0.75-, 1.5-, and 5.5-gallon sizes (1.89, 2.84, 5.68, and 20.8 liters, respectively). Markson Science. Circle 589.

Scanning Acoustic Microscope

The UH-3 uses sound waves to observe and measure previously inaccessible subsurface and details of opaque materials. A variety of penetration depths and resolutions are provided by lenses that focus sound waves between 30 MHz and 1 GHz. Sound waves are reflected back from the specimen through the lens and electronically converted to a digital signal, which is stored until the full scan is completed. The full field image may then be displayed on a television screen. The *x-y* stage and autofocus are completely motorized and computer operated. The stage can support specimens as heavy as 50 kg. Olympus, Precision Instrument Division. Circle 612.

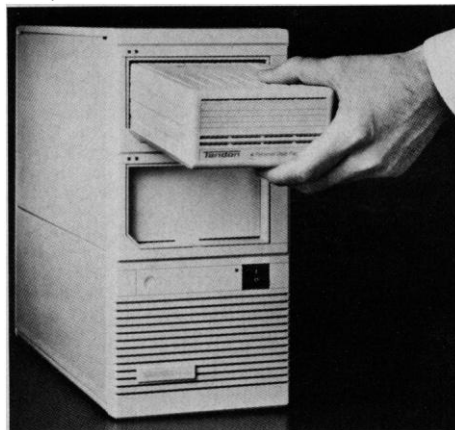
Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement 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.

File and Directory Utility

DirectoryWindow is a memory-resident utility that may be popped up without covering or interfering with the current screen display or program. The utility allows users to scroll through directories; sort directories by date, size, or alphabet; compare two directories side by side; rename files by typing over the file name; delete files; and print directories. DirectoryWindow operates on computers with MS DOS or PC DOS 2.0 or later. MicroMath. Circle 600.

Portable 30-Mb Hard Disk

The Personal Data Pac is a 30-megabyte hard disk in the form of a cartridge. It can be inserted into receptacles in the Tandon PAC 286 computer or used with an IBM PC or compatible computer with the addition of a hardware subsystem. The Data Pac's portability allows the user to work at other



computers in the office or at home, mail large quantities of data, share data with colleagues, or have complete file security simply by removing the disk. A complete backup onto another Personal Data Pac takes less than 3 minutes. The hard disk weighs 1.18 kg. In addition to a steel frame and four shock absorbers to protect the drive, the Data Pac also has a caging and locking mechanism for the heads. Tandon. Circle 608.

Superparamagnetic Polymer Particles

DYNABEADS are superparamagnetic, monodispersed, polymer particles with a uniform magnetic core. They may be coated with specific monoclonal antibodies that then react with specific cells or subcellular particles. These cells can then be separated quickly and easily with a magnetic concentrator. A smooth hydrophilic surface allows antibody binding by physical adsorption,

and the surface hydroxyl groups couple covalently and chemically with the antibodies. The beads may be stored, frozen, or freeze-dried for several months without losing their binding capacity. DYNAL. Circle 609.

Slides, Prints from Computer Screens

PalettePlus Computer Image Recorder produces high-resolution prints, slides, and overhead transparencies from IBM PC-compatible computers with Enhanced Graphics Adapter (EGA) boards. In conjunction with a graphics software package containing a PalettePlus driver, the recorder can produce 640- by 700-pixel resolution hard copy. The PalettePlus recorder senses and compensates for variations in the incoming video signal, eliminating the need for manual adjustments during setup. The user may increase or decrease the image size by as much as 4%. The Recorder comes with software, film-backs for both Polaroid and 35-mm cameras, a slide processor, an illuminated slide mounter, cables, and a user's manual. Polaroid. Circle 606.

Monoclonal Antibodies to Rats

MRC OX-33 is a monoclonal antibody (MAb) directed against a form of the rat leukocyte-common antigen that is present only on B lymphocytes. It labels B cells among thoracic duct lymphocytes with little labeling in bone marrow and none on thymocytes. Another MAb to rats, MRC OX-52, recognizes a cell surface structure with two chains of molecular weight 95,000 and 120,000 present on rat T lymphocytes and thymocytes. It does not label B lymphocytes, granulocytes, or macrophages, although it faintly labels dendritic cells. Sero-tec. Circle 602.

Literature

Biological Research Reagents is a catalog describing interferons, monoclonal antibodies, and polyclonal antibodies and their preparation, action, and applications. Interferon Sciences. Circle 615.

FPLC Biocommuniqué is a newsletter of high-pressure liquid chromatography applications, reference lists, symposia reviews, and new products. Pharmacia, Biotechnology Group. Circle 616.

High Efficiency Filtration is a chart that aids in selection of membrane and glass fiber filters. Chemtrix. Circle 620.

(Continued from page 730)

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Primate Evolution. James G. Else and Phyllis C. Lee, Eds. Cambridge University Press, New York, 1986. xviii, 333 pp., illus. \$59.50; paper, \$19.95. Selected Proceedings of the 10th Congress of the International Primatological Society (Nairobi, Kenya, July 1984), vol. 1.

Primate Ontogeny, Cognition and Social Behaviour. James G. Else and Phyllis C. Lee, Eds. Cambridge University Press, New York, 1986. xiv, 410 pp., illus. \$59.50; paper, \$19.95. Selected Proceedings of the 10th Congress of the International Primatological Society (Nairobi, Kenya, July 1984), vol. 3.

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A Primer on Determinism. John Earman. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). xiv, 273 pp., illus. \$64. University of Western Ontario Series in Philosophy of Science, vol. 32.

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Principles of Electrochemical Engineering. Extended Version of a DECHEMA Experimental Course. Ewald Heitz and Gerhard Kreysa. VCH, New York, 1986. xiv, 294 pp., illus. Paper, \$40.

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This World of Man. Pekka Kuusi. Pergamon, New York, 1985. xii, 283 pp., illus. \$34; paper, \$10.50. Translated from the Finnish edition (1982).

Time Frames. The Rethinking of Darwinian Evolution and the Theory of Punctuated Equilibria. Niles Eldredge. Simon and Schuster, New York, 1986. 240 pp., illus. Paper, \$8.95. A Touchstone Book.

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Cellular/Molecular Biologist, Ph.D., 1987. Research interest, immunology: molecular aspects of cell proliferation and differentiation, growth factor gene expression. Experience in: mitogenesis, lymphokine production, protein biochemistry, ELISA, immunoprecipitation, RNA/DNA, plasmid isolation, cDNA cloning, Western, Northern dot-blot, in situ hybridization, hybridoma, immunohistochemistry, histology, TEM, SEM. Seeks postdoctoral/research associate position, available summer 1987. Box 67, SCIENCE.

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5/8

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I need a year in space-related biomedical research to help me choose Ph.D. subject for anticipated M.D.-Ph.D. program. Background includes B.S. (honors, cell-molecular biology, University of Michigan, 1987); NASA Space Life Sciences Training Program, 1986; summer (etc.) biomedical research since 1980; many laboratory techniques plus computers, Russian, German, Spanish. Joseph Saul, 525 Walnut, Apt. 10, Ann Arbor, MI 48104. Telephone: 313-995-1477. X

POSITIONS OPEN

BUFFALO, ACADEMIC RESEARCH PSYCHIATRISTS—DEPARTMENT OF PSYCHIATRY, STATE UNIVERSITY OF NEW YORK (SUNY) AT BUFFALO. Faculty positions recently became available at assistant, associate, and full professor ranks. Seeking academic psychiatrists with strong research commitment. Major areas of interest of Department are basic and clinical research in schizophrenia, affective disorders, anxiety disorders, and geriatric psychiatry. These positions may carry little or no administrative or clinical responsibilities. The Department has excellent clinical resources with accessibility to a wide variety of patients for research projects. There is a generous University Practice Plan for supplementation of income. Base salary highly competitive. Inquiries and résumé to: **Marvin I. Herz, M.D., Professor and Chairman, Department of Psychiatry, SUNY at Buffalo, School of Medicine, 462 Grider Street, Buffalo, NY 14215. Telephone: 716-898-3251. An Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR. The Department of Plant Pathology and Crop Physiology, Louisiana State University, is seeking applicants for a tenure-track position in the area of plant virology. Excellent opportunities exist for collaboration with mycologists, plant pathologists, biochemists, and molecular biologists. Graduate advising and teaching are expected. A Ph.D. degree in plant pathology or related discipline with demonstrated expertise in plant virology is required. Please submit curriculum vitae, transcripts, recent reprints, a brief (two page) statement concerning research and teaching interests, and three letters of recommendation to: **Dr. J. P. Snow, Chairman of Search Committee, Department of Plant Pathology and Crop Physiology, 302 Life Sciences Building, Louisiana State University, Baton Rouge, LA 70803.** Deadline for applications is 1 September 1987 or until a suitable applicant is identified. *Louisiana Agricultural Experiment Station and Louisiana State University are Equal Opportunity/Affirmative Action Employers.*

ASSISTANT PROFESSOR OF NEUROLOGY (NEUROSCIENCE). Position available for Ph.D. developmental neurobiologist with prior experience with analysis of neuronal plasticity and neuro-glial interactions. Training in immunocytochemistry (mAbs) and tissue culture is essential. Incumbent will join a research group studying axonal diseases, so that prior experience with mammalian CNS/PNS would be helpful. Send curriculum vitae and names of three references by 15 June 1987 to: **Stephen G. Waxman, M.D., Ph.D., Chairman, Department of Neurology, Yale School of Medicine, New Haven, CT 06510. Equal Opportunity/Affirmative Action Employer.**

ASSISTANT/ASSOCIATE PROFESSOR, tenure track, Department of Plant Sciences, to participate in development of plant tissue culture research facility. Record of achievement in general area of plant cell and tissue culture including biochemical, developmental, molecular, pathological, and/or physiological aspects for solving agricultural problems. Initiate well-funded research program. Undergraduate and graduate teaching. Personality attributes for interaction with faculty and academic professionals in other departments essential. Send curriculum vitae, transcripts, statement of research interests, and three letters of reference to: **Dr. B. Brooks Taylor, Department of Plant Sciences, University of Arizona, Tucson, AZ 85721.** Application deadline: 1 July 1987. *Equal Opportunity/Affirmative Action.*

POSITIONS OPEN

ASSISTANT PROFESSOR—VIROLOGY, 12-month tenure-track position with 80 percent research and 20 percent teaching in the Department of Plant Pathology at North Carolina State University. The appointee is expected to develop a strong research program in molecular plant virology and teach an advanced graduate level course in virology. Candidate should have a Ph.D. in plant pathology or closely related area with postdoctoral experience in the molecular biology of plant viruses. Salary is commensurate with qualifications. Applications will be received until 1 September 1987 or until a suitable candidate is identified. Forward complete résumé, including transcripts, list of publications, and three letters of recommendation to: **Dr. W. L. Klarman, Head, Department of Plant Pathology, Box 7616, North Carolina State University, Raleigh, NC 27695-7616. Equal Opportunity/Affirmative Action Employer.**

MEMORIAL UNIVERSITY OF NEWFOUNDLAND ASSISTANT/ASSOCIATE PROFESSOR OF FOOD SCIENCE

The Department of Biochemistry, Memorial University of Newfoundland, invites applications for a tenure-track position at the assistant or associate professor level in its Food Science Program. Candidates should have a Ph.D. in food science, food engineering or a related area. Teaching responsibilities include courses in the principles of food science, food processing and preservation, and advising graduate students. The candidate will be expected to develop an externally funded research program. A research interest in product and process development would be an asset. The program has a strong emphasis on seafood processing. Industrial or academic experience or both would be an asset. Send curriculum vitae and the names of three referees to: **Dr. K. M. W. Keough, Head, Department of Biochemistry, Memorial University of Newfoundland, St. John's, Newfoundland, A1B 3X9.** Deadline for applications is 15 June 1987. *In accordance with Canadian immigration requirements, consideration, in the first instance, will be given to Canadian citizens and permanent residents of Canada. Others are encouraged to apply and will be considered.*

ASSISTANT/ASSOCIATE PROFESSOR—INSECT CHEMICAL ECOLOGY (tenure track). Department of 18 with Ph.D. program seeks colleague to develop strong research program and coursework in the areas of insect chemical ecology, physiology, and behavior. Appointment effective January 1988. Send curriculum vitae, a statement of research and teaching interests, and the names, addresses, and telephone numbers of three referees by 15 June 1987 to: **R. Dimock, Chair, Department of Biology, Wake Forest University, Winston-Salem, NC 27109. Equal Opportunity/Affirmative Action.**

TWO ASSISTANT PROFESSORS OF MICROBIOLOGY AND IMMUNOLOGY MEDICAL COLLEGE OF VIRGINIA (MCV)/ VIRGINIA COMMONWEALTH UNIVERSITY

Applications are invited for highly qualified individuals for two full-time, tenure-track positions.

IMMUNOLOGIST—Individuals with expertise in molecular or cellular immunology, immunogenetics, or immunochemistry are encouraged to apply.

PROKARYOTIC OR EUKARYOTIC MICROBIOLOGIST—Individuals with expertise in host-parasite interactions, pathogenesis, membrane biology, or microbial developmental systems are encouraged to apply.

All applicants must have a Ph.D. or equivalent degree and have at least 2 years of productive postdoctoral research experience. Successful applicants for these positions will be expected to develop and maintain strong, grant-supported independent research programs and participate in the training of graduate students and postdoctorals. Teaching in graduate and professional level courses is required. Applicants must indicate the position for which they are applying, and include curriculum vitae, a statement of research interests, and the names of three references. Search will close 15 July 1987. Submit applications to: **Dr. Francis L. Macrina, Department of Microbiology and Immunology, Box 678 MCV Station, Virginia Commonwealth University, Richmond, VA 23298-0001. An Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.**

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR FOOD SCIENCE AND TECHNOLOGY

Tenure-track full-time position for individual to do research and teaching program in food microbiology with emphasis on fermentation/microbial physiology. Will have opportunity to work in Food Process Center.

Must have earned doctorate in food science, microbiology, biochemistry, or related area. Aptitude and interest in directing research; training or experience in fermentation/dairy technology and industrial experimentation desirable. Rank and salary commensurate with education and experience.

Apply by 1 July 1987 with résumé, transcripts, names of three references to:

**Dr. Glenn W. Froning, Interim Head
Department of Food Science and Technology
134 Filley Hall
University of Nebraska-Lincoln
Lincoln, NE 68583-0919
*Affirmative Action/Equal Opportunity Employer***

ASSOCIATE PROVOST FOR RESEARCH UNIVERSITY OF MIAMI, CORAL GABLES FLORIDA

The University of Miami solicits applications for position of Associate Provost for Research. The Associate Provost for Research has responsibility for all research programs at the University, including School of Medicine, and the Rosenstiel School Marine and Atmospheric Science. In addition, the Associate Provost for Research should be an individual who can foster interactions of the University with the state and federal government and with private industry in research areas. Applicants should have a background in science or engineering, and individuals with experience in the interface between university and industry and government will receive preference.

Interested individuals should submit a complete curriculum vitae, as well as the names of three individuals who can be contacted for references, no later than September 1987 to: **Dr. Luis Glaser, Executive President and Provost, University of Miami, Box 248033, Coral Gables, FL 33124.**

The University of Miami is an Equal Opportunity Employer.

