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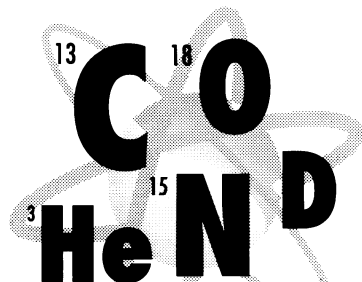
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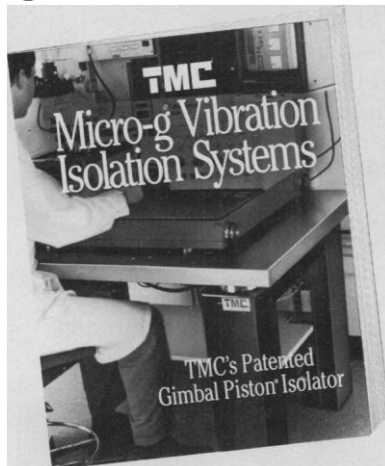
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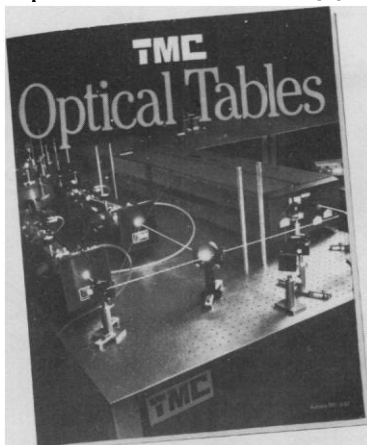
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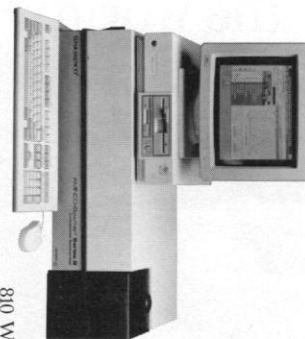
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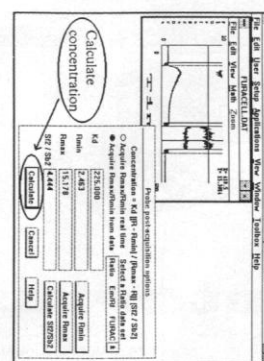
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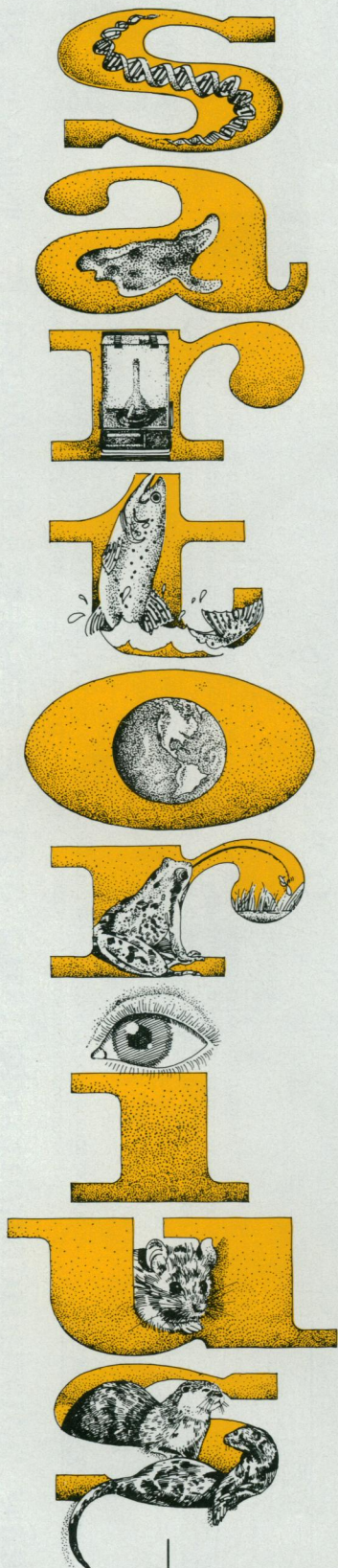
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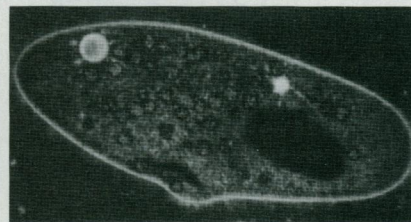
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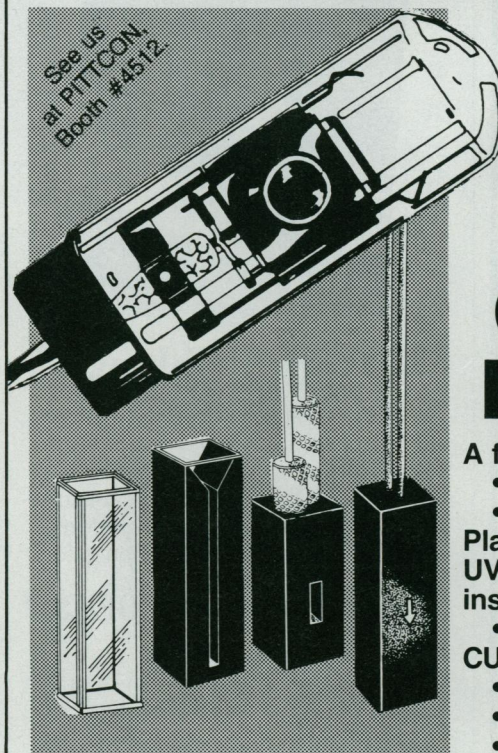
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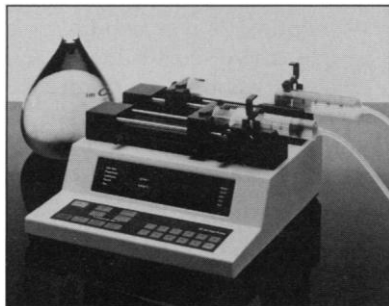
The 43rd Annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy will be held from 9 through 13 March at the New Orleans Convention Center. These are some of the products that will be introduced there.

HPLC Sample Processor

The AS3000 is designed for microliter sample preparation and injection into a high-performance liquid chromatograph. The automated preparation can reduce solvent waste, eliminate handling of toxic solvents, increase sample throughput, and improve accuracy and precision. The unit includes a built-in, patented vortex mixer/heater that opens opportunities for automation of new procedures. It features 120-sample vial capacity and injection reproducibilities of better than 0.5%. Spectra-Physics. Circle 345.

Double Syringe Pump

The Harvard "33" Double Syringe Pump can deliver or withdraw continuously, 24 hours a day. One syringe delivers or with-



draws while the other is refilling or emptying. Each pump can operate at its own flow rate. Harvard Apparatus. Circle 346.

Basic Balance Series

The BA (Basic) series of "weighing only" balances have been designed with one major goal—to keep them simple. There are only four keys to deal with: to turn on or off, to

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rezero the balance, to print the result or send it to a computer, and to calibrate the balance. There are 15 balances in the series, from analyticals to toploaders. Each has a durable cast aluminum housing with solvent-resistant paint coating, a stainless steel weighing pan, a standard lock-down ring to secure against theft, a large liquid crystal display, and an RS-232C computer or printer interface. Sartorius Instruments. Circle 347.

Electrophoretic Protein Fractionator

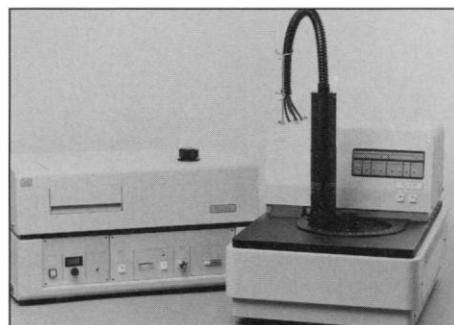
Miniphor is a recycling free-flow system for method development, small-scale protein separations, and laboratories on a limited budget. It purifies proteins by isoelectric focusing in free solution. In narrow-range pH gradients, proteins differing by a fraction of a pH unit can be completely resolved. Ampholytes or mixtures of discrete small amphoteric substances can be used. The Miniphor can separate up to 0.25 g of protein in less than 1 hour. Rainin Instrument Co. Circle 348.

Cell Culture Incubator

This automatic, water-jacketed, CO₂ incubator incorporates the latest in fuzzy logic technology. A door-mounted control panel features a microcomputer with vacuum fluorescent alphanumeric display. Programming is performed through a touch keypad. The crevice-free, stainless steel interior with mirrored finish is easy to clean. Forma Scientific. Circle 349.

Light-Scattering Detectors

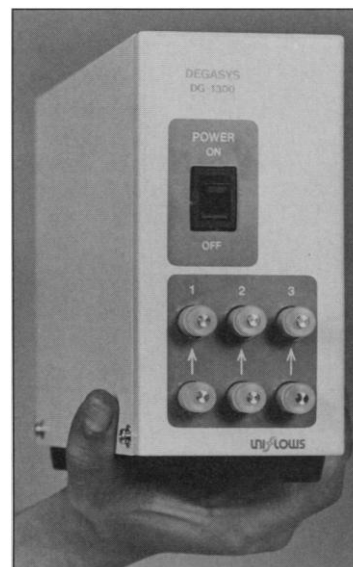
The PL-LALS is a dual-detector system for chromatography, for the measurement of molecular weight averages without column calibration. The system consists of a low-angle laser light-scattering (LALLS) detector and a refractive index concentration



detector in one compact housing. The concentration detector has been designed with a 650 ± 30 nm wavelength to match that of the LALLS at 633 nm. An ultraviolet detector is also available as an option. The PL-LSP is a dual-mode laser light-scattering photometer for high-accuracy macromolecular and submicrometer particle characterization. The PL-LSP can operate in both static mode, for classical or total intensity measurements, and dynamic mode, for quasi-elastic or photon correlation spectroscopy. Polymer Laboratories. Circle 350.

Degassing Systems for HPLC

A line of degassing devices for high-performance liquid chromatography eliminates the need for helium sparging of the mobile phase. The Model DG 1200 (two channel)



and Model DG 1300 (three channel) degassing systems offer the chromatographer a variety of options, from isocratic to multiple gradient systems. The units respective channels can be connected to each other to increase efficiency. Analytical Instrument Systems. Circle 351.

