

Products & Materials

Benchtop GC-MS-DS System

The Trio-1 is a mass spectrometer (MS) that links to a gas chromatograph (GC) and a data station (DS) to form a GC-MS-DS system. The chromatograph is the Hewlett-Packard HP 5890GC. LabBase, the data station, is based on the IBM PC and contains an 80387 math coprocessor, 2.5 megabytes of random-access memory, an 80-megabyte hard disk drive, and an Enhanced Graphics Adapter card. The Trio-1 contains a high-transmission quadrupole analyzer 12 mm in diameter and 200 mm long. All vacuum housings are made of extruded aluminum. The single diaphragm is not welded but instead is suspended inside the vacuum housing on a flexible seal. All components are mounted on this diaphragm to eliminate



alignment problems. The ion source is made completely of metal and can be removed easily through a door in the exterior of the Trio-1. VG Instruments (Great Britain). Circle 488.

CCD Camera System

An intensified charge-coupled device (CCD) video camera system is available for low-light microscopy, microluminescence, and other low-light imaging research. The system consists of a 25-mm microchannel plate intensifier coupled to a CCD camera. Resolution is 28 to 34 line pairs per millimeter, and light amplification is $\times 55,000$ to $\times 75,000$. A random-integration CCD with Peltier cooling is available for ultralow-light applications. Motion Analysis (Oregon). Circle 495.

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.

Microplate Reader

The MR 250 reads 96-well microplates and strips. It operates throughout the visible range of the spectrum from 400 to 700 nm with an accuracy of ± 0.005 absorbance unit. The MR 250 is portable: it has a handle; a dot-matrix printer is built in; and it can be powered by a 12-V power supply, internal rechargeable batteries, or a 115-V current. Filters are attached to interchangeable paddles. The unit has an RS-232 data port for interfacing with a printer or computer. Dynatech Laboratories. Circle 493.

DNA Labeling Kit

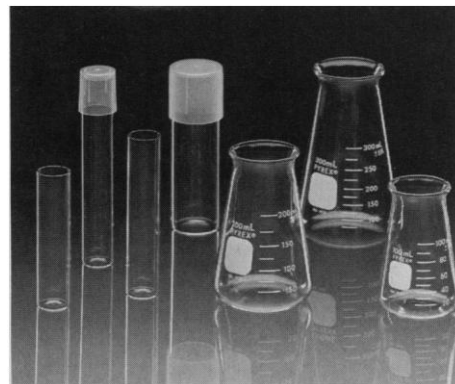
A kit is available for labeling and detecting DNA without radioactivity. The system may be used in all hybridization techniques and can detect as little as 0.1 pg of target DNA. Single-copy gene detection is possible. All essential reagents and a protocol are supplied in the kit. Boehringer Mannheim Biochemicals. Circle 444.

Mammalian Cell Cultivation

The ChemCell System is designed for cultivating mammalian cells. Bubble-free aeration and cell-free harvest of the medium are possible during continuous perfusion operation. A cylinder with walls of fine-mesh screen is placed into the culture medium in the fermenter, and a gas mixture is introduced into the bottom of the cylinder. The cylinder vibrates at varying amplitudes, and baffles within it vibrate as well, breaking the gases down into very small bubbles and slowing their rise. No cells can enter the vibrating mesh cylinder. Scaling up requires either increasing the size of the mesh cylinder or using more than one in the same bioreactor vessel. Chemap AG (Switzerland). Circle 496.

Methyl Phosphonate DNA Oligonucleotides

Methyl phosphonate DNA oligonucleotides are available. These synthetic DNA analogs have a methyl group attached to the internucleotide phosphorus and as a result have no electrical charge. They are lipophilic and can be taken up intact by mammalian cells in culture. Methyl phosphonates are resistant to nucleases, yet they form stable double-stranded structures with complementary sequences. Midland Certified Reagent. Circle 491.



Plant Tissue Culture Products

Flasks, tubes, and closures for plant tissue culture are available. Three sizes of Pyrex flasks have wide mouths for easy access to plant cultures and solutions. All flasks have white enamel gradations and marking spots, as well as a beaded rim and uniform wall thickness to resist breakage. The four sizes of flat-bottomed Pyrex culture tubes stand alone without tube racks. Polypropylene caps have two closing positions: in the open mode, gas exchange is possible during culturing; in the closed mode, the tube has a humidified environment. The caps are autoclavable and come in diameters of 25 and 40 mm. Corning Glass Works, Science Products. Circle 497.

Literature

Data 6100 Universal Waveform Analyzer is a brochure that describes a system for waveform acquisition, analysis, and signal processing. Analogic, Data Precision Division. Circle 498.

The *RWC825* brochure highlights the features of a compact constant-temperature bath recirculator with a temperature range of -15° to $+65^{\circ}\text{C}$. Savant Instruments. Circle 500.

Catalog 26: Chromatography Supplies is a 316-page catalog of guard and analytical columns, syringes, leak detectors, gas flow meters, tools, torches, vials, and other products for chromatography. Supelco. Circle 501.

Bench Top Centrifuges CR 4.22/CT 4.22 describes two microprocessor-controlled centrifuges. Jouan. Circle 502.

Laboratory Information Management Software for Enhanced Productivity is a 12-page brochure about four software programs for organizing sample data in chemical laboratories. Hewlett-Packard. Circle 503.

Scientific Instruments and Equipment is a catalog of gas and liquid chromatographs, data processors, spectrophotometers, scanning densitometers, rheometers, and viscometers. Shimadzu Scientific Instruments. Circle 504.

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the importance of the virulence mechanism for other bacterial species, or any discussion of the spectrum of diseases to which each virulence factor contributes. Because the expression of many virulence factors is intimately coupled to the environment and host in which the organism resides, these omissions detract from the "big picture" and the value of this volume as a general reference text.

Despite the organizational vicissitudes noted above, this volume provides a great deal of valuable information. Each chapter is well referenced. The overview chapters offer a reasonable summary of current knowledge, and the chapters on particular model systems will be of interest to scientists working in these specialized areas. Roth's efforts to present information gained through the use of new technologies without losing sight of the big picture should be applauded, even though they have not been entirely successful.

ANDREW B. ONDERDONK
*Division of Diagnostic Medicine,
Tufts University Medical School,
Boston, MA 02130*

Books Received

Cognitive Science in Europe. Michel Imbert *et al.*, Eds. Springer-Verlag, New York, 1987. x, 236 pp. Paper, \$39.50. Recent Research in Psychology.

Combating Resistance to Xenobiotics. Biological and Chemical Approaches. M. G. Ford *et al.*, Eds. Horwood, Chichester, U.K., and VCH, New York, 1987. 320 pp., illus. \$114. Ellis Horwood Series in Biomedicine.

Combinatorial Geometries. Neil White, Ed. Cambridge University Press, New York, 1987. xii, 212 pp., illus. \$39.50. Encyclopedia of Mathematics and Its Applications, vol. 29.

Community and Evolutionary Ecology of North American Stream Fishes. William J. Matthews and David C. Heins, Eds. University of Oklahoma Press, Norman, OK, 1987. viii, 310 pp., illus. \$42.50. From a symposium, Knoxville, TN, June 1985.

Computers in Battle. Will They Work? David Bellin and Gary Chapman, Eds. Harcourt Brace Jovanovich, New York, 1987. xiv, 362 pp., illus. \$14.95

A Crowded Ark. Jon R. Luoma. Houghton Mifflin, Boston, 1987. xii, 209 pp. \$17.95.

Cycles of Fire. Stars, Galaxies and the Wonder of Deep Space. William K. Hartmann and Ron Miller. Workman, New York, 1987. 189 pp., illus. \$27.50; paper, \$14.95.

Cyclopenta[a]phenanthrenes. Polycyclic Aromatic Compounds Structurally Related to Steroids. Maurice M. Coombs and Tarlochan S. Bhatt. Cambridge University Press, New York, 1987. xviii, 266 pp., illus. \$69.50. Cambridge Monographs on Cancer Research.

Cytochromes c. Biological Aspects. Graham W. Pettigrew and Geoffrey R. Moore. Springer-Verlag, New York, 1987. xiv, 282 pp., illus. \$115. Springer Series in Molecular Biology.

Energy Resources in Science Education. D. F. Kirwan, Ed. Published for the ISCU Press by Pergamon, Elmsford, NY, 1987. xvi, 214 pp., illus. \$27.95; paper, \$15.95. Science and Technology Education and Future Human Needs, vol. 7. Based on a conference, Bangalore, India, Aug. 1985.

Entrepreneurial Science. New Links Between Corporations, Universities, and Government. Robert F. Johnston and Christopher G. Edwards. Quorum (Greenwood), Westport, CT, 1987. viii, 157 pp., \$37.95.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising is accepted only in writing; no abbreviations. Any deadline in ad must be at least 2 weeks after date of issue in which ad appears. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference. **SCIENCE** reserves the right, in its discretion, to decline to publish advertisements submitted to it.

LINE CLASSIFIED ADVERTISING DEADLINES:

Thursday, 10 a.m., 2 weeks prior to issue date (mailed on issue date). For deadlines for display advertising, please contact Scherago Associates.

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

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

To ESTIMATE ad cost:

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

CANCELLATION POLICY:

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

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

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

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

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

Blind ad replies should be addressed as follows:

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

POSITIONS WANTED

Biochemist, Ph.D. Principal investigator with 13-year academic experience in life sciences including monoclonal antibodies, histochemistry, immunochemistry, protein purification, enzymology, phosphoinositides, computer analysis. Proven grant and publication record. Seeking responsible academic or industrial position in Baltimore-Washington-Wilmington area. Box 83, **SCIENCE**.

Ph.D. Experience in phospholipid and arachidonic acid metabolism. Lipid metabolite analysis by radiometric and immunochromatographic methods, RIA, ELISA, TLC, GC, HPLC. Blood cell separation, organelle isolation, PLA2, PLC enzyme assays. Organic synthesis. Experience in immunoassay development, chemical modification and purification of proteins. Seeks academic, industrial, or clinical research position. Box 92, **SCIENCE**.

POSITIONS WANTED

Foreign Pharmacologist, Ph.D. Classical pharmacology training. Broad research experience in autonomic and systemic pharmacology. Experienced visiting scientist. Curriculum vitae, 8 years of undergraduate and postgraduate teaching. Good scientific editor. Good interpersonal and communication skills. Seeks academic research/teaching or industrial research opportunities. Box 86, **SCIENCE**.

Immunologist, Ph.D. Research and development specialist in hybridoma technology, monoclonal antibodies, cancer/infectious disease immunology, and tissue culture. Broad academic and biotechnology experience in all phases of laboratory operations. Seeking group leader/supervisory position in industrial, academic, or clinical laboratory. Box 91, **SCIENCE**.

Ph.D. Peptide Chemist. Seeks industrial R&D position. Experience in solid phase and classical synthesis, peptide synthesizers, conjugation, drug design, purification, characterization, structure-function and bioassays studies. Box 94, **SCIENCE**.

Registered Patent Attorney seeks work on biotech of chemical patent prosecution, license or enforcement matters to support graduate studies. Reasonable rates due to low overhead. Have modem, will telecommute. Box 93, **SCIENCE**.

Retrovirologist, Ph.D. AIDS researcher with publications and experience in virology/cell biology, antiviral agents and some molecular biology. Currently interested in the diversity of HIV-1 isolates versus pathogenesis. Seeks academic/industrial position in Washington, D.C. area. Box 87, **SCIENCE**.

POSITIONS OPEN

ANALYTICAL CHEMIST: To conduct research in complex carbohydrates related to cancer. Ten years of experience, must have expertise in gas chromatography/mass spectrometry, ion-exchange HPLC analysis of oligosaccharides, high performance liquid affinity chromatography of oligosaccharides, strong background in general analytical chemistry, and group leadership experience. Send résumé to:

BioCarb, Inc.
P.O. Box 7409
Gaithersburg, MD 20898
An Equal Opportunity Employer.

DEPARTMENT OF ANATOMY
AND NEUROBIOLOGY
COLLEGE OF MEDICINE
THE UNIVERSITY OF
TENNESSEE (UT), MEMPHIS

The position of ASSISTANT PROFESSOR, non-tenure track, is available. Candidates must show evidence of strong research achievement with the ability to set up an independent, extramurally-funded laboratory. In addition to a minimum of 4 years of postdoctoral training, applicants should have experience in mammalian CNS cell culture techniques (preferably of motor-related structures), immunocytochemistry, patch-clamp recording, intracellular recording and labeling. A strong background in mathematics and computer programming is also required. The successful candidate will be expected to participate in medical and graduate student teaching in areas of expertise. Salary will be commensurate with qualifications. The Department is the center of an expanding multidisciplinary neuroscience community. Please submit by 30 June 1988 curriculum vitae, statement of research interests, and names of three individuals who can be contacted for letters of reference to: **Dr. S. T. Kitai, Chairman, Department of Anatomy and Neurobiology, College of Medicine, The University of Tennessee, Memphis, 875 Monroe Avenue, Memphis, TN 38163.**

UT Memphis is an Equal Opportunity/Affirmative Action Employer.

Tenure-track ASSISTANT PROFESSOR, INORGANIC CHEMISTRY. Direction of research and salary open. Send résumé and names of references to: **Professor Stig E. Friberg, Chairman, Department of Chemistry, Clarkson University, Potsdam, NY 13676.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR, ANATOMY

Applications are invited for a junior faculty position at the level of assistant professor in the Department of Anatomy. A Ph.D. degree and 1 to 2 years of postdoctoral training are required. Primary duties will include participating in teaching neuroanatomy to first year medical students with secondary duties in histology and/or gross anatomy. Research interests are open. Development of a research program with eventual independent funding is strongly encouraged. Philadelphia College of Osteopathic Medicine (PCOM) is dedicated to teaching excellence. Please send a letter, curriculum vitae, and three references by 30 July 1988 to:

Tage N. Kvist, Ph.D.
Professor and Chairman
Department of Anatomy
Philadelphia College of Osteopathic Medicine
4150 City Avenue
Philadelphia, PA 19131

Starting date as early as September 1988. PCOM is an Equal Opportunity Employer.

ASSISTANT PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology, University of California, Los Angeles (UCLA) seeks an individual to teach and conduct research in drug metabolism, pharmacokinetics and toxicology. The successful candidate will have a strong background in chemistry, the ability to establish a strong and independent research program and to effectively teach graduate and medical students. Please send curriculum vitae, bibliography, summary of professional accomplishments and goals, together with the names of three references to: Chair, Search Committee, UCLA Medical Center, Department of Pharmacology, 10833 Le Conte Avenue, Los Angeles, CA 90024-1735. The University of California is an Equal Opportunity/Affirmative Action Employer.