ASSOCIATE RESEARCH SCIENTIST: Postdoctoral position immediately available for individual to work in the laboratory of Dr. Peter Elsbach. Candidate should have solid training and proven experience with recombinant DNA technology and should wish to develop a productive program concerned with the molecular biology of a potent membrane-perturbing bactericidal protein purified from neutrophils, that is specific for Gram-negative bacteria. Excellent salary and benefits. Interested candidates are requested to send résumé, publications, and names of two references to: **Joan Harmon, Personnel Department, New York University Medical Center, 317 East 34 Street, 7th Floor, New York, NY 10016. An Affirmative Action/Equal Opportunity Employer M/F.**

BIOCHEMIST—MOLECULAR ENDOCRINOLOGIST: Research assistant professor, research associate and postdoctoral research positions available for individuals related to biochemistry of reproduction. Emphasis on mechanism of hormone action, receptor purification, chemistry, hormone binding inhibitors, and related problem areas. Ph.D. in biochemistry preferred. Postdoctoral (NIH) training grant positions in reproductive endocrinology also available. Please forward curriculum vitae, general statement of research experience/interests, and names of three references to:

**Dr. Leo E. Reichert, Jr.
Professor and Chairman
Department of Biochemistry
Albany Medical College of Union University
Albany, NY 12208**

Albany Medical College is an Equal Opportunity Employer.

CLINICAL RESEARCH ASSOCIATE

M.S./Ph.D., with background in biopharmaceuticals and preferably experience with generic drugs, to monitor clinical trials. Growing midwestern pharmaceutical company. Salary commensurate with background and experience. **Box 65, SCIENCE.**

POSITIONS OPEN

CARDIOVASCULAR PHYSIOLOGIST: ASSISTANT PROFESSOR. The Department of Physiology at Jefferson Medical College, Philadelphia, Pennsylvania, seeks a full-time, tenure-track 12-month faculty position for a cardiovascular physiologist at the assistant professor level starting 1 September 1987. Excellent space and working conditions are available. Candidates should have a Ph.D. or M.D. degree and 2 to 3 years of relevant postdoctoral experience. Investigators in cardiac metabolism, immunology of the circulatory system, lipids in cardiovascular function, mediator function in cardiovascular disorders, or some other area compatible with ischemia-shock research are preferred. Evidence of independent research and ability to develop grant applications is important. Applicants should send their curriculum vitae, including a statement of their research interests and experience, and arrange to have three letters of recommendation sent to: **Dr. Allan M. Lefer, Chairman, Department of Physiology, Jefferson Medical College, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107.**

An Equal Opportunity/Affirmative Action Employer.

CHAIRPERSON DEPARTMENT OF ANATOMY

The Medical College of Ohio invites applications and nominations for the position of chairperson of the Department of Anatomy. Candidates holding a Ph.D. or M.D. degree must be highly qualified individuals with nationally recognized credentials in neuroscience research. Applicants should also have an excellent record of research accomplishment in some aspect of neurobiology, academic administrative experience, and a commitment to teaching both medical and graduate students. The individual selected will be expected to provide leadership for an anticipated expansion of the department while maintaining a vigorous research program. The position offers an excellent opportunity to develop a leading academic department in the neurosciences area due to outstanding resources and scientific environment.

Send letters of interest, curriculum vitae, and names of at least three references to: **Dr. James H. Freisheim, Professor and Chairman, Department of Biochemistry, Medical College of Ohio, C.S. 10008, Toledo, OH 43699.** *An Equal Opportunity Employer.*

DIRECTOR CHRISTENSEN RESEARCH INSTITUTE MADANG, PAPUA NEW GUINEA

Applications invited for above position. Independently funded institute devoted to research in marine and terrestrial biology. Applicants should have Ph.D. in a relevant subject and experience in working in tropical Third World environments. Salary PNG Kina 17,000 and residential and travel leave benefits. Send curriculum vitae and names of two referees by 5 June 1987 to: **Dr. Frank Talbot, Executive Director, The California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118-9961.**

FACULTY POSITIONS IN PHARMACOLOGY

The Department of Pharmacology, University of Missouri-Columbia, invites applications for tenure-track faculty positions. Successful candidates for assistant professor must have a Ph.D. or M.D. degree with several years of postdoctoral experience. Candidates for associate or full professor positions must have a distinguished academic record and extramural funding. One of the positions (assistant professor) is jointly recruited by the Department of Pharmacology and the Dalton Research Center, for which candidates should have expertise in cellular and molecular approaches to peptide hormone receptor regulation. For the other positions, all areas relevant to pharmacology will be considered, with preference given to candidates with background in modern molecular biology or cellular pharmacology related to membrane transport processes. Candidates will be evaluated on the basis of research and teaching potential or skill. Successful candidates will be expected to direct a strong research program and participate in the teaching of medical and graduate students. Salary will be commensurate with experience. Please send a brief description of research plans, curriculum vitae, and the names of three references to: **Dr. Hyun Dju Kim, Professor and Chairman, Department of Pharmacology, University of Missouri-Columbia, School of Medicine, M-517B Medical Sciences Building, Columbia, MO 65212.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

CHAIRPERSON DEPARTMENT OF HUMAN ANATOMY

The School of Medicine, University of California, Davis, invites applications and nominations for the position of Chairperson of the Department of Human Anatomy. The department currently comprises ten tenure-track faculty, is housed in a modern laboratory building, offers graduate training in cell biology, anatomy and related disciplines, and is responsible for the teaching of gross, neuro- and microscopic anatomy and aspects of cell biology in the medical curriculum. Candidates must have a distinguished record of scholarship and professional achievement in the area of cell biology, as evidenced by publications and grant awards. They also must have leadership and administrative abilities and an interest in the departmental teaching mission. A commitment is required to building a strong, independent, extramurally funded research program in modern cell biology as well as to augmenting departmental research in this area; an opportunity to appoint a number of new faculty members is available. Applicants should submit a letter of application, curriculum vitae, a summary of research goals, and the names of five references to: **Dr. John W. B. Hershey, Search Committee Chairperson, Department of Biological Chemistry, School of Medicine, University of California, Davis, CA 95616.** Open until filled, but not later than 1 July 1988; applications should be received before 15 July 1987, to assure full consideration.

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

DIRECTOR OF THE UNIVERSITY OF IDAHO/ WASHINGTON STATE UNIVERSITY WAMI MEDICAL EDUCATION PROGRAM

Applications and/or nominations are sought for the Director, Regionalized Medical School Program (WAMI) at the University of Idaho and Washington State University, who is also assistant dean of the University of Washington School of Medicine.

Position descriptions are available on requests made to the address below. Search and selection procedures will be closed when a sufficient number of qualified applicants has been identified, but not earlier than 1 July 1987. To apply, please submit a letter of application, résumé, and four original letters of reference to:

**Dean Galen O. Rowe, Chair
WAMI Search Committee
College of Letters and Science
University of Idaho
Moscow, ID 83843**

Beginning date of employment, 1 September 1987, or as soon thereafter as possible.

The University of Idaho is an Equal Opportunity/Affirmative Action Employer and Educational Institution.

The recently established Environmental Health Institute (EHI) seeks an **EPIDEMIOLOGIST/BIO-STATISTICIAN** at the associate or senior associate level. The EHI is an independent grant/contract-funded think tank devoted to the scientific review of the biological and clinical effects of environmental agents. Applicants should have M.D. or Ph.D. and a minimum of 1 to 3 years of postdoctoral experience in environmental health research. Faculty appointment at University of Massachusetts possible. Position available summer 1987. Curriculum vitae to **Dr. Arthur Bloom, Environmental Health Institute, 725 North Street, Pittsfield, MA 01201.** *An Equal Opportunity Employer.*

FIELD DIRECTOR—AUSTRALIA TROPICAL RAINFOREST BIODIVERSITY AND RESOURCE MANAGEMENT THE SCHOOL FOR FIELD STUDIES

Will have direct responsibility for all phases of year-round undergraduate program in ecology, ethology, and natural resource conservation in northern Queensland, overseeing 3 to 4 faculty and approximately 80 students per year. Requirements: Ph.D., demonstrated administrative/management abilities, Australian experience with preferred college level teaching/research in resource management, applied ecology; 9.5 months spent at site, 1.5 in Beverly, Massachusetts. Salary: \$24,000, plus travel/living expenses. Résumés to: **SFS, 376 Hale Street, Beverly, MA 01915** *Equal Opportunity Employer.*

POSITIONS OPEN

DREXEL UNIVERSITY ENDOWED CHAIR ECOLOGY, ENVIRONMENTAL SCIENCE

Nominations and applications are sought for an outstanding scientist to occupy an endowed chair in the College of Science named in honor of L. Drew Betz, Drexel alumnus and founder of Betz Laboratories, Inc. We seek an individual who will provide a focus of excellence for outstanding research, instruction, and interaction with students in areas related to ecology and the environment. Interests of the occupant of the Chair should complement ongoing and expanding programs in the Department (which include biochemistry, microbial ecology, and molecular biology) and those in the University's Institute for Environmental Engineering and Science. Appointment will be at the full professor level and includes funds for support of research. Initial screening for the position will begin 25 May 1987 and continue until a suitable candidate is found. Submit nominations, inquiries, curriculum vitae, statement of interests, and names of at least three references to:

**Dr. Wayne E. Magee, Head
Departments of Bioscience
and Biotechnology**

**118 Stratton Hall, Drexel University
Philadelphia, PA 19104**

Drexel University is an Equal Opportunity/Affirmative Action Institution and invites applications from women and minorities.

FACULTY POSITION: The Marine Sciences Research Center (MSRC), State University of New York (SUNY) at Stony Brook, seeks an assistant professor of shellfish biology with a strong interest in molluscan or crustacean fisheries. This is a tenure-track position, with an initial 3-year appointment at a starting salary of \$27,000 to \$30,000 for the academic year. This may be supplemented by up to 28 percent of the academic year salary for summer salary through the individual's own grants and contracts. This position will be available 1 September 1987. Candidates for this position should hold a Ph.D. in fisheries biology or a closely related field and have experience in addressing problems of marine invertebrate fisheries in one of the following areas: management, ecology, physiology, and population dynamics. The MSRC is the center for research, graduate education, and public service in the marine sciences for the State University of New York system. The MSRC is a comprehensive coastal oceanographic institution. Applicants should send a complete résumé and three letters of reference by 30 June 1987 to: **Chairman, Shellfisheries Search, Marine Sciences Research Center, SUNY Stony Brook, Stony Brook, NY 11794-5000.** *SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer.*

MEMORIAL UNIVERSITY OF NEWFOUNDLAND DEPARTMENT OF BIOCHEMISTRY FACULTY POSITION IN NUTRITION

Requirements: Ph.D. degree with background in either clinical nutrition (therapeutic human nutrition) or institutional management. Candidates must be eligible for or have membership in the Canadian Dietetic Association. The candidate should have postdoctoral training and teaching experience and be able to conduct independent research. Appointment at the assistant or associate professor level is expected. The Department offers undergraduate and postgraduate degrees in biochemistry, nutrition, dietetics and food science.

In accordance with Canadian Immigration policy, consideration, in the first instance, will be given to Canadian citizens and permanent residents of Canada. Others are encouraged to apply and will be considered.

Application, including the names of at least three references, should be sent to **Dr. K.M.W. Keough, Professor and Head, Department of Biochemistry, Memorial University of Newfoundland, St. John's, Newfoundland, Canada, A1B 3X9,** from whom further information can be obtained.

BIOCHEMIST

Dentsply International, a major international health care manufacturer, has expanded its operations with a new division engaged in progressive product research and development.

An excellent opportunity exists for a biochemist who will work with dental and medically oriented collaborators to devise suitable electromechanical diagnostic and treatment devices to be applied in-vitro and in-vivo studies. Candidate will be responsible for accomplishment of product development tasks on a strict time schedule and work with other Dentsply groups with the supplementary skills and equipment necessary to accomplish these tasks.

The ideal candidate will have:

- A MS or PhD in Biochemistry
- 2-5 years experience in an industrial or university research/development setting
- Understanding of Pharmacology and methodology in formulating and testing chemical pharmaceutical products in-vitro.
- Training in enzyme reactions, substrate specificity (preferably including synthetic substrate applications) desirably including experience in their practical application in diagnosis
- Understanding of monoclonal antibodies and their use in diagnostic procedures including immunofluorescence and enzyme linked assays.

Salary commensurate with experience and excellent fringe benefits package including Employee Stock Ownership Plan.

Direct your resume with salary requirements in confidence to:

Corporate Human Resources
Dentsply International
570 West College Avenue
P.O. Box 872
York, Pennsylvania 17405

An Equal Opportunity Employer

DO YOU THINK DNA SEQUENCING IS AN ART?

Do you appreciate the visual delight of a well resolved sequencing ladder and the power of the clear information obtained? We at **Amgen** do, and we appreciate even more the vital role our **Research Associates** in DNA Sequencing play in our pioneering work in Biotechnology. Without their support we would not be the industry leader in recombinant DNA technology we are today.

We're looking for more Research Associates to help us produce even more breakthroughs in the human pharmaceutical, human diagnostic, animal health care and specialty chemical areas. If you possess a B.S. or M.S. in Biochemistry, Molecular Biology or a related discipline, 1-2 years of experience in DNA sequencing, and want the kind of career opportunity, visibility and responsibility that only a rapidly growing company like Amgen can offer, we'd like to hear from you.

We offer an excellent compensation and benefits package, a spacious country setting in the scenic Conejo Valley (about an hour's drive northwest of Los Angeles), and a stimulating scientific environment. Submit your resume, in confidence, to:

Recruitment, Dept. #96
AMGEN
1900 Oak Terrace Lane
Thousand Oaks
CA 91320

Equal Opportunity Employer



ANALGESICS

This is an unusual opportunity for an ambitious Ph.D. LEVEL ANALGESIC PHARMACOLOGIST to be part of a high energy level drug discovery team. A strong background in CNS Pharmacology is a plus.

Our team employs the very latest in computer assisted drug design technology, by utilizing the Computer Automated Structure Evaluation (CASE) program. We are looking for a pharmacologist who will work closely with our theoretical and synthetic chemists, using artificial intelligence techniques to identify new chemical entities. A strong knowledge of the existing literature as well as familiarity with computer assisted design is an asset.

We offer a competitive salary with the opportunity for substantial growth. We are located in Northeastern Pennsylvania near the beautiful Pocono Mountains.

Send resume and salary requirements to:

BIOFOR, INC.
P.O. Box 577
Waverly, PA 18471

Research Associates

California Biotechnology Inc., a rapidly growing biotechnology company engaged in the development of human therapeutics has the following opportunities at the Research Associate level.

DNA Sequencing Laboratory

This individual will work in close association with a wide range of research projects performing DNA sequence analysis in the DNA Sequencing Laboratory. Candidates must have BS/MS degrees in a scientific discipline and experience in general techniques in molecular biology. (Job Code MF-JM)

Oligonucleotide Synthesis Facility

The qualified candidate will work with a group that is responsible for the synthesis and purification of oligonucleotides, troubleshooting and general maintenance of automated DNA synthesizers and Maxam-Gilbert sequence analysis of synthetic oligonucleotides.

We require a BS or MS in an appropriate scientific discipline and prefer a minimum of one year experience involving oligonucleotide synthesis and PAGE purification. (Job Code MF-JI)

We offer a stimulating research environment with a competitive compensation and benefits package. For consideration please forward curriculum vitae, names of three references and indicate Job Code corresponding with position of interest to: Human Resources, California Biotechnology Inc., 2450 Bayshore Parkway, Mountain View, CA 94043. An equal opportunity employer.

CAL  BIO

BIOTECHNOLOGY RESEARCH OPPORTUNITIES

**A Stimulating Environment
For Inquiring Minds!**

CYTOGEN Corporation is a rapidly expanding Princeton-based biotechnology research and development group noted for its sophisticated scientific environment, as well as its innovative, creative research efforts. We are seeking qualified professionals who are eager to find career satisfaction and make a valuable contribution to our organization.