Thermal Desorption System

The microprocessor-controlled Model 2 Short Path Thermal Desorption System is for the identification and quantitation of volatile and semivolatile samples in complex matrices. The interactive system, including software, keypad, and fluorescent display, permits the user to set system parameters and operate it manually or automatically. The system mounts on top of the gas chro-

matograph injection port. The desorption tube and short transfer line provide for an individual flow path for each sample, thereby eliminating "memory effects" and providing for optimum sensitivity. Scientific Instrument Services. Circle 352.

HPCPC Column Module

A bench-top column module featuring high-performance centrifugal partition chromatography (HPCPC) technology can be used in place of the column in high-performance liquid chromatography or other packed column liquid chromatography systems. The new module eliminates problems of packed columns such as pH limitations, void formation, limited life, and poor loadability. With HPCPC, a solid stationary phase support is not used. Instead, any two-phase solvent system can be used to perform normal or reverse phase separations. The process makes use of classical liquid-liquid partitioning. The stationary liquid phase is retained in the column by centrifugal force; mobile phase passes through the stationary phase as microdroplets. Sanki Laboratories. Circle 353.

Time-of-Flight Mass Spectrometers

The REFLEX series of reflectron-based time-of-flight mass spectrometers features a patented gridless ion reflectron for time and geometric focusing of ions, providing higher sensitivity and significantly higher mass resolution and accuracy for determination of biopolymers and polymers up to and beyond 100,000 daltons. The instruments' matrix-assisted laser desorption operation offers high extraction and reflection voltages, producing high-femtomole detection limits and optimal resolution. Sample changeover takes less than 2 min. The REFLEX systems are modular and upgradeable. Bruker Instruments. Circle 354.

PCB Residue Test Kit

The EnviroGard PCB Test Kit is an immunoassay to detect parts per million levels of polychlorinated biphenyl residues in soil in less than 20 min. The test kit provides a qualitative "yes or no" result that strongly correlates with traditional chromatographic methods without the need for specialized training or instrumentation. Results can be read by eye, or more precisely analyzed by photometer. The test kit is completely por-



table, with reagents in dropper bottles and test tubes coated with antibodies. The manufacturer offers ten other EnviroGard kits for detecting pesticide residues such as triazines, aldicarb, and 2,4-D. Millipore. Circle 355.

Programmable Ultrasonic Homogenizer

The XL2020 SONICATOR is a programmable ultrasonic homogenizer that can quickly process samples according to preset parameters for consistent results. A keypad allows the user to program up to ten different timing or pulsing functions, and a liquid crystal display provides user prompts, power monitoring, and elapsed time displays. The unit includes special function keys, adjustable power control, and quick tuning features. Accessories provide the versatility to process volumes from microliters to liters. The unit can disrupt cells in seconds; extract enzymes; enhance chemical reactions; mix, homogenize, emulsify; or degas samples prior to analysis, and even sonicate HIV virus safely inside sealed tubes. Heat Systems. Circle 356.

Liquid-Liquid Extractor

A new continuous liquid-liquid extraction apparatus for use with solvents heavier than water allows extraction of pollutants and other organic compounds from water samples. Continuous liquid-liquid extraction can replace tedious separatory funnel procedures and prevent emulsion formation. Sun Brokers. Circle 357.

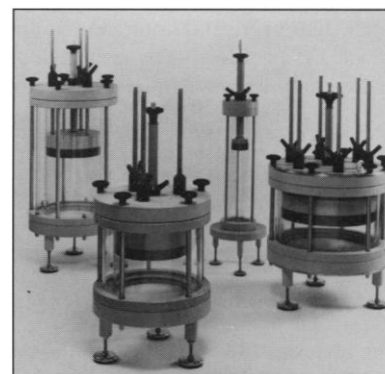
GC/MS for Toxic Air Analysis

The Saturn Air is a gas chromatography/mass spectrometry (GC/MS) configuration for toxic air monitoring. Based on the Saturn II GC/MS with new generation ion trap technology, Saturn Air monitors vola-

tile organic compounds, which present health hazards and act as precursors to ozone formation in the air. It meets the Environmental Protection Agency method TO-14 monitoring requirement of 200 parts per trillion, with typical minimum detectable quantities of 10 parts per trillion. Varian Associates. Circle 358.

Process Scale Columns and Gels

Sepracor Process Scale Columns are designed for large-scale purification of biological molecules using low-pressure liquid chromatography. The glass columns fea-



ture a single, central screw adjuster to vary the bed height during packing. A unique flow distribution system minimizes dead volume, and ensures high-efficiency separations using even large diameter columns. A new family of process scale gels for high-flow, low-pressure ion exchange chromatography is also being introduced. Sepracor. Circle 359.

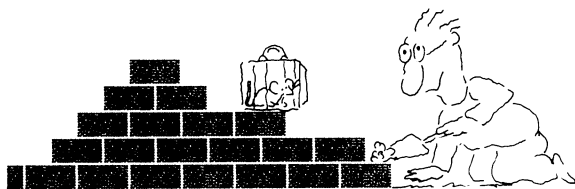
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Model CFD200 is a simple, low-cost freeze dryer for the laboratory with a requirement for low-volume freeze drying. It can be used with the Genevac CVP100 Vacuum Pump for direct sublimation, that is, freeze drying of a small amount of sample without a refrigerated condenser. Techne. Circle 360.

Thermal Analysis System

The Phase Instruments D₂-DTA Thermal Analysis System analyzes lyophilization samples in their process vials, which contrasts with other methods that cannot use the process vial. The system can reduce the time spent on lyophilization protocol development. FTS Systems. Circle 361.

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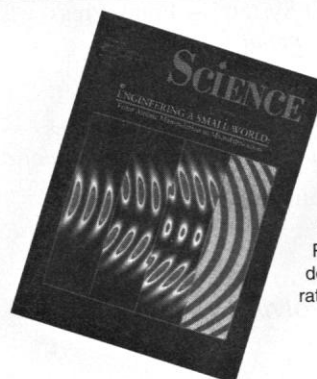
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17th Annual AAAS Colloquium on Science & Technology Policy

16–17 April 1992 ♦ The Capital Hilton ♦ Washington, DC

The AAAS Science & Technology Policy Colloquium provides a forum in which federal and industrial policymakers and members of the scientific and engineering community can participate in an open discussion of issues relating to science and technology policy.

The Colloquium occurs after the release of the President's budget but before final congressional action, thus allowing for

the timely exchange of information about the budget and the consequences of various policy issues involving science and technology.

Who should attend: Scientists, administrators, industrial R&D managers, policymakers, academicians, association officials, federal grant recipients, students, and others with an interest in science and technology policy.

PROGRAM

Thursday, 16 April

Welcome: Leon M. Lederman, *Director Emeritus, Fermi National Accelerator Laboratory, and Chairman, Board of Directors, AAAS*

Keynote: D. Allan Bromley, *Assistant to the President for Science and Technology, and Director, OSTP*

Alternative Visions for U.S. Science and Technology (Symposium)

- ♦ The Overall Federal R&D System — Frank Press, *President, National Academy of Sciences*
- ♦ Restoring Integrity to the Scientific System
- ♦ Technology Policy and Economic Competitiveness — Ralph Gomory*, *President, Alfred P. Sloan Foundation*
- ♦ Science and Technology in Support of a Globally Sustainable Environment — William Clark, *Harvard University*

Competitiveness in the Evolving International System (Luncheon address)

Prospects for R&D in an Election Year (Panel)

- ♦ Congressional Perspective on R&D in the FY 1993 Budget
- ♦ Overview of FY 1993 R&D Budget Proposals
- ♦ The Politics of Large S&T Projects

Major R&D Agency Budgets for FY 1993 (Concurrent small group sessions)

- ♦ DOD ♦ DOE ♦ NASA ♦ NIH ♦ NSF

*Invited speaker

Friday, 17 April

Breakfast Address: Les Aspin* (D-WI), *Member, U.S. House of Representatives*

Concurrent Symposia

- ♦ A Market Shake-Out in Research and Education: Is It in the Cards? Is It Underway?
- ♦ International Collaboration in Science and Technology
- ♦ The Politics of Health Research

Luncheon Address: William Reilly*, *Administrator, U.S. Environmental Protection Agency*

Closing Remarks: Thomas H. Moss, *Dean of Graduate Studies and Research, Case Western Reserve University*

Budget discussions will be based on **AAAS Report XVII: Research and Development, FY 1993**, a comprehensive analysis of the proposals for the FY 1993 budget, prepared by AAAS and a group of its affiliated scientific, engineering, and higher education associations. Registrants will receive this report at (or before) the Colloquium; the **AAAS Science and Technology Policy Yearbook, 1992** (containing most of the colloquium addresses, plus other significant items) following the Colloquium; and **Congressional Action on R&D in the FY 1993 Budget** in the fall.

Register now by completing and returning the form on the facing page. For further information, contact: Directorate for Science and Policy Programs, 1333 H Street, NW, Washington, DC 20005; (202) 326-6600.

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To register by FAX (26 March deadline¹; VISA or MasterCard only), send this top half (registration form) to 202-289-4021.

To register by phone (26 March deadline¹; VISA or MasterCard only), call 202-326-6600 (9am – 5pm Eastern Time).

[1] **Deadline for advance registrations** is 26 March 1992. Thereafter, register in person at the Capital Hilton beginning at 8:00 am, 16 April. On-site registration fees are \$15 higher than advance registration fees. [2] **Special rates:** Nonprofit rates apply only to employees of government, academic, and nonprofit organizations. Student rates apply only to full-time undergraduate and graduate students and retirees. [3] **Refund requests** for registration fees and meal tickets must be submitted in writing (to the address or FAX number above) by 10 April 1992 and will be honored after the Colloquium; no refunds will be made on cancellations received after 10 April. [4] **Publications:** All registrants receive *AAAS Report XVII: Research & Development, FY 1993* before (or at) the Colloquium; the *AAAS Science and Technology Yearbook, 1992* after the meeting; and *Congressional Action on R&D in the FY 1993 Budget* in the fall. [5] **Program materials** will be mailed to those who preregister by 26 March.