ASSOCIATE DIRECTOR UTAH AGRICULTURAL EXPERIMENT STATION. Assists the Director in the operations of the Experiment Station. Should qualify for tenure within a department, have experience in a Land Grant University and an Agricultural Experiment Station. Must be able to work with agricultural scientists from a variety of disciplines. Must have Ph.D. in agricultural or related science with an outstanding record of research and/or administration. Send résumé and names of five references by 31 July 1988, to: Dean and Director, Utah Agricultural Experiment Station, Utah State University, Logan, UT 84322. Telephone: 801-750-2215. USU is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST—Bates College: Applicants are invited for a 1-year faculty position to begin September 1988. Ph.D. degree required. Responsibilities include teaching undergraduate biochemistry courses and a section of general chemistry. Send curriculum vitae, graduate and undergraduate transcripts, and three letters of reference to: Professor David B. Ledlie, Chairman, Department of Chemistry, Bates College, Lewiston, ME 04240. Bates College is an Equal Opportunity Employer.

BIOLOGIST OR PHYSICAL OCEANOGRAPHER

The Harbor Branch Oceanographic Institution (HBOI) is seeking to fill an entry-level position on the Resident Scientific Staff of the Division of Marine Sciences. Applicants should have 2 years of postdoctoral experience in at least one of the following areas of marine science: Microbial ecology, comparative animal physiology, deep-sea ecology, coral reef ecology, or blue-water physical oceanography. Research areas that involve the use of HBOI's unique resources, particularly the Johnson-Sea-Link submersibles, will be given special preference. This is a full-time research position with some internal support. The chosen candidate is expected, however, to aggressively pursue external research funding. Interested applicants should send a letter outlining research background and current research interests, together with curriculum vitae and the names of three references to: G. R. Harbison, Director, Division of Marine Sciences, Harbor Branch Oceanographic Institution, 5600 Old Dixie Highway, Ft. Pierce, FL 34946. Application deadline: 31 August 1988. The Harbor Branch Oceanographic Institution is an Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR (TENURE-TRACK) CLINICAL MICROBIOLOGY LABORATORY DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY UNIVERSITY OF MINNESOTA

A tenure-track faculty position is available for candidates with an M.D. degree with subspecialty training in laboratory medicine/pathology or infectious diseases with a minimum of 3 years of postdoctoral experience or research in clinical microbiology or microbial pathogenesis/genetics. Competence in current molecular technology is desirable. Demonstration of research productivity is necessary, including publications in peer-reviewed journals.

The individual will be expected to contribute to Clinical Microbiology Laboratory services, development of new diagnostic tools, and the teaching of postgraduate residents and postdoctoral fellows. The individual will be expected to develop an independent research program.

Applicants should send curriculum vitae and three letters of recommendation to: Chairperson, Clinical Microbiology Search Committee, University of Minnesota, Box 198 UMHC, Department of Laboratory Medicine and Pathology, 420 Delaware Street S.E., Minneapolis, MN.

Deadline for receipt of applications is 15 November 1988. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

ASSISTANT PROFESSOR—TENURE-TRACK MOLECULAR/CELL BIOLOGIST

Position available in 1989 for an independent investigator to complement departmental research in neural, muscular and reproductive biology. Cell and tissue interactions are currently being studied at the morphological, physiological, biochemical, and molecular levels with emphasis in development, aging and regeneration. Teaching is in the medical and graduate curricula but prior training or teaching experience in anatomical disciplines is not required. Please send curriculum vitae and names of three references to: Ludwig Sternberger, M.D., Search Committee, Department of Anatomy, University of Maryland School of Medicine, 655 West Baltimore Street, Baltimore, MD 21201. For additional information telephone: Dr. Ludwig Sternberger, 301-328-2203 or Dr. Lloyd Guth, 301-328-3590. The University of Maryland at Baltimore is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT OR ASSOCIATE PROFESSOR, PHARMACOLOGY/TOXICOLOGY Two tenure-track positions are open for an outstanding cardiac or vascular pharmacologist. Applicants should send curriculum vitae, a statement of research plans, and three letters of reference to: K. E. Moore, Ph.D., Chairman, Department of Pharmacology and Toxicology, Michigan State University, East Lansing, MI 48824. An Equal Opportunity/Affirmative Action Employer.

CHAIRPERSON PUBLIC HEALTH PREVENTIVE MEDICINE

The Texas College of Osteopathic Medicine is searching for candidates to chair the Department of Public Health and Preventive Medicine. The successful applicant should have an earned doctorate (a clinical degree is preferred but not required) and an M.P.H. or equivalent degree. Administrative experience and a strong academic record demonstrating commitment to excellence in teaching and research is required. This position offers the opportunity to develop an MPH Program cooperative with North Texas State University and this department which is comprised of three divisions: (i) Public Health and Community Medicine, (ii) Rehabilitation/Sports Medicine, and (iii) Health and Human Fitness. Interested individuals should submit a complete curriculum vitae and the names of three references to: Clyde A. Gallegher, D.O., Chairman of Search Committee, Texas College of Osteopathic Medicine, 3516 Camp Bowie Boulevard, Ft. Worth, TX 76107. The Texas College of Osteopathic Medicine is a state-supported medical school under the Board of Regents of North Texas State University. An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

BIOLOGY

Tenure-track ASSISTANT PROFESSORSHIP beginning 15 August 1988, with teaching responsibilities in human anatomy and physiology, animal physiology, and introductory biology courses. SEM/TEM experience required. Preference will be given to applicants with coursework in invertebrate zoology. Ph.D. required. Applications will be reviewed beginning 10 June 1988. Send curriculum vitae and three letters of reference to: Director of Personnel, St. Ambrose University, 518 West Locust Street, Davenport, IA 52803.

Equal Employment Opportunity

CELLULAR AND MOLECULAR ENDOCRINOLOGY POSTDOCTORAL RESEARCH ASSOCIATE

To study control of hormone secretion at the single cell level by use of reverse hemolytic plaque assays in combination with recombinant DNA technologies and other modern biochemical and microscopic techniques. Ongoing projects include: (i) Characterization of an extracellular mediator of prolactin action, (ii) ontogeny and functional interconversion of growth hormone and prolactin secreting cells, (iii) differential regulation of hormone release from cells that simultaneously release both of these hormones, and (iv) molecular heterogeneity of secreted forms of hormone. Salary is highly competitive and commensurate with experience. Background in cellular or molecular biology and endocrinology is desirable, but not an absolute requirement. Please send curriculum vitae and names of three references to:

Dr. L. Stephen Frawley
Department of Anatomy and Cell Biology
Medical University of South Carolina
171 Ashley Avenue
Charleston, SC 29425-2204
Telephone: 803-792-3526

COMPUTER SCIENTIST: A high-energy physics research establishment seeks a computer scientist to function as the leader of a group responsible for evaluation and development of electronics, hardware and software for integration into data acquisition systems for high-energy physics experiments and to write specifications for devices to be purpose-built or modified externally or in-house. This position is of 40 hours per week (Monday to Friday), 8:30 a.m. to 5:00 p.m., and carries an initial salary of \$40,000 per annum. As a minimum, applicants should possess a Ph.D. in computer science and be able to demonstrate 3 years of experience in a high-energy physics environment developing data acquisition/analysis and FASTBUS systems for such experimentation. Résumés should be directed to: Illinois Department of Employment Security, 401 South State Street, 3 South, Chicago, IL 60605. Attention: Mr. R. S. Felton (Ref. 8110-F). An employer paid ad.

CURATORIAL POSITION IN ORNITHOLOGY AMERICAN MUSEUM OF NATURAL HISTORY

The Department of Ornithology invites applications from ornithologists with Ph.D.'s for a tenure-track curatorial position. Research and training should involve evolution and systematics of birds; interest in museum specimens is desirable. The Department maintains large worldwide collections of all avian taxa. The primary responsibility of the successful applicant will be to conduct an active research program. Other responsibilities will include curation of the collection, assistance with the preparation of exhibits and with educational programs of the Museum, administration, and other Departmental duties. Rank and salary will be determined on the basis of qualifications. Full Museum benefits apply. Interested applicants must submit the following information by 1 October 1988: (i) curriculum vitae, (ii) statement of long-term research objectives, (iii) complete bibliography and sample publications, and (iv) letters of recommendation from at least three professionals acquainted with the applicant's qualifications and accomplishments. Submit to:

Dr. Francois Vuilleumier
Chairman, Search Committee
Department of Ornithology (S)
American Museum of Natural History
Central Park West at 79th Street
New York, NY 10024
An Equal Opportunity Employer

POSITIONS OPEN

DEVELOPMENTAL BIOLOGIST DEPARTMENT OF BIOLOGICAL STRUCTURE SCHOOL OF MEDICINE UNIVERSITY OF WASHINGTON

Applications for a tenure-track assistant or associate professorial position are invited from candidates in developmental biology who use contemporary experimental approaches. Candidates should have a Ph.D. and/or M.D. degree and a proven ability or high potential for an independently funded, productive research program. Send curriculum vitae, publication list, statement, of both research and teaching interests, status of funding, and four letters of reference by 30 June 1988 to: **Cornelius Rosse, Chairman, Department of Biological Structure, University of Washington, SM-20, Seattle, WA 98195.** *The University is an Equal Opportunity/Affirmative Action Employer.*

DIRECTOR OF GRADUATE STUDIES

Washington University in St. Louis is seeking a Director of Graduate Studies to coordinate and oversee graduate training programs in the Division of Biology and Biomedical Sciences. These programs presently include more than 300 students and involve over 200 faculty members. The graduate programs are widely considered to be among the best in the country. Duties of the Director of Graduate Studies include recruitment, evaluation and advising of students, coordination of the curricula, management of the Office of Graduate Studies, and administration of the budget. Candidates should have a strong background in the biomedical sciences, and a doctoral degree is preferred.

The Division of Biology and Biomedical sciences is an endowed unit within the University. It includes departments in both the Medical School and the College of Arts and Sciences and is overseen by an Executive Committee composed of the heads of the participating departments. The Director of Graduate Studies will also be appointed Associate Director of the Division.

The Director of Graduate Studies must understand graduate training programs in the biomedical sciences and should be articulate and enthusiastic in dealing with students and staff. Salary and fringe benefits will be commensurate with qualifications and relevant experience.

Applicants should send résumés and a summary of relevant experience by 1 July 1988, to:

**Daniel L. Hartl, Director
Division of Biology and Biomedical Sciences
Box 8031**

**Washington University Medical School
St. Louis, MO 63110-1095**

*An Affirmative Action/Equal Opportunity Employer
M/F/H/V*

ELECTRON MICROSCOPY TECHNICIAN

Miami University seeks an electron microscopy technician to occupy a permanent position to assist the Electron Microscope Facility Supervisor in the conduct of facility operations and programs. The EM Facility is operated jointly by the Departments of Botany and Zoology. B.S. and previous EM experience are required. Competitive salary and fringe benefits are available. Application review will begin 1 July 1988. Send curriculum vitae, a description of EM experience, transcripts of all academic work, and three letters of reference to: **R. G. Sherman, Director, Zoology Department, Miami University, Oxford, OH 45056.** *Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION IN TUMOR IMMUNOLOGY

The newly established NCI designated Cancer Center at the University of Colorado Health Sciences Center (UCHSC), in collaboration with the Department of Microbiology and Immunology and the Webb Waring Lung Institute invites applications for a tumor immunologist position at the assistant or associate professor level. Previous experience with gene cloning, retrovirology and/or transgenic mice is desired. *The University of Colorado is an Equal Opportunity Employer.* Send a letter of application and curriculum vitae to: **Dr. David W. Talmage, Box C321, UCHSC, Denver, CO 80262.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ENDOCRINE RESEARCH: Join a small, growing company developing innovative methods for noninvasive measurement of steroids. Quickly diversify to a position of independent responsibility for Federally funded research. Live and work in a beautiful, relaxed mountain setting. Inquiries invited from scholars with Ph.D.s in any of the life sciences. Send résumés immediately to: **Dr. Stephen Wade, Hammersmith Laboratories Inc., P.O. Box 774324, Steamboat Springs, CO 80477.**

FACULTY POSITION AVAILABLE IN PHYSIOLOGY

The Division of Life Sciences, The University of Texas at San Antonio, invites applications for a tenure-track assistant professor in physiology with interest and/or experience in human physiology and performance and neuroendocrinology. Candidates must show demonstrated research productivity and substantial ability and interest in teaching. Responsibilities will include teaching, research, and supervision of undergraduate and graduate student research. A Ph.D. is required and postdoctoral experience desired. Submit curriculum vitae, names of at least three professional references, and representative publications to: **Director, Division of Life Sciences, The University of Texas at San Antonio, San Antonio, TX 78285-0662.** Closing date to receive applications is 1 August 1988. *The University of Texas at San Antonio is an Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITIONS ALBERT EINSTEIN COLLEGE OF MEDICINE NEWLY ENDOWED PROGRAM IN DIABETES RESEARCH

Applications are invited from new or established investigators interested in diabetes-related research for endowment-supported, tenure track appointments in various Departments such as Biochemistry, Cell Biology, Developmental Biology and Cancer, Medicine, Microbiology and Immunology, and Molecular Pharmacology.

This program will emphasize basic research in areas such as regulation, structure and function of key enzymes regulated by insulin, related hormones or growth factors; regulation of pancreatic islet cell gene expression and growth; molecular biology of lymphokines and their receptors; the biochemistry and molecular biology of insulin, related hormone or growth factor signal transduction; and immunological and viral mechanisms potentially involved in the etiology of diabetes.