Process Development- Immunochemistry/ Biochemistry

We are seeking an individual who holds a PhD in Immunochemistry or Biochemistry and has at least 1-3 years experience in the development of biochemical/immunochemical assays for characterization of monoclonal antibody conjugates. Specific duties will include developing methods for the preparation of monoclonal antibody conjugates at the 10+ gram scale under sterile conditions using GMP's. You will also supervise production for toxicology studies and human clinical trials. A background with large scale protein fractionation would be desirable. **Address resume to: Department PDI.**

Analytic Methods Development

This is a particularly challenging opportunity for the Analytic Chemist with a PhD in either Analytic Chemistry or Analytic Biochemistry and experience in immunochemical development working with HPLC. Responsibility includes the development of analytical methods for the study of monoclonal antibodies, monoclonal antibody drug conjugates and chelator conjugates, as well as methods development for the chelator and drug derivatives. Candidates must be neat and well organized, have strong supervisory skills, and the ability to prepare standard operating protocols. **Address resume to: Department AMD.**

The selected scientists will be provided with a competitive salary that is based on background and expertise and a generous benefits package in an invigorating, supportive technical atmosphere.

For immediate and strictly confidential consideration, please submit resume including salary history and requirements, indicating position desired, to:
**Recruiting Supervisor, CYTOGEN CORPORATION,
201 College Road East, Princeton, New Jersey 08540.**
An equal opportunity employer m/f.

CYTOGEN
CORPORATION

RESEARCH ASSOCIATES

Amgen is a dynamic and growing organization that is a recognized leader in recombinant DNA technology. Our leadership in developing erythropoietin and other products for human therapeutics, human diagnostics, animal health care and specialty chemicals has placed us firmly in the forefront of the industry. We currently have opportunities for Research Associates in Molecular Biology, Cellular Biology, and Protein Chemistry.

MOLECULAR BIOLOGY

Qualified candidates will have a BS or MS degree in Molecular Biology, Genetics, Biochemistry, or related disciplines as well as 1-2 years of experience in the manipulation of nucleic acids in microbial and/or mammalian systems. Experience in DNA sequencing, DNA hybridization, S1 nuclease mapping and restriction mapping is highly desirable. **Dept. #150.**

CELLULAR BIOLOGY

Applicants should have a BS or MS degree in an appropriate discipline with a background in mammalian cell culture. Some experience in the cellular and molecular aspects of hematopoiesis or immunological cell development as well as experience with *in vivo* and *in vitro* experimental models is desirable. **Dept. #151.**

PROTEIN CHEMISTRY

Candidates should possess a BS or MS degree in Biochemistry or other relevant disciplines and have experience in the purification and characterization of proteins or polypeptides. Experience with HPLC, column chromatography, gel electrophoresis, and protein sequencing would be valuable. **Dept. #240.**

Amgen offers a stimulating and challenging research environment, as well as an attractive location (about an hour northwest of Los Angeles). Amgen also offers a competitive compensation and benefits package. Qualified applicants should send a resume, in confidence, to:

**Recruitment, Specify Dept. #
AMGEN
1900
Oak Terrace Lane
Thousand Oaks
CA 91320**

Equal Opportunity Employer



HEALTH SCIENTIST ADMINISTRATOR/ MICROBIOLOGIST GS 13/14

PARASITOLOGY AND TROPICAL DISEASES BRANCH

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

NATIONAL INSTITUTES OF HEALTH

The applicant must have the following qualifications:

- a doctorate in parasitology or the equivalent;
- recent experience in the performance of research on parasitology or parasitic diseases;
- an awareness of the state of the science in immunology, molecular biology and genetics, biochemistry and medical entomology;
- demonstrated administrative ability and experience in planning and developing research programs.

The incumbent will administer extramural research support programs on all aspects of parasitic diseases and medical entomology including grant and contract mechanisms. In addition, the incumbent will serve as Program Officer for the Parasitic Diseases Panel of the U.S.-Japan Cooperative Medical Science Program. A full position description is available.

Applicants should submit Standard Form 171 (application for Federal Employment) and their resume to:

NIAID Personnel
9000 Rockville Pike, Building 31, Room 7A33
Bethesda, MD 20892

For more information call Mr. Richard Southers, 301/496-4634. All applications must be received by June 5, 1987.

Applicants must be U.S. citizens.

NIH is an equal opportunity employer.

FISHERIES VACANCIES

South Pacific Commission

Tuna and Billfish Assessment Programme

The Tuna and Billfish Assessment Programme is responsible for conducting research on pelagic fish stocks in support of fisheries priorities producing over US\$300,000,000 in total landed revenues. These stocks represent one of the most valuable renewable resources in a region covering approximately 30,000,000 square kilometers of the central Pacific Ocean. The Programme operates with a total staff of 13 (including 9 fisheries and computer science professionals) and a budget of approximately US\$500,000.

Salaries are paid in francs cfp (115 cfp = US\$1.00, approximately).

The following vacancies are immediately available:

PROGRAMME COORDINATOR: Responsible for planning and supervising activities of Programme staff according to research priorities established by the SPC. An established fisheries biologist with international experience is required. Salary: cfp 404,116-505,366 per month.

SENIOR FISHERIES SCIENTIST: Responsible for analysis of data pertaining to tuna and billfish population dynamics and the preparation of reports based on these analyses. An experienced population dynamicist is required. Salary: cfp 384,872-456,476 per month.

FISHERIES STATISTICIAN: Responsible for the general design and operation of the regional data base on pelagic fisheries, for evaluation of data sources, and for creation of special reports on fishing conditions on a regional basis. A specialist in fisheries statistics is required. Salary: cfp 369,151-404,151 per month.

ASSISTANT FISHERIES STATISTICIAN: Responsible for daily operation of the statistical programme including receipt of fisheries data from SPC member countries, its entry into the data base system, and preparation of routine summary reports. A computer science professional specializing in data base management is required. Salary: cfp 316,651-404,151 per month.

COMPUTER SYSTEMS MANAGER: Responsible for operation of HP9000/550 computer system operating under HP-UX (UNIX System V) with about 13 users. Also responsible for all maintenance including software and routine hardware upgrades and for interfacing peripheral devices. A computer professional with UNIX experience is required. Salary: cfp 316,651-404,151 per month.

Potential candidate should respond by telex (SOPACAOM 139NM) and send letter of application and *curriculum vitae* immediately to: **Secretary General, South Pacific Commission, B.P.D5, Noumea Cedex, New Caledonia.**

Associate Director Of Clinical Research

XOMA Corporation, a leading pharmaceutical company located in the San Francisco Bay Area, is currently in search of an M.D. to direct a clinical project evaluating the use of monoclonal antibodies in infectious diseases.

XOMA currently has monoclonal antibody products for infectious diseases, immunologic disease, and cancer in human clinical trials under F.D.A. IND's. This is an excellent opportunity for an experienced physician to participate in the forefront of clinical research.

The ideal candidate would possess:

- A M.D. degree with clinical training in immunology and/or infectious diseases.
- A minimum of 2 years pharmaceutical clinical trials experience.
- Exceptional organization and communication skills.

If the above describes you, and you wish to explore this unique opportunity further, please send your C.V. and salary history to: XOMA Corporation, Director of Human Resources, 2910-7th St., Berkeley, California 94710. EOE.



XOMA
CORPORATION

Vice President Research & Development

TEKTAGEN, a high tech start-up service company, seeks a founding Vice President of Research and Development. Located in suburban Philadelphia, TEKTAGEN provides state-of-the-art biotechnology services to the Pharmaceutical industry.

The qualified individual will have the responsibility to:

- direct all research and technical aspects of operations including applications research, methods development and analytical services;
- serve as scientific spokesman for the company;
- participate in the planning and execution of the company's strategic business opportunity.

Candidates will have a Ph.D. degree in Biochemistry or Biophysics and 2-5 years' experience after postdoctoral training. Key areas of experience will be:

- Separations/Protein Biochemistry
- Biochemical Analysis
- Nucleic Acid Probe Technology
- Physical Methods and Instrumentation

Basic knowledge of immunology and molecular biology techniques will be helpful. Strong personal initiative and superior interpersonal skills are essential.

The company offers a competitive salary and benefits package. Founding equity is available for the qualified individual.

Please send resume with cover letter to:

TEKTAGEN, INC.
275 Vincent Road
Paoli, PA 19301

POSITIONS OPEN

IMMUNODIAGNOSTIC CHEMIST— COLORADO

Perform independent research and assay development in solid phase diagnostics. Must have experience in clinical testing, ligand development, protein purification, covalent coupling, and end product evaluations. Requires M.S. or Ph.D. in biochemistry/immunology with ten plus years of experience in diagnostic product development. 510k Medical Device experience preferred. Send résumé, references, and salary requirements to: **John Hanlin, BioStar Medical Products, 5766 Central Avenue, Boulder, CO 80301.**

INSTRUCTOR OR ASSISTANT PROFESSOR, BIOLOGICAL SCIENCES. Temporary 1-year appointment to teach courses in advanced biological techniques, covers basic laboratory skills in biochemistry, cell biology, and tissue culture, basic biochemistry and labs in general biology and microbiology. Qualifications: Master's degree. Teaching experience preferred. Salary range: \$18,000 to \$25,000. Application deadline: 22 May 1987. Send application letter, résumé with the names of three references or placement credentials and transcripts to: **Dr. Joseph A. Robustelli, Director of Personnel and Affirmative Action, State University of New York, College of Agriculture and Technology, Cobleskill, NY 12043. An Equal Opportunity/Affirmative Action Employer.**

UNIVERSITY OF HONG KONG LECTURER IN PHYSIOLOGY

Applications are invited for a lectureship in physiology. The appointee will be required to participate in the teaching of physiology to dental and medical students. Preference will be given to applicants with higher degrees in physiology or medical or dental degrees. Some teaching experience is desirable, together with a special research interest in one of the following areas: (i) cardiovascular physiology, (ii) neurophysiology, (iii) biophysics, (iv) biomedical engineering, (v) gastroenterology.

Annual salary (superannuable) is on an 11-point scale: HK\$176,880 to \$295,680 (US\$1 = HK\$7.80 approximate at 5 April 1987). Starting salary will depend on qualifications and experience. A medically qualified appointee who has just completed his preregistration year will be appointed as a Lecturer at the minimum point of the scale. At current rates, salaries tax will not exceed 16½ percent of gross income. Housing benefits at a rental of 7½ percent of salary, children's education allowances, leave, and medical benefits are provided.

Further particulars and application forms may be obtained from the: **Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Appointments Unit, Registry, University of Hong Kong, Hong Kong. Closes: 3 July 1987.**

The Division of Marine Sciences of Harbor Branch Oceanographic Institution (HBOI) is seeking an experienced **MARINE CHEMIST/CHEMICAL OCEANOGRAPHER** to fill a 12-month, hard money position. Applicants should have a vigorous basic research program, demonstrated ability to secure outside funding, and a desire to guide the development of a marine chemistry section within the Division. Level of appointment is negotiable depending on the qualifications of the candidate. Special consideration will be given to those applicants whose area of expertise could profit most from the unique resources available at HBOI. Interested persons should send curriculum vitae, selected reprints, and names of potential referees to:

**Dr. Richard Harbison, Director
Division of Marine Sciences
Harbor Branch Oceanographic Institution
5600 Old Dixie Highway
Fort Pierce, FL 33450**

HBOI was established primarily for research in the marine sciences and ocean engineering. The Division of Marine Sciences consists of 36 marine scientists, postdoctoral fellows, research assistants, and support staff. Ongoing investigations include interdisciplinary programs in lagoonal, shelf, and open ocean research, some of which involves shipboard and submersible operations on vessels and submersibles owned and operated by HBOI. *Equal Opportunity Employer.*

For additional information, telephone: 305-465-2400, extension 321.

POSITIONS OPEN

Nominations invited for the **MAURICE K. GODDARD ENDOWED CHAIR IN FORESTRY AND ENVIRONMENTAL RESOURCE CONSERVATION. PURPOSE:** To enhance the University's commitment to the Commonwealth and Nation to provide direction in balanced resource conservation and utilization through programs of public service, research, and graduate teaching.

QUALIFICATIONS: Exceptional accomplishments and ability to exert leadership and to inspire commitment. Substantial background in one or more of the natural sciences, including, but not limited to, agriculture, biology, forestry, geology, and limnology. Experience in economics, public administration, and/or resource allocation.

APPOINTMENT: Professor in the School of Forest Resources, College of Agriculture, for 3 years with possible extension for an additional 3 years.

APPLICATIONS/NOMINATIONS: Submit name and background information by 31 May 1987 to: **Lamartine F. Hood, Dean, College of Agriculture, The Pennsylvania State University, 201A Agricultural Administration Building, University Park, PA 16802.** The search will remain open until a qualified applicant is selected.

An Equal Opportunity/Affirmative Action Employer

Immediate opening for Ph.D. level **MOLECULAR BIOLOGIST** with experience/interest in epidemiology to develop and use DNA or RNA probes for study and diagnosis of malaria. Experience in gene cloning required, and training in parasitology desirable. Send curriculum vitae to: **Dr. Michael R. Hollingdale, Biomedical Research Institute, 12111 Parklawn Drive, Rockville, MD 20852.**

An Equal Opportunity Employer

NEUROSCIENTISTS

THE DEPARTMENT OF CELL BIOLOGY AND NEUROANATOMY AT THE UNIVERSITY OF MINNESOTA seeks applications for highly qualified neuroscientists with expertise in **systems neuroscience**. Systems studied may be either those of invertebrates, or the sensory or central autonomic systems of vertebrates. Applicants should be skilled in techniques of intracellular recording and tracing of individual neurons, as well as in identification of neurotransmitters and/or receptors, and must have a relevant graduate degree (Ph.D., M.D., or both, or equivalent foreign degree) with at least 2 years of productive postdoctoral experience. Teaching will be related to neuroscience courses taught to medical and dental students by the department. In addition, training of graduate students and teaching in appropriate graduate programs will be required. **Appointments may range from assistant professor (tenure track) to professor (tenured), commensurate with experience (guidelines for appointment levels will be sent on request).** Applications or nominations (to be received **no later than 1 August 1987**) should be sent to: **Neuroscience Search Committee, Department of Cell Biology and Neuroanatomy, 4-135 Jackson Hall, 321 Church Street SE, Minneapolis, MN 55455.**

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

PHYSIOLOGY AND BIOPHYSICS—FACULTY POSITION—A tenure-track faculty position is available at the assistant professor level. Candidates with interests in the molecular aspects of physiology, biophysics, and cell biology are particularly encouraged to apply. The primary responsibility is to develop a strong, independent research program, as well as to participate in the teaching program. A Ph.D. in either physiology and biophysics, molecular biology, biochemistry, or in a related field is required. Applicants should submit curriculum vitae with a summary of present and future research interests, and request three letters of recommendation be sent to: **Dr. Simon J. Pilkus, Department of Physiology and Biophysics, School of Medicine, Health Sciences Center, SUNY at Stony Brook, Stony Brook, NY 11794-8661. SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer.**

POSITIONS OPEN

PEPTIDE NEUROCHEMIST

Research associate position available for 3 years to participate in the purification of peptides involved in the regulation of luteinizing hormone and prolactin secretion. Position requires Ph.D. and published experience with isolation, purification, and characterization of peptides using modern techniques. Please forward curriculum vitae, one reprint of a paper documenting technical experience, and names of three references to:

**Marc E. Freeman
Department of Biological Sciences
Florida State University (FSU)
Tallahassee, FL 32306
Telephone: 904-644-3896**

FSU is an Affirmative Action/Equal Employment Opportunity Employer.

UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) AGRICULTURAL RESEARCH SERVICE (ARS)

PLANT MEMBRANE TRANSPORT PHYSIOLOGIST position with the U.S. Department of Agriculture, Agricultural Research Service in a multidisciplinary photosynthesis research group at Urbana, Illinois, on the University of Illinois campus. Successful candidate will conduct research on membrane transport, characterizing the mechanism of action of leaf cell membrane components which participate in the partitioning and movement of photosynthetic products. Approaches include isolation, characterization and reconstitution of membrane transport systems. Ph.D. or equivalent required. Position includes faculty appointment and operating budget. Beginning salary range: \$32,567 to \$38,727 (GS-12/13), depending on qualifications. For additional information on the research program contact, by 1 June 1987: **Dr. William L. Ogren, USDA-ARS, 1102 South Goodwin Avenue, Urbana, IL 61801, telephone 217-244-3082.** 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 7N008. Applications must be received by 15 July 1987. Must be U.S. citizens. *Equal Opportunity Employer.*

POSTDOCTORAL FELLOW: The Johns Hopkins Center for Alternatives to Animal Testing is seeking superior candidates for the In Vitro Toxicology Laboratory. The IVTL is engaged in fundamental research on the biochemical mechanisms involved in cytotoxicity. Candidates must have a Ph.D. in toxicology, biochemistry, or cell physiology. Special consideration given to experience in hepatocyte culture and/or the biochemical regulation of protein synthesis. Send curriculum vitae and three references to: **Dr. John M. Frazier, The Johns Hopkins University, 615 North Wolfe Street, Baltimore, MD 21205.**

UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA) SCHOOL OF MEDICINE

POSTDOCTORAL FELLOW IN BIOCHEMISTRY: Position available in multidisciplinary research team exploring new methods for in vivo study of human myocardial substrate metabolism, substrate regulation and interaction, and cardiac receptors. Potential candidates with Ph.D. in biochemistry or related area should send curriculum vitae, description of research interests, and three letters of reference to:

**Denis Buxton, Ph.D.
UCLA
Radiological Sciences
Room B2-086 CHS
Los Angeles, CA 90024-1721
UCLA is an Equal Opportunity/
Affirmative Action Employer**

POSTDOCTORAL POSITION: MOLECULAR IMMUNOLOGY

Available in fall 1987 to study the regulation of expression of cell surface molecules on lymphocytes. Send curriculum vitae and names of three references to: **Dr. Paula Kavathas, Departments of Laboratory Medicine and Human Genetics, Yale University Medical School, 333 Cedar Street, New Haven, CT 06510.**

VICE PRESIDENT, PRODUCT DEVELOPMENT

Nelson Research & Development Company, headquartered on the University of California campus in Irvine—adjacent to the medical school—is a small, highly-creative research organization. It has been involved with the design and development of pharmaceutical products and novel drug delivery systems for licensing to pharmaceutical companies on a worldwide basis.

Our recent acquisition by the Ethyl Corporation affords us the opportunity to expand our Product Development Activities.

To meet our ambitious growth plans, we seek a Vice President, Product Development to organize and implement our activities in Pharmacology, Toxicology, Pharmacokinetics, Product Development, and Clinical and Regulatory Affairs. The person selected will be a member of the top management team and will play a significant role in the planned growth of the Company.

The ideal candidate will hold a Ph.D., preferably in Cardiovascular Pharmacology, and will have 5-10 years' experience in drug development at a major pharmaceutical company. Project management experience is desirable.

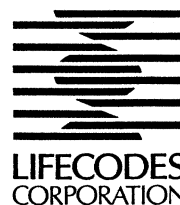
Above all, the candidate must be a take-charge, decisive person able to work independently with a high degree of autonomy. He or she must be a dynamic, stimulating, articulate leader who can represent the Company in external affairs.

The position offers an excellent salary and a comprehensive benefits package. The organization's environment and culture afford a rare challenge, opportunity for unusual professional growth, and the chance to make a real impact on the Company's progress.

Please submit your Curriculum Vitae in confidence to:

Personnel Manager
Nelson Research & Development Company
1001 Health Sciences Road West
Irvine, California 92715

AN EQUAL OPPORTUNITY EMPLOYER



CANCER DIAGNOSTICS— DEPT. HEAD

Lifecodes Corporation, a leading company in the use of DNA probes for human genetic diagnostics, is undergoing a major expansion and is committed to building a strong and innovative Department of Cancer Diagnostics. To that end we are seeking a Department Head, a senior individual with a proven record of creativity and group management capability. A broad background in oncogene research is essential while familiarity with other methods of cancer diagnostics is a plus.

For the right individual we offer an extremely attractive salary/benefits package, an exciting work environment, and excellent research facilities located just 30 minutes from New York City in Westchester County.

If interested, please send your curriculum vitae with the name and telephone number of three references to:

Jeffrey Glassberg, Ph.D.
Lifecodes Corporation
4 Westchester Plaza
Elmsford, New York 10523

PRIVATE LABORATORY ENGAGED IN PHARMACEUTIC RESEARCH FOR NEW DRUGS

NEEDS

scientist

With an experience in cell biology, applicants should be familiar with data processing from flow cytometer, biochemical analysers (HPLC, B-j counters, general densimeters...) and cell biology devices (counters, Eliza automates...).

biochemist

Applicants should have, if possible, experience in measuring of metabolic changes associated with cell transformation, in studies of antitumorals mode of action and in cell culture techniques including flow cytometry.

Knowledge in French would be desirable.

Location nearby west of PARIS (FRANCE).

Candidates are invited to send a man-written letter with photo + CV including full description of current position to :
PUBLIVAL/4006, 27 Route des Gardes 92190 MEUDON (FRANCE).

MEDICAL OFFICER/SCIENTIST FOR THE BALTIMORE LONGITUDINAL STUDY OF AGING

**NATIONAL INSTITUTE ON AGING
NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE
DEPARTMENT OF HEALTH AND HUMAN SERVICES**

Medical Officer/Scientist, National Institute on Aging, Baltimore Longitudinal Study of Aging. Salary range from \$38,727 to \$59,488 plus Physicians Comparability Allowance depending on qualifications. Direct repeated clinical evaluations of over 900 research participants in longitudinal study of human aging conducted for almost 30 years at Gerontology Research Center. Conduct research on aging using clinical descriptions of normal aging as a basis. Extraordinary research opportunities to relate medical information to extensive physiological and behavioral information available on participants. Academic appointment encouraged, research training of young scientists expected. Applicant must be a licensed physician. Background in epidemiology, preventive medicine, and/or internal medicine is best, strong research interest and background required. Applicant must also be a U.S. Citizen. Application for Federal Employment (SF-171) and curriculum vitae to: **Personnel Office, Gerontology Research Center, 4940 Eastern Avenue, Baltimore, MD 21224**. Further information may be obtained by contacting **Ms. Barbara Hughes at (301) 955-1733**.

APPLICATIONS MUST BE POSTMARKED NO LATER THAN
MAY 29, 1987.

AN EQUAL OPPORTUNITY EMPLOYER.

POSITIONS OPEN

POSTDOCTORAL FELLOW/ RESEARCH ASSOCIATE POSITION

A position is available NOW for an individual to work on the electrophysiological properties of epithelial cells in culture. We are currently investigating the role that regulation of membrane currents by secretagogues may play in the control of normal and abnormal airway cell secretion using both electrophysiological and fluorescent calcium sensitive dye techniques. Experience in basic electrophysiological techniques including whole-cell and single channel patch clamp techniques is desirable, but any individual with an interest in the problem is encouraged to apply.

Over 3 years of support is available. Starting salary range \$18,000 to \$21,000 plus benefits depending on experience. Send curriculum vitae, names of two references, and a brief statement of research goals and interests to:

Dr. Deborah J. Nelson
The University of Chicago
Department of Medicine
Hospital Box 249
5841 South Maryland Avenue
Chicago, IL 60637

POSTDOCTORAL POSITION

The Center for Environmental and Estuarine Studies of the University of Maryland (UMCEES) invites applications for a **POSTDOCTORAL POSITION** to research environmental perturbations on fish schooling, migration, and navigation behavior. Pending approval of funding, the 1-year stipend will be \$22,000 with the possibility of extension. The candidate will be responsible for conducting and administering portions of a multidisciplinary project, and should be well versed in computers and statistics, and preferably have an electronic background as related to biomonitoring. Applicants should send curriculum vitae and the names of three references to: Dr. Charles H. Hocutt, Horn Point Environmental Laboratories, University of Maryland (UM), P.O. Box 775, Cambridge, MD 21613. *The UM is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately, to study the regulation and function of human proteases and protease inhibitors. Experience in eukaryotic and prokaryotic expression systems required. Send résumé, copies of representative publications, and three letters of recommendation to: Harvey Rubin, M.D., Ph.D., University of Pennsylvania, School of Medicine, 536 Johnson Pavilion/6073, 36th Street and Hamilton Walk, Philadelphia, PA 19104.

MICHIGAN STATE UNIVERSITY CELL AND MOLECULAR BIOLOGY PROGRAM

POSTDOCTORAL POSITION: Available 1 July 1987 to study a molecular basis for the specific protein accumulation in mosquito oocytes. Experience in protein biochemistry is required, experience in radiolabeling and receptor-binding techniques is preferred. Send curriculum vitae, list of publications, and three letters of recommendation to: Dr. Alexander Raikhel, Department of Entomology, Michigan State University, East Lansing, MI 48824-1115.

POSTDOCTORAL Ph.D. POSITION available in productive physiology laboratory. Studies include exercise and hormonal effects on heart function and biochemistry in the rat. A comprehensive research group provides for an excellent training experience. Send résumé to: James Scheuer, M.D., Division of Cardiology, Montefiore Medical Center, 111 East 210 Street, Bronx, NY 10467.

POSTDOCTORAL POSITION MOLECULAR BIOLOGIST

Postdoctoral position beginning on or after 1 July 1987, for 2 to 3 years, to study molecular aspects of endocytosis of immune receptors. Requires experience in mutagenesis, DNA/RNA characterization, and gene transfer. Send curriculum vitae and names of three references to: C. G. Davis, Ph.D., Howard Hughes Medical Institute, University of California, San Francisco, UCSF, Room U-426, San Francisco, CA 94143-0724.

RESEARCH ENTOMOLOGIST

PhD Level

Mycogen is in the forefront of biopesticide research and development. Our growing staff of highly respected scientists are producing products and technologies for a wide variety of agricultural applications.

Principal responsibilities will be to design, organize and conduct research with experimental microbial insecticides, and to evaluate the potential of new technology leads under laboratory and greenhouse conditions. Proven track record required in directing technical staff, analyzing data, preparing research summaries and reports, developing research strategies and coordinating efforts with other research departments and Commercial Development.

Please submit resume, salary history and names of three references to:

 **Mycogen Corporation**
Entomology Scientist
5451 Oberlin Drive
San Diego, CA 92121

An Equal Opportunity Employer

POSTDOCTORAL POSITION

A postdoctoral position is available immediately for an individual with an interest and strong background in phospholipid biochemistry. GC-MS experience is desirable. State-of-the-art methodology will be employed to investigate mechanism of leukotriene and PAF biosynthesis and pathogenesis. Please send curriculum vitae to: Maureen Quigley, Professional Employment Representative, Dept. D, American Cyanamid Company, Lederle Laboratories, Pearl River, NY 10965. We are an equal opportunity employer.



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Since 1906

RESEARCH FACULTY POSITION

IN

NEUROBIOLOGIC STUDIES IN HEARING AND SPEECH

A new full-time research faculty tenure track position is immediately available for an individual with research interests in either:

- (1) basic physiologic mechanisms of auditory/vestibular systems,
- (2) neurobiology of the larynx, or
- (3) sensory-motor control of orofacial structures.

This individual will be the Director of the Research Program within the Division of Otolaryngology and will contribute to the teaching of graduate and medical students. Address inquiries and letters of interest to Allan M. Rubin, MD, Ph.D., Chief of Otolaryngology, Medical College of Ohio, CS #10008, Toledo, Ohio 43699.

An Equal Opportunity Employer

RESEARCH SCIENTIST— ANALYTICAL CHEMISTRY

Nelson Research, a wholly-owned subsidiary of Ethyl Corporation situated on the campus of the University of California at Irvine, is a pharmaceutical research firm involved in the discovery and development of new drugs. The Company currently has an opening for an Analytical Chemist.

The successful candidate will be involved in:

Developing and validating analytical methods for new drug substances, intermediates, and dosage forms;

Planning for and providing the analytical support necessary for projects, programs and other areas of development;

Interacting with Company scientists and participating in study design and evaluation of new product stability data, protocol development and planning;

Preparing analytical and stability sections of IND and NDA'S.

Qualified candidates will have a Ph.D. in Analytical Chemistry with 3 or more years experience in pharmaceutical product formulation involving stability evaluation, methods development and validation.

Excellent oral and written communication skills are essential.

Nelson Research offers a professional environment and competitive salary and benefits. Interested candidates may send resume with salary history to:

Personnel Manager
Nelson Research
1001 Health Sciences Rd. West
Irvine, CA 92715

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BUILDING A NEW LAB?

LET THE SCIENCE FREE PRODUCT
INFORMATION SERVICE PUT YOU IN
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THE SPECIFICS ABOUT YOUR PROPOSED
LAB AND WE WILL DO THE REST.

WRITE TO:

**SCIENCE MAGAZINE
NEW LAB SERVICE DEPT.
1515 BROADWAY
NEW YORK, N.Y. 10036**

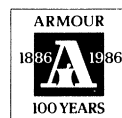
WHO HAS A CORNER ON PLASMA FRACTIONATION BIOTECHNOLOGY

When it comes to projects in plasma fractionation, look to Armour Pharmaceutical. We're a world leader in this field and a variety of other highly advanced scientific areas. And we have been for over 100 years.

SR. DEVELOPMENT SCIENTIST

Responsible for planning and carrying out experiments in new product development, product improvement and cost reductions. You will also evaluate new methodologies and work with R&D and Operations personnel in bringing new products to market. The ideal candidate will have a Ph.D. in Biochemistry with extensive experience in protein fractionation. Knowledge of coagulation, fibrinolysis and protein chemistry would be highly desirable, as is Post-doctoral research and industrial experience in handling human therapeutic fractions.

Our advanced manufacturing facility is located within easy access to Downtown Chicago and less than 30 minutes from some of Chicago's finest suburbs. In addition to an excellent salary and benefits package we offer a fast-growth, yet relaxed non-smoking environment. For confidential consideration, send a resume with salary history to: **John S. Davlantes/Manager, Personnel Administration, Dept. SM/5-8.**



Armour Pharmaceutical Co.
P.O. Box 511, Kankakee, IL 60901

Equal Opportunity Employer

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
NATIONAL CANCER INSTITUTE

A Senior Executive Service Vacancy

ASSOCIATE DIRECTOR FOR BIOLOGICAL CARCINOGENESIS DIVISION OF CANCER ETIOLOGY

Location: Bethesda, Maryland

The National Cancer Institute develops the overall national strategy against cancer, coordinates Federal government and non-Federal government cancer programs, and supports international programs of cancer research. The Associate Director for Biological Carcinogenesis plans, directs and conducts a basic research program in which the role of biological agents, genetic sequences, viral genes and combinations of viral and cellular genes in carcinogenesis is investigated. The incumbent is also responsible for directing and coordinating AIDS vaccine research and development efforts. The overall program, which emphasizes molecular biology, includes isolation and analysis of proteins responsible for transformation and identification of the genetic sequences that code for the proteins, in addition to studies on the role of RNA- and DNA-containing viruses in certain forms of cancer and AIDS. The incumbent will be responsible for management of six intramural laboratories and an extramural component which administers an \$80

million a year grant and contract program. They comprise the biological carcinogenesis activities of the DCE. These activities are supported by a budget of approximately \$100 million and approximately 175 full-time equivalent positions.

This is a Civil Service position in the Senior Executive Service (SES) with a salary range from \$64,700 to \$73,400 per annum. In addition, M.D. candidates may be eligible for a Physician's Comparability Allowance up to \$10,000 per year. (Alternately, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service). The individual selected, if not presently in SES, must serve a one year probationary period.