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Lunch (17 April)	\$ 35	\$ _____

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ELECTROPHYSIOLOGIST/HISTOCHEMIST with experience in the olfactory system; **ASSISTANT PROFESSOR** (nontenure track) position. To join research team investigating neurodegenerative disorders and olfactory dysfunction. Interest in centrifugal olfactory pathways useful, as well as interest in axoplasmic transport. Contact: **Dr. Richard L. Doty, Director, Smell and Taste Center, Department of Otorhinolaryngology: Head and Neck Surgery, School of Medicine, University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104.** *The University of Pennsylvania Medical Center is an Equal Opportunity/Affirmative Action Employer.*

BIOLOGY: ASSISTANT PROFESSOR, fall 1992, tenure track. Pending funding of position. Plant biology: to teach upper level courses appropriate to field of specialization and introductory biology courses, to conduct research appropriate to undergraduate and master's level interests, to supervise the university gardens, greenhouse, and orchards. Ph.D. in plant biology, commitment to undergraduate and graduate education required.

BIOLOGY: ASSISTANT PROFESSOR, fall 1992, tenure track. Pending funding of position. Cellular and comparative animal physiologist: to teach upper level courses appropriate to field of specialization and introductory courses in biology, to conduct research appropriate to undergraduate and master's level interests. Ph.D. in cellular/comparative animal physiology, commitment to undergraduate and graduate education.

Send letter of application and résumé with names, addresses, and telephone numbers of three references to: **Dr. Leeds Carluccio, Chairperson, Biology Department, Central Connecticut State University (CCSU), New Britain, CT 06050-4010.** Review of candidates will begin on 12 March 1992. *CCSU is an Affirmative Action/Equal Opportunity Employer. Women, minorities, the handicapped and veterans are encouraged to apply.*

ASSISTANT PROFESSOR. University of Wisconsin-Madison, Medical School, Department of Medical Microbiology and Immunology. The Department of Medical Microbiology and Immunology invites applications for a tenure-track (12-month) position at the rank of assistant professor. Applicants must have a Ph.D. and/or M.D. degree with solid training, research experiences and interests in the molecular basis of parasitic, micotic or bacterial pathogenesis. The successful candidate will be expected to develop and maintain strong independent research in the field of molecular parasitology, mycology or bacteriology and to participate in teaching medical and graduate students. Starting date for this position is negotiable. Applicants should send curriculum vitae, a brief outline of current and future research plans and the names of three references to: **Dr. Edward Balish, Ph.D., Professor, Department of Medical Microbiology and Immunology, The University of Wisconsin Medical School, 1300 University Avenue, Madison, WI 53706.** *The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR UNIVERSITY OF PENNSYLVANIA SCHOOL OF MEDICINE DEPARTMENT OF ANATOMY AND PENNSYLVANIA MUSCLE INSTITUTE

A tenure-track assistant professor position is being jointly offered by the Pennsylvania Muscle Institute and the Department of Anatomy of the University of Pennsylvania School of Medicine. The successful candidate will be expected to establish an extramurally funded research program using a molecular biological approach to study either gene regulation in muscle (preferred emphasis on development) or contractile protein structure/function relationships. The position will also involve the teaching of medical students (e.g., cell and tissue biology), and participation in the training of graduate students and postdoctoral fellows.

Application deadline is 1 April 1992. Send curriculum vitae and three letters of recommendation to: **Search Committee, c/o Dr. Yale Goldman, Director, Pennsylvania Muscle Institute, University of Pennsylvania School of Medicine, 37th and Hamilton Walk, Philadelphia, PA 19104-6085.**

The University of Pennsylvania is an Equal Opportunity Employer.

FACULTY POSITION

The Department of Biochemistry at University of Medicine and Dentistry of New Jersey (UMDNJ), New Jersey's university of the health sciences, Robert Wood Johnson Medical School, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. Candidates should have a Ph.D., M.D. or equivalent plus two or more years of postdoctoral training as well as significant research accomplishments in one of the following areas: cell biology, developmental biology or immunology. Successful candidates are expected to obtain extramural funding from granting agencies and to establish a vigorous research program in addition to teaching medical students and graduate students. Send curriculum vitae, reprints, a statement of research accomplishments and plans, and arrange to have three to four letters sent by 15 March 1992, to: **Search Committee, Department of Biochemistry, University of Medicine and Dentistry of New Jersey—Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635.** *UMDNJ is an Affirmative Action/Equal Employment Opportunity Employer. M/F/H/V, and a member of the University Health System of New Jersey.*

FACULTY POSITIONS

The Center for Extracellular Matrix Biology at the Institute of Biosciences and Technology, Texas A&M University, located at the Texas Medical Center, Houston, Texas, invites applications for two tenure-track positions at the **ASSISTANT PROFESSOR** level. Applicants should have a Ph.D. or M.D. and a proven record of accomplishments as a postdoctoral fellow or faculty member and have research interests in the area of extracellular matrix biology. Preference will be given to candidates with training in biochemistry and/or cell biology and experience in molecular biology.

Applicants should send a letter outlining their research interests, their curriculum vitae and three letters of reference to: **Dr. Magnus Hook, c/o Bill Alley, Institute of Biosciences and Technology, 2121 Holcombe Boulevard, Houston, TX 77030.**

The Texas A&M University System is an Affirmative Action/Equal Opportunity Employer.

CELL BIOLOGIST CARLETON COLLEGE

Applications are invited for a 1-year leave replacement beginning 1 September 1992 at the rank of **ASSISTANT PROFESSOR** in the Department of Biology. Teaching responsibilities include a course in cell biology, a course in immunology, participation in the laboratories of a team-taught introductory course, and a seminar course. Applicants must have a Ph.D. *Women and minority candidates are strongly encouraged to apply.* Send application, curriculum vitae, undergraduate and graduate transcripts, a statement of teaching philosophy, a summary of research and three letters of reference to: **G. J. C. Hill, Department of Biology, Carleton College, Northfield, MN 55057-4025** by 16 March 1992. *Carleton College is an Equal Opportunity/Affirmative Action Employer.*

Protein Chemistry Research at Pfizer

The Department of Molecular Genetics and Protein Chemistry is a rapidly growing group committed to the support of Pfizer's drug discovery program through the application of new and emerging technologies. Through a range of innovative programs, we provide essential reagents and information to multidisciplinary discovery project teams. Areas currently covered by the Protein Chemistry Department include the recovery and characterization of recombinant proteins; peptide synthesis, including the use of peptide libraries; protein structural analysis by chemical, spectroscopic and crystallographic means; the isolation from natural sources of new protein targets of interest and new approaches to the development of biochemical probes.

For our current expansion of the Protein Chemistry unit, we seek highly capable candidates at both PhD and BS/MS levels who will lead one phase of our effort while contributing to team success. In all cases, a range of experience will be considered an advantage, including a knowledge of molecular biology techniques.

Research Scientist, Protein Chemistry

Candidates should possess a PhD in Biochemistry or a related field, with an interest in protein structure and function. Postdoctoral training and a sound publication record will be advantageous. Experience in protein purification is essential, and a knowledge of biophysical methods for protein characterization is also desirable. For this position, we seek a versatile scientist to lead their own laboratory group while participating in a highly interactive senior staff team.

Research Scientist, Receptor Biochemistry

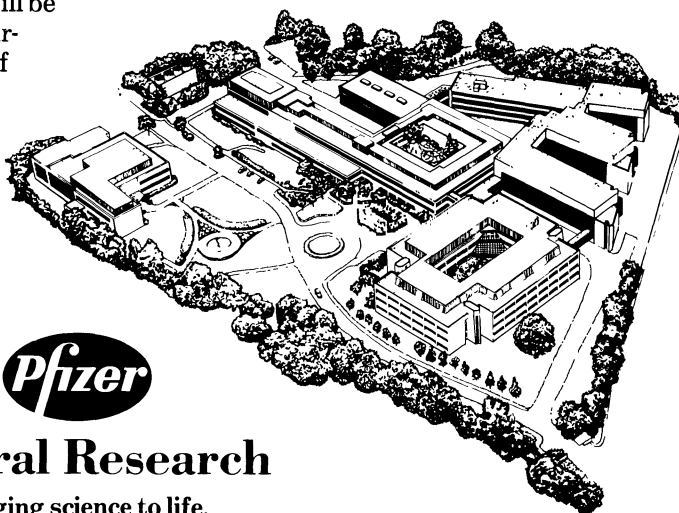
For this position, candidates should possess a PhD and postdoctoral experience. Knowledge in the biochemistry of receptor proteins is a central requirement. We seek a lab leader who, with colleagues, will implement any necessary approach (including expression cloning) to determine the sequence and structure of selected receptor molecules.

Assistant Scientists, Protein Chemistry

Candidates for these positions should have a BS or BS/MS in Biochemistry or a related field. Especially sought are individuals with a fine academic background and some experience in protein purification, while additional experience in other areas will also be welcome. Knowledge of chromatography and electrophoresis is essential. An acquaintance with receptor binding assays will be helpful for one position.