Interested scientists should send curricula vitae to: **Dr. Norman Fleischer, Diabetes Research Center, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, NY 10461.**

The Department of Physiology, College of Veterinary Medical and Biomedical Sciences, Colorado State University, will fill a position as **FULL PROFESSOR** with an individual qualified for the dual role of chairperson/research scientist. Applications are invited from individuals (Ph.D., D.V.M., M.D.) with a substantial research program emphasizing molecular biological approaches to physiology, with the desire to interact with existing strong departmental programs in reproductive biology/endocrinology and neurobiology. Highest priority will be given to individuals having research, administrative and teaching skills. The Department consists of 20 faculty and has major roles in all aspects of biomedical education and research within the University including education of veterinarians. Applications, including curriculum vitae and the name, address, and telephone number of at least three references, should be sent to:

**Dr. A. P. Knight, Chairman
Physiology Search Committee
Department of Clinical Sciences
Colorado State University
Fort Collins, CO 80523**

Applications will be accepted until 1 August 1988, or until a suitable candidate is identified. *Applications from women and minority candidates are encouraged.* A detailed job description is available upon request. *Colorado State University is an Equal Employment Opportunity/Affirmative Action Employer. E.O. Office: 314 Student Services Building.*

POSITIONS OPEN

FACULTY POSITION MOLECULAR BIOLOGY

Immediate opening for an assistant professor to join our research group. Laboratory is comprised of six faculty members with diverse backgrounds in microbiology, molecular biology, hematology, and molecular pharmacology. The team's main area of research is the investigation of the function and regulatory mechanisms of macrophages. We seek a highly qualified molecular biologist with gene regulation interest. The successful candidate will be expected to establish an independent research program and participate in medical/graduate teaching. Applicant must send a summary of research interests, curriculum vitae and the names and telephone numbers of three references to: **Connie Cacioppo, M.P.A., Administration, Department of Medicine, New York Medical College, Munger Pavilion, Room 264, Valhalla, NY 10595.**

DEPARTMENT OF HUMAN GENETICS VIRGINIA COMMONWEALTH UNIVERSITY (VCU) MEDICAL COLLEGE OF VIRGINIA (MCV) GENETIC EPIDEMIOLOGISTS/ HUMAN BEHAVIORAL GENETICISTS (Ph.D.)

Applications are invited for three positions, one at the level of research assistant professor and two at the level of postdoctoral research associate. The appointments are not eligible for tenure. In every case, applicants should hold the Ph.D. degree with special emphasis in mathematical/statistical aspects of genetic epidemiology, behavioral genetics or psychiatric genetics. A record of publication, postdoctoral training and capability of developing an independent research program are essential for appointment at the level of research assistant professor. Some teaching will be required of the research assistant professor. Further particulars may be obtained from: **Dr. Lindon Eaves, Distinguished Professor of Human Genetics, Department of Human Genetics, Medical College of Virginia, Box 33 MCV Station, Richmond, VA 23298-0033,** to whom applications should also be addressed.

VCU/MCV is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

Entry-level faculty position for **HEALTH PHYSICIST, MEDICAL PHYSICIST, OR RADIOLOGICAL ENGINEER.** Duties include participation in Health Physics academic teaching program including organization and direction of health physics field training course; development and performance of pertinent research; supervision of Master's student research projects; responsibility for developing, teaching, and grading student health physics laboratory exercises; and supervision of departmental teaching assistant. Preference given to applicants with demonstrated teaching, writing, and research abilities; familiarity with VAX/VMS and/or IBM-PC hardware and software; and professional certification by the American Board of Health Physics or certification eligibility. Send résumé: **Niel Wald, M.D., Chairman, Department of Radiation Health, Graduate School of Public Health, University of Pittsburgh, A533 Crabtree Hall, Pittsburgh, PA 15261.**

HUMAN MOLECULAR GENETICIST

The Department of Human Genetics of Virginia Commonwealth University/Medical College of Virginia is seeking applications for an assistant professor, tenure-track position. Candidates must have a doctoral degree, with at least 2 years of postdoctoral experience in the area of molecular genetics and a strong background in human genetics. The successful candidate will be expected to establish an independent research program, collaborate with other investigators in their basic and clinical research projects and to actively participate in the department's graduate and professional student teaching programs. Candidates with a strong research interest and background in molecular investigation of human genetics and human genetic diseases are encouraged to apply. Send curriculum vitae to: **Acting Chairman, Dr. Judith Brown, Department of Human Genetics, Box 33 MCV Station, Richmond, VA 23298-0033.**

VCU/MCV is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

POSITIONS OPEN

LITIGATION SUPPORT

Major midwest law firm is seeking applicants for the position of **RESEARCH ANALYST**. This analyst will work with a trial team (including other research analysts) in the preparation and trial of product liability litigation. Duties include: medical literature and medical records analysis; preparation of summaries of documents reviewed; preparation and communication of reports on medical issues; and preparation of positions on medical issues and documents for trial. Position requires some travel which may include several weeks during trials. This is a high intensity position with a challenging docket of assignments which requires a highly self-motivated individual.

This position requires an outstanding academic record, a graduate degree in biological, life, or biomedical sciences. A strong working knowledge of biostatistics and/or epidemiology is preferred. Excellent communication skills are essential. No legal education or experience required.

Please send a letter of application, complete college transcripts, a personal résumé, and references to: **BOX 95, SCIENCE**.

MANAGER BIOTECHNOLOGY CORE FACILITIES

Columbia University's Cancer Center Division of Biotechnology is seeking an individual to supervise operation of multi-user research facilities with specialized instrumentation. Instrumentation includes: Becton-Dickinson flow cytometers; Applied Biosystems automated DNA sequencer and DNA synthesizer; EM Facility.

Responsibilities include: working knowledge of the instrumentation, supervision/training of technicians, collaborative experimental design, development of specialized assays and administrative duties. Requires an M.S. with a minimum of 3 years of experience involving computer-interfaced instrumentation. Experience with flow cytometry computer programming, optics, lasers and electronics is highly desirable. Must have demonstrated initiative, independent work habits and strong communication skills. Reply to: **Director, Columbia University Comprehensive Cancer Center, 701 West 168th Street, New York City, NY 10032. Columbia University is an Affirmative Action/Equal Opportunity Employer.**

MEDICAL PHYSICIST POSITION

Responsibilities involve technical supervision and research in Magnetic Resonance Imaging (MRI) and new applications in digital imaging. Duties include imaging improvement, equipment maintenance, quality assurance, computer application to imaging in diagnostic radiology and teaching residents. Ph.D. degree in medical physics and experience in clinical radiation physics required. Must be expert in digital imaging, familiar with medical x-ray equipment, ultrasound, nuclear medicine, and MRI. Must have minimum of 6 months of postdoctoral training in medical physics and 6 months of experience in clinical diagnostic radiology. Forty hours per week; \$50,000 per year. Apply "by résumé only" at: **Massachusetts Division of Employment Security, C.F. Hurley Building, Boston, MA 02114, J.O. #8128.**

MICROBIOLOGY CHAIRPERSON. The Saint Louis University School of Medicine is seeking a mid-career M.D. or Ph.D. investigator to head an active, well-funded, moderately sized Department of Microbiology. Current departmental research is broadly based but contains a strong core of interest in membrane and organelle structure, function, and biogenesis. The successful candidate will be expected to bring with him/her an established, funded research program and a commitment to promoting the research of other investigators. Applications from individuals with expertise and national recognition in the molecular mechanisms in pathogenesis are particularly encouraged. Previous administrative experience is desirable but not required. Nominations, letters of inquiry and applications (including curriculum vitae and the names of three referees) should be sent to: **Dr. Arnold J. Kahn, Pediatric Research Institute, 3662 Park Avenue, St. Louis, MO 63110. An Affirmative Action/Equal Opportunity Employer.**

3 JUNE 1988

Ph.D RESEARCH SCIENTIST EXPERIMENTAL PATHOLOGY

As a result of the recent merger of American Home Products Corporation's two pharmaceutical divisions, Wyeth Laboratories and Ayerst Laboratories, we are now one of the largest pharmaceutical companies in the world. **WYETH-AYERST RESEARCH** has an immediate opening for a highly motivated and innovative scientist to head our Experimental Pathology Section within the Immunopharmacology Division.

The selected candidate will direct the work of several Ph.D. scientists and biologists in an environment where the biochemistry of connective tissue can be studied. Expertise in the area of metalloproteases and biochemistry of bone and cartilage is essential as well as technical knowledge to set up *in vitro* and *in vivo* models of cartilage damage. Opportunities exist for active collaboration with pharmacologists, biochemists, and immunologists involved in arthritis research.

The candidate should have a Ph.D. with at least five years of relevant biochemical experience. The ability to collaborate with peers and supervise personnel is a prerequisite for this position.

We offer an excellent salary and benefits package plus opportunities for career advancement along with an ultra-modern research facility. Interested candidates please submit resume and salary requirements to:

Personnel Manager, Dept. JC



**WYETH-AYERST
RESEARCH**

**CN 8000
Princeton, NJ 08543-8000
Equal Opportunity Employer M/F/H/V**

SENIOR POSITIONS IN TOXICOLOGY AND PHARMACOLOGY

The Life Sciences Department of Midwest Research Institute (MRI) is seeking qualified individuals to direct research programs to evaluate the preclinical toxicology and pharmacology of drugs and other chemicals. These programs are supported by federal and private sponsors.

- One position requires a Ph.D., or equivalent, in Toxicology or related science and a minimum of 5 years of laboratory experience in an appropriate (e.g., industrial or contract) setting. Veterinary experience and ABT certification are highly desirable. The applicant should be familiar with investigative studies to assess the safety and mechanisms of toxicity of anticancer and antiviral agents.

- The second position requires a Ph.D., or equivalent, in Pharmacology or Biochemistry or related science plus a minimum of 5 years of appropriate laboratory experience in evaluating disposition, metabolism, and pharmacokinetics of xenobiotics. These studies are required to satisfy regulatory requirements and to assess the mechanism of action and toxicity of these compounds. The applicant should have working experience in pharmacokinetics modeling of data.

- Responsibilities of both positions include study design and coordination, staff supervision, data interpretation, preparation of protocols, proposals, and reports, and extensive interaction with sponsors. Knowledge of GLP's and other regulatory procedures is essential. The applicant should be able to develop research areas that are supportive and interactive with existing toxicology/pharmacology activities.

Applicants with other research experience in *in vivo* and *in vitro* toxicology/pharmacology and who are able to support their research programs via contracts or grants are also encouraged to apply. MRI offers competitive salary, comprehensive benefits package, and paid relocation. Send resume and salary history to Personnel Representative at:



MIDWEST RESEARCH INSTITUTE
425 Volker Boulevard
Kansas City, MO 64110
(816) 753-7600

equal opportunity employer M/F/H/V

POSITIONS OPEN

MEMBRANE TRANSPORT

A **POSTDOCTORAL POSITION** is available immediately for an individual interested in pursuing studies on the structure and mechanism of ion-translocating ATPases. The ATPase in the plasma membrane of *Neurospora* is an electrogenic proton pump that operates via a phosphoryl-enzyme intermediate identical to those of the animal cell transport ATPases. Research will involve investigation of the biochemistry of this ATPase with the goal of elucidating its molecular mechanism. Send curriculum vitae to: **Dr. Gene A. Scarborough, Department of Pharmacology, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7365. Equal Opportunity Employer.**

MOLECULAR BIOLOGISTS. Applications are invited for a tenure-track assistant professor position and for a non-tenure-track scientist position in the Department of Dental Research at the University of Rochester. Candidates may express interest in both positions. Qualifications include a Ph.D. and/or a D.D.S., D.V.M., or M.D., extensive experience in the molecular biology and genetics of streptococci or the regulation of salivary gland gene expression, and an interest in pursuing a career in oral biology. Candidates for the assistant professor position should have at least 2 years of postgraduate training and will have shown some success in obtaining grant support. All applicants should be able to develop a strong research program, participate in interdepartmental, collaborative research and teach in graduate courses. A commitment to achievement in research and teaching is essential. Please send a statement of research interests, curriculum vitae and three letters of support to: **Dr. William H. Bowen, Chairman, Department of Dental Research, University of Rochester School of Medicine and Dentistry, 601 Elmwood Avenue, Rochester, NY 14642. An Equal Opportunity Employer (M/F).** Closing date for applications is 1 July 1988.

MOLECULAR CELL BIOLOGIST/IMMUNOLOGIST THE UNIVERSITY OF CHICAGO THE BEN MAY INSTITUTE AND THE DEPARTMENT OF PATHOLOGY

The Ben May Institute and the Department of Pathology of the University of Chicago are seeking applicants for at least two junior faculty positions. We are committed to developing strong programs in the molecular aspects of the control of cell growth and differentiation. We are seeking outstanding individuals who are using the approaches of molecular biology or cell physiology to examine basic mechanisms of cell signaling events or regulation of gene expression. Existing related research programs in the Ben May Institute and the Department of Pathology include molecular and genetic aspects of receptor signalling mechanisms involving steroid hormone receptors, growth factor receptors, and T lymphocyte activation and regulation. Candidates should have sufficient research experience to demonstrate both significant accomplishment and outstanding promise. Letters of application including curriculum vitae, bibliography, a brief statement indicating research interests, and the names of three references should be sent to: **Dr. Frank Fitch, Director, Ben May Institute, The University of Chicago, Box 424, 5841 South Maryland Avenue, Chicago, IL 60637.**

PLANT COMMUNITY/ POPULATION ECOLOGIST

The University of Saskatchewan, Department of Biology, invites applications for a 3-year term assistant professorship, available 1 July 1988. Applicants must hold a Ph.D. degree and have a demonstrated ability to carry out productive and independent research. The successful applicant will be expected to teach at both the junior and senior levels. A tenure-track position in this field may become available within the term of the appointment.

Qualified individuals should send their curriculum vitae, a brief description of their research objectives, and the names of three referees before 30 June 1988 to: **Dr. T. A. Steeves, Acting Head, Department of Biology, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0, Canada. In accordance with Canadian immigration requirements, applications from Canadian citizens and landed immigrants will be given priority.**

POSITIONS OPEN

MOLECULAR/CELLULAR BIOLOGIST

The Alton Ochsner Medical Foundation, a tertiary care medical center in the Gulf South, currently has an opportunity in its Research Division for a scientist skilled in the techniques of molecular biology who wishes to establish an independent laboratory for the study of oncogenesis and disorders of growth. Salary is competitive and startup funds are available. Send curriculum vitae and the names of three references to: **Richard N. Re, M.D., Vice President and Director, Division of Research, Alton Ochsner Medical Foundation, 1516 Jefferson Highway, New Orleans, LA 70121. Equal Opportunity Employer.**

PEDIATRIC PATHOLOGIST

A pediatric pathologist is currently needed to direct pediatric pathology programs at the University of Medicine and Dentistry of New Jersey (UMDNJ)—Robert Wood Johnson (RWJ) Medical School and RWJ University Hospital. Board certification and at least 5 years of experience in an academic health center required. Applicants should submit curriculum vitae and references to: **Robert L. Trelstad, M.D., Professor and Chairman, Department of Pathology, UMDNJ—Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635. Equal Opportunity/Affirmative Action Employer, M/F/H/V.**

PHARMACOLOGY CHAIRMAN

The University at Buffalo (SUNY) is seeking a chairperson for the Department of Pharmacology and Therapeutics at the School of Medicine and Biomedical Sciences. The Department presently has 13 full-time and 4 part-time state funded faculty positions. The Department has a diverse research program and has strength in neuropharmacology and toxicology. The successful candidate must have a well-established and active research program in pharmacology or related discipline. The candidate should have a national and international reputation preferably in an area of cellular or molecular pharmacology although other areas of research interest will also be considered. Persons interested in this position should send curriculum vitae, a description of research activities and administrative experience, and the names of three references to: **Dr. Murray W. Stinson, Department of Microbiology, School of Medicine and Biomedical Sciences, University at Buffalo (SUNY), Buffalo, NY 14214. All materials must be received by 15 July 1988.**

SUNY is an Equal Opportunity/Affirmative Action Employer.