Candidates must meet the minimum requirements for Chemist, GS-1320; Biologist, GS-401; Microbiologist, GS-403; Pharmacologist, GS-405; or Medical Officer, GS-602. Candidates must further meet established mandatory professional/technical and managerial/executive requirements. Candidates will be further evaluated on the extent to which they

exceed the minimum requirements and on additional factors including scientific reputation/peer recognition, training and education and honors and awards. A copy of the requirements may be obtained by contacting Ms. Jean Craigie in the Personnel Management Branch, NCI on (301) 496-1771.

Applications for Federal Employment (SF-171) are to be sent to the above individual at: The National Cancer Institute, 9000 Rockville Pike, Building 31, Room 3A31, Bethesda, Maryland 20892 postmarked no later than May 25, 1987. A current curriculum vitae and bibliography must accompany all applications. *Resumes are not acceptable applications for entrance into the Senior Executive Service.* Applications from women and/or minority group members are especially solicited.



DEPARTMENT OF HEALTH
& HUMAN SERVICES

The National Institutes of Health is an EQUAL OPPORTUNITY EMPLOYER.

POSITIONS OPEN

POSTDOCTORAL POSITIONS—available immediately for Ph.D. interested in either: (i) construction and characterization of somatic hybrids and cybrids in tomato, or (ii) characterization of heat shock response in thermotolerant crops. Individuals with experience in plant cell culture, biochemistry or molecular biology should send curriculum vitae and the names of three references to: **Mary O'Connell, Plant Genetic Engineering Laboratory, Box 3GL, New Mexico State University, Las Cruces, NM 8803.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately in studies on the in vivo metabolism of xenobiotics. Identification and quantitation of DNA-adducts requires use of radioisotope markers and electrochemical techniques, syntheses of modified deoxyribonucleoside markers, measurement of enzyme activities and DNA-sequencing. Modern laboratories at our multidisciplinary research institute in the northern suburbs of New York City (Westchester County) feature state-of-the-art equipment and offer an excellent research environment. Please send curriculum vitae with references to: **Dr. A. A. Melikian, American Health Foundation, 1 Dana Road, Valhalla, NY 10595.** *An Equal Opportunity Employer M/F/H/V.*

POSTDOCTORAL POSITION

Postdoctoral position available immediately to join a multidisciplinary center (directed by **J. Konisky** and **C. R. Woese**) being assembled at the University of Illinois to study the molecular biology and physiology of archaebacteria. The group will include microbiologists, molecular biologists, and computer scientists interested in the analysis of genome sequences, genome structure, genetic systems, gene expression, and phylogenetic analysis. Interested candidates should send a description of their research interests, curriculum vitae, and three letters of reference to: **Dr. Jordan Konisky, Department of Microbiology, University of Illinois, 131 Burrill Hall, 407 S. Goodwin Avenue, Urbana, IL 61801.**

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to work on cellular and molecular mechanisms underlying axon growth in neurons. Techniques used in lab include computer-assisted video microscopy, cell culture, gel electrophoresis and use of antibodies. Send curriculum vitae and names of references to: **Dr. Daniel J. Goldberg, Department of Pharmacology, Columbia University, 630 West 168 Street, New York, NY 10032.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION

Position available immediately to investigate immunologic abnormalities in chronically transfused iron-overloaded patients, some of whom have developed AIDS as a consequence of therapy. The research will focus on B-cell and NK defects, the role of iron/transfusion in their development, and the contribution to, and modulation by, the development of AIDS. The candidate should be highly motivated and trained in cellular immunology. Minimum of 2 years; salary commensurate with experience. Send curriculum vitae and three letters of reference to: **Dr. Robert W. Grady, Department of Pediatrics, Cornell University Medical Center, 525 East 68 Street, New York, NY 10021.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITION—MOLECULAR BIOLOGY. Available immediately or before August 1987, to study the molecular genetics of broad host range plasmid transfer in bacteria [PNAS 80, 3595 (1983); PNAS 81, 7203 (1984)]. Project emphasizes molecular aspects of the DNA-protein interactions which process the plasmid DNA during conjugal transfer (endonuclease nicking, DNA synthesis). Transposon, site-directed, and deletion mutagenesis, cloning, DNA sequencing, and biochemical techniques are used extensively. Funding through August 1989. Molecular biology background required. Reply with curriculum vitae and three references to: **Dr. Donald G. Guiney, H811F, University of California, San Diego Medical Center, 225 Dickinson Street, San Diego, CA 92103.**

POSITIONS OPEN

POSTDOCTORAL POSITION to study the biological and molecular characteristics of cultured human osteoblasts. Experiments will specifically focus on the role of growth factors and humoral factors on the control of osteoblast proliferation and differentiation and on the role of steroid receptors. Experience in the areas of cell culture and cell biology is essential. Experiments will be performed in association with **Drs. B. L. Riggs, R. E. Scott and T. C. Spelsberg**, and the basic goal of these studies will be to establish in vitro human cell culture models to evaluate the mechanisms of human disease especially osteoporosis. Position available summer to fall 1987. Please send curriculum vitae and three letters of recommendation to: **Dr. B. L. Riggs, N-6 Plummer, Mayo Clinic/Foundation, Rochester, MN 55905.** *An Equal Opportunity/Affirmative Action Institution.*

POSTDOCTORAL POSITION IN MOLECULAR GENETICS to study the molecular heterogeneity of connective tissue disorders in humans. Applicants should have training in molecular biology. Send curriculum vitae and names of three references to: **Dr. P. Tsipouras, University of Connecticut Health Center, Division of Human Genetics, L5090, 263 Farmington Avenue, Farmington, CT 06032.** *An Affirmative Action/Equal Opportunity Employer M/W/H.*

POSTDOCTORAL POSITION: Manufacturing of ceramic-ceramic composites via injection molding. One postdoctoral position (\$27,500 per year) is now available in the National Center for Composites Manufacturing Science and Engineering at Rutgers, The State University of New Jersey. The candidate will conduct experimental rheology studies and injection molding of highly filled (70 vol%) molten polymer systems for injection molded ceramic-ceramic composites. The candidate must have a Ph.D. in chemical engineering, polymer science, materials science, or other related areas. Injection molding expertise is required. Modeling capabilities for filled system rheology are desirable. Candidates should submit a letter of application along with a résumé to: **Professor Stephen C. Danforth, Department of Ceramics, College of Engineering, Rutgers University, Piscataway, NJ 08855-0909.** *Rutgers is an EOE Employer.*

WEED SCIENTIST

Warm Climate Crops (Rice)

ICI Plant Protection Division, based at the attractive rural Jealott's Hill Research Station, is currently one of the most successful companies in the field of crop protection. Now due to a further expansion we are seeking an experienced scientist with a PhD (or equivalent) in plant sciences, agronomy or horticulture to lead a new research team specialising in the secondary screening and evaluation of potential herbicides for use in rice and other warm-climate crops.

This vital role will entail the responsibility for the management and development of the glasshouse evaluation programme and for the progression of lead compounds into field screening programmes. In addition, the successful candidate will need to work in close liaison with other scientific staff including chemists and biochemists. He/she will be expected to develop novel herbicide screens and procedures and to keep abreast of new developments in agronomy and weed control in rice and other warm climate crops. Previous experience of working in rice or other agronomic crops in both glasshouses or fields is useful, and a background in chemistry or biochemistry is desirable.

Ideally you will be able to demonstrate initiative, the ability to motivate and manage other personnel, creativity and drive. Opportunities for career progression are excellent and there are a whole range of company benefits including competitive salary, excellent profit sharing scheme, medical care and superb recreational facilities.

Please apply in writing quoting Ref: WS/TO to, Joe Booth, Personnel Officer, ICI Plant Protection Division, Jealott's Hill Research Station, Bracknell, Berkshire RG12 6EY, England.

The closing date for this vacancy is 22nd May 1987.

ICI is an equal opportunities employer.



**Plant
Protection
Division**

The world harvests the benefits



DIRECTOR, ENVIRONMENTAL EPIDEMIOLOGY AND BIOMETRY DIVISION

The U.S. Environmental Protection Agency (EPA) is seeking candidates for the position of Director, Environmental Epidemiology and Biometry Division (EEBD). The position is located in the Health Effects Research Laboratory (HERL), Research Triangle Park, NC. This is a permanent full-time position. The salary range is \$53,830 to \$69,976 per annum, commensurate with qualifications. Candidates having M.D. degrees may be eligible for a \$10,000 annual supplement.

HERL has a staff of about 325, over 100 of whom hold doctoral level degrees. The Laboratory has a diverse program consisting of six divisions, namely EEBD, Genetic Toxicology, Inhalation Toxicology, Neurotoxicology, Developmental and Cell Toxicology, and Toxicology and Microbiology. The program includes in vitro, animal, human clinical, and epidemiological research designed to address issues related to the health effects of air and water chemical and biological pollutants.

The EEBD has a multidisciplinary program organized into three branches: Epidemiology, Biostatistics, and Data Management. The staff numbers about 23. The major missions are to conduct research in biostatistics and epidemiology, with a focus on outdoor and indoor air pollutants, water pollutants, and toxic chemicals and to provide biostatistical and data management support to HERL research programs. The program is highly interactive with other HERL divisions. A substantial portion of the epidemiology and biostatistical program is extramural, with scientists playing a major role in program development and direction. The primary responsibilities of the Director are to direct and manage the program. This includes developing the program to meet the evolving needs of EPA, presenting the program, developing and managing budgets, supervising the staff, directing the progress of the program, and ensuring the scientific quality and productivity of the program.

Qualifications for the position include:

1. An M.D. or a doctoral degree in epidemiology, statistics, health science or fields closely related to these.
2. At least five (5) years of post-doctoral research experience in epidemiology and/or biostatistics. Some experience in these fields as related to environmental and/or occupational health effects is necessary.
3. Experience in developing and managing budgets.
4. At least three (3) years of experience as a supervisor of a scientific/professional staff.
5. Applicants must have recognized scientific expertise in environmental and/or occupational epidemiology and/or biostatistics which is evidenced by multiple publications in the peer-reviewed literature and invitations to participate in national and international meetings/panels on these topics.
6. Proven ability to provide leadership in directing the development and progress of a creative and effective research program in environmental epidemiology and biostatistics.
7. U.S. citizenship is required.

Forward curriculum vitae and names of three references prior to June 8, 1987 to:

Dr. F. Gordon Hueter, Director, HERL
c/o Marcy C. Kesselman, PMD (MD-29)
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

AN EQUAL OPPORTUNITY EMPLOYER

RESEARCH SCIENTISTS

Athena Neurosciences, Inc., located in the San Francisco Bay Area, is a new biotechnology company focusing on molecular approaches to diseases of the nervous system. We are actively working on both diagnostic and therapeutic projects. Scientific positions at the B.S., M.S. and Ph.D. levels are currently available in the following areas:

Molecular Biology—Openings exist at all levels for individuals with strong backgrounds in one or more of the following: cDNA/genomic cloning, DNA sequencing, DNA probe diagnostics, mammalian cell expression. We have a particular interest in applicants who have experience with retroviral vectors and transgenic animals.

Medicinal Chemistry—We have two openings for creative synthetic organic chemists. Ideal candidates will have a strong interest in the structure/function relationships of bioactive molecules.

Protein Chemistry/Immunochemistry—Positions exist for individuals with expertise in the biochemical characterization of proteins and peptides and in the development of sensitive immunoassays.

Cellular Neurobiology—Openings exist for cell biologists with experience in neuronal cell culture systems and for individuals with a background in neuroanatomy or histology.

Athena Neurosciences is committed to scientific excellence and offers an exciting professional environment in addition to competitive salaries, benefits and equity participation. Please send curriculum vitae to: Athena Neurosciences, Inc., P.O. Box 7050, San Carlos, CA 94070. An equal opportunity employer.

Athena Neurosciences

ADVANCED DRUG DELIVERY RESEARCH CELL BIOLOGIST

West Sussex, England

We are seeking a SENIOR SCIENTIST of outstanding ability to lead a CELL BIOLOGY group. The purpose of this group is to apply current concepts and techniques in cell and tissue biology to the site-specific delivery of drugs. The group would be part of a multi-disciplinary effort investigating the transport of macromolecules into and through cellular barriers. Applications are invited from those with a strong research record and relevant postdoctoral experience. Familiarity with the use of electron microscopy techniques for studying the cellular and intracellular localisation of macromolecules would be an advantage. The appointee would be expected to make a significant contribution to the research programme. We can offer a competitive salary, together with a range of other benefits which you would expect of a major multinational Pharmaceutical Company. Relocation assistance will be given where appropriate.

Applicants should send a full c.v. to:
Andrew Dobson, Personnel Officer, Ciba-Geigy Pharmaceuticals,
Wimblehurst Road, Horsham RH12 4AB, England

CIBA—GEIGY

GROUP LEADER

Gillette Research Institute, a division of The Gillette Company, seeks to fill an opening for a senior scientist to lead a group in skin research. Emphasis will be on applied research dealing with the physical and physiochemical properties of skin. The successful applicant will display the ability to employ a multidisciplinary approach to the research. Disciplines including biochemistry (lipid chemistry, protein chemistry), skin physiology, physics, physical chemistry, spectrometry, and microscopy will all bear on the research and the applicant should at least be familiar enough with them to deal with co-workers in these disciplines.

The applicant must have excellent oral and written presentation skills. Facility with computer data acquisition and analysis is highly desirable. Ph.D. in biophysics, biochemistry, physical chemistry, or a related field is required and some academic post-doctoral experience is desirable. The position requires at least five years R & D experience; R & D experience in an industrial laboratory would be an advantage.

Gillette Research Institute is located in Rockville, MD, near Washington, D.C., in an area rich in Government, private, and academic scientific laboratories. Gillette Research Institute is an equal opportunity employer and offers a full range of employee benefits.



Gillette Research Institute
1413 Research Boulevard
Rockville, MD 20850
(301) 424-2000

EOE

SECTION HEAD

Cardiovascular Pharmacology

Berlex Laboratories, Inc. is a rapidly growing pharmaceutical company, located in Northern N.J., involved in important basic cardiovascular research. We have an opening for a Senior Scientist to head our section on cardiovascular pharmacology. The Section Head will lead a staff of junior and senior scientists in a vigorous research program in cardiovascular biology including vascular smooth muscle function and congestive heart failure.

The successful applicant will have a Ph.D. in Physiology or Pharmacology with at least six years of postdoctoral experience in the field. Previous industrial experience is an advantage.

Berlex offers a stimulating environment with opportunity for personal challenge and growth. Contact: Gabor M. Rubanyi, M.D., Ph.D., Director, Department of Pharmacology, Berlex Laboratories, Inc., 110 East Hanover Avenue, Cedar Knolls, N.J. 07927. Equal

BERLEX Opportunity
Employer M/F.
Laboratories Inc.

SR. RESEARCH INVESTIGATOR

Du Pont Critical Care is contributing to the advancement of modern healthcare as an innovative pharmaceutical company.

An opportunity to join Du Pont Critical Care's cardiovascular research team exists for a highly qualified doctoral level scientist with experience in the pathophysiology of myocardial ischemia. The candidate should possess a Ph.D. in cardiovascular physiology or pharmacology with 2-3 years of post-doctoral training.

Suitable candidates should possess a strong publication record of experience in ischemia-related ventricular dysfunction and metabolic abnormalities or in the regulation and pharmacological modification of coronary blood flow. The successful candidate will function as a member of a team of scientists dedicated to the discovery of novel therapeutic approaches to the treatment of cardiovascular disease.

Our facility is located in a beautiful park setting in the far north suburbs of Chicago. The work environment is stimulating and the compensation package is excellent.