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POSITIONS OPEN

BIOLOGY, SCIENCE EDUCATION: ASSISTANT PROFESSOR. Tenure-track teaching position (12 credits per semester) with some opportunity for undergraduate research. Starting date: 26 August 1992. Qualifications: Ph.D., K-12 experience or certification, demonstrated excellence in teaching, grantsmanship potential, and computer literacy. Preferred areas in biology: plant biotechnology, invertebrate zoology, microbiology, or physiology. Send letter of application, résumé, copies of all transcripts, and three letters of reference to: **Karel Rogers, Adams State College, Alamosa, CO 81102; telephone: 719-589-7211.** Review of applications begins 18 March 1992 and continues until the position is filled. *Affirmative Action/Equal Opportunity Employer.*

KEAN COLLEGE OF NEW JERSEY

FACULTY POSITION, DEPARTMENT OF BIOLOGICAL SCIENCES ASSISTANT PROFESSOR. Tenure-track position specializing in developmental biology. Start September 1992. Teach introductory biology, upper level course in specialty, other courses as qualified. Modest research facilities available. Ph.D. required, teaching experience desirable. Candidacy review begins on or about 9 March 1992, and continues until appointment is made. Send letter of interest, current résumé, names, addresses, and telephone numbers of three references who can comment on candidate's professional qualifications. Apply to: **Dr. Raghunath Virkar, Chair, Department of Biological Sciences, Kean College of New Jersey, Union, NJ 07083.** *Kean College is an Equal Employment Opportunity/Affirmative Action Institution encouraging and welcoming applications from women and minority candidates.*

EUKARYOTIC MOLECULAR GENETICIST

Nontenure-track **RESEARCH ASSISTANT PROFESSOR** position available August 1992. Expertise in recombinant technology and DNA sequencing with interests in evolutionary, systematic or marine biology preferred. Responsibilities include teaching and research complementary to departmental efforts in the aforementioned areas. Facilities, including automated DNA sequencer, available for research in molecular biology. Send curriculum vitae, statement of research interests, and names of three references to: **Dr. Robert R. Christian, Department of Biology, East Carolina University, Greenville, NC 27858-4353.** Screening begins 1 March 1992. *East Carolina University is an Equal Opportunity/Affirmative Action Employer. Applicants must comply with the Immigration Reform and Control Act. Official transcripts are required upon employment.*

ASSISTANT PROFESSOR, MEDICINAL CHEMISTRY AND PHARMACOGNOSY. The College of Pharmacy, The Ohio State University, invites applications for a tenure-track assistant professor position for the 1992-1993 academic year. Candidates should have a Ph.D. in medicinal chemistry, pharmacognosy, chemistry, or biochemistry; postdoctoral experience is preferred. Experiences in the chemistry and biochemistry of natural products are of special interest. The individual will be expected to establish an independent extramural research program and to demonstrate excellence in teaching at all levels. Applicants should submit a letter, curriculum vitae, graduate transcript, proposed research program, and three letters of recommendation to: **Dr. Robert W. Brueggemeier, Faculty Search Committee, Division of Medicinal Chemistry and Pharmacognosy, College of Pharmacy, The Ohio State University, 500 West 12th Avenue, Columbus, OH 43210-1291.** Applications will be processed as received; review of candidates will begin 1 May 1992. *The Ohio State University is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and underrepresented minorities.*

NEUROCHEMIST/NEUROPHARMACOLOGIST with behavioral interests; **ASSISTANT PROFESSOR** (nontenure track) position. To join research team investigating an olfactory dysfunction including that due to Alzheimer's and Parkinson's diseases. Immunohistochemistry and radioimmunoassay experience useful. Contact: **Dr. Richard L. Doty, Director, Smell and Taste Center, Department of Otorhinolaryngology: Head and Neck Surgery, School of Medicine, University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104.** *The University of Pennsylvania Medical Center is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ECOLOGY/BOTANY/GENERAL BIOLOGY. The Department of Biology, University of Central Arkansas, invites applications for a tenure-track **ASSISTANT PROFESSOR** position to begin August 1992. Recent Ph.D.'s or postdoctorates are encouraged to apply. Preference will be given to individuals conducting research in physiological plant ecology. The individual will teach ecology, botany, and general biology for nonscience majors. Submit curriculum vitae, copies of transcripts, a brief description of teaching philosophy and research career goals, and three letters of recommendation to: **Dr. Edmond Griffin, Chairman, Department of Biology, University of Central Arkansas, Conway, AR 72035 (telephone: 501-450-3146; FAX: 501-450-5208).** The deadline for receipt of applications is 15 March 1992. *The University of Central Arkansas is an Affirmative Action/Equal Opportunity Employer.*

MICROBIOLOGY AND MOLECULAR BIOLOGY—VISITING ASSISTANT PROFESSOR. Middlebury College invites applications for a 3-year term position in biology beginning fall 1992. Applicants should have a broad background in biology, a commitment to excellence in both teaching and research, and an interest in supervising student research. The successful applicant will offer a laboratory course in general microbiology, an advanced course in microbiology or molecular biology, the laboratory component of a course in molecular genetics, and a course which will serve the general college community. Ph.D. required. Completed application including curriculum vitae, undergraduate and graduate transcripts, statements of teaching and research interests, and recommendations must be received by 20 March 1992. Three recent letters of recommendation should be sent directly to: **C. R. Landgren, Chairman, Department of Biology, Middlebury College, Middlebury, VT 05753. Telephone: 802-388-3711-5435.** *An Equal Opportunity Employer.*

ANATOMY AND CELL BIOLOGY

A tenure-track position is available at the **ASSISTANT OR ASSOCIATE PROFESSOR** level in the Department of Anatomy and Cell Biology at the University of Virginia on 1 July 1992. Research is stressed, and candidates are expected to maintain independent programs of investigation and to participate in graduate education. The department seeks candidates with expertise that complements existing programs in developmental, cellular/molecular, and reproductive biology. Individuals with research on the development and/or cell biology of the nervous system are of particular interest. Teaching is in medical gross anatomy, and training will be provided if necessary. Opportunities for productive collegial interactions include interdisciplinary programs in developmental biology, neuroscience, molecular biology, cancer, diabetes, reproduction, and vascular biology. Candidates should send curriculum vitae and names of three references to: **Dr. Charles J. Flickinger, Department of Anatomy and Cell Biology, Box 439, Health Sciences Center, University of Virginia, Charlottesville, VA 22908.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

FACULTY POSITIONS

The Department of Obstetrics and Gynecology at Tufts University School of Medicine invites applications for three research faculty positions at the **ASSISTANT PROFESSOR** level, starting 1 July 1992. Applicants (Ph.D. or M.D.) must have completed postdoctoral research training in molecular genetics, developmental biology, or reproductive biology. Preference will be given to those demonstrating strong potential for developing independent research with extramural funds, establishing clinical collaborations, and obtaining joint appointments in Tufts University graduate schools. Send curriculum vitae, summary of research plans, and addresses of three references by 1 May 1992, to: **Dr. Alan H. DeCherney, Chairman, Department of Obstetrics and Gynecology, Tufts University School of Medicine, Stearns 209, 136 Harrison Avenue, Boston, MA 02111.** *Tufts University is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and members of minority groups.*

ASSISTANT PROFESSOR OF PHARMACEUTICS THE UNIVERSITY OF GEORGIA

Applications are invited for a 12-month tenure-track faculty position at the assistant professor level. A Ph.D. in pharmaceuticals or a related area is required. A professional undergraduate degree in pharmacy and postdoctoral experience is preferred. Areas of interest include pharmacokinetics and drug delivery systems. Responsibilities will include teaching undergraduate and graduate level courses and development of an extramurally funded research program. Applications received by 31 March 1992 are assured of consideration. Applicants should submit an application letter stating research objectives, curriculum vitae, and the names and addresses of three references to: **James C. Price, Ph.D., Chair, Search Committee, Department of Pharmaceutics, College of Pharmacy, The University of Georgia, Athens, GA 30602.** *The University of Georgia is an Equal Opportunity/Affirmative Action Employer.*

TERRESTRIAL VERTEBRATE ZOOLOGIST.

Tenure-track **ASSISTANT PROFESSOR** in Department of Zoology/Assistant Heritage Biologist in Oklahoma Biological Survey of University of Oklahoma starting July 1992, with 12-month salary of \$38,000 (subject to budget approval). Responsibility, as active member of Oklahoma Natural Heritage Inventory (a division of Survey), to inventory and evaluate priority species and biological communities in Oklahoma, including endangered species. Teaching of one course per year. Person to develop active research program in area of specialty. Ph.D. required. Successful applicant must demonstrate research productivity and potential for external funding; ability to conduct field studies; knowledge of regional fauna; skill in written and oral communication. Screening from 20 March 1992 until position filled. Send résumé, summary of position-related experience and research interests, reprints, and three recommendation letters to: **Gary D. Schnell, Director, Oklahoma Biological Survey, Sutton Hall 303, University of Oklahoma, Norman, OK 73019. Telephone: 405-325-4034.** *Equal Opportunity/Affirmative Action Employer. Women and minorities encouraged to apply. University has policy of being responsive to needs of dual-career couples.*

ANIMAL GENETICIST. The Department of Veterinary Pathobiology, Texas A&M University, is seeking to fill an **ASSISTANT OR ASSOCIATE PROFESSOR** level tenure-track position with research and teaching responsibilities in animal genetics. Candidates should have a Ph.D. degree in genetics or molecular biology and will be expected to bring molecular biology and/or statistical expertise to ongoing departmental programs in comparative animal genetics and genome mapping while developing an independent research program. Interested persons should send letter of application including complete résumé and names of three references to:

**Dr. James E. Womack, Search Committee Chairman
Texas A&M University
Department of Veterinary Pathobiology
College of Veterinary Medicine
College Station, TX 77843-4467
Telephone: 409-845-9810
FAX: 409-845-9972**

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Principal Research Investigators/Ph.D.

(Position #RS-71-91) Responsible for directing a team of drug metabolism scientists in the conduct of *in vivo* (and possibly *in vitro*) studies involving the absorption, tissue distribution metabolism and excretion of new candidates. Requirements include a Ph.D. in biochemistry or pharmacology with research emphasis in drug metabolism and 4 years experience in the pharmaceutical or life sciences research industry which should include *in vivo* and *in vitro* metabolism work.

(Position #RS-58-91) Responsible for providing leadership in Bioanalysis which will include ensuring development of valid bioanalytical methods to support drug development and discovery, as well as prompt reporting of all related materials. Requirements include a Ph.D. in pharmaceutical or analytical chemistry with a minimum of 4 years experience, including assay development using HPLC/GC methodologies. Familiarity with LIMS and LAS systems and worldwide GLP regulations required.

Research Scientists/BS/MS

(Position #RS-89-91) Responsible for assisting in the experimental design and preparation of study protocols and for the practical conduct of *in vivo* and *in vitro* drug disposition experiments. Requirements include a BS (MS) in a biological/technical discipline with up to 2 years relevant experience. Candidates should have knowledge of drug metabolism and HPLC or other quantitative chromatographic/instrumental techniques. Familiarity with radioisotopes and GLP regulations preferred.

(Position #RS-86-91) Responsible for developing and validating analytical procedures for the determination of drug metabolite concentrations in biological specimens in support of pre-clinical and clinical drug disposition studies. Requirements include a BS (MS) in analytical, organic or pharmaceutical chemistry with up to 2 years relevant experience. Candidates should have a strong background in trace analysis of organic molecules in biological matrices, using HPLC, and/or GC with US, or fluorescence and/or electrochemical detection.