PLANT TISSUE CULTURIST. Sogetal Corporation, a plant biotechnology company in the San Francisco Bay Area, is seeking an assistant/associate scientist to join its expanding tissue culture programs. The ideal candidate will have a B.S. or M.S. degree with a minimum of 2 years of experience in tissue culture. Sogetal offers a competitive salary and benefits program. Please send résumé with references to: **Human Resources Department/TCS, Sogetal, Inc., 3872 Bay Center Place, Hayward, CA 94545. An Equal Opportunity Employer.**

POSTDOCTORAL APPOINTMENT IN MOLECULAR MEDICINE

Applications are invited to undertake a project on the investigation of the molecular basis for insertion of a stop translation codon into the mRNA coding for apolipoprotein-B. We are currently investigating the molecular basis for insertion of the stop codon by: (i) analysis of deletion mutants in tissue culture cell lines; (ii) studies in transgenic mice; and (iii) modification in vitro of the mRNA.

Experience in deletion and other forms of mutagenesis, and the use of nuclear extracts for studies in vitro is essential. This project will require a high level of industry, creativity and intellectual commitment.

The appointment is for 3 years, and salary will be on an appropriate point of the scale for non-clinical university academic staff.

Enquiries may be made to: **The Head of Division, Dr. J. Scott, 01-864-5311, extension 2479 (United Kingdom).** Application forms are available from: **The Personnel Department, extension 2673 quoting reference 111/1/3981.**

POSITIONS OPEN

Two positions available immediately at the **POSTDOCTORAL** level or as a **SENIOR TECHNICIAN**. (i) Electrophysiological studies of gap junctional communication in mammalian cells. Ionic coupling, dye transfer, whole cell voltage or patch clamp. Experience in digital video imaging is desirable. (ii) Electron microscopy, cytochemistry, and immunocytochemistry. Studies on activity of active protein kinases and their regulation by cell communication. Cell culture experience desirable. Salary will be \$20,000 to \$26,000 depending on experience. Possibility of an academic research appointment at the University Medical Center for Ph.D. level applicants. Send curriculum vitae with names and telephone numbers of two references to: **William H. Fletcher, Ph.D., Cytology Research-151, J. L. Pettis VA Hospital, Loma Linda, CA 92357.**

POSTDOCTORAL FELLOW/MOLECULAR VIROLOGY. Research position available now in retroviral gene insertion/recombinant gene expression in animals. Candidate should have a background in molecular biology and/or virology and career interests in agricultural genetic engineering or gene therapy. This Ohio State University (OSU) research center is located in pleasant, semi-rural surroundings in northeastern Ohio. Competitive salary based upon qualifications. **Dr. C. P. Hodgson: (216-263-3758), Laboratories of Molecular and Developmental Biology, The Ohio Agricultural Research and Development Center/OSU, Wooster, OH 44691.**

POSTDOCTORAL IMMUNOLOGIST

A position is available for a research scientist in active program of transplantation immunology. Individual to conduct studies on mechanisms of blood transfusion (antigen) induced immune regulation including suppressor cell generation, and mechanisms of action. Salary is commensurate with experience and begins at \$23,200.

Send curriculum vitae and names of three references to: **Marvin R. Garovoy, M.D., Immunogenetics and Transplantation Laboratory, University of California, San Francisco UCSF, 3rd and Parnassus, San Francisco, CA 94143.**

UCSF is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION, available December 1988, to study translational control (*JMB* 199, 95-105) or membrane-protein interactions using recombinant DNA and molecular genetics. Required: recent doctorate in life science or biochemistry, good record of productivity and, in absence of direct experience, a commitment to learn the discipline of molecular genetics. Send curriculum vitae, names of three references to: **Ry Young, Department of Biochemistry, 110 Herman Heep Building, Texas A&M University, College Station, TX 77843.**

POSTDOCTORAL POSITION. Available September 1988, for collaborative studies of growth factor synthesis and function in hormone responsive and unresponsive prostate cancer cells. Molecular studies of hormone regulated growth factor gene expression and biochemical studies of growth factor function will be pursued with **Dr. Sydney A. Shain.** Candidates must have strong background and laboratory experience in cell biology and/or molecular biology. Send curriculum vitae and the names and telephone numbers of three references by 31 July 1988, to: **Personnel Director (847), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78284. Equal Opportunity Employer M/F.**

POSTDOCTORAL POSITION available to model the effects of acidic deposition on forest growth. The successful applicant will join a nation wide team situated in universities, the Environmental Protection Agency and the Forest Service, that is developing simulation models of the influence acidic deposition has on physiological and ecological processes that control forest growth. Send curriculum vitae and names of three references by 24 June 1988 to: **Dr. E. David Ford, Director, Center for Quantitative Science, University of Washington, Seattle, WA 98105. An Affirmative Action/Equal Opportunity Employer.**

PROTEIN BIOCHEMIST

A major consumer products company has an opportunity for you in its biochemistry group. You will be responsible for implementing protein purification procedures which will involve isolating and purifying enzymes to homogeneity.

You must have experience in the use of various chromatographic and other protein purification and immunochemical techniques; a background in the use of radioisotopic methods, FPLC and computers would be beneficial. Training in plant biochemistry is desired. Requires an M.S. degree with at least two years experience in the above techniques or a recent Ph.D.

You will be provided with an competitive salary and excellent benefits. For consideration, send your resume to:

Box 88, Science

Equal Opportunity Employer M/F/H

Postdoctoral Positions In Scientific Computing

Smith Kline & French Laboratories, a division of SmithKline Beckman Corporation, has a position available for a Postdoctoral Fellow at our Research & Development complex in Upper Merion, Montgomery County, PA.

The Scientific Computing Group is responsible for research in computational methods relevant to pharmaceutical research and development. Several areas of computational research are under consideration, including, but not limited to:

**Imaging
Molecular Biology
NMR Analysis
Structure-Activity Relationships
Expert Systems
Pattern Recognition
Macromolecular Structure Prediction & Determination
Spectroscopy**

Successful candidates will join a multi-disciplinary team consisting of scientists and computing specialists. An advanced degree (Ph.D.) in a scientific field as well as strong, documented experience in scientific computing are essential. Especially of interest are individuals who consider themselves both a scientist and a computer specialist. Research programs will be determined by the interests and skills of the candidate as well as the needs of the scientific computing group.

We offer excellent compensation and benefits and an attractive relocation policy. Please submit C.V. to Barbara J. Schwartz, S0053, Associate Employment Administrator, SK&F Laboratories, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an equal opportunity employer, M/F/H/V. NO PHONE CALLS PLEASE.

SK&F
A SmithKline Beckman Company

Post Doctoral Training In Molecular And Cell Biology

Post doctoral fellowships are available for training in various areas of cancer research including cell differentiation, chemical carcinogenesis, retroviruses, membrane biochemistry, genetics and immunology. The Wistar Institute, the oldest independent biomedical research facility in the nation, is located on the University of Pennsylvania campus in Philadelphia. Wistar is organized as a community of laboratories, uniting investigators whose broad research objectives are concerned with defining cellular and molecular characteristics and function in healthy and diseased organisms. Wistar is equipped with the latest scientific technologies - DNA and peptide syntheses, flow cytometry and hybridoma facilities.

Strong background in molecular biology, virology, biomedical genetics, molecular immunology and/or protein chemistry is required. Applicants are requested to send curriculum vitae and the names of three references to Dr. Giovanni Rovera, Coordinator of Research Training, THE WISTAR INSTITUTE, 36th & Spruce Streets, Philadelphia, PA 19104. Equal opportunity employer, M/F.

THE
WISTAR
INSTITUTE



RESEARCH SCIENTIST DRUG METABOLISM

WYETH-AYERST RESEARCH, a subsidiary of Fortune 100 American Home Products Corporation, has two openings for research scientists in its Drug Metabolism Division.

RESEARCH ASSOCIATE

This position requires an experienced investigator to study the metabolism and pharmacokinetics of developmental drugs in laboratory animals and man. The candidate must have a strong background in chromatographic methods of analysis, isolation (from biological samples) and structure elucidation of metabolites, experience in radiometric techniques, and excellent oral and written communication skills. This position requires a Ph.D. in Chemistry or Biochemistry and at least 3 years post-doctoral experience in a relevant drug metabolism field.

SENIOR SCIENTIST

A motivated scientist is needed to study the absorption, distribution, metabolism and excretion of foreign compounds in laboratory animals and man. The candidate should have experience in the development of analytical methods to quantitate xenobiotics in biological fluids, the use of animal models to study the metabolic fate of foreign compounds and pharmacokinetic principles. Excellent oral and written communication skills would be an asset. A Ph.D. in Physical or Life Sciences with at least one year post-doctoral experience is required.

Wyeth-Ayerst offers an excellent salary and benefits package with opportunities for career advancement. Interested candidates should submit a resume with salary history to:

PERSONNEL MANAGER, DEPT. MC



**WYETH-AYERST
RESEARCH**

CN 8000
Princeton, NJ 08543-8000

An Equal Opportunity Employer M/F/H/V

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study immunological aspects of aging, with emphasis on antigen presentation. Experience in cellular immunology essential. Send curriculum vitae and names of three references to: **Dr. Roy L. Walford or Dr. Rita Effros, UCLA Medical School, Pathology Department, Los Angeles, CA 90024. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available for studies on the neural control of blood flow in the choroid of the eye. These studies will involve a combination of anatomical (immunohistochemistry, pathway tracing, LM, EM) and physiological techniques (laser-Doppler, neurophysiology) to identify the circuitry and transmitters involved in control of choroidal blood flow, determine their precise role and clarify their importance for outer retinal health. An interest in vision or previous experience with neuroanatomical or immunohistochemical techniques desirable. Salary based on experience. Contact: **A. Reiner, Department of Anatomy and Neurobiology, University of Tennessee, Memphis, TN 38163.**

POSTDOCTORAL POSITION: Biochemistry, molecular biology available to study expression of leukemia cell surface glycoproteins, glycosyl transferases and multidrug-resistant phenotypes, and to use monoclonal antibodies and fluorescent probes to examine intracellular drug pathways. Writing skills essential. *Equal Opportunity/Affirmative Action Employer.* Send curriculum vitae to: **Robert N. Taub, M.D., Ph.D., Division of Oncology, Columbia College of Physicians and Surgeons, 630 West 168th Street, New York, NY 10032.**

POSTDOCTORAL POSITION sponsored by the National Research Council is available for a qualified candidate with skills in molecular biology (hybridizations, cloning, sequencing) to work at the EPA on human and animal respiratory tract carcinogenesis. The stipend is at least \$27,150 per year. Send curriculum vitae and the names of three references to: **Marc J. Mass, Ph.D., Carcinogenesis and Metabolism Branch, MD-68, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711.**

Applications are being accepted for a **POSTDOCTORAL** position with opportunities for research in all phases (basic and clinical) of a radioimmunoconjugate cancer treatment program. This advertisement revises an advertisement which was listed in the 22 April 1988 issue of *Science*, vol. 240, page 566. Some experience in immunology, monoclonal antibodies, immunoassays, radioisotope labeling, or radioimmunospectroscopy in animal models or clinical trials helpful. Curriculum vitae, brief description of prior research and three references to: **Margaret A. Tempero, M.D., Department of Internal Medicine, University of Nebraska Medical Center, 42nd & Dewey Avenue, Omaha, NE 68105-1065. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately for mapping procollagen domains involved in collagen biosynthesis and the pathogenesis of genetic collagen diseases. Research will include site-directed mutagenesis of cloned DNAs and subsequent expression studies in cell culture systems and transgenic mice. Applicant should be a recent Ph.D. with a strong molecular biology background. Send curriculum vitae and three references to: **Dr. Daniel S. Greenspan, Department of Pathology, University of Wisconsin School of Medicine, 470 North Charter Street, Madison, WI 53706.**

POSTDOCTORAL POSITION

Postdoctoral fellowship position available to study the immunobiology of sperm and gene expression during spermatogenesis. Research involves techniques in immunology, protein chemistry, molecular genetics, and gene expression. Must hold Ph.D. or equivalent degree. Send curriculum vitae, including bibliography, and the names and addresses of three references to: **Dr. S. S. Koide, The Population Council, 1230 York Avenue, New York, NY 10021.**

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study EMC virus-induced diabetes. Projects include site directed mutagenesis and construction of recombinant DNA molecules. Preference to recent Ph.D. experienced in cloning. Starting salary: \$24,000. Send curriculum vitae and names of three references to: **George W. Jordan M.D., Division of Infectious Diseases, University of California, Davis, School of Medicine, 4301 "X" Street, Sacramento, CA 95817. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately to study vector competence of *Aedes albopictus* mosquitoes to dengue viruses by cataloging variation in oral and disseminated infection and transmission rates among strains and determining the extent to which they are under genetic control. Prior experience in arbovirology preferred. Salary commensurate with experience. Send résumé and three letters of reference to: **Dr. K. S. Rai, Department of Biological Sciences, University of Notre Dame, Notre Dame, IN 46556.**

POSTDOCTORAL POSITION in vascular physiology and pharmacology available immediately for at least 2 years to study receptors, receptor coupling and physical factors involved in regulation of microvascular smooth muscle contraction. Send curriculum vitae and three references to: **Dr. James E. Faber, Department of Physiology, School of Medicine, University of North Carolina, Chapel Hill, NC 27599-7545. Telephone: 919-966-4453.**