Please send your resume and salary history in complete confidence to:

Employment Manager
Du Pont Critical Care, Inc.
1600 Waukegan Road
Waukegan, IL 60085

Equal Opportunity Employer

RESEARCH OPPORTUNITIES IN CANCER THERAPEUTICS

The Dow Chemical Company, in Midland, Michigan, is a recognized world leader in the chemical industry. Expanded research efforts in the area of cancer therapeutics and immunotherapy have created an immediate need within the Biotechnology Laboratory in the Central Research Department for qualified researchers in the area of

HYBRIDOMA TECHNOLOGY

The successful candidate will have a Ph.D. and two or more years post-doctoral experience in hybridoma technology. Familiarity with state-of-the-art construction of monoclonals, immunoassays and immunochemistry is required. Research efforts will be directed toward obtaining novel antibody specificities for our biotechnology-based cancer therapeutic program. The above candidates must also possess strong communication skills and a desire to carry out independent research while functioning as part of an interdisciplinary research team.

The Dow Chemical Company offers a stimulating work environment and a competitive salary and benefits package.

Send resume to:

Technical Recruiting
Department H-1
P.O. Box 1655
Midland, MI 48641-1655



The Dow Chemical Company is an Equal Opportunity Employer

MIT

Department of
Applied Biological Sciences

POST-DOCTORAL SCIENTISTS

Several positions are available for the study of genetic change in humans and human cells. Development and application of technology to observe mutational spectra in human blood and tissue DNA are emphasized. Both epidemiologic and mechanistic studies are possible.

Salary: \$25,000 per annum for entry-level candidates.

Please send resume to:
Prof. William G. Thilly
MIT, Room E18-666
77 Massachusetts Ave.
Cambridge, MA 02139

Telephone: (617) 253-6221

MIT is an equal opportunity/
affirmative action employer.

PH.D. BIOCHEMIST

Cancer Diagnostics Research & Development

One of the influential Durr's five best-managed companies of 1986, Abbott Laboratories takes particular pride in the fastest growing segment of our \$3.8 billion business — our Diagnostics Division. While becoming the world leader in medical diagnostics we've acquired a long history of success in the development of a variety of tests for tumor markers, including Carcinoembryonic Antigen, Alpha-Fetoprotein, Estrogen and Progesterone Receptors and CA 125.

We now seek individuals in our Cancer Diagnostics Research and Development Group to support our efforts in developing new immunoassay kits for tumor markers. The qualified candidates will have a minimum of a Ph.D. or equivalent experience in Biochemistry or an Associated Science. Knowledge of cancer diagnostics and/or tumor immunology, glycoprotein biochemistry, and immunoassay techniques is desired, along with strong supervisory potential.

Our Abbott Park headquarters is located in an attractive suburban area just 30 miles north of Chicago. We offer an excellent salary and benefits package including profit sharing and a stock retirement plan. For confidential consideration, send resume with salary history to: **Peggy Taylor/Corporate Placement, Dept. SM/5-8.** Abbott is an affirmative action employer.

 **ABBOTT**
ABBOTT PARK IL 60064

"HEALTH CARE WORLDWIDE"

MANAGER, TOXICOLOGY INFORMATION CANADA

The Warner-Lambert Research Institute, a laboratory within the Warner-Lambert/Parke-Davis Pharmaceutical Research Division, has an immediate opening for a manager of the data management and information systems group. The laboratory is located in Sheridan Park, Mississauga—a suburb of Toronto. Warner-Lambert is a worldwide leader in drug discovery and development. The mission of this laboratory is to share in the global safety evaluation activities of the company.

The Manager, Toxicology Information will report to the Director of the Institute and be responsible for the implementation and control of automated data acquisition, data processing, data storage and retrieval procedures as well as computer programming. This person will also participate in the planning, conduct, and interpretation of preclinical safety studies conducted on potential novel pharmaceutical agents for human use.

The ideal candidate will possess a Ph.D. in Toxicology or Pharmacology, DVM, or equivalent degree and experience in data management or general management of a laboratory environment as well as experience in experimental toxicology or drug safety evaluation. Canadian working papers are required.

Warner-Lambert provides a competitive salary and benefit package in a modern working environment with opportunity for professional advancement. Qualified applicants should send resume, salary requirements and reference list in confidence to: **Director, Warner-Lambert Research Institute, Warner-Lambert, 2270 Speakman Drive, Sheridan Park, Mississauga, Ontario, Canada L5K 1B4.**

**WARNER
LAMBERT**

"EQUAL OPPORTUNITY IN ACTION"

POSITIONS OPEN

POSTDOCTORAL POSITIONS in multidisciplinary research program on molecular mechanisms of bacterial pathogenesis and host defense. Available July, September, and December 1987. Background in biochemistry, bacterial physiology, medical microbiology, or molecular biology desired. Send curriculum vitae and three letters of recommendation to: **Dr. Murray W. Stinson, Department of Microbiology, School of Medicine, State University of New York (SUNY) at Buffalo, Buffalo, NY 14214.** *SUNY is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS. Molecular genetics/RNA biochemistry positions available fall or winter for work on small essential RNAs of *E. coli* and yeast. Genetic, biochemical, and biophysical strategies are used to characterize the structure and function of the *E. coli* 4.5S RNA and small nuclear RNAs of *Saccharomyces cerevisiae*. The 4.5S RNA appears to have a role in translational initiation [*Nature* 325, 281-284 (1987)] and one cloned snRNA gene is implicated in mRNA splicing. Current emphasis is on assessing the physiological effects of small RNA loss, biochemical identification of RNA-binding proteins, mutagenic mapping of RNA domains and characterization of unlinked suppressor genes. Experience with relevant methods preferred. Salary up to \$25,000. Send résumé and names of three references to: **Dr. M. J. Fournier, Department of Biochemistry, University of Massachusetts, Amherst, MA 01003.** Deadline for applications: 1 July 1987. *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE

Available immediately to study sickle cell membranes by magnetic resonance techniques. Project involves some collaboration with clinicians. Excellent physical facilities, including EPR, NMR, and computer facilities. Opportunity for neutron scattering studies also. Experience in either red cell and membrane biochemistry or biophysical spectroscopy preferred. One-year initial appointment, renewable up to 5 years upon mutual agreement; salary dependent upon qualifications.

Send curriculum vitae and three letters of recommendation to: **Dr. Leslie Wo-Mei Fung, Department of Chemistry.**

Loyola University
of Chicago
6525 North Sheridan Road
Chicago, IL 60626
Equal Opportunity Employer M/F

POSTDOCTORAL RESEARCH ASSOCIATE: Collaborate on a project studying neurotransmitters and neuromodulators in retina, with particular emphasis on cellular and molecular regulation by light, circadian oscillators, and drugs. The qualified applicant will have a recent Ph.D. or equivalent degree and expertise in at least one of the following: (i) protein purification, analysis, and antibody production; (ii) HPLC and RIA analysis of neurotransmitters and second messengers; (iii) cell and tissue culture; (iv) immunohistochemistry and autoradiography. Send curriculum vitae, statements of interest and research experience, date available, and names of three references to:

P. Michael Iuvone, Ph.D.
Emory University School of Medicine
Department of Pharmacology
Box AJ
Atlanta, GA 30322.

An Equal Opportunity/Affirmative Action Institution

POSTDOCTORAL RESEARCH ASSOCIATE— Estuarine ecology. The Jackson Estuarine Laboratory (UNH), seeks a postdoctorate in benthic zoology or marine microbiology, with expertise in muddy-bottom estuarine ecology. After the 1.5 year seed funds, candidate responsible for outside research grants. This is a nontenure track position. \$17,010 to \$26,340, starting salary normally not to exceed \$19,040. Deadline: 1 June 1987. Submit résumé and four references directly to:

Dr. Franz E. Anderson, Director
Jackson Estuarine Laboratory
RD #2, Adams Point
University of New Hampshire
Durham, NH 03824

An Affirmative Action/Equal Employment Opportunity

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE. Positions are now available to join a multidisciplinary group studying the structure and regulation of the genes for the catecholamine neurotransmitter biosynthetic enzymes. Applicants should have a strong background in either recombinant DNA technology or neurochemistry/neuropharmacology. Send curriculum vitae, statement of research interest, and the names of three references to: **Dr. Barry B. Kaplan, Molecular Neurobiology Program, Western Psychiatric Institute and Clinic, University of Pittsburgh School of Medicine, Pittsburgh, PA 15213.**

POSTDOCTORAL OR RESEARCH POSITION—AVAILABLE IN MOLECULAR-CELLULAR IMMUNOLOGY FOR Ph.D. OR M.D.

Studies deal with human lymphokine regulation, cell and gene cloning as part of a major program on the induction of Transplant Tolerance. Salary range from \$24,000 to \$34,000, depending on prior experience.

Send curriculum vitae together with names of three references to: **Marvin R. Garovoy, M.D., Director, Immunogenetics and Transplantation Laboratory, HSE-520, University of California, San Francisco, Third and Parnassus Avenues, San Francisco, CA 94143.**

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

POSTDOCTORATE RESEARCH FELLOW:

Conduct research in measurement of electrical voltages across red-cell membranes using knowledge of biophysics, fluorescence spectrophotometry, and computer modeling of the mechanisms by which dyes monitor membrane voltage. Ph.D. in biophysics with a specialization in physiology of stimulus-response coupling required. Must be able to perform duties described above, references required. Forty hours per week; \$16,000 per year. Send résumés to: **NYS Job Service NY00033224, 677 South Salina Street, Syracuse, NY 13202 (IN. 51.)**

POSTDOCTORAL RESEARCH POSITIONS. Available in the Department of Oncology of Montefiore Medical Center. Areas of interest are: cell and molecular biology of human colon cancer, growth control and signal transduction during leukemia cell differentiation, and pharmacology of AIDS antiviral drugs. Candidates will be considered for academic appointments at Albert Einstein College of Medicine. Send curriculum vitae and names of references to either: **Leonard Augenlicht, Ph.D., or Edward Schwartz, Ph.D., Department of Oncology, Montefiore Medical Center, 111 East 210 Street, Bronx, NY 10467.**

POSTDOCTORAL RESEARCH SCIENTIST

The Research Department of Central Institute for the Deaf (CID) seeks a beginning postdoctoral research scientist to study the acoustic correlates of speech sounds in a well-equipped computerized laboratory. This position is part of a continuing project, but will involve an initial emphasis on diphthongs and stops. As work continued, other categories of speech sounds will be considered including those of other languages. A knowledge of and/or interest in several of the following areas is desirable: phonetics, signal processing, and mathematics, simple quantitative modeling, and/or perceptual experimentation. This is an annual position to start on or after 1 September 1987 and will be renewable for approximately 3 years. Applicants should promptly submit résumés, a statement of research interests, and the names and addresses of four references to: **Dr. James D. Miller, Central Institute for the Deaf (CID), 818 South Euclid Avenue, St. Louis, MO 63110.** *CID is an Equal Opportunity Employer.*

POSTDOCTORAL OR RESEARCH ASSOCIATE position available immediately for a minimum of 2 years to participate in clinical motor control studies on patients with movement disorders. Should have some experience with electromyography and kinematic analysis of movement. Send curriculum vitae and three letters of reference to: **Drs. R. Penn and G. Gottlieb, Department of Neurosurgery, Rush Medical College, 1753 West Congress Parkway, Chicago, IL 60612.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS:

(i) **MOLECULAR BIOLOGIST** to investigate the genetic basis for abnormal membrane fusion and ion translocating pump activity in a human and animal disease model. (ii) **PROTEIN CHEMIST/ENZYMOLOGIST** to explore the mechanism of action of tetanus toxin. Excellent salary, exciting work environment, and funding established for 3 to 5 years. Please send curriculum vitae, letters or names of references, and a brief statement of research interests to: **Dr. Mark S. Klempner, Department of Medicine, New England Medical Center, Boston, MA 02111.**

POSTDOCTORAL TRAINING IN LEUKOCYTE BIOLOGY

We have several postdoctoral fellowships available now for individuals interested in obtaining advanced training in leukocyte biology. Successful applicants will have the opportunity of joining and working with a diverse, multidisciplinary group of scientists interested in multiple aspects of macrophage physiology, including surface receptors, intracellular mechanisms of signal transduction, cell-cell recognition, gene regulation, and tumor biology. Emphasis in training is placed on analysis of a problem of the fellow's choice in the above areas with tools in contemporary cellular and molecular biology. The five faculty members in the group include individuals skilled in leukocyte biology, protein chemistry, cell biology, or molecular biology. Previous training in biochemistry, protein chemistry, receptor biology, or cellular/molecular biology would be particularly suitable, though not essential. An attractive stipend, commensurate with experience, will be offered. Openings are available at several levels of training. Interested applicants should send curriculum vitae to:

Dolph O. Adams
Laboratory of Cell and Molecular Biology
of Leukocytes
Department of Pathology
Duke University
Box 3712
Durham, North Carolina 27710
Equal Opportunity Employer

POSTDOCTORAL TRAINING—MOLECULAR BIOLOGY OF MACROPHAGE ACTIVATION

Position available immediately to participate in ongoing studies of molecular aspects of macrophage activation. The project will involve the analysis of novel regulatory and functional gene products in macrophages following stimulation with IFN gamma and/or LPS. Experience in molecular biology, biochemistry, and/or immunology would be advantageous. Please send inquiries including curriculum vitae and names of three references to:

Dr. Thomas A. Hamilton
Research Institute (FF4)
The Cleveland Clinic Foundation
9500 Euclid Avenue
Cleveland, OH 44106

TWO POSTDOCTORAL POSITIONS available for Ph.D. and/or M.D. with experience in molecular and cell biology for an NIH training program to study regulation of myelopoiesis/lymphopoiesis starting 1 July 1987. Areas: biochemical, molecular, and cell changes induced by purified positive and negative cell growth molecules; gene expression, transfection/infection of hematopoietic cells. Send curriculum vitae and names of three references to: **Hal E. Broxmeyer, Ph.D., Director, Training Program, Department of Medicine, Division of Hematology/Oncology, Indiana University School of Medicine, 541 Clinical Drive, Room 379, Indianapolis, IN 46223.** *Indiana University is an Affirmative Action/Equal Opportunity Employer.*

TWO POSTDOCTORAL POSITIONS are open in the Research Center of the University of Montreal affiliated Notre-Dame Hospital to study (i) regulation of cholesterol synthesis via mevalonate shunting [*JBC* 259, 8939 (1984)] and (ii) ketone body utilization in the liver [*JBC* 257, 3434 (1982)]. Candidates should be non-smoker, proficient in the use of isotopes for metabolic studies, HPLC and, if possible, GC-MS. Send curriculum vitae to: **Dr. Henri Brunengraber, Research Center, Notre-Dame Hospital, 1560 East Sherbrooke Street, Montreal, Quebec, Canada. H2L 4M1. Telephone: 514-876-7477.**

Molecular Geneticist/ Bacterial Physiologist

A growing agricultural biotechnology company in suburban Baltimore/Washington is seeking energetic, innovative individuals to join its microbial agchemical team. The successful candidates will be part of a multidisciplinary team which is developing novel microbial technologies for "in planta" production of agricultural biochemicals.

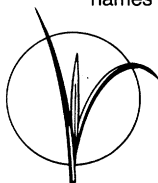
Research Scientist

Requirements are a Ph.D. in Bacterial Physiology/Genetics with experience in the regulation of gene expression and the tools of recombinant DNA technology. Training and/or experience in protein structure/function is desirable.

Research Assistant

Requirements are a B.S. or M.S. in Molecular Biology or a related field and experience in genetically manipulating bacteria.

To apply forward a curriculum vitae in confidence and the names of three professional references by May 22 to:



Crop Genetics International

Department MG
7170 Standard Drive
Hanover, MD 21076

An equal opportunity employer.

IMMUNOASSAY DIAGNOSTICS

SENIOR SCIENTIST— TUMOR MARKERS

Hoffmann-La Roche's commitment to discovery is clearly evident in our Diagnostics Research and Development Division. In our efforts to detect some of the world's most elusive diseases, an opportunity has been created for a Senior Scientist with experience in immunochemical assay research.