(Position #RS-72-91) Responsible for conducting *in vivo* and *in vitro* experiments and developing chromatographic methods for the separation of drugs and metabolites in biological fluids. Requirements include a BS (MS) with up to 2 years related experience and familiarity with *in vitro* techniques and use of computers and microprocessor controlled instrumentation.

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TENURE-TRACK POSITION AT THE NIH

A junior tenure-track position is available in the Genetics and Biochemistry Branch, NIDDK, NIH. Applications are invited from individuals of the highest caliber who will complement the scientific interests of the current staff. The Branch is similar to a small academic department and has excellent laboratory facilities. The intramural program of the NIH offers an outstanding research environment and the primary responsibility of the successful applicant will be to initiate and establish a first-rate research program. The Branch is located on the main intramural campus of the NIH in Bethesda, Maryland, a 20 minute ride from Washington, D.C. The current interests of the faculty-level staff include:

- Eukaryotic DNA repair, molecular mechanisms of toxin action, and mechanisms of nuclear and cytoplasmic localization of proteins and nucleic acids in *Xenopus* (Eric Ackerman)
- Biochemistry and molecular biology of homologous recombination in eukaryotes and prokaryotes, the structure and function of novel triplex DNAs, gene rearrangements in eukaryotes (Dan Camerini-Otero)
- Molecular mechanisms of homologous recombination in higher eukaryotes, functional studies of mammalian DNA ligases and the formation and recognition of DNA mismatches (Peggy Hsieh)
- Molecular basis of mechanisms involved in hormonal and developmental control of gene expression: protein-nucleic acid interactions, trans acting factors of steroid/thyroid hormone receptor gene superfamily (Vera Nikodem)
- Molecular genetics of lysosomal storage diseases, protein trafficking, gene targeting by homologous recombination to produce models of human disease (Rick Proia)
- Control of gene expression in vertebrates (Ed Rall)
- Thyroid hormone-protein interactions and the mechanism of intracellular thyroid hormone transport, genetic factors in thyroid neoplasia, and clinical studies in thyroid cancer (Jacob Robbins)
- Determinants of anteroposterior axis formation and the role of transcription factors in the specification of neuronal phenotypes in early *Xenopus* development (Sheryl Sato)

Interested candidates should send a letter stating their research interests, their curriculum vitae and list of publications, and the names and addresses of three references to:

**Dr. R. Daniel Camerini-Otero, Chief
Genetics and Biochemistry Branch
National Institutes of Health
Building 10, Room 9D-15
9000 Rockville Pike
Bethesda, Maryland 20892**





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Applicants are invited to join an on-going biotechnology program aimed at identifying acute and critical care pharmaceutical agents. The successful candidate will be responsible for the design and development of isolation techniques for biologically active proteins from recombinant organisms. The position requires a PhD in Biochemistry with 2+ years of experience, or an MS with 5+ years of experience in protein isolation, purification and characterization. Knowledge of molecular biology techniques or of immunology would be a plus.

The BOC Group Technical Center offers a challenging and stimulating scientific research career environment with the opportunity to interact with professionals from many disciplines. We provide an excellent compensation and benefits package. For prompt, confidential consideration, please forward your resume and salary history to: **The BOC Group Technical Center, Human Resources, Box EM, 100 Mountain Avenue, Murray Hill/New Providence, New Jersey 07974.**

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Gliatech, Inc.

PEPTIDE/PROTEIN BIOCHEMIST

Gliatech, Inc., a growing pharmaceutical company dedicated to understanding and utilizing the unique properties of neuroglial cells in treating nervous system disorders, has an opening for a peptide/protein biochemist. The successful candidate will have a Ph.D. in biochemistry or chemistry and previous experience in peptide synthesis and protein purification. Prior research in the neurological sciences will be helpful, but not required.

Gliatech offers a competitive salary and benefits package, and our suburban Cleveland location allows access to affordable housing within a major metropolitan area. Qualified candidates are encouraged to submit their curriculum vitae to: **Gliatech, Inc., Corporate Recruiting, 23420 Commerce Park Rd., Cleveland, OH 44122.**

Postdoctoral Research Associate

The Medical Research Division of American Cyanamid has an immediate opening for a Postdoctoral Research Associate, within the Fermentation Department, to be part of a team that is currently investigating the regulation of antibiotic production in *Streptomyces*.

The successful candidate will be a recent graduate in microbiology, biochemistry or a related field with experience in microbial physiology or genetics and have an interest in the regulation of secondary metabolism. The candidate should be familiar with standard molecular biology procedures; familiarity with RNA isolation and Northern blot analysis, the use of reporter genes, and gene disruption and replacement techniques would be a plus. Experience with *Streptomyces/Bacillus* would also be desirable.

The appointment to this position is renewable for up to two years. For consideration, please send your resume to: Professional Employment Office, Dept. MR, Lederle Laboratories, 401 N. Middletown Road, Pearl River, NY 10965. Equal opportunity employer, M/F.

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Chairperson and Professor, Department of Psychiatry

Tufts University School of Medicine and New England Medical Center

Applications are invited for the position of Chairperson of the Department of Psychiatry at Tufts University School of Medicine, and Psychiatrist-in-Chief at New England Medical Center. We seek a candidate with the highest academic credentials who will be able to direct a vigorous multi-faceted department in an expanding academic Medical Center and leading Medical School.

Please send your curriculum vitae and supporting information to **Robert Schwartz, M.D., Hematology-Oncology Division, Department of Medicine, New England Medical Center and Tufts University School of Medicine, 750 Washington Street, Boston, MA 02111-1845.** We are an equal opportunity employer.



Tufts University
School of Medicine



New England
Medical Center

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Issue date: 21 February 1992

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Special Issue of SCIENCE
Issue date: 13 March 1992

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5 to 10 April 1992, Anaheim
Issue date: 27 March 1992

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CHAIR, PHARMACOLOGY DEPARTMENT

St. Jude Children's Research Hospital, a private research institute, is recruiting a new chairperson for its established Department of Pharmacology. The appointee will be expected to lead an internationally recognized program in his/her area of interest and to shape the future direction of research within the institution, through faculty recruitment and by contributions to the institution's overall scientific leadership, as a member of the Institution's Executive Committee. The institute is currently undergoing major expansion, and has recently occupied a new 240,000 sf research tower, where substantial laboratory and office space has been reserved for the pharmacology chair. The department currently has 9 faculty, all of whom are NIH funded investigators, and the new chair will be expected to recruit additional faculty. The current departmental budget is approximately \$3 million. The department interfaces with established basic science programs in Virology and Molecular Biology, Biochemistry, Immunology, and Tumor Cell Biology, and established clinical research programs in Hematology/Oncology, Pharmaceutical Sciences and Infectious Diseases. Appointment to the University of Tennessee graduate faculty is also possible. The Chair's salary will be provided through committed endowment funds, together with additional resources commensurate with the needs of a dynamic and productive individual.

Applicants should submit a curriculum vitae and the names and addresses of four references to: Dr. William E. Evans, Chair, Pharmacology Search Committee, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, Tennessee 38105



St. Jude Children's Research Hospital is an Affirmative Action/Equal Opportunity Employer

THE STATE UNIVERSITY OF NEW JERSEY RUTGERS

PROFESSORSHIP IN MOLECULAR BIOLOGY AND PLANT PATHOLOGY

Rutgers University is recruiting a Professor to lead a research program in the molecular biology of host-parasite interaction at the Center for Agricultural Molecular Biology (AgBIOTECH). AgBIOTECH serves the state's agricultural and environmental industries with expertise in biotechnology. AgBIOTECH currently has six research groups housed in new facilities and will grow to 16 research groups. Significant opportunity exists for input in the development of the Center and for technology transfer.

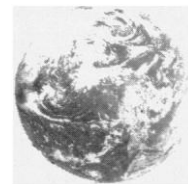
Candidates should have demonstrated outstanding research and leadership skills in plant molecular biology and plant pathology. Expertise in novel mechanisms of disease resistance and host/parasite interaction is preferred, but other specialties will be considered.

The successful candidate will have developed a productive research program attracting significant external funding and with potential for field applications. He/she will provide leadership for the development of the research thrust and will collaborate with other faculty working in this area. The candidate will advise graduate students and undertake some teaching. The position requires excellent communication skills.

The position will be split between AgBIOTECH (80%) and the Department of Plant Pathology (20%), and will be tenured in the Department of Plant Pathology. AgBIOTECH will provide some staff support, in addition to a generous salary and benefits package. Send resume, statement of research interest and teaching philosophy, and names of three references for confidential consideration to **Dr. Peter Day, Center for Agricultural Molecular Biology, Rutgers University, New Brunswick, NJ 08903-0231 by April 1, 1992.**

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Chief Scientist — Computer Science Department

Battelle's Computer Sciences Department is a national leader in developing and deploying state of the art information systems technology to problems of national importance. We are currently seeking a qualified, senior individual to lead the technology direction of the Department as the Chief Scientist. The successful candidate will:

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- easily and naturally communicate concepts and excitement about our work to technical peers, clients, and non-experts in the computing field
- possess broad experience working in or with both academia and industry
- foster a creative, innovative working environment that leads to continuous career opportunities for all our staff

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POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR. The Division of Pulmonary/Critical Care Medicine, University of California, Davis, School of Medicine is recruiting for a full-time faculty position. The division has a strong clinical program and desires an individual with a demonstrated record of research in lung cell biology, competence in teaching and clinical investigations; training and experience necessary for acting as an attending physician in pulmonary/critical care medicine. Interested applicants should send a résumé to: **Timothy Albertson, M.D., Ph.D., Division of Pulmonary/Critical Care Medicine, University of California, Davis, Medical Center, 4301 X Street, #2120 Professional Building, Sacramento, CA 95817** by 31 May 1992. *The University of California, Davis, is an Equal Opportunity/Affirmative Action Employer.*

EXTENSION TOXICOLOGIST

The Department of Agricultural Chemistry of Oregon State University (OSU) is recruiting a toxicologist to serve as an extension specialist. This individual will be concerned with the toxicology of agricultural and other chemicals and the assessment of risk associated with exposure to these substances.

The candidate will translate scientific findings in these areas into publicly useful information through training and educational programs, publications, etc.

This is a 12-month tenure-track position to be filled at the **ASSOCIATE PROFESSOR** level; requires a Ph.D. in toxicology, chemistry, biochemistry or a closely related field and demonstrated research competence in toxicology. Communication skills; knowledge of computer information delivery systems; and/or understanding of pesticide chemistry, toxicology and technology also will be considered favorably.