POSTDOCTORAL POSITION available to adapt nucleic acid probes or other molecular/immunological techniques to study protozoan diseases of oysters. Experience in preparation of nucleic acid probes is preferred; experience with separation techniques or monoclonal/polyclonal antibodies in immunoassays for disease agents will also be considered. Two-year appointment, starting salary \$23,000. Must have completed all Ph.D. degree requirements. Send curriculum vitae, statement of experience, and names and addresses of three references by 24 June 1988 to: **Dr. Eugene M. Bureson, Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, VA 23062. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available in the summer/fall of 1988 to study the differentiation of cultured murine embryonic teratocarcinoma stem cells. The laboratory focuses on the control of gene expression during differentiation, and understanding the molecular mechanism by which the vitamin A derivative, retinoic acid, causes the differentiation of certain cell types. A background in molecular biology and/or biochemistry is desirable, and applicants should be highly motivated, creative scientists. This position is a joint appointment between the Dana-Farber and the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School. Please send curriculum vitae with the names and addresses of three references to: **Dr. Lorraine J. Gudas, Associate Professor, 830D, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION FOR MOLECULAR BIOLOGIST available immediately to study traffic of regulatory proteins and regulation of gene expression in three-dimensional cancer models. Opportunity to apply recombinant DNA techniques and to learn digital image processing methods in an interdisciplinary environment. Experience with *in situ* hybridization desirable. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. J. S. Kovach, Chairman, Department of Oncology and Director, Mayo Comprehensive Cancer Center, Mayo Clinic/Foundation, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Institution.**

POSTDOCTORAL POSITION IN BIOCHEMICAL PHARMACOLOGY for recent Ph.D. interested in nucleoside transport in normal and neoplastic cells. Background in membrane biochemistry useful. Salary \$22,000 to \$25,000 per year. Send curriculum vitae and names of four references to: **Judith A. Belt, Ph.D., Department of Biochemical Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, P.O. Box 318, Memphis, TN 38101. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION IN CANCER BIOLOGY is available immediately to study mechanisms of growth regulation in mammalian cells. Areas of research interest include structure function relationships in protein tyrosine kinases, regulation of protein tyrosine kinases by interaction with cellular proteins, and regulation of cellular functions by oncogenes. Projects involve molecular genetic methods including the use of retrovirus vector systems. This position at the Dana-Farber Cancer Institute carries a joint appointment in the Harvard Medical School Department of Microbiology and Molecular Genetics. *Applicants must be U.S. citizens or permanent residents.* Submit curriculum vitae and arrange for three letters of reference to be sent to: **Dr. Paul L. Kaplan, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION—MOLECULAR BIOLOGY OF HYPERTENSION. Requirements are Ph.D. or M.D. with experience in molecular-genetic techniques. Techniques to include cloning, RFLP studies, protein purification and sequencing. Salary negotiable. Submit curriculum vitae and statement of interest to: **William A. Pettinger, M.D., Professor, Department of Pharmacology, University of Texas Southwestern Medical Center, Dallas, TX 75235. Equal Opportunity/Affirmative Action Institution.**

POSTDOCTORAL POSITION MOLECULAR VIROLOGY WAKSMAN INSTITUTE, RUTGERS UNIVERSITY

Focus of the research is on the structure-function relationship of the adenovirus multifunctional DNA binding protein, particularly as it relates to gene regulation and DNA replication. A Ph.D. with experience in protein biochemistry, enzymology, and/or molecular biology is essential. Curriculum vitae and three letters of recommendation to: **Dr. Daniel F. Klessig, Waksman Institute, Rutgers, The State University of New Jersey, P.O. Box 759, Piscataway, NJ 08855.** Available fall 1988 or early 1989. *Rutgers University is an Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF GEORGIA CENTER FOR METALLOENZYME STUDIES POSTDOCTORAL POSITIONS AVAILABLE

Applications are invited for five postdoctoral positions in the laboratories of **Dr. L. E. Mortenson** and **Dr. Rob Robson**. Main emphasis will center on studies of the coupling of MgATP hydrolysis to N_2 reduction by nitrogenase. To approach the problem extensive use will be made of the techniques of molecular genetics, chemical modification, and biophysical techniques such as magnetic resonance. A background in biochemistry with experience in protein isolation and characterization and/or site-directed mutagenesis will be an advantage. An interest in computer modeling of protein structure would also be desirable. The common goal of these two laboratories is to determine structure function relationships in nitrogenase by a combination of enzymology, spectroscopy and molecular biology.

Salaries will be in the range of \$20,000 per year. Send curriculum vitae and names of three references to: **Professor Leonard E. Mortenson, Callaway Professor of Biochemistry, 400 Biological Sciences Building, The University of Georgia, Athens, GA 30602.**

An Equal Opportunity/Affirmative Action Institution.

POSTDOCTORAL POSITIONS

Biology Department, University of Texas at Arlington. Positions (up to 2 years) are available 1 September 1988 in the following areas: (i) Microbial Ecology: Regulation of planktonic bacteria by microflagellate grazers, (ii) Evolution of Mimicry: Delayed appearance of mimics. Salary ranges: \$20,000 to \$22,000. Please send curriculum vitae, and names and telephone numbers of three references to: **T. H. Chrzanowski (Microbial Ecology) or E. D. Brodie Jr. (Evolution of Mimicry), Department of Biology, University of Texas at Arlington, Arlington, TX 76019. Equal Opportunity Employer.**

Vacancy Announcement

National Institute of Neurological and Communicative Disorders and Stroke

National Institutes of Health Public Health Service Department of Health and Human Services

The National Institute of Neurological and Communicative Disorders and Stroke (NINCDS), National Institutes of Health (NIH), Public Health Service (PHS), invites nominations and applications for the position of Chief, Neuroepidemiology Branch. This is a Senior Executive Service position with a salary range of \$64,700 to \$73,400 per annum. The individual selected may be eligible for a Physician's Comparability Allowance ranging from \$5,000 up to \$20,000. The position is located in Bethesda, Maryland.

The Chief, Neuroepidemiology Branch provides technical and administrative direction and leadership to the Institute's epidemiological program and service as the focal point within the Federal sector, the scientific community, and the public for these activities.

Candidates must meet minimum educational requirement for Medical Officer, GS-602 (or equivalent combination of experience and training), as defined by the U.S. Office of Personnel Management Handbook X-118, Qualification Standards for Positions under the General Schedule. This information is available in Federal Personnel Offices and Federal Job Information Centers. Further information about qualifications can be obtained by contacting Mr. Clifford Schein on (301) 496-6334. Information regarding the position can be obtained by contacting Dr. Mark Hallett on (301) 496-1561. An application for Federal Employment (Form SF-171), accompanied by a current curriculum vitae and bibliography should be submitted to Mr. Clifford Schein, NINCDS Personnel Office, National Institutes of Health, Building 31, Room 8A23, 9000 Rockville Pike, Bethesda, MD. 20892.

Applications Must Be Postmarked
No Later Than July 1, 1988.

All qualified candidates will receive consideration without regard to race, religion, color, sex, age, national origin, lawful political affiliation, marital status, union membership, or any nondisqualifying physical or mental handicap.



U.S. citizenship required.
NIH is an equal opportunity employer.

RESEARCH SCIENTIST ANIMAL SCIENCE

Amgen is a dynamic and growing organization producing pharmaceutical products for a variety of human and animal applications through applied biotechnology. As a result of our growth and continued commitment to the development of animal health care products, we have an immediate opportunity for an Animal Scientist to evaluate on-going research products for their applications in farm animal health, growth and development.

Responsibilities for this position will include interaction with **Amgen** research and therapeutic development groups as well as study design, selection of field investigators, monitoring and coordinating field studies and evaluation of data.

Qualified candidates must have a Ph.D. and/or DVM. Specialization in animal physiology and endocrinology is desirable. Experience with farm management practices and disease problems as well as familiarity with field study design and statistics is essential. A thorough knowledge of field modeling methods is also important.

Amgen offers a stimulating and challenging research environment as well as an excellent compensation and benefits package, including equity offerings.

Our location northwest of Los Angeles in an attractive community in the Conejo Valley offers the best in Southern California living.

Qualified applicants should send a curriculum vitae, including references, in confidence, to:

Recruitment, Dept. #307
AMGEN
1900 Oak Terrace Lane
Thousand Oaks
CA 91320

Equal Opportunity Employer

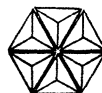


ASSISTANT RESEARCH SCIENTIST (Anti-Infective Research)

The Bristol-Myers Company, a worldwide leader in the research, development and marketing of sophisticated pharmaceutical, medical care, consumer, and nutritional products, has an opportunity available for an Assistant Research Scientist at its Virology Department of Anti-Infective Research in Wallingford, CT. This is an exciting opportunity to work on the activation and metabolism of antiviral compounds for herpes viruses and the human immunodeficiency virus.

Candidates should have an MS or BS with 3-5 years experience in Biochemistry or related discipline. Hands on experience with HPLC and procedures to purify and assay enzymes are essential. Experience in radiochemical tracer techniques and enzyme kinetics would be a definite asset.

Bristol-Myers offers an excellent salary and a comprehensive benefits package. For confidential consideration, forward your resume, including salary history to: **Bristol-Myers Company, Pharmaceutical Research & Development Division, Department SS2/SC6, P.O. Box 5100, Wallingford, CT 06540.** An equal opportunity employer (Principals Only Please).



Bristol-Myers Company

Pharmaceutical Research & Development Division



POSITIONS OPEN

POSTDOCTORAL POSITIONS beginning June to December 1988 to study the control of gene expression during differentiation and the mechanisms that regulate cell proliferation and differentiation in human epithelial cells and murine mesenchymal stem cells. Experiments will also examine the mechanisms of carcinogenesis and anticarcinogenesis. Individuals with cell and molecular biology experience should apply. Positions offer very competitive salary and fringe benefits. *Applicants must be U.S. citizens or permanent residents of U.S.* Please send curriculum vitae and the names of three references to: **R. E. Scott, M.D., Head, Section of Experimental Pathology, Department of Biochemistry and Molecular Biology, Mayo Foundation, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Institution.**

POSTDOCTORAL POSITIONS are available to study the microvascular responses to ischemia-reperfusion and inflammation. Projects include in vivo analysis of leukocyte-endothelium interaction and microvascular exchange of plasma proteins. Salary range \$20,000 to \$24,000, depending on experience and qualifications. Send curriculum vitae and names of three references to: **Dr. D. Neil Granger, Department of Physiology, LSU Medical Center, P.O. Box 33932, Shreveport, LA 71130-3932. An Affirmative Action Employer.**

POSTDOCTORAL POSITIONS available immediately to study the structure and function of adhesive glycoproteins (Integrins) on the surface of platelets and other cells and their role in atherosclerosis. Experience in protein biochemistry, cell culture and/or recombinant DNA techniques desirable. Send curriculum vitae, names of three references and copies of one to two publications to: **Dr. Leslie V. Parise, Department of Pharmacology, CB 7365, 1106 FLOB, University of North Carolina, Chapel Hill (UNC-CH), NC 27599-7365. Telephone: 919-966-4383. UNC-CH is an Equal Opportunity/Affirmative Action Employer.**

UNIVERSITY OF CALIFORNIA IRVINE POSTDOCTORAL POSITIONS

Two positions are available to study the involvement of ion channels in lymphocyte activation. Projects include combined patch-clamp recording and video imaging of intracellular $[Ca^{2+}]$, cloning genes for ion channels, and determining the role of channels T and B lymphocyte effector functions. Experience in patch clamping, cellular immunology, or molecular biology is desirable. Funding for 5 years has been secured for this project.

Contact as soon as possible: **Dr. Michael D. Cahalan, Department of Physiology and Biophysics, University of California, Irvine, CA 92717.**

Applications should include an up-to-date curriculum vitae, relevant publications, brief statement of research interests and goals, and names of three referees. *The University of California, Irvine is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS IN MOLECULAR GENETICS

Postdoctoral positions are available in (i) the regulation of human and mouse globin gene expression with emphasis on trans-acting factors; both cell transfection and transgenic mice assays are used and (ii) the study of T kininogen ($\alpha 1$ MAP acute phase protein) gene regulation. Send curriculum vitae to: **Jerry Lingrel, Department of Microbiology and Molecular Genetics M.L. 524, University of Cincinnati, College of Medicine, 231 Bethesda Avenue, Cincinnati, OH 45267. The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS IN PROTEIN CRYSTALLOGRAPHY: Three postdoctoral positions in protein crystallography will be available on or after 1 September 1988 to study the structure of myosin subfragment-1 or proteins involved in electron transport. Experience in crystallography or diffraction is required. Send curriculum vitae and three letters of recommendation to: **Drs. Hazel M. Holden and Ivan Rayment, Institute of Enzyme Research, 1710 University Avenue, University of Wisconsin, Madison, WI 53705. An Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN MOLECULAR BIOLOGY at the University of Connecticut Health Center. Positions are available immediately in the following laboratories to individuals with experience in molecular biology or protein biochemistry: **Dr. G. Carmichael**, Regulation of polyoma virus gene expression; **Dr. L. Klobutcher**, DNA rearrangement in ciliated protozoa; and **Dr. S. Weller**, Molecular genetics and biochemistry of HSV DNA replication. Applicants should supply curriculum vitae and the names of three references to: **Dr. Sandra Weller, Department of Microbiology, University of Connecticut Health Center, Farmington, CT 06032. An Equal Opportunity Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE: The position is to work on homologous recombination in human cells. This ongoing project is investigating the role ZDNA and hypervariable mini-satellite sequences on recombination and has both in vivo and in vitro aspects. A recent Ph.D. graduate with proven abilities in molecular biology would be preferred and either experience in mammalian cell culture or a background in homologous recombination would be an asset. The position is available 1 June 1988 or soon after. Send curriculum vitae and names of three references to: **Dr. Peter Moore, Department of Microbiology and Immunology, University of Illinois at Chicago, 835 South Wolcott Street, Chicago, IL 60612. The University is an Affirmative Action/Equal Opportunity Employer.**

The Rockefeller University **POSTDOCTORAL RESEARCH ASSOCIATE** in Mass Spectrometry and surface chemistry of biomolecules.