To effectively conduct critical R&D of new assays for tumor antigens, you must have a Ph.D. in Chemistry, Biochemistry, Immunology or a related life science, along with at least two years of post doctorate/industrial/research experience. A solid background in immunochemistry, protein chemistry or tumor antigen research and excellent communication skills is essential; diagnostic assay R&D experience would be ideal.

We can offer you an outstanding compensation package including progressive benefits, and the environment most conducive to professionals carrying out important work. To find out how you may become a part of the Roche commitment to discovery, send your resume with salary requirements to: **Fran Newman, Hoffmann-La Roche Inc., Nutley, New Jersey 07110.** We are an equal opportunity employer.



Hoffmann-La Roche

Working Today For A Healthier Tomorrow.

PROTEIN BIOCHEMISTRY

At Cetus Corporation, we are committed to maintaining our leading role in the research and development of biotechnology-based therapeutics.

Our Product and Process Development group seeks an individual to conduct protein purification, characterization and formulation. Responsibilities will include developing purification procedures by conventional LC, HPLC/FPLC, etc., and characterization utilizing electrophoresis, Western blotting and other immunological techniques. Experience in peptide mapping, biophysical techniques or chemical modification is additionally desirable.

We seek individuals with either an MS plus at least 2 years' relevant experience, or a BS plus 4-5 years' experience with exposure to a wide range of techniques. This position also provides the opportunity to learn new techniques in purification, characterization, and formulation of proteins as project needs change.

Please send your resume in confidence to:

CETUS CORPORATION
Box SHS
1400 Fifty-third Street
Emeryville, CA 94608
E/O/E



ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION

NATIONAL INSTITUTE OF MENTAL HEALTH

MOLECULAR GENETICIST: Staff Fellowship for a molecular geneticist who has completed Ph.D. requirements and preferably a 2-3 year postdoctoral fellowship. The candidate should have an interest in gene mapping and the development of techniques to search the genome for abnormal sequences related to mental disorders. Interested applicants should send their C.V. and three references to:

Dr. Elliott S. Gershon
National Institute of Mental Health
9000 Rockville Pike—10/3N218
Bethesda, MD 20892; 301-496-3465

AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

PROFESSOR IN DIABETES RESEARCH ST. JOSEPH'S HEALTH CENTRE RESEARCH INSTITUTE LONDON, ONTARIO

An endowed position in diabetes research has been created at St. Joseph's Health Centre Research Institute. St. Joseph's Health Centre is a 530-bed teaching hospital affiliated with the University of Western Ontario. The Research Institute was opened in October 1983. Endocrinology and metabolism, particularly as related to diabetes, has been established as a major focus of research effort and clinical thrust of the hospital.

The successful candidate will hold an academic appointment at the University of Western Ontario at the level of associate or full professor. The individual should possess the degree of Ph.D., and/or M.D., or appropriate background, and have a major (greater than 75 percent) time commitment to research. Seed funding will be available to transfer and re-establish existing research activities.

The position of professor in diabetes research represents a unique opportunity to develop and combine a substantial research commitment with a well-established clinical program.

Replies in confidence to: **Dr. J. R. G. Challis, Director, The Research Institute, St. Joseph's Health Centre, 268 Grosvenor Street, London, Ontario, Canada N6A 4V2.**

PRODUCT MANAGER ELECTROCHEMICAL INSTRUMENTATION. Responsible for marketing support, including demonstrations to potential customers of polarographic and amperometric instrumentation, chemical analysis of customer samples, and training of sales personnel who are chemists. Responsible for marketing of products by means of participating in trade shows, evaluating the market potential of products under development and reviews marketing literature for accuracy. Occasional travel (20 percent) is required. Must have Master of Science in Chemistry and 1 year of experience in the offered position or 1 year of experience as application chemist. Must have experience working in polarographic and amperometry instrumentation as part of experience required above. Forty hours per week; 8:00 a.m. to 4:30 p.m. \$2666.67 per month. Submit résumé to: **Illinois Department of Employment Security, 401 South State Street-3 South, Chicago, IL 60605. Attention: Robert S. Felton. Reference No. V-IL 6399-F. An employer-paid ad.**

EXTENSION OF DEADLINE: PROFESSOR AND HEAD, DEPARTMENT OF MICROBIOLOGY, THE UNIVERSITY OF TENNESSEE, KNOXVILLE, TENNESSEE. EXTENSION OF SEARCH: Original closing date has been changed from 1 January 1987 to 1 June 1987. **QUALIFICATIONS:** Doctoral degree in microbiology or closely allied biological science; demonstrated productivity in microbiological research and excellence in teaching; administrative experience or evidence of administrative ability. **RESPONSIBILITIES:** To provide academic and administrative leadership in a department which serves both the College of Liberal Arts and the College of Veterinary Medicine. **STARTING DATE:** Negotiable. **APPLICATIONS:** Applicants should submit a letter of interest accompanied by curriculum vitae, a description of the applicant's research program and career objectives, and the names, addresses, and telephone numbers of five individuals who can evaluate the applicant's qualifications for the position. All materials should be sent to: **Dr. Dewey Bunting, Chairman, Search Committee, Department of Microbiology, University of Tennessee, Knoxville, TN 37996-0845.** For further information call: **Dr. Bunting at the Graduate Program in Ecology 615-974-3065.** **CLOSING DATE:** Nominations should be made as soon as possible. Applications should be completed by 1 June 1987. *The University of Tennessee is an Affirmative Action/Equal Opportunity Institution.*

RESEARCH AND DEVELOPMENT PROJECT LEADER

TechAmerica Group, Inc., is currently seeking a motivated, responsible Project Leader to coordinate activities for biological product development. Position requires a Ph.D. degree with a strong background in virology and/or bacteriology and the ability to plan, conduct, and supervise animal vaccine projects. TechAmerica offers a competitive compensation package and excellent growth opportunities. Interested candidates should forward résumé to: **Personnel Officer, Biologics Corporation, P.O. Box 34325, Omaha, NE 68134.**

POSITIONS OPEN

The Department of Microbiology, Molecular Virology Labs, has a faculty position available at the **RESEARCH ASSOCIATE** level starting 1 July 1987. Individuals interested in applying molecular or immunological approaches to studies of viral pathogenesis are encouraged to apply. Candidates should have a Ph.D. and experience in viral biology, immunology, and/or molecular biology is desirable. Send curriculum vitae and the names of three references by 1 June 1987 to:

**Dr. K. A. Clouse
Department of Microbiology
Molecular Virology Labs.
Georgetown University
3900 Reservoir Road, NW
Washington, DC 20007**

An Affirmative Action/Equal Opportunity Employer

The Division of Viral Diseases, Centers for Disease Control (CDC), invites applications for a **RESEARCH MICROBIOLOGIST** position in the Retrovirus Diseases Branch. Candidates must have M.D. and/or Ph.D. degree with a minimum of 5 years of research experience. At least 3 years of research experience with AIDS or other retroviruses preferred. Candidates should have demonstrated research potential, as evidenced by significant numbers of publications in peer-reviewed journals, in tumor virus genetics involving molecular cloning, site-specific mutagenesis, DNA sequencing, and gene transfer techniques. Demonstrated scholastic achievements in the area of retroviruses and ability to interact successfully with other researchers are highly desired. Responsibilities will include the maintenance of a strong research program with an emphasis on the molecular biology of human retroviruses and provide help to the epidemiology and cell biology sections of the branch. Salary range \$38,727 to \$45,763 per annum. *An Equal Opportunity Employer.* Applicants should submit curriculum vitae and names of three references to:

**Mrs. Louise Griggs
Centers for Disease Control
1600 Clifton Road
Atlanta, GA 30333**

CDC is a smoke-free work environment.

The George R. Harrison Spectroscopy Laboratory of the Massachusetts Institute of Technology (MIT) has an opening for a **RESEARCH SCIENTIST** to conduct independent theoretical research, teach, and perform administrative duties. The selected candidates will (i) develop mathematical models to describe the interaction of laser radiation with biological tissue for applications to surgery and medicine, (ii) have periodic teaching responsibilities, in the area of physics, and (iii) participate in the day-to-day administration of the Laboratory. The salary range is \$30,000 to \$32,000, depending on experience and qualifications.

REQUIREMENTS. The candidate should have a Ph.D. in theoretical physics and at least 5 years of subsequent research experience with a strong record of publications. The candidate is also expected to be experienced in numerical methods and the use of computers, as well as in academic administration. Applicants should send a résumé and ask at least three persons familiar with their professional backgrounds to send letters of reference directly to: **Professor Michael S. Feld, Director, George R. Harrison Spectroscopy Laboratory, Room 6-014, MIT, Cambridge, MA 02139.**

SCIENTIFIC DIRECTOR— RESEARCH INSTITUTE

The Mary Imogene Bassett Hospital, a 189-bed rural referral center and major teaching affiliate of Columbia University, is seeking a **SCIENTIFIC DIRECTOR** for the newly created Mary Imogene Bassett Hospital Research Institute. Five full-time investigators, supplemented by clinical researchers, embody the professional staff of the institution. General support for research exists through the Stephen C. Clark Endowment Fund. Cooperstown, on scenic Otsego Lake, is a four-season resort village with fine schools and outstanding recreational facilities. The scientific director is responsible for managing the Research Institute and fostering coordination of research efforts. Please write or call: **Walter A. Franck, M.D., Search Committee Chairman, The Mary Imogene Bassett Hospital, Cooperstown, NY 13326. Telephone: 607-547-3110.**

POSITIONS OPEN

RESEARCH TECH/FRED HUTCHINSON CANCER RESEARCH CENTER: FHCRC is a leading institution in the field of basic and applied cancer research. There is an immediate opening for a highly qualified individual to participate in basic studies of growth factor receptors and oncogenes (SMS and SRC) in neoplastic transformation. A B.S. degree and experience with molecular cloning and/or hybridoma monoclonal antibody production preferred. Salary DOE, excellent benefits. Send résumé to: **Dr. Larry Rohrschneider, FHCRC, 1124 Columbia Street, Seattle, WA 98103. We are an Equal Opportunity/Affirmative Action Employer.**

SCIENTIFIC RECRUITER, FRED HUTCHINSON CANCER RESEARCH CENTER (FHCRC). Perform recruitment activities for scientific and general administrative positions. Requires B.S. degree and minimum 2 years of experience in scientific recruiting. Salary depending on experience, benefit package. Send résumé to: **Sherree Maxwell, FHCRC, 1124 Columbia Street, Seattle, WA 98103.**

Equal Opportunity/Affirmative Action Employer.

SENIOR FACULTY POSITION IN MICROBIOLOGY AND IMMUNOLOGY MEDICAL COLLEGE OF VIRGINIA (MCV)/ VIRGINIA COMMONWEALTH UNIVERSITY

A senior-level faculty member (Ph.D. or equivalent degree) with credentials in immunobiology is being sought. The applicant must be an established investigator as evidenced by a strong extramurally supported research program, a significant publication record, and experience in the successful training of predoctoral and postdoctoral students. The successful applicant will be expected to expand and maintain a nationally visible, grant-supported research program and participate in the training of graduate students and postdoctorals. Teaching in graduate and professional level courses is required. Send curriculum vitae and the names of three references by 15 July 1987 to: **Dr. Francis L. Macrina, Department of Microbiology and Immunology, Box 678 MCV Station, Virginia Commonwealth University, Richmond, VA 23298-0001. An Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.**

SENIOR LECTURER

The Section of Neurobiology and Behavior at **Cornell University** is seeking a full-time (12-month appointment) senior lecturer beginning January 1988 for a 5-year renewable contract. The individual will teach a 20-student undergraduate laboratory/lecture course in neurophysiology and one additional advanced course, such as electronics for neurobiologists. Duties will include responsibility for overall course organization, lecturing and teaching laboratory sections. A Ph.D. degree in neurophysiology or related fields, and prior teaching experience, are requirements.

Applicants should send curriculum vitae (including evaluation of teaching) and three letters of reference requested by the candidate to: **Dr. Owen Hamill, Search Committee, Section of Neurobiology and Behavior, W363 Seeley Mudd Hall, Ithaca, NY 14853.** Screening of applicants begins September 1987.

Cornell University is an Affirmative Action/Equal Opportunity Employer.

EDF, a national environmental organization, seeks a **SENIOR SCIENTIST** for newly created North Carolina office. Program start-up funded by two well-established foundations. Will focus on three major program areas: toxic chemicals, water, and land resources. Seek scientist with strong academic credentials at Ph.D. level in area related to program issues with demonstrated interest in the environment. Candidate should have ability to be an effective advocate with strong leadership skills. An entrepreneur with an interest in building a public interest advocacy program for North Carolina. Salary mid five figures. For confidential consideration please contact: **Denise Shaffer-Berne, EDF, 257 Park Avenue South, 16th Floor, New York City, NY 10010.**

NATIONAL INSTITUTE ON AGING NATIONAL INSTITUTES OF HEALTH

The Scientific Review Office, Office of Extramural Affairs, National Institute on Aging, is seeking candidates for the position of **Health Scientist Administrator** (Biological Sciences) to act as Executive Secretary for review of grant and contract proposals, in the areas of immunology, molecular biology and biochemistry. A background in the use of monoclonal antibodies or recombinant DNA would be an asset. Candidates should have either a Ph.D. (or equivalent) degree in an appropriate field of biology or medicine and, in addition should have at least two years of postdoctoral experience in one of the above areas or in gerontological research. Experience as an investigator on Federally funded awards, and as a faculty member in a school of Medicine, Dentistry, Veterinary Medicine or similar site of biomedical research and training is desirable. Administrative experience either as a principal investigator, public health official, or academic or industrial manager must be demonstrated.

The position will be filled through the Civil Service or Commissioned Corps of the U.S. Public Health Service. The grade of the position is a GS-12/13/14 with a salary range of \$32,567-59,488 p.a., depending on the qualifications of the applicant selected. Benefits include a retirement plan, health and life insurance, sick and annual leave. Duty station—Bethesda, Maryland. U.S. Citizenship is required.

Any applicant not currently employed in the Federal Government as a Health Scientist Administration will be required to obtain an eligible notice of rating. Submit Application For Federal Employment (SF-171), curriculum vitae and bibliography to: **Ms. Sara Benesch, Personnel Office, National Institute on Aging, Building 31—Room 2B63, National Institutes of Health, 9000 Rockville Pike, Bethesda, Maryland 20892.** Applications must be received or postmarked by June 1, 1987. Call Ms. Benesch at (301) 496-5347 for further information.

AN EQUAL OPPORTUNITY EMPLOYER

FACULTY POSITION BASIC MOLECULAR VIROLOGY UNIVERSITY OF ROCHESTER

Applications are invited for a tenure-track faculty position in the Department of Microbiology and Immunology at the School of Medicine and Dentistry. Depending on qualifications, the position may be filled at any rank from Assistant Professor to Professor. This position is part of a major developmental program in the department, which includes new space, added budget for equipment, and expansion of the graduate program. We seek a person who will direct an independent research program in some aspect of basic animal virology; applications from individuals with research experience in retroviruses are particularly welcomed. The School of Medicine and Dentistry enjoys a long tradition of cooperative interactions among basic science departments and clinical units, and the Department of Microbiology and Immunology takes part in cooperative programs with other parts of the University. Of possible interest for this position is an active AIDS clinic and research program centered in the Infectious Disease Unit of the Department of Medicine, which includes major federal funding for treatment evaluation and a vaccine center. Faculty in the department teach in the graduate program, and may also be involved in the medical curriculum, in postgraduate dental education, or in an undergraduate track leading to a B.S. in Biological Sciences (Microbiology), which graduates 15-20 majors a year. Salaries are competitive and based on qualifications. A strong record of funding or potential for funding is required. Applicants should submit a complete curriculum vitae, including the names of three references and sample publications to: **Virology Search Committee, Department of Microbiology and Immunology, Box 672, University of Rochester School of Medicine and Dentistry, Rochester, NY 14642.** Applications should arrive by June 30, 1987. *The University of Rochester is an Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF MINNESOTA

The College of Biological Sciences at the University of Minnesota seeks an individual to direct the Molecular Biology Computer Facility (a satellite Bionet) which provides advanced computing resources to molecular biologists and biochemists. The faculty currently serves more than 35 different laboratories in the College of Biological Sciences, the School of Medicine, and the College of Agriculture. The individual to be hired must have a Ph.D. in either molecular biology/biochemistry/related field or computer science, a strong background in both computer science and molecular biology/biochemistry, and at least 1 year of postdoctoral experience. Experience in the use of UNIX or a comparable multiuser operating system and a working knowledge of microcomputer software are desirable.