Send curriculum vitae letter describing relationship of experience to the position requirements, and a list of three references to:

**Extension Toxicologist Search Committee
Department of Agricultural Chemistry
Oregon State University
Weniger 339
Corvallis, OR 97331-6502
Telephone: 503-737-2363**

Application deadline is 20 March 1992. *OSU is an Equal Employment Opportunity/Affirmative Action Employer and has a policy of being responsive to the needs of dual-career couples.*

OREGON HEALTH SCIENCES UNIVERSITY (OHSU) SCHOOL OF MEDICINE PORTLAND, OREGON

The Department of Biochemistry and Molecular Biology is recruiting a Ph.D. in cell biology, biochemistry, or related field with experience in light/electron microscopy and tissue culture. The position involves research on delivery vehicles of growth factors in tissue repair. Qualified candidates may be appointed either **SENIOR RESEARCH ASSOCIATE OR RESEARCH ASSISTANT PROFESSOR**. Send curriculum vitae and three references to: **J. Peter Bentley, Ph.D., L333A, OHSU, Portland, OR 97201-3098.** *OHSU is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS MEHARRY MEDICAL COLLEGE

Applications are invited for two tenure-track positions as **ASSISTANT OR ASSOCIATE PROFESSOR** in the Department of Microbiology. Candidates are sought with training and research experience in molecular virology or microbial pathogenesis. Successful applicants will be expected to participate in graduate and professional teaching programs of the department and to develop and maintain an extramurally funded research program. Institutional programs in cell and molecular biology, neurosciences, and tropical diseases provide opportunities for collaborative research. *Applications from minority and women candidates are especially encouraged.*

Please send curriculum vitae, a summary of research interests and three references to:

**Shirley B. Russell, Chairperson
Department of Microbiology
Meharry Medical College
Nashville, TN 37208**

Meharry Medical College is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

FACULTY POSITION IN PHARMACOLOGY

Candidates are invited to apply for a full-time, tenure-track position at the level of **ASSISTANT PROFESSOR** available 1 July 1992. The position requires a Ph.D. degree, preferably in pharmacology, and postdoctoral experience.

Applicants should have a strong research background in cellular and molecular pharmacology. Special interests are receptor structure and function and signal transduction. The successful candidate is expected to establish an extramurally supported research program and participate in the B.S. in pharmacy and graduate teaching programs of the department; pharmacy background desirable.

Please send curriculum vitae, representative reprints, and the names of three references to: **Dr. K. C. Kim, Department of Pharmacology and Toxicology, University of Maryland School of Pharmacy, 20 North Pine Street, Baltimore, MD 21201.** The committee will begin reviewing applications on 1 April 1992.

The University of Maryland at Baltimore is an Affirmative Action/Equal Opportunity Employer, M/F/H/V.

ASSISTANT/ASSOCIATE PROFESSOR at the University of Wisconsin-Madison. The Department of Human Oncology and the University of Wisconsin Comprehensive Cancer Center invite applications for an assistant professor or tenured associate professor in the general area of molecular oncology. Areas of interest include, but are not limited to, cell cycle control, oncogene/suppressor genes, eukaryote gene regulation, signal transduction, and molecular pharmacology. This position will involve both research and graduate student education. Applications should include a curriculum vitae, copies of two recent publications, and a brief description of current and future research objectives. Applications should be mailed to: **Michael N. Gould, Ph.D., K4/332 CSC, 1300 University Avenue, Madison, WI 53792.** *The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.*

PLANT POPULATION ECOLOGIST. Tenure-track, **ASSISTANT/ASSOCIATE PROFESSOR**, Department of Range Science and the Ecology Center, Utah State University. Beginning summer or fall 1992. An earned doctorate with an emphasis on plant population biology at the time of appointment is required. The person should have an experimental, field-oriented approach and a strong quantitative background. Applicants with special interests in conservation biology will also be considered. Postdoctoral experience and an interest and experience in arid land research are desirable. Position is 60% research and 40% teaching (undergraduate course in vegetation measurements and graduate class in population biology). Jointly sponsored by Utah Agricultural Experiment Station. *Applications from women and minorities are strongly encouraged.* Send résumé, selected publications and names of three references to: **M. M. Caldwell, Department of Range Science, Utah State University, Logan, UT 84322-5230.** Review of applications begins 10 April 1992; position open until filled. *An Equal Opportunity/Affirmative Action Employer.*

VASCULAR RESEARCH POSITION

The Vascular Research Division of the Department of Pathology at the Brigham and Women's Hospital, Harvard Medical School, is seeking well-qualified (M.D., M.D./Ph.D., Ph.D.) applicants for one or more tenure-track positions, at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. Candidates should have completed at least 2 to 3 years of relevant postdoctoral experience and have the capability of directing an independent research program in the cellular/molecular/developmental biology of endothelium, smooth muscle, leukocytes, or extracellular matrix, as part of a multidisciplinary vascular pathobiology center.

Applicants should send their curriculum vitae, including a statement of their research interests and experience, and arrange to have three letters of recommendation sent to:

**Michael A. Gimbrone, Jr., M.D.
Director, Vascular Research Division
Department of Pathology
Brigham and Women's Hospital
Longwood Medical Research Building, Room 401
221 Longwood Avenue
Boston, MA 02115**

Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR IN RHEUMATOLOGY. The Yale Section of Rheumatology is seeking a physician, trained in internal medicine, with extensive training in molecular biology, experience in Lyme disease, and in animal models of Lyme disease. Individual should be able to pursue research in the molecular immunobiology of Lyme disease, and also to participate in fellowship training, general teaching, and patient care. Individual must be capable of establishing an independent research program. Send curriculum vitae and three letters of reference to: **Joe Craft, M.D., Department of Internal Medicine, Yale University, P.O. Box 3333, New Haven, CT 06510,** by 27 March 1992. *Yale is an Affirmative Action/Equal Opportunity Employer.*

MOLECULAR/CELLULAR IMMUNOLOGIST

The Virginia Mason Research Center (VMRC) in Seattle, Washington, is recruiting an **ASSISTANT/ASSOCIATE PROFESSOR** level investigator to establish an independent research program in immunobiology. Preference will be given to applicants with expertise in cellular immunology, and whose interests interface with the highly interactive research environment at VMRC, which emphasizes human immunogenetics and autoimmunity. Please reply by 15 March 1992 with curriculum vitae and statement of research interests to: **Gerald T. Nepom, M.D., Ph.D., VMRC, 1000 Seneca Street, Seattle, WA 98101.** *Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION VIROLOGY/MICROBIOLOGY SAN FRANCISCO STATE UNIVERSITY (SFSU) CENTER FOR ADVANCED MEDICAL TECHNOLOGY (CAMT)

This tenure-track position should start at the **ASSISTANT OR ASSOCIATE PROFESSOR** level in fall 1992. Candidates must have a doctoral degree, be able to instruct cell culture, diagnostic virology and related subjects for M.S. degree students, and develop appropriate research. Curriculum vitae, reprints, a brief description of proposed research and letters of reference should be sent to: **Chairman, Search Committee, CAMT/SFSU, 1600 Holloway Avenue, San Francisco, CA 94132** by 6 April 1992. *SFSU is an Affirmative Action/Equal Opportunity Employer.*

TENURE-TRACK ZOOPLANKTON BIOLOGIST. Division of Marine Biology and Fisheries (MBF), Rosenstiel School of Marine and Atmospheric Science (RSMAS). The Division invites applications for a full-time tenure-track academic appointment at the **ASSISTANT, ASSOCIATE OR FULL PROFESSOR** level. We are seeking a zooplankton biologist with demonstrable abilities to conduct creative research, attract funding from national agencies and teach one graduate course per year. Preference will be given to applicants likely to contribute to interdisciplinary oceanographic programs and to those whose specific expertise complements ongoing research programs. Salary and academic appointment level are negotiable and depend upon the applicant's qualifications and experience. Interested individuals should send curriculum vitae, a brief summary of research plans, three representative publications and the names of three references to: **Chair, Zooplankton Biology Search Committee, MBF, RSMAS, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149.**

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Research Opportunities in Japan



Promising new researchers may win fellowships for visits to Japan of six months to two years. The fellowships, which support both American and Canadian researchers at Japan's national laboratories and certain non-profit R&D institutes, are provided by the Research Development Corporation of Japan (JRDC).

To qualify, researchers should hold a recent doctoral degree in a field of science or engineering. In the fields of engineering, candidates without the doctorate will be considered if they can demonstrate equivalent professional experience.

The STA fellowships provide the following allowances (in Japanese *yen*):

Round-trip, economy-class air transportation (for the researcher only, not for dependents)	one ticket
International relocation allowance	¥200,000
Monthly living allowance	270,000
Monthly housing allowance up to	100,000
Monthly family allowance	50,000
Annual travel allowance in Japan	115,000

In all, more than 100 Japanese government research institutions are potential hosts for STA postdoctoral fellows. They include such well known laboratories as the Institute of Physical and Chemical Research (RIKEN), Electrotechnical Laboratory, National Institute for Environmental Studies, National Institute of Health, Mechanical Engineering Laboratory, National Institute of Agrobiological Resources, Communications Research Laboratory, and the National Research Institute for Metals.

Potential candidates are responsible for finding the Japanese research institute which will best match their field of professional interest. Each applicant should begin correspondence with his or her prospective Japanese host well before submitting a proposal.

In the United States

To obtain an application, United States citizens, nationals, or permanent residents should request NSF publication 90-144, *Japan Program Announcement*, from the following address:

Forms and Publications Unit, Room 232
National Science Foundation
Washington, D.C. 20550

Publications may also be ordered electronically through either Internet (pubs@nsf.gov) or BitNet (pubs@NSF). Please include the NSF publication number and title, number of copies needed, your name, and a complete mailing address.