The Laboratory of Mass Spectrometry is seeking a postdoctoral research associate to study the mass spectrometry and chemistry of biomolecules down to surfaces. Experience in peptide/protein chemistry is desirable. Apply to: **Dr. Brian Chait, Mass Spectrometry Laboratory, Rockefeller University, 1230 York Avenue, New York, NY 10021. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE

Position available 1 September 1988 for individual with a Ph.D. in biochemistry. Project concerns intracellular calcium regulation in neurons and includes a biochemical examination of calcium-binding properties of neurofilaments. Applicants with experience in protein isolation techniques preferred. Send curriculum vitae and names of three references to: **Dr. Ron Abercrombie, Department of Physiology, Emory University, Atlanta, GA 30322. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE positions available for recent Ph.D. Graduates in areas of (i) novel intracellular targeting signals; emphasis on post-translational protein modification, including regulation and sequence of processing events, and HPLC oligosaccharide structural analysis; requires HPLC experience; and (ii) regulation of myelin gene expression: transcriptional, translational, and post-translational regulatory mechanisms. Send curriculum vitae and names of three references to: **Joseph F. Poduslo, Ph.D., Membrane Biochemistry Laboratory, Department of Biochemistry and Molecular Biology, Mayo Clinic and Mayo Foundation, Rochester, MN 55905. Equal Opportunity/Affirmative Action Employer.**

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

The Department of Materials invites applications for a **POSTDOCTORAL RESEARCH POSITION** in study of the growth and properties of superconducting thin films. Expertise in ultra-high vacuum, crystal growth, superconductivity, and electron microscopy are desirable. The position is a 1-year appointment with possibility of limited reappointment on a yearly basis in accordance with applicable personnel policies and availability of funding. Please refer to position #EMP-11 and submit professional résumé and three letters of reference to: **Professor Arthur C. Gossard and Professor Pierre M. Petroff, Department of Materials, University of California, Santa Barbara, CA 93106. Applications must be received by 30 June 1988. Proof of U.S. Citizenship or Eligibility for U.S. employment will be required prior to employment (Immigration Reform and Control Act of 1986). An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

USDA-AGRICULTURAL RESEARCH SERVICE (ARS) POSTDOCTORAL RESEARCH ASSOCIATE— CELL BIOLOGIST

ARS is seeking a postdoctoral research associate-cellular biologist to determine the site of production and mechanism of action of transforming growth factor beta (TGF-beta) and other polypeptide inhibitors of adipocyte differentiation. This is a 2-year position, salary commensurate with experience: \$27,716 to \$33,218. Applicants must have received a relevant Ph.D. within the past 2 years. Send curriculum vitae and three references to: **Dr. Robert R. Kraeling, R. B. Russell Research Center, P.O. Box 5677, Athens, GA 30613. Telephone: 404-546-3584. USDA is an Equal Employment Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE needed for fall 1988 to study protein kinases in neural differentiation and renal morphogenesis in vitro. Experience with gel electrophoresis, FPLC and/or HPLC is necessary. Expertise in recombinant DNA or immunocytochemistry is desirable. Send curriculum vitae and three letters of references by 30 June 1988 to: **Dr. Robert G. Van Buskirk, Department of Biology, State University of New York, Binghamton, NY 13901.**

POSTDOCTORAL RESEARCH ASSOCIATE POSITION at a Medical Center available immediately. The area of concern will be biochemical research in metallobiochemistry. A Ph.D. degree in biochemistry or biophysics is required with at least 1 year of experience in metal-protein chemistry as defined by experience in protein purification and characterization including HPLC chromatography, basic protein chemistry, trace metal analysis and immunochemical assays is required. Familiarity with cell culturing is also expected. Salary will start at \$22,000. Send curriculum vitae, names, and addresses of references to: **Utah Job Service, 1234 South Main, Salt Lake City, UT 84111. Job Order #3989219.**

Equal Employment Opportunity/Affirmative Action Employer

POSTDOCTORAL STUDENTS AND RESEARCH SCIENTISTS to work on the commercial scale-up of plant cell culture systems for pharmaceutical production. Applicants should have experience of plant cell suspension culture and/or bioreactor technology, with an interest in biochemistry or cell physiology. Competent sterile technique and a general background in plant tissue culture is assumed.

The successful applicant will be an employee of Vipont Research Laboratories, Inc. of Fort Collins, Colorado, and the work will be performed at the Plant Biotechnology Institute of the National Research Council (NRC) of Canada, Saskatoon, Canada.

A generous package will be offered depending on experience. Applicants should apply by sending résumé, salary history along with names and addresses of three references by 17 June 1988 to:

**Dr. Kenneth L. Giles
Plant Biotechnology Institute
NRC
110 Gymnasium Road
Saskatoon
Saskatchewan S1N 0W9
Canada**

PROFESSOR AND HEAD, DEPARTMENT OF MICROBIOLOGY

The Department of Microbiology, The University of Georgia invites applications for a headship position in this expanding department. The candidate should have an exceptional record of research, a commitment to undergraduate and graduate education, and outstanding leadership and administrative abilities. Consideration will be given to applicants having research interests in any area of microbiology or closely related disciplines. The deadline for receipt of applications is 1 September 1988 with the goal of filling the position by 1 July 1989. The University is prepared to negotiate with the candidate to make an attractive and competitive offer. Send curriculum vitae and a list of at least four references to: **Microbiology Department Head Search Committee, Dr. Leonard Mortenson, Biological Sciences, The University of Georgia, Athens, GA 30602. The University of Georgia is an Equal Opportunity/Affirmative Action Employer.**



University of Alberta
Edmonton

Killam Memorial Chair in Science or Engineering

A bequest from the late Dorothy J. Killam has resulted in the endowment of two Killam Memorial Chairs in any area of basic science or engineering. These are senior appointments offered to distinguished individuals to permit them to carry on high level research and graduate teaching.

One of the Killam Memorial Chairs will become available on July 1/88. We are seeking outstanding candidates to fill this position. We invite nominations and applications on behalf of or from distinguished individuals interested in this Chair. Applications should be received before 1 August 1988. Enquiries, nominations and applications should be directed to:

Dr. C.R. James
Vice President (Research)
The University of Alberta
3-5 University Hall
Edmonton, Alberta, Canada
T6G 2J9

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

Postdoctoral Scientists Molecular Genetics

Smith Kline & French Laboratories, a leader in pharmaceutical research, is seeking additional Postdoctoral Scientists to expand its current research programs employing recombinant DNA technology.

Excellent opportunities exist for innovative interdisciplinary research in our new and superbly equipped Research and Development Center in suburban Philadelphia near Valley Forge, Pa.

The Department of Molecular Genetics is seeking outstanding Ph.D. Scientists to pursue research on:

- Molecular Genetics of T-cell activation
- Tumor necrosis factor action at the molecular and cellular level
- Molecular genetics of yeast (*S. cerevisiae* and *C. albicans*)

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. Publication of research results is encouraged and supported. For confidential review, please forward your C.V. and names of three references to: Barbara J. Schwartz, S0054, Associate Employment Administrator, Smith Kline & French Laboratories, Research & Development Division, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.

SK&F
A SmithKline Beckman Company

Senior Scientists Molecular and Cell Biology Research

The LILLY RESEARCH LABORATORIES, a division of Eli Lilly and Company, is emphasizing its commitment to molecular and cell biology research. This has resulted in the following career opportunities for senior personnel in molecular immunology and molecular biology research programs.

Molecular Immunologist

We are currently seeking a doctoral level molecular biologist with a strong background in immunology. This individual will be expected to develop a research program centered around the molecular basis of the immune response and how it relates to disease states. Applicants should have two or more years postdoctoral experience and a research background in one or more of the following areas: mechanism of drug action, gene regulation, immune regulatory molecules and/or immunoglobulins. The senior scientist will have the opportunity to collaborate with immunologists, chemists, physical chemists, biochemists and other molecular biologists.

Molecular Biologist

An opportunity currently exists for a doctoral level scientist with a background in the use of a variety of mammalian gene cloning techniques. Extensive experience in the construction and screening of cDNA and genomic libraries leading to the successful expression of functionally active proteins will be essential. Applicants should have two or more years postdoctoral training and will be expected to develop and lead an independent research program within the Molecular Biology Department.

Successful candidates will be responsible for providing scientific leadership to these important areas of research. Broadly based scientific experience and good communication and organizational skills will be essential. The successful candidate's level of entry and salary will be commensurate with their experience.

Eli Lilly and Company offers a professional environment and an attractive compensation package. For prompt consideration, please forward your curriculum vitae to:

John W. Crooks, Manager
Ph.D. Recruitment (MI/MB)
Eli Lilly and Company, Lilly Corporate Center
Indianapolis, Indiana 46285



Equal Opportunity Employer

Research Management

Tumor/Cell Biology

Triton Biosciences Inc. has an opening for a Research Manager/Staff Scientist to take charge of our tumor/cell biology group. This group is engaged in a variety of projects in the areas of tumor biology, growth factors, growth factor receptors, lymphokines, and oncogenes.

We desire an individual with an established record of research in one or more of the above fields. It is anticipated that the successful candidate will have 5-8 years experience beyond the post-doctoral level and preference will be given to those having industrial experience, including responsibility for a research group.

Triton Biosciences Inc. is an emerging fully integrated pharmaceutical and diagnostics company located in the San Francisco Bay Area. We offer competitive salaries and benefits including a full relocation package. For consideration, please send your C.V. and names of three references to: Triton Biosciences Inc., Box JJM, 1501 Harbor Bay Parkway, Alameda, CA 94501. Triton is an Equal Opportunity Employer.



Triton Biosciences Inc.

Postdoctoral Positions

New England Biolabs, a pioneer and leader in biotechnology located twenty miles north of Boston, is seeking applicants for:

Gene Cloning in Streptomyces—Candidate should have a strong background in Streptomyces molecular biology to work on projects involving cloning, overproduction and mutagenesis of restriction-modification systems in Streptomyces.

Molecular Genetics—Candidate should have strong background in molecular biology or bacterial genetics to study the interaction between restriction-modification systems and the host cell.

In addition to competitive salary, New England Biolabs offers a very generous fringe benefits package. Attendance at meetings, publication of research results and open communication with others are encouraged.

Candidates please submit curriculum vitae with three references to:

New England Biolabs, Inc.
Human Resources
32 Tozer Road
Beverly, MA 01915-5510



NEW ENGLAND

Biolabs

Regional Medical Associates Pharmaceutical Marketing

Currently we have openings in the Western and Rocky Mountain Regions for Regional Medical Associates to combine both scientific expertise and marketing skills. The selected candidates will report directly to the Regional Vice President and will be headquartered in San Francisco for the Western Region and Phoenix for the Rocky Mountain Region. Responsibilities are to establish effective relationships within key medical institutions, providing scientific liaison and indepth information essential to appropriate use of SK&F's products. Will also have training responsibility at the Representative, Medical Staff and Pharmacy levels. 30% travel.

Qualifications include a Ph.D. in Pharmacology, Biochemistry, Microbiology or other Life Sciences. Must possess initiative, strong communication skills, and interest in Marketing.

In addition to an independent work environment where personal and professional growth are a way of life, we offer an outstanding compensation/benefits package geared to today's market. Please send resume and current earnings to: Box 89, SCIENCE (For the Western Region) or Box 90, SCIENCE (For the Rocky Mountain Region).

We are an Equal Opportunity Employer, M/F/H/V

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1515 BROADWAY
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BS/MS SCIENTISTS

For more than a century, scientists at Eli Lilly and Company have developed innovative, high quality pharmaceutical products. In 1988, Lilly is investing more than \$500 million in Research and Development programs. More than 3,000 scientists (at all degree levels) are involved in creative, multidisciplinary research in Lilly Research Laboratories and the Biochemical Development Divisions. We are seeking applicants for the following disciplines:

For prompt consideration, qualified applicants should send their curriculum vitae to:

Mr. Robert L. Nist (AS1)
Science Recruitment
Lilly Corporate Center
Indianapolis, IN 46285



Equal Opportunity Employer

Biochemists

Positions are available in our Diabetes program which require experience in biochemical studies with isolated cell systems and animals. Effects of various new potential therapeutic agents on glucose hemostasis will be studied.

Additional positions are available in our Biosynthetic Development and Technical Services areas. These positions involve protein synthesis, isolation, and purification as well as support for the manufacturing environment.

Demonstrated skills in experimental design and analysis are required in addition to excellent communication and organizational abilities. Successful candidates will be highly motivated individuals who can work independently.

Protein Chemist/Enzymologists

Two positions are available in the Molecular Biology Research Division requiring a BS with experience or an MS with training in protein chemistry and/or enzymology. Knowledge of protein/enzyme purification methodology is essential, including HPLC, column chromatography, and electrophoresis. Understanding of enzyme structure and/or interest in protein sequencing are desirable.

Organic and Analytical Chemists

Several positions are available in our Discovery Research Process Research and Development, and Technical Services areas. Candidates for these positions should have a BS or MS in Chemistry, with research experience in Synthetic Organic Chemistry. Excellent problem solving and organizational skills are also essential.

Lilly is also seeking candidates for positions in the Analytical Development and Control Laboratories. Candidates for these positions should have a BS or MS in Chemistry with experience and interest in Analytical Chemistry. Good communication and planning skills are also required.

Bioanalytical Chemist

Lilly is seeking candidates for two positions in the clinical research unit of the Drug Disposition Research Division. These positions will work closely with senior investigators in hospital laboratories to develop, evaluate, and implement quantitative bioanalytical methods to measure the adsorption, distribution, metabolism, and excretion of potential new drugs in Phase I clinical trials.

Candidates should have a BS or MS in Analytical Chemistry, Biochemistry, or a related area with experience in HPLC and computerized data acquisition and reduction. Experience with radiotracers, GLC, TLC, and immunoassays (especially as applied to drug metabolism) is also preferred.