Currently the facility consists of a SUN 3/160 (configured as a time-sharing system), The IntelliGenetics software package, and other software applicable to molecular biology. In addition, software and hardware for advanced molecular modeling studies are being acquired. The position involves directing and maintaining the facility, training users, and arranging for the acquisition of new hardware and software as needed. The successful candidate will be expected to work with researchers at the University to develop new applications of these systems, to direct a staff of a user consultant and a technical assistant. The director of the facility must have good oral and written communication skills. Applicants must submit curriculum vitae, graduate transcripts, three letters of recommendation, and a 1-2 page statement specifying experience and research interests in the use of computers in molecular biology to: **Perry Hackett, Department of Genetics and Cell Biology, 250 Biosciences Center, 1445 Gortner Ave., St. Paul, MN 55108.** The deadline for receipt of all application materials is June 1, 1987.

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



Director Diagnostics Research & Development

Triton Biosciences Inc., a subsidiary of Shell Oil Company, is an emerging force in the development of cancer diagnostics and therapeutics. Our company is built upon a strong base of research expertise, solid support, and responsive management. We are currently seeking an experienced research manager who will report directly to the Vice President of Research & Development.

You will be responsible for providing technical and organizational leadership for Triton's diagnostic R&D department during a period of rapid growth. The department is engaged in sizable immunodiagnostic projects in the areas of novel cancer markers, therapeutic drugs, hormones and viral and infectious diseases, and works in close collaboration with departments of molecular & cell biology and protein chemistry.

Candidates should have a Ph.D. in immunochemis-

try, or a closely related discipline, and significant industrial experience in managing immunodiagnostic products from the laboratory to the market place. You should be a strong leader and manager, able to work closely and effectively with scientific, engineering and business people on complex, multi-disciplinary projects. You need significant direct-line management experience with a research group of at least 20 people and be able to take on additional responsibility.

Triton is located in the San Francisco Bay Area and offers competitive salaries and company benefits, including relocation assistance. For prompt consideration, please forward your C.V. with salary requirements and the names of three references to: Employee Relations, Box DRD, 1501 Harbor Bay Parkway, Alameda, CA 94501. All candidates must have U.S. citizenship or permanent resident visa status. Triton is an equal opportunity employer.



Triton Biosciences Inc.

POSITIONS OPEN

SENIOR RESEARCH ASSOCIATE

A position is available from 1 July 1987 for a senior research associate in the **Laboratory for Pregnancy and Newborn Research** in the Department of Physiology at the College of Veterinary Medicine, Cornell University, Ithaca, New York. The successful applicant will either hold a M.D., D.V.M., Ph.D., or equivalent degree. Dual clinical and scientific doctorates would be particularly useful. Experience with chronically instrumented pregnant sheep and pregnant monkey preparations is essential. The successful applicant will lead members of the research group in ongoing studies on neuroendocrine function using radioimmunoassay, HPLC, and electrochemical detection systems and other endocrine measurement techniques in the fetal sheep. Experience with computerized data acquisition systems to analyze fetal behavioral variables and uterine electromyographic activity essential. A commitment to research and a significant record of published scholarly work is required. Salary range \$28,000 to \$47,000. Send curriculum vitae and names of three references to: **Dr. Peter W. Nathanielsz, Director, Laboratory for Pregnancy and Newborn Research, Department of Physiology, 526 Veterinary Research Tower, Cornell University, Ithaca, NY 14853-6401. Cornell is an Affirmative Action/Equal Opportunity Employer/Educator.**

Stanford University/Sedimentary Geology. The Department of Geology at Stanford University invites applications for a **TENURE-TRACK FACULTY POSITION** in elasic sedimentology or in the broad interdisciplinary area of paleoceanography-paleoclimatology. Applicants should have a clearly demonstrated interest in applying their speciality to larger questions surrounding the physical, chemical, and biological evolution of the oceans, or the development of continental margins and sedimentary basins, and innovative interpretation of the stratigraphic record. The growing program in sedimentary geology at Stanford includes faculty in organic geochemistry, sedimentology, marine micropaleontology, sedimentary tectonics, and marine stratigraphy and basin analysis. We are particularly interested in an individual who will take advantage of this especially lively mix of subdisciplines regardless of his/her research speciality. We also seek an individual with a relish for graduate and undergraduate teaching and with the drive and capacity to develop a unique research program emphasizing the power of the stratigraphic record to address geological or paleoceanographic questions which reach beyond their speciality.

Applicants should send a résumé, names and addresses of three individuals from whom letters of recommendation can be obtained, and a brief statement of research interests to: **Stephan A. Graham or James C. Ingle, Department of Geology, Stanford University, Stanford, CA 94305.** Although we are most interested in identifying mid-career and junior-level scientists with these interests, we will be pleased to receive applications from scientists at all levels. A Ph.D. is required. Applications must be received by 31 May 1987. *Stanford University is an Equal Opportunity/Affirmative Action Employer.*

The Department of Biology seeks to fill a **TEMPORARY POSITION** for 1 year beginning September 1987. Rank and salary are negotiable. Teaching responsibilities will include botany, invertebrate zoology, and introductory biology. The College of St. Thomas is a coeducational, Catholic liberal arts college committed to the total development of the individual student. The successful applicant will have a Ph.D., or substantial progress toward the degree, and a strong commitment to teaching at the undergraduate level. Send letter of application, curriculum vitae, and three letters of reference directly to: **Mrs. Kathy Fell, Box 4208, College of St. Thomas, 2115 Summit Avenue, St. Paul, MN 55105.** All materials must be received by 22 May 1987. *An Equal Opportunity/Affirmative Action Employer.*

VISITING ASSISTANT PROFESSOR, The University of Texas at El Paso. Nontenure-track position in biological sciences to teach general biology. Candidates must possess a Ph.D. degree. Preference will be given to candidates with a background in immunology or biochemistry. Send curriculum vitae, bibliography, and three letters of reference indicating research and teaching ability to: **Dr. Eppie D. Rael, Department of Biological Sciences, The University of Texas at El Paso, El Paso, TX 79968-0519.** Position is available 1 September 1987; deadline for applications is 1 June 1987. *Women and minorities are encouraged to apply. The University is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH GRANTS



GRANTS

American Health Assistance Foundation is accepting research grant applications for **ALZHEIMER'S DISEASE RESEARCH** up to \$100,000.

For further information please write to: **American Health Assistance Foundation, c/o Carolyn P. Krym, 15825 Shady Grove Road, Suite 140, Rockville, MD 20850. Deadline: 15 August 1987.**

SUMMER INSTITUTE

1987 SUPERCOMPUTER SUMMER INSTITUTE. Center for Theory and Simulation in Science and Engineering (Theory Center), Cornell University, Ithaca, NY; 22 June to 2 July 1987. Participants will receive in-depth, hands-on training in the resources of the Theory Center, one of five NSF-sponsored National Advanced Scientific Computing Centers. Instruction will focus on optimum utilization of the hardware and software of the Cornell National Supercomputer Facility (CNSF), with particular emphasis on vectorization, optimization, and parallel processing. The CNSF consists of an IBM 3090-400 with four vector facilities and five attached Floating Point Systems scientific computers, giving a peak throughput of over 600 megaflops. Contact: **Linda Morris, Assistant Director, Cornell Theory Center, 265 Olin Hall, Ithaca, NY 14853-5201. Telephone: 607-255-8816. DEADLINE** for application is 22 May 1987.

FELLOWSHIPS

Unexpected immediate opening for a **POSTDOCTORAL FELLOWSHIP** with tumor immunology or immunoglobulin genetics background. Laboratory is active in developing and characterizing monoclonal antibodies for purposes of radioimmunoassay and therapy of human cancers. Opportunities to work in several tumor systems. Send résumé and names of three references to: **Richard L. Whal, MD, Department of Internal Medicine, Division of Nuclear Medicine, University of Michigan Medical Center, Ann Arbor, MI 48109-0028. A Nondiscriminatory, Affirmative Action Employer.**

NEUROSCIENCE/BIOCHEMISTRY/PHARMACOLOGY

POSTDOCTORAL FELLOWSHIPS are available for research on a program on the regulation of inositol lipid-linked CNS receptor systems, at the **Mental Health Research Institute of the University of Michigan.** Specific areas of interest include the chemistry of inositol phosphates and diacylglycerols, receptor imaging, regulation of inositol-linked receptors following in vivo drug administration, developmental aspects of receptor-inositol coupling, and the role of lipid and protein phosphorylation in neurotransmitter release. Staff sponsors include **Bernard Agranoff, Stephen Fisher, Kirk Frey, Amiya Hajra, Anne Heacock and Ted Ueda.** Please send curriculum vitae and names of three references to: **Director, Mental Health Research Institute, University of Michigan, 205 Washtenaw Place, Ann Arbor, MI 48109; telephone: 313-764-4214. Deadline: 1 July 1987.**

Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION IN VASCULAR PLANT SYSTEMATICS

The **Harvard University Herbaria** has a 1-year fellowship available to qualified individual with Ph.D. working in vascular plant systematics. Applicants should provide statement of purpose which describes proposed use of the Herbaria and its Libraries, and project(s) planned to undertake. Cover letter with above information, curriculum vitae, and three letters of recommendation should be sent by 1 June 1987 to:

**Donald H. Pfister
Harvard University Herbaria
22 Divinity Avenue
Cambridge, MA 02138**

FELLOWSHIPS

INDUSTRIAL POSTDOCTORAL FELLOWSHIP FOR 2 YEARS

Starting 1 September 1987. A Ph.D. in biochemistry and/or microbiology with 1 to 5 years of postdoctoral experience. Work related to projects on enzymes; screening organisms, microbial genetics, growth optimization, isolation and purification. Please send your curriculum vitae with references to: **Personnel Department, GDS Technology, Inc., P.O. Box 1781, Elkhart, IN 46515.**

GEORGE S. WISE POSTDOCTORAL FELLOWSHIPS

The **George S. Wise Faculty of Life Sciences at Tel Aviv University** offers each year postdoctoral fellowships commencing on 1 October in basic and applied biology.

The Faculty is engaged in such research areas as anatomy, taxonomy, and physiology of plants; anatomy, sociobiology, and physiology of animals; marine biology; cellular and molecular biology and genetics; lipid and protein research; bioenergetics; neurobiology; immunology; virology; cancer biology; biotechnology and nature preservation.

Application forms can be obtained from: **The Dean, The George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel. Deadline** for applications is 30 May 1987 of each year.

RESEARCH ASSOCIATE IN ORCHIDOLOGY HARVARD UNIVERSITY HERBARIA

Applications are invited for systematists with Ph.D. in botany who are interested in innovative theoretical or empirical research involving the Orchidaceae. Training and interests should include new or promising methodologies, techniques, or philosophies in systematic and evolutionary research. Primary responsibility will be to conduct an active research program in the Orchidaceae, and also participate in Herbaria activities including administration, collection, and curation.

Appointment to be reviewed annually (maximum of 5 years).

Send curriculum vitae, description of current research, reprints of recent publications, and three letters of reference to:

**Professor Donald H. Pfister
Harvard University Herbaria
22 Divinity Avenue
Cambridge, MA 02138**

POSTDOCTORAL FELLOWSHIP—available July 1987 to study translocation of membrane receptors and other aspects of activation of phagocytosis in human neutrophils and macrophages. Experience with immunoassays, monoclonal antibodies, and/or cell fractionation and membrane protein biochemistry techniques desirable. Send curriculum vitae and names of three references to: **Melvin Berger, M.D., Ph.D., Rainbow Babies & Childrens Hospital, Division of Immunology, 2101 Adelbert Road, Cleveland, OH 44106. Rainbow Babies & Childrens Hospital is an Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP—University of Florida DNA Diagnostic Laboratory. The fellow will play a major role in developing and offering tests for prenatal diagnosis and carrier detection. Experience in molecular genetics and M.D. or Ph.D. degree required. Contact: **H. Ostrer, M.D., Box J-296, JHMC, Gainesville, FL 32610-0296. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOWSHIPS available in department of physiology to study electrophysiological basis of excitability in smooth and cardiac muscle cells. Positions available 1 July 1987 or until filled. Send curriculum vitae and list of three references to: **Kenton Sanders, Ph.D., Department of Physiology, University of Nevada School of Medicine, Reno, NV 89557. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH FELLOWSHIP available July 1987 to study host-parasite relationships in in vitro models of infection with facultative intracellular parasites, especially fungal pathogens. Applicant must have M.D. or Ph.D. and be U.S. citizen or permanent resident. Submit curriculum vitae and two letters of recommendation to: **J. R. Little, M.D., or G. S. Kobayashi, Ph.D., The Mycology Center, Washington University School of Medicine, 660 South Euclid, St. Louis, MO 63110.**

STAFF SCIENTISTS MARINE MOLECULAR BIOLOGY

Staff scientist positions (tenure track) are available at the University of Maryland Center for Marine Biotechnology. Staff scientists will join research groups with interests centering on (1) control of growth, development and reproduction of finfish and shellfish, (2) molecular biology and molecular genetics of marine bacteria, especially those from extreme habitats, and (3) molecular biology of marine algae.

We are particularly interested in applicants who wish to pursue both independent and collaborative research in the following areas in marine molecular biology, although outstanding scientists with research interests outside these areas are encouraged to apply:

- Molecular biology of growth hormones and growth factors (or other areas of reproduction, development or growth) in marine finfish and shellfish.
- Physiology or biochemistry of reproduction, development or growth of marine organisms
- Molecular biology and molecular genetics of marine bacteria (preference will be given to someone with expertise with high pressure systems)
- Molecular biology and molecular genetics of marine algae

Joint appointments with appropriate departments at the University of Maryland will be pursued. All joint appointees will be expected to participate in departmental duties, including the teaching and graduate training programs of the allied departments. All staff scientists will be expected to develop and maintain active research programs in marine molecular biology by securing funds from external sources.

Located in the Inner Harbor section of Baltimore, Maryland, the Center of Marine Biotechnology is well-equipped with state-of-the-art facilities for cellular and molecular studies. A large training grant in marine molecular biology supports pre- and postdoctoral fellows and provides limited faculty support.

Letters of application, including curriculum vitae, a statement of research interests, and names and addresses of three references should be sent no later than June 1, 1987 to:

CENTER OF MARINE BIOTECHNOLOGY
Search Committee
University of Maryland
600 E. Lombard Street
Baltimore, MD 21202
EOE



THE UNIVERSITY OF MARYLAND

We are a dynamic rapidly growing,

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QUALIFIED DVM PATHOLOGIST

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The successful candidate will be responsible to organize the pathology laboratory and to promote the scientific image of the center in this field.

An attractive salary—relative to qualification and experience—and cultural opportunities at highest level are offered.

Qualified candidates are kindly requested to submit their curriculum vitae to:

A. MENARINI S.A.S. PHARMACEUTICAL INDUSTRIES (Personnel Department)
Via Sette Santi, 3
50131 Florence, Italy.

Correspondence will be kept strictly confidential.



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