The NSF application deadline is November 1, 1992, for positions starting in April 1993 or after. In addition, there are opportunities for individuals wishing to start sooner. Further information is available from the following address:

Japan Program, Room V-501
National Science Foundation
Washington, D.C. 20550

or, by electronic mail:

NSFJinfo@nsf.gov (Internet) or
NSFJinfo@NSF (BitNet)

In Canada

For further information, Canadian candidates may contact the following:

Ms. Dawn Conway
Director, International Programs
Natural Sciences and Engineering Research
Council of Canada
200 Kent Street
Ottawa, Ontario
K1A 1H5
Canada

Tel: (613) 995-1818
Fax: (613) 992-5337

POSITIONS OPEN

PROFESSOR OF ANALYTICAL CHEMISTRY

The chemistry department of Tulane University is seeking an analytical chemist at the **FULL PROFESSOR** level as a part of continued faculty expansion. Individuals with an outstanding record of publication and funding in any area of analytical chemistry are encouraged to apply. Presently, Tulane has 16 research active faculty and a steadily growing graduate program. The person filling the position will be expected to be instrumental in the development of an analytical chemistry program at Tulane. The department is interested in attracting the best possible person for the position and is willing to provide substantial startup support and an attractive salary. Interested persons should submit curriculum vitae, a brief summary of future research plans and a list of at least three references to: **Analytical Search Committee, Department of Chemistry, Tulane University, New Orleans, LA 70118**, by 15 April 1992. *Tulane is an Affirmative Action/Equal Opportunity Employer and women and minorities are encouraged to apply.*

ASSISTANT STAFF POSITION SECTION OF DIGESTIVE DISEASE RESEARCH THE CLEVELAND CLINIC FOUNDATION

Two new positions at the Assistant Staff (Professor) level are available in the Section of Digestive Disease Research, Research Institute, Cleveland Clinic Foundation. Positions are targeted for expansion of basic investigation in inflammatory bowel disease. The candidates must have a Ph.D. or M.D. degree and potential for an independent career in research. Their area of expertise can include molecular biology, cell biology, immunology, biochemistry, etc., but they must be interested in the gastrointestinal tract as a target organ and/or inflammation as a mechanism of disease. Package includes laboratory space, equipment, supplies, and salary for the staff and technician/fellows, and it is negotiable depending on qualifications. Interested individuals should send curriculum vitae and correspondence to:

Dr. Claudio Fiocchi
Section of Digestive Disease Research
Research Institute NN1-26
The Cleveland Clinic Foundation
9500 Euclid Avenue, Cleveland, OH 44195

The Cleveland Clinic Foundation provides a smoke-free environment and is an Equal Opportunity Employer.

CHAIRMAN, DEPARTMENT OF PATHOLOGY. Northwestern University seeks a chairman for its Department of Pathology. The successful candidate will be responsible for the administration of all educational, research and clinical programs within the department and will serve as department chairman at Northwestern Memorial Hospital. Other responsibilities include the management of the Department of Pathology within a multispecialty group practice that includes all the academic full-time faculty, and specific responsibilities for volunteer and part-time faculty. Candidates must be eligible for appointment as a tenured professor, and have a record of substantial productivity. *Qualified minority and female applicants especially sought. Northwestern University is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon eligibility to work in the United States.* To receive full consideration applications must be received by 1 June 1992. Send curriculum vitae to: **David L. Nahrwald, M.D., Chairman, Search Committee, 250 East Superior Street, Suite 201, Chicago, IL 60611.**

PROGRAM DIRECTOR

The Seatuck Research Program, a nonprofit cooperative research program of the Seatuck Foundation and U.S. Fish and Wildlife Service, is seeking a Director to provide academic and administrative oversight for biological conservation research, management, and policy relating to natural resources in urbanizing environments.

Responsibilities include staff supervision, program development, inter-governmental relations, and fundraising. Ph.D. and demonstrated scholarly activity required. Prior administrative and fundraising experience preferred. Salary commensurate with experience. Deadline 1 May 1992.

Direct inquiries to:

Search Committee
Seatuck Research Program
P.O. Box 31
Islip, NY 11751

POSITIONS OPEN

DIRECTOR

MICHIGAN STATE UNIVERSITY (MSU) U.S. DEPARTMENT OF ENERGY (DOE) PLANT RESEARCH LABORATORY (PRL)

Applications for the position of Director of the MSU-DOE Plant Research Laboratory at Michigan State University are invited from plant scientists with an outstanding record of research achievement. We seek an individual who will maintain an active research program, who is capable of providing scientific leadership and is willing to oversee the administration of the 12 to 14 active research groups which comprise the Plant Research Laboratory. Since the mission of the Plant Research Laboratory involves the solution of energy-related problems in the plant sciences, the Director should be appreciative of both basic and applied research in the plant sciences and should have a desire to participate in the formulation and implementation of research initiatives in these areas. The Director will be appointed as a tenured professor in an appropriate academic department at Michigan State University. The salary is intended to be attractive, and access to laboratory space, research facilities and levels of ongoing research support are exceptional.

Inquiries or applications stating full professional details and names of at least three referees should be directed to: **C. R. Somerville, Chair, PRL Search Committee, MSU-DOE Plant Research Laboratory, Michigan State University, East Lansing, MI 48824-1312. Telephone: 517-355-5159.** Applications should be received by 15 April 1992, but the search will continue until a suitable candidate is identified.

Michigan State University is an Equal Opportunity Affirmative Action Employer.

The Cornell Laboratory of Ornithology seeks to fill a newly **ENDOWED PROFESSORIAL CHAIR.** Professor will be responsible for providing academic direction for bird population studies, developing an exemplary and widely respected research program linking the laboratory with ecologists and conservation biologists in the Division of Biological Sciences and the Department of Natural Resources at Cornell. Some teaching responsibilities. Qualifications: Ph.D. in biology or related subject, extensive research and teaching experience adequate for appointment at the associate/full professor level. Personal research should be in some aspect of bird populations with demonstrated ability to work effectively as part of a group including graduate students, undergraduates and volunteers. Salary commensurate with background and experience. Attractive fringe benefits. To apply, submit a letter of application, curriculum vitae, and names of three references to: **Dr. Charles Walcott, Executive Director, Cornell Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca, NY 14850.** Closing date: 15 March 1992. *Cornell University is an Affirmative Action/Equal Opportunity Employer.*

DIRECTOR, BIOTECHNOLOGY CENTER UTAH STATE UNIVERSITY (USU)

The Director: Manages, coordinates and promotes the growing, centralized biotechnology program; encourages biotechnology in the colleges; provides services, facilities and a full range of technical support for faculty, staff, and students; advises departments on new faculty positions with biotechnology components; assists faculty with grant proposals; coordinates the interdepartmental course in biotechnology.

The Director's research program, unspecified, will strengthen the Biotechnology Center. He/she must be committed to a center program in agricultural biotechnology.

Requirements include: Appropriate terminal degree, significant research experience, demonstrated administrative skills, commitment to a service role for the center. Experience in technology transfer and biotech product development preferred.

The Biotechnology Center Director reports to the Director of the Utah Agricultural Experiment Station on Biotechnology issues. He/she will be on a tenure track in a department related to his/her research.

Applications due 1 April 1992; position open until filled. Submit statement of interest, current curriculum vitae, names of three references to: **Dean James A. MacMahon, College of Science, Utah State University, Logan, UT 84322-4400. Telephone: 801-750-2478; FAX: 801-750-3378. SCIDO[]@CC.USU.EDU.**

USU is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

DIRECTOR/ASSOCIATE DEAN

The Ohio State University invites applications for the position of Director, Ohio Agricultural Research and Development Center (OARDC—Ohio's agricultural experiment station) and Associate Dean, College of Agriculture. This position reports to the Vice President of Agricultural Administration and is responsible for leadership, direction, and management of all activities including planning, coordination, resource development and implementation of research activities. Requirements for the director include an earned Ph.D. degree in an agriculturally related discipline, experience in research and administration, and the ability to interact with faculty, staff, students, agricultural industry personnel, legislators and other clientele served by OARDC programs. The Search Committee will begin evaluating applications 16 March 1992, and will continue to receive them until a candidate is selected. Applicants should send a letter of application and résumé in confidence to: **Dr. Fred P. Miller, Search Committee Chair, The Ohio State University, 116 Agricultural Administration Building, 2120 Fyffe Road, Columbus, OH 43210. Telephone: 614-292-8522; FAX: 614-292-3263.**

DIRECTOR NUCLEAR RADIATION ASSESSMENT DIVISION

The U.S. Environmental Protection Agency (EPA), Environmental Monitoring Systems Laboratory—Las Vegas, is soliciting candidates for a supervisory environmental scientist, to serve as the Director of the Nuclear Radiation Assessment Division (NRD), (GM-3303-35), salary range: \$64,233 to \$83,502. This position manages the programs, resources, and a multidisciplinary staff which are necessary to fulfill the NRD mission. The NRD develops and applies techniques for maintaining a continuous environmental radiation and public safety program in areas surrounding the sites of U.S. underground nuclear tests conducted by Department of Energy (DOE). Individual must have experience in managing complex scientific operations; reviewing programs; determining the nature and cause of problems; recommending and managing solutions or corrective actions; and in developing, performing, and managing programs for assessment of radiological measurements in the environment. The NRD Director functions as Offsite Radiological Safety Adviser to the DOE Test Controller's Scientific Advisory Panel; and participates in radiation emergency response exercises. Position requires an advanced degree in one of the physical or biological sciences, engineering, mathematics, or computer technology; and a degree or comparable experience in health physics. The individual must possess general knowledge and experience with the operation of environmental radiation monitoring networks. Much of the work of NRD requires a Top Secret "Q" security clearance which the incumbent must possess or be qualified to obtain. Incumbent will be considered a radiation worker. Send copies of college transcripts or OPM Form 1170 and Federal Application Form (SF-171) by 27 March 1992 to the attention of **Connie A. Christenson, Human Resources Office; U.S. EPA, P.O. Box 98516, Las Vegas, NV 89193-8510.** Application materials must be requested in writing at the above EPA address. *Proof of U.S. citizenship is required prior to appointment. The U.S. EPA is an Equal Opportunity Employer.*

DIRECTOR OF RESEARCH (CURATOR)

The Virginia Museum of Natural History (VMNH) is seeking a Director of Research and Collections. We desire an applicant with a Ph.D. in a discipline of natural sciences. Candidates are expected to have an established and ongoing research program that complements existing research at the museum (mammalogy, petrology, paleontology, and invertebrate biology). Preference will be given to candidates possessing experience in planning and budgeting, in collecting and caring for natural history specimens, and expertise in facilitating collaboration between research and public programs. Ability to achieve consensus from divergent viewpoints and to plan, monitor, and evaluate research program goals and staff activities is an advantage. Salary range: \$39,329 to \$60,049. Send complete résumé, three reprints to: **Carolyn Seay, VMNH, 1001 Douglas Avenue, Martinsville, VA 24112.** Application closing date is 31 March 1992. *Equal Employment Opportunity/Affirmative Action.*

UNITED NATIONS NATIONS UNIES



SECRETARIAT OF THE SCIENTIFIC COMMITTEE ON THE EFFECTS OF ATOMIC RADIATION (UNSCEAR) UNITED NATIONS ENVIRONMENT PROGRAMME

SCIENTIFIC SECRETARY

The Secretariat of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) located in Vienna, Austria, has an opening for the position of Scientific Secretary, reporting directly to the Secretary of the Committee. The incumbent reviews scientific literature; prepares technical scientific documents on specialized aspects of levels and effects of radiation; coordinates and monitors the work of expert scientists; represents the Secretariat at meetings and assists in organizing UNSCEAR sessions; assumes administrative responsibilities in the absence of the Secretary.