POSITIONS OPEN

POSTGRADUATE AND FACULTY RESEARCH APPOINTMENTS at the Bureau of Engraving and Printing in Washington, DC—Several positions available to participate in research projects involving chemistry, physics and technology of papers and polymers, characterization of elastomers, thermal analysis, experimental design, process engineering and control, electronic engineering, optics, microscopy, spectroscopy, graphic arts, computer science, and artificial intelligence. Contact: **Research Participation Program/BEP, University Programs Division, Oak Ridge Associated Universities, Box 117, Oak Ridge, TN 37831-0117. Telephone: 615-576-3190.**

PROFESSOR OF BIOENGINEERING AND PHARMACEUTICS

The University of Utah Departments of Bioengineering and Pharmaceutics anticipate a full professor joint position in the area of macromolecular science and engineering applied to medicine, pharmacy, and biotechnology. Candidates are expected to have an international reputation, want to develop a major externally funded graduate research program, play a major role in graduate education, and work with industry via the state of Utah Centers of Excellence Program. Applications are due 30 June 1988. A complete curriculum vitae, publication list, and a list of references should be sent to:

Dr. K. Caldwell
Department of Bioengineering
2480 Merrill Engineering Building
University of Utah
Salt Lake City, UT 84112
Equal Opportunity/Affirmative Action Employer

PROTEIN BIOCHEMISTS

Cephalon, Inc., a neuroscience-biotechnology company is seeking: (i) Senior Scientist—Ph.D. with 5 or more years of experience in the purification and characterization of low abundance proteins; will supervise purification team and coordinate activities with cell culture and molecular biology staff; (ii) Research Scientist—1 to 4 years of postdoctoral experience in protein purification/characterization. Send curriculum vitae to: **Cephalon, Inc., 145 Brandywine Parkway, West Chester, PA 19380.**

PROTEIN CHEMIST—postdoctoral or junior faculty level—dual appointment, McLean Hospital/Harvard Medical School. To interface with protein chemistry facility and coordinate protein analytic studies within a multi-disciplinary laboratory. Research involves the role of posttranslational protein modification in regulating the dynamics of cytoskeleton and membrane proteins in neurons and other cellular systems. Experience in one or more of the following areas is required: protein/peptide HPLC, FPLC, protein sequencing, amino acid analysis; related protein analytic techniques. For further information contact: **Dr. Ralph Nixon, Mailman Research Center, McLean Hospital, Belmont, MA 02178. Telephone: 617-855-2412.**

RADIATION BIOLOGIST—University of Pittsburgh anticipates a need for a radiation biologist—assistant professor. Duties: preparation and presentation of didactic lectures and laboratory experiments in graduate courses; develop independent research projects suitable for outside sponsorship relating to biological effects of radiation and/or other related areas of interests; and participation in research/service programs useful for student instruction and supporting nuclear industries and governmental agencies. Send résumé to: **Chairman, Niel Wald, M.D., Department of Radiation Health, University of Pittsburgh, Graduate School of Public Health, A533 Crabtree Hall, Pittsburgh, PA 15261.**

RESEARCH EPIDEMIOLOGIST to study HIV infection in Africa. Requires M.D. with formal training in Tropical Medicine, Public Health and background of clinical practice in Africa. Candidate must have experience in study design, performing immunologic assays, analyzing data and use of statistical packages. Periodic travel to Africa is requested. Foreign languages an asset. Salary negotiable. Send curriculum vitae and names of three references to: **Dr. Peter Perine, c/o Civilian Personnel, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799.**

POSITIONS OPEN

Minneapolis—University of Minnesota—Department of Psychiatry seeks a **PSYCHIATRIST** to fill a faculty position as assistant professor with a probationary appointment towards tenure. The position entails commitment to research and training. The successful applicant will share with other faculty members responsibility for a treatment team involved in the care of psychiatry, especially substance abuse disorder, and cross cultural psychiatric care. This team, in addition to treating patients, has the responsibility of training residents, medical students, and psychology interns. Applicants should be Board-eligible, with demonstrated interest and ability to do psychiatric research. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages women and minority applicants.* Send résumé to: **Joseph Westermeyer, M.D., UMHC Box 393, University of Minnesota Hospitals, Minneapolis, MN 55455 by 1 September 1988.**

RESEARCH ASSOCIATE to analyze clinical specimens for the presence of human papillomaviruses DNA⁶⁻³⁵ by nucleic acid hybridization. To hybridize target DNA to radiolabeled probes which are specific for HPV typed 6-35. The job involves follow-up of patients tested positive for HPV virus, in relation to the development of cervical carcinoma, in collaboration with physicians at hospitals affiliated to Morehouse School of Medicine Pathological Examination of cervical smear slides and interpretation of experimental data. Require M.D. or M.B.B.S. in Medicine with 1 year of training in pathology. Demonstrated ability to perform stated functions and to write research proposals and manuscripts. Salary: \$22,000 per year. Apply in person with résumé to: **Georgia Department of Labor, 2811 Lakewood Avenue, S.W., Atlanta, GA 30315, or to the nearest Georgia Job Service Center. Control #GA 5288270.**

RESEARCH ASSOCIATE/POSTDOCTORAL POSITION available. Dual appointment, McLean Hospital/Harvard Medical School. Opportunity for academic advancement. Research involves molecular and cell biological studies on the posttranslational processing of neuronal cytoskeletal proteins (phosphorylation and proteolysis); basic mechanisms in normal neuronal systems and relationship to Alzheimer's disease pathogenesis. Experience in one or more of the following areas is desirable: molecular cloning, in situ hybridization, protein/peptide HPLC, microinjection, monoclonal antibody production. For further information contact: **Dr. Ralph Nixon, Mailman Research Center, McLean Hospital, Belmont, MA 02178. Telephone: 617-855-2412.**

RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY

Department of Biotechnology Research at Pioneer Hi-Bred International, Inc. is seeking applicants for our ongoing program of crop improvement. Pioneer offers competitive salaries, excellent facilities, and a highly cooperative research environment. Successful candidates will be expected to interact extensively with ongoing programs in transformation, regeneration and gene isolation programs.

NUCLEIC ACID BIOCHEMIST—The position will emphasize new methodology regarding the separation, isolation and detection of nucleic acids. A Ph.D. or equivalent in biochemistry or related discipline is required.

MOLECULAR BIOLOGIST—The position will emphasize the study of transformation procedures and the testing and evaluation of different DNA vector constructions. A Ph.D. or equivalent in molecular biology, cell biology or a related field is required, with an additional 3 years of experience.

MOLECULAR BIOLOGIST—Research will include the isolation and analysis of nucleic acids, microbial manipulation and molecular cloning. The applicant should have either a B.S. degree plus 4 years of experience, or the equivalent qualifications in chemistry, biology, or a related field, with preference given for molecular biology or biochemistry.

Pioneer Hi-Bred International is an Equal Opportunity/Affirmative Action Employer. Send résumé and indicate for which job you are applying with at least three references to:

Lisa Wilson
Pioneer Hi-Bred International, Inc.
7300 N.W. 62nd Avenue, P.O. Box 38
Johnston, IA 50131

POSITIONS OPEN

RESEARCH PLANT PATHOLOGISTS

Chevron Chemical Company has immediate opportunities for two research plant pathologists who have Ph.D.'s in plant pathology or a related discipline, as well as strong written and oral communications skills.

In one position, located at the Ortho Research Center in Richmond, California, the successful candidate will be an integral member of a team of biologists and chemists, and will perform laboratory and greenhouse identification and characterization of materials for plant disease control. In addition, will develop novel screening procedures.

Position requires knowledge of an experience in plant physiology, biochemistry, chemistry and organismal biology. Experience in pesticide transport, mode of action and fungal physiology is highly desirable.

The other position, located at the Southern Field Research Station in Ocoee, Florida, will provide the successful candidate with an unusual opportunity to develop a program for the field evaluation of potential agriculture chemicals.

Position requires experience in the field evaluation of fungicides and knowledge of agronomic practices; demonstrated ability to work independently and with University and Extension personnel is essential.

Please send your résumé, academic transcripts, a list of publications and three letters of reference by 17 June 1988 to: **Human Resources, Chevron Chemical Company, P.O. Box 4010, Richmond, CA 94804-0010. An Equal Opportunity Employer.**

RESEARCH SCIENTIST GENSIA PHARMACEUTICALS, INC.

Gensia Pharmaceuticals is a dynamic company focusing on the development of novel therapeutic strategies for the treatment of cardiovascular, cerebrovascular, and neurological disorders. Gensia is seeking creative scientists at postdoctoral, intermediate, and senior levels in the area of pharmacology with experience or interest in one or more of the following areas: (i) adenosine metabolism, (ii) adenosine receptors and transport mechanisms, (iii) cardiovascular and/or CNS ischemia. Gensia offers competitive salaries, comprehensive fringe benefits, an incentive stock program, a highly stimulating, creative work environment, and an attractive San Diego location. Please forward curriculum vitae to: **Dr. Paul Marangos, Research Director, Gensia Pharmaceuticals, Inc., 11075 Roselle Street, San Diego, CA 92121-1207.**

SCIENTIST POSITIONS. Forestry Sciences Laboratory in Delaware, Ohio has three permanent full-time research biologist openings to be filled by 26 August 1988. The laboratory is aimed at the application of biotechnology in forest insect pest research/management. Applicants with strong background in biochemistry/molecular biology are invited for the following announcements: No. 400-8-0067, GM 13/14, for a biochemist to conduct research on juvenile hormone/modulators in lepidoptera insect development. No. 400-8-0069, GS/GM 12/13, for a molecular biologist to study gene and gene regulation of hormone modulators in lepidoptera insect development. No. 400-8-0068, GS/GM 12/13, for a molecular virologist to work on nucleopolyhedrosis virus of the gypsy moth on the mechanism of viral replication and regulation of gene expression. Specific information on these positions is published in Lists No. 10, 11, and 12 of the position listing of life science research with the Department of Agriculture. Deadline for application is 28 June 1988. Please apply to: **Special Examining Unit, Agricultural Research Service, U.S. Department of Agriculture, Room 319, Building 003, BARC-West, Beltsville, MD 20705.** For assistance in application, call Mrs. Cowles 614-369-4476.

EXPECTED OPENING. TENURE-TRACK POSITION with major teaching responsibilities in microbiology, biochemistry, and related subject matter areas. Additional responsibilities include supervision of undergraduate research projects and lower division laboratory courses. Ph.D. is required in major teaching area and some previous college level teaching is preferred. *Women and minorities are encouraged to apply.* Send curriculum vitae, copies of transcripts, and names of three references to: **Dr. Susan Batell, Dean of Academic Affairs, College of Saint Teresa, Winona, MN 55987.** Applications accepted until position is filled. *Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITIONS MOLECULAR AND CELL BIOLOGY

Tumor Cell Biology Department seeks applicants for a research position in molecular and cell biology at the Assistant Member level. We are particularly seeking candidates with previous expertise in molecular and cell biology, biochemistry, or genetics who want to develop independent programs that complement and extend ongoing departmental activities. Current research within the department includes studies of growth factors, receptors, and oncogenes, primarily in hematopoietic systems; identification and characterization of genes which suppress the transformed phenotype; transcriptional regulation during blood cell development; and characterization of polypeptides that affect the assembly and transport of secretory proteins. The Department currently includes ten Ph.D. and M.D. faculty members engaged in full time research and participating in an active postdoctoral training program. Candidates must have a doctoral degree, postdoctoral training, and a strong commitment to basic research with prospects for individual achievement. Generous start-up funds including technical support are available for junior faculty, and prospects exist for additional monies to complement ongoing grant funded research.

The Institution is strongly committed to both basic and clinical research and includes other basic science departments in Virology and Molecular Biology, Biochemistry, Immunology, and Pharmacology: has state-of-the-art equipment and shared resources and is presently undergoing major capital development and continued expansion of its research programs.

Applications including a curriculum vitae, brief statement of research interests, and the names of four referees should be submitted to:

Dr. Charles J. Sherr, Chairman
Department of Tumor Cell Biology,
St. Jude Children's Research Hospital,
Memphis, Tennessee 38104.

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RESEARCH FELLOW A\$28,942-A\$42,174 DRYLAND CROPS AND SOILS RESEARCH UNIT LABORATORY FOR RURAL RESEARCH FLOREAT PARK, PERTH, W.A.

THE DIVISION: The Dryland Crops and Soils Research Unit is part of the Division of Plant Industry which undertakes research into improving agricultural production and the development of new and improved crop and pasture plants. The Unit of 7 scientists plus support staff is based in the Laboratory of Rural Research, Perth, Western Australia.

THE PROGRAM: The aim of the program is to develop management systems for dryland crop production in the coarse textured and texture contrast (duplex) soils of the mediterranean climatic zones of Australia. The two major interests of the unit are optimization of water and nitrogen use efficiency in lupins and wheat. The unit has laboratory, glasshouse, rainout shelter and growth cabinet facilities at Floreat Park and established field research sites at 3 locations across the cereal growing regions of Western Australia.

THE JOB: In conjunction with other scientists to conduct field and controlled environment studies on the carbon, water and nitrogen relations of wheat and lupins. In particular, to study the influence of water deficits and transient waterlogging on the remobilization of carbon and nitrogen in the plant and determine its influence on yield.

THE PERSON: Applicants should have a Ph.D. degree in agricultural science or equivalent qualification with research achievement in crop physiology. They should have a desire to work in the field as well as controlled environments and be prepared to work in a team with other scientists from the unit and from the W.A. Department of Agriculture. Experience in plant water relations is required and experience in the translocation of carbon and/or nitrogen is highly desirable.

CONDITIONS: Appointment will be for a term of 3 years with Australian Government Superannuation benefits available.

MORE INFORMATION: A copy of the detailed job description and selection criteria are available from Mrs Prue Yendle at the address below or by phoning 61-9-3874233. Applicants can obtain further information from Dr. N.C. Turner on 61-9-3874233.

APPLICATIONS: Applications should be submitted by Friday 1 July, 1988 and quote reference No. A0957 stating relevant personal particulars including details of qualifications and experience. Applicant should nominate at least two professional referees, and address their applications to:

Officer-In-Charge
CSIRO, Dryland Crops and Soils Research Unit
Laboratory for Rural Research
Private Bag, P.O. Wembley, W.A., 6014, Australia.

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UCAR Visitor Research Programs for Senior and Postdoctoral Scientists

The University Corporation for Atmospheric Research (UCAR) announces the continuation of its Visiting Research Programs, which provide research opportunities at the Naval Environmental Prediction and Research Facility (NEPRF) in Monterey, California, and the National Meteorological Center (NMC) in Camp Springs, Maryland. The program offers visiting research appointments in the atmospheric and related sciences at two of the premier R&D centers devoted to operational weather prediction in the United States.

Openings in the UCAR program include positions for senior and postdoctoral scientists. Remuneration will be commensurate with the experience of the scientists and local living costs, and will be competitive with analogous university and government appointments. Appointments will be for up to two years.

No formal application form is required. Qualified scientists are encouraged to apply for these programs by sending a resume along with a statement of how their research interests and experience relate to the areas of scientific interest at the host institution. Applicants should designate their choice of program site and should include a brief description of proposed work. All applications should include four professional references.

Application deadlines are 1 August 1988 or 16 January 1989. Send the required information to Meg Austin, Corporate Projects, UCAR, P.O. Box 3000, Boulder, CO 80307. For further information or to receive a flyer describing the program in more detail, please contact her at 303-497-8995.

ELECTRON MICROSCOPIST

BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc., a major researcher, developer, manufacturer and marketer of prescription and over-the-counter drugs, currently has an opening at our Research and Development facility located in DANBURY, CONNECTICUT.

The ANALYTICAL SCIENCES Department is seeking an experienced Electron Microscopist to work in a multidisciplinary environment on applications related to a wide variety of pharmaceutical research and development problems. This scientist will be responsible for the start-up operations of the electron microscopy laboratory, from purchasing equipment to staffing personnel.

Minimum requirements include a Ph.D in Physical or Life Sciences with 3+ years experience relevant to investigation and physical characterization of pharmaceutical formulations by electron microscopy. Experience in biological applications of electron microscopy is also required.

Our state-of-the-art environment is combined with a highly competitive compensation/benefits package including relocation assistance.

Please send your resume and salary history to Dept. PTG-1S, R&D; BOEHRINGER INGELHEIM PHARMACEUTICALS, Inc., 90 East Ridge, P.O. Box 368, Ridgefield, CT 06877. We are an equal opportunity employer m/f/h/v.



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POSITIONS OPEN

SENIOR FACULTY POSITION PROTEIN CRYSTALLOGRAPHY

The Rosenstiel Basic Medical Sciences Research Center and the Department of Biochemistry, Brandeis University, seek an experienced macromolecular crystallographer to head a new laboratory of Structural Biochemistry which is being established at the Rosenstiel Center. The appointee will be involved in the recruitment of another faculty member who will share in the development of the Structural Biochemistry program. Funds have been allocated for equipment and operation of the new laboratory. Existing facilities for x-ray diffraction, electron microscopy, image analysis, NMR spectroscopy, enzymology and physical biochemistry will be available to support this program. The candidate for this position should be a recognized leader in macromolecular crystallography whose research would complement the ongoing programs in structural biology and biochemistry at Brandeis. Applicants should submit curriculum vitae and a description of research plans to: **Dr. Hugh E. Huxley, Chair, Search Committee, Rosenstiel Center, Brandeis University, Waltham, MA 02254.**

Brandeis University is an Affirmative Action/Equal Opportunity Employer.

SUPERVISORY NEUROSCIENTIST

The U.S. Army Medical Research Institute of Chemical Defense is seeking a neuroscientist, GM-14, (physiologist, pharmacologist, or psychologist) to serve as Chief of the Neurotoxicology Branch, Pathophysiology Division. Responsibilities include planning and supervising the research programs and research assignments of fifteen to twenty civilian and military personnel and contractors concerned with investigations of the mechanisms of action on neural substrates of chemical agents, such as anticholinesterase inhibitors, and/or neurotoxic threat agents. The goal of these research initiatives will be the development of effective medical treatment regimens for threat agents. Qualified applicants should have an extensive and varied professional background in electrophysiology, neuroanatomy, neurophysiology, neuropharmacology, statistics, biophysics, computers, experimental psychology and neurotoxicology as well as experience in multidisciplinary research program planning and administration. The ideal candidate will have a Ph.D. in one of the basic animal sciences, physiology, pharmacology, psychology, or a closely related discipline. Salary range: \$46,000 to \$60,000. *U.S. citizenship is required and must be able to obtain a security clearance.* Send résumés by 1 July 1988 to: **Commander, U.S. Army Aberdeen Proving Ground, Attention: STEAP-PA-CR-D (Ms. Bynum), Aberdeen Proving Ground, MD 21005-5001. Equal Opportunity Employer.**

TENURE-TRACK FACULTY POSITION NEUROPSYCHOPHARMACOLOGY: The Department of Psychiatry, State University of New York at Stony Brook, is seeking applicants for a tenure-track faculty position in the field of neuropsychopharmacology. M.D. or Ph.D. in a neuroscience-related discipline with research training and several years of experience is required. Candidates whose research involves major psychiatric disorders, regulation and interaction among neurotransmitter systems, and/or mechanism of psychotropic drugs preferred. Position is available June 1988. Salary and academic rank commensurate with experience. Send curriculum vitae, description of research interests and plans, along with the names and addresses of three references to: **Rex Wang, Ph.D., Chairman of Search Committee State University of New York, Department of Psychiatry and Behavioral Science Putnam Hall, South Campus, SUNY Stony Brook, Stony Brook, NY 11794-8790. SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK#121.**

NOTICE

NOTICE TO URINE TOXICOLOGY TESTING SYSTEM VENDORS

This is an invitation to Vendors wishing to provide an integrated urine toxicology testing system to be operated by Correction Officers at the New York City Department of Correction Work Release Program. Those interested in receiving a copy of the Inmate Urine Toxicology Testing Program Request for Proposal (RFP) please contact: **Matt Foreman at 718-956-2419** or **Dr. Burton F. Schall at 212-266-1072.**

POSITIONS OPEN

UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE DEPARTMENT OF ANATOMICAL SCIENCES

TENURE-TRACK POSITIONS available in department under new leadership as of July 1988. Opportunities for teaching in embryology, gross anatomy, histology or neuroanatomy to health professional and graduate students, and development of or participation in quality research. Candidates should have a Ph.D., M.D., D.D.S., or equivalent degree, and at least 2 years of postdoctoral research experience in cell biology or the neurosciences. Rank commensurate with experience. Salary negotiable. Starting date begins 1 August 1988.

Curriculum vitae should be directed to: **Search Committee, Department of Anatomical Sciences, College of Medicine, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190.**

Equal Opportunity/Affirmative Action Employer.

GRANTS



The American Health Assistance Foundation is accepting 1-year **GRANT** applications for Alzheimer's disease research with a maximum of \$100,000 renewable. Deadline: 30 October 1988. For further information, please write to:

**American Health Assistance Foundation
Alice E. Massa
15825 Shady Grove Road, Suite 140
Rockville, MD 20850**

FELLOWSHIPS

The Department of Psychiatry is offering a **FELLOWSHIP IN ALCOHOL/DRUG DEPENDENCE** for physicians licensed in the United States who have had at least three and preferably 4 years of previous training in a primary care field (including psychiatry). Training includes inpatient, outpatient, consultation-liaison, day and evening programs, teaching, administration, and research. Send correspondence, including résumé and three letters of reference to: **Joseph Westermeyer, M.D., Director, Alcohol-Drug Treatment Program, University of Minnesota Hospitals, Box 393 Mayo, Minneapolis, MN 55455. The University of Minnesota is an Equal Opportunity Employer and specifically invites and encourages applications from women and minorities.**

LUPUS RESEARCH SCHOLAR AWARD PROGRAM

Terri Gotthelf Lupus Research Institute invites applications and nominations for five scholarships available 1 July 1989. The purpose of this program is to support research training at the postdoctoral level in various aspects of clinical and experimental systemic lupus erythematosus research. Candidates with a Ph.D. or M.D. degree, having U.S. citizenship or residence, are eligible to apply. A candidate must be nominated by a scientist in whose laboratory the proposed research will be conducted. The award is for a period of 3 years, in the amount of \$90,000.

The deadline for filing is 15 August 1988. Information and specific application requirements are available upon written request only from:

**Terri Gotthelf Lupus Research Institute
50 Washington Street
South Norwalk, CT 06854**

POSTDOCTORAL FELLOWSHIP (Microbiology) in the Ocular Microbiology Laboratory, Department of Ophthalmology, Baylor College of Medicine, Houston. Opportunity for motivated individual with Ph.D. in microbiology or infectious disease, to be involved in NIH and privately funded studies of the biology and pharmacology of *Acanthamoeba*. Please send curriculum vitae and names of three references to: **K. R. Wilhelmus, M.D., Cullen Eye Institute, One Baylor Plaza, Houston, TX 77030.**

FELLOWSHIPS

The Department of Botany, University of Alberta invites applications for the **NSERC, UNIVERSITY RESEARCH FELLOWSHIP (URF)** Program. We are interested in individuals with a strong commitment to excellence in teaching and research, and who will develop an active research program to complement existing strengths in the Department. We are prepared to sponsor a URF in one of the following three areas: (i) plant membrane biology—investigation of membrane composition, structure, and function as it relates to the response of plants to their environment; (ii) wetland ecology—a field-oriented ecosystem or community approach to the investigation of marshes and peatlands; (iii) lichenologist—ecology, physiology and taxonomy of lichens.

Interested applicants should submit a résumé, a statement of research interests, reprints of three published papers, and the names and addresses of four potential referees by 1 August 1988 to: **Dr. Keith E. Denford, Chairman, Department of Botany, University of Alberta, Edmonton, Alberta, T6G 2E9, Canada.**

The University of Adelaide, South Australia, invites applications from both women and men for two **POSTDOCTORAL RESEARCH FELLOWSHIPS** available immediately until 31 December 1990 in the Department of Entomology at the Waite Agricultural Research Institute. Both successful applicants will join a small team working on the microbial control of insect pests. Position 6552: Molecular Biologist/Bacterial Geneticist. The successful applicant will work on the genetic manipulation of *Bacillus thuringiensis* and related bacteria, and be competent in the areas of plasmid technology and gene expression. Position 6553: Biochemist. The successful applicant will work on the purification and analysis of bacterial toxins affecting insects, and preference will be given to applicants with expertise in peptide biochemistry. Further information may be obtained from: **Professor D. E. Pincock, Chairman, Department of Entomology. Annual salary: Aus\$24,848 × 5—Aus\$28,342.** Applications in duplicate quoting reference number 6552 or 6553, giving personal particulars (including whether candidates hold Australian permanent residency status), résumé and names and addresses of three referees should reach: **The Registrar, University of Adelaide, GPO Box 498, Adelaide, South Australia, 5001, Telex UNIVAD AA 89141 not later than 24 June 1988.** Applicants are requested to ask their referees to forward their reports directly to: **The Senior Assistant Registrar (Personnel)** before the closing date. *The University is an Equal Opportunity Employer.*

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Excellent opportunities exist for innovative interdisciplinary research in our new and superbly equipped Research and Development Center in suburban Philadelphia near Valley Forge, Pennsylvania.

The Department of Molecular Genetics is seeking an outstanding Scientist with a Ph.D. in Microbiology, Biochemistry, Molecular Biology or equivalent and 2 to 3 years of postdoctoral experience in the area of mammalian gene expression.

The candidate that we are seeking should have a strong research background in heterologous gene expression in mammalian cells and in recombinant DNA techniques. This person will interact with a strong research group to develop whole-cell functional assays for therapeutically relevant proteins.

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. Publication of research results is encouraged and supported. For confidential review, please send your C.V. and names of three references to: Robert F. Obst, Manager, Personnel Relations, R0130, Smith Kline & French Laboratories, Research & Development, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.

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TELEPHONE: (203) 932-3203

The **GSF** is a national research center with 1,650 employees, funded by the Federal Republic of Germany and the State of Bavaria. Its activities concentrate on the protection of man and his environment from hazardous effects, and on the improvement of health care.

An internationally qualified scientist is invited to apply for the position of

Director of the Institute of Epidemiology

which is to be established. The institute shall continue the previous epidemiological work of the Institute for Medical Informatics and Health Services Research (medis), in close co-operation with the clinical and empirical research groups of the GSF, and it shall start new especially environment-oriented activities. Co-operation between the Institute of Epidemiology and the Technical University of Munich

will be encouraged. The payment corresponds to salary class C 4 (equivalent to that of a full professor in the Federal Republic of Germany).

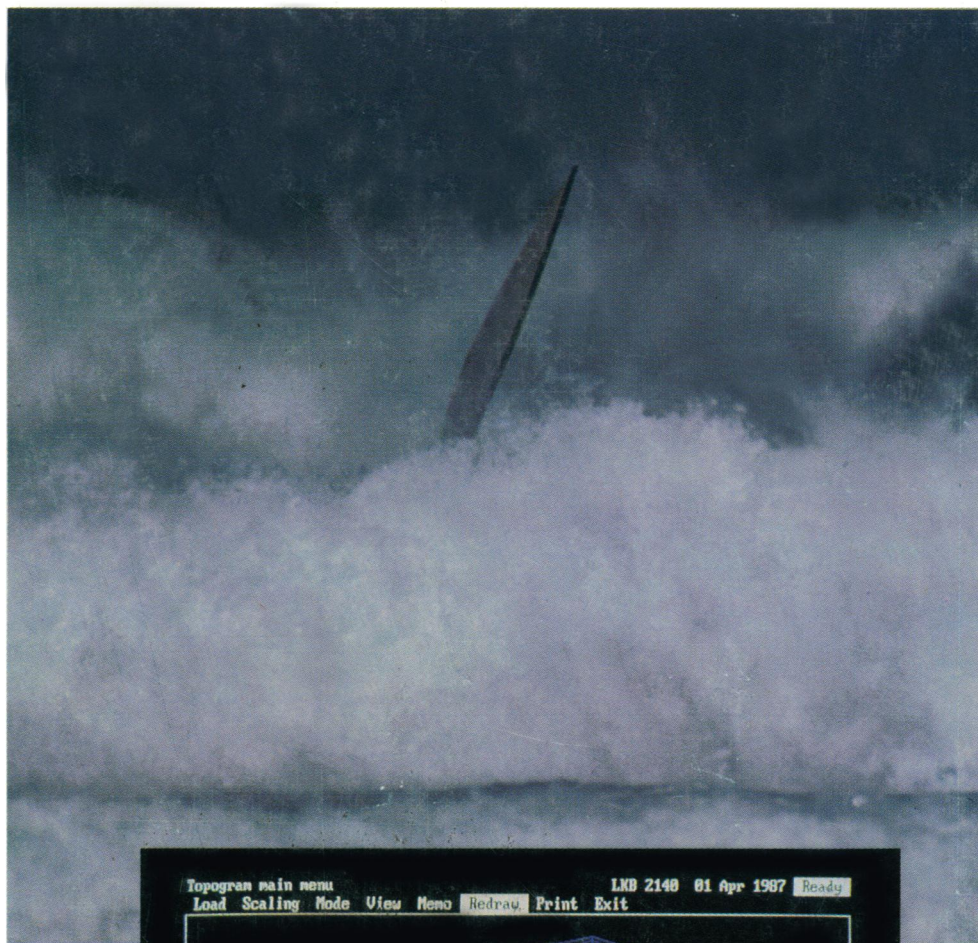
Applicants should send their documents (curriculum vitae, certificates, list of publications) not later than June 30, 1988, to the Scientific Director, Prof. Dr. H. W. Levi.



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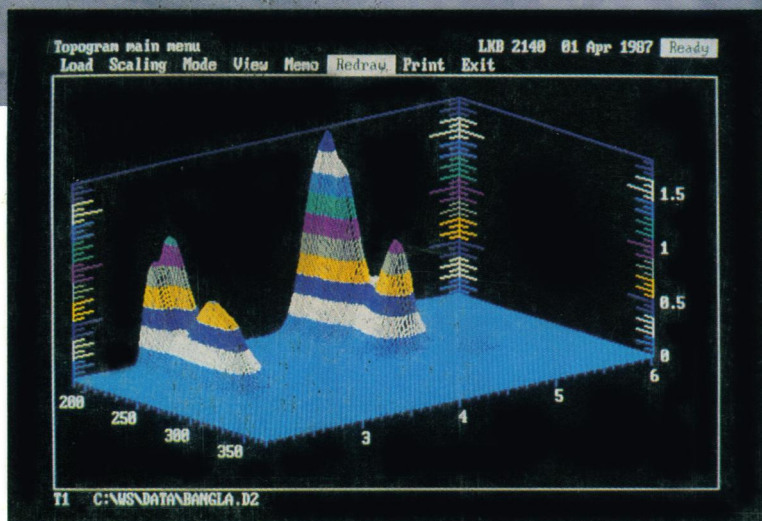
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