Requirements: Advanced university degree in natural science or a Medical Doctor. At least 16 years of professional experience in scientific research on radiation levels and effects. Some international experience and ability to write scientific papers. Fluency in English or French, working knowledge of other United Nations official languages (Arabic, Chinese, Russian and Spanish) desirable.

Qualified women are encouraged to apply.

Remuneration: Minimum net annual salary is US \$69,870, without dependents; and US \$75,490, with dependents; plus corresponding entitlements. Closing date for receipt of applications is 30 March 1992.

Applications with full curriculum vitae, including nationality, birth date and salary history, should be sent to:

Ms. Davina Davis-Recruitment & Placement Division,
Rm. S-2535-L, United Nations, New York, N.Y. 10017, USA
Fax: (212) 963-3134

Postdoctoral Researchers

Genentech, a leader in the biotechnology field, is seeking highly motivated Postdoctoral Fellows in basic research relating to:

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The Genentech Postdoctoral Program consists of more than 50 Postdoctoral Fellows and is a vibrant and intensive environment for advanced scientific training. Postdoctoral Fellows conduct basic research in the areas of our scientific interests, publish actively in scientific journals, attend and present work at scientific conferences and maintain close ties with the academic community.

Genentech offers an extensive benefits package. Send your resume to Genentech, Inc. Human Resources Dept. YSPD, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We promote and actively support affirmative action and equal employment opportunity.

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FACULTY POSITIONS— CENTER FOR NEUROBIOLOGY UNIVERSITY OF CALIFORNIA, DAVIS

The newly established Center for Neurobiology invites outstanding individuals in the field of integrative neurobiology to apply for faculty appointments at a rank (Assistant, Associate and Full Professor) commensurate with qualifications. The Center serves as a campuswide unit involving faculty from five different colleges/schools on the Davis campus. It is expected that 10 faculty appointments will be made over a 5 year period, with up to 5 positions available for appointment over the next 2 years. The specific fields of research range from a systems approach to cellular neurobiology. Emphasis will be placed on neuroscientists working with both evolutionary and functional perspectives. These positions are part of a major commitment to further, through the Center, the development of neurobiology at UC Davis.

The University of California is interested in candidates who are committed to the highest standards of scholarship and professional activities and are committed to the development of a campus climate that supports equality and respect for differences based on gender, cultural ethnicity, level of disability and sexual preference. The selection committee will begin review of applications on March 15; the positions will remain open until filled. Applicants should send curriculum vitae and the names of at least three references to:

Michael S. Gazzaniga, Ph.D.
Director, Center for Neurobiology
Dean's Office,
Division of Biological Sciences
University of California, Davis, CA 95616

DIRECTOR NATIONAL ASTRONOMY AND IONOSPHERE CENTER CORNELL UNIVERSITY

Cornell University invites applications and nominations for the position of Director of the National Astronomy and Ionosphere Center. Headquartered on the university campus, the Center is operated by Cornell for the National Science Foundation. Its observing facilities at the Arecibo Observatory in Puerto Rico are available for use by the astronomical and atmospheric sciences community on a proposal and peer review basis. Four research groups at the Observatory work in the areas of radio and radar astronomy, atmospheric sciences and ionospheric modification. A major NSF/NASA sponsored upgrading of the 305 m telescope is currently in progress which will greatly increase the research opportunities for all of these groups.

The Director is the chief administrative and scientific officer of NAIC and should have a record of accomplishment in one of the areas of interest at the Observatory which would qualify him or her for appointment to a tenure track position in the appropriate department. However, it is expected that the Director will devote essentially full time to NAIC related activities. Demonstrated administrative, management and leadership skills are essential. Applications or nominations should be received by March 30, 1992. Please reply to: Dr. N.R. Scott, Vice President for Research and Advanced Studies, 314 Day Hall, Cornell University, Ithaca, NY 14853, Tel: 607/255-7200.

Cornell University is an equal opportunity, affirmative action employer.

Geisinger Clinic

Postdoctoral And Associate Scientist Positions

Positions available for Associate Scientists (three years postdoctoral experience) and postdoctoral fellows. The successful applicants will be engaged in research on the biochemical and molecular mechanisms by which angiotensin peptides and other hormonal and pharmacological stimuli mediate cardiac muscle cell growth under the direction of Dr. Kenneth M. Baker. There will also be the opportunity to engage in research defining the role of a localized intracardiac renin-angiotensin system in mediating cardiac muscle cell growth, with an emphasis on the regulation of the precursor genes for this system, and cloning the expression of the relevant receptors.

Competitive salary and fringe benefits are available. Please send CV and three names or letters of reference to: Human Resources Dept (KB), Geisinger Clinic, 100 North Academy Avenue, Danville, PA 17822-3024. Equal Opportunity Employer M/F/H/V.

Geisinger

POSITIONS OPEN

DIRECTOR OF HISTOCOMPATIBILITY LABORATORY. The Department of Hospital Laboratories of the University of North Carolina (UNC) Hospitals and the Department of Microbiology and Immunology of the UNC-Chapel Hill School of Medicine invite applications for a tenure-track position. The successful candidate, Ph.D. or M.D., will be expected to develop an active research program within the area of histocompatibility and to direct the Histocompatibility Laboratory at UNC Hospitals. Active participation in the teaching of medical and graduate students and laboratory staff is expected. Academic rank and salary will be commensurate with experience. Interested applicants should submit curriculum vitae and the names of three references to: **James D. Folds, Ph.D., Clinical Microbiology-Immunology Laboratories, CB #7600, Room 1035 East Wing, UNC Hospitals, Chapel Hill, NC 27514.** Closing date is 1 April 1992. *The University of North Carolina and the UNC Hospitals are Equal Opportunity/Affirmative Action Employers.*

HEAD OF BIOMOLECULAR COMPUTING FACILITY

As part of the ongoing expansion of biomolecular and biological sciences at Emory University, applications are solicited for the position of Director of the newly created Biomolecular Computing Facility. The Director will train faculty and students in the use of GCG and other software, design interfaces to GCG programs in collaboration with end-users, support and maintain GCG and databases, and remain current on the availability of software, hardware and database developments and network resources relevant to the evolving needs of molecular biologists. The Director will have an office in the new Rollins Research Building equipped with a VAX, PC and Mac, and will be supported by a network coordinator. This is a full-time, permanent staff position. Candidates with an advanced degree in a molecular biology-related discipline are preferred. Applications will be reviewed beginning 15 February 1992 until the position is filled. Applicants should send curriculum vitae and direct three letters of reference to:

**Committee on Biomolecular Computing
Department of Microbiology and Immunology
Emory University
3001 Rollins Research Center
Atlanta, GA 30322**

Emory University is an Equal Opportunity/Affirmative Action Employer.

DEPARTMENT HEAD DEPARTMENT OF AGRICULTURAL ENGINEERING UNIVERSITY OF MINNESOTA

The College of Agriculture, University of Minnesota, is seeking candidates for the position of head, Department of Agricultural Engineering. The head serves as administrative officer of the department; provides leadership to multidisciplinary programs in teaching, research, extension, and international activities; represents the department both within the university and to the wider community. The appointee may continue his or her professional interests and activities within the department's programs, as appropriate.

Qualifications include an earned doctorate in agricultural engineering, a related engineering discipline, or a scientific discipline with a strong engineering emphasis; demonstrated achievement in research, teaching, extension or industry; minimum of 5 years of professional experience. Desired qualifications include demonstrated ability in fiscal management, administration and leadership; effective communication skills; and an understanding of the land grant system. *Must be eligible for permanent employment (U.S. citizen or appropriate visa status).* Application deadline is 15 April 1992. Send letter of application, a current résumé, a separate one-page statement of career goals within the context of the position, and the names, addresses, and telephone numbers of three references to: **Billie J. Wahlstrom, Search Committee Chair, Department of Rhetoric, 202 Haecker Hall, 1364 Eckles Avenue, University of Minnesota, St. Paul, MN 55108.**

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

POSITIONS OPEN

DIRECTOR UNIVERSITY BIOTECHNOLOGY FACILITY AND BIOCHEMISTRY FACULTY POSITION

Kansas State University invites nominations and applications for a joint appointment as Director, University Biotechnology Facility and as a tenure-track or tenured faculty member in biochemistry. The Director will have lead responsibility for the newly established University Biotechnology Facility as a major service unit to researchers, with initial focus in protein sequencing, peptide synthesis, and oligonucleotide synthesis, and will provide dynamic, visionary leadership for the continued growth and development of this facility through acquisition of additional state-of-the-art equipment, mainly through instrumentation grants. Administratively, the Director will report to an oversight committee of deans through the Vice Provost for Research. The appointment as a half-time faculty member in biochemistry will be at the Assistant or Associate Professor rank and will carry normal expectations of faculty in the areas of teaching, research and service in biochemistry. The individual is expected to maintain an extramurally funded independent program of research.

Qualifications include necessary academic credentials to hold faculty rank and experience related to supervision of a major instrumentation center. Interested applicants should send a complete résumé describing their experience related to their administrative leadership for a biotechnology facility and their research interests particular to biochemistry. Please include a minimum of three references that may be contacted with respect to the qualifications of the candidate for this joint position. The committee will begin reviewing applications on 10 April 1992 and continue until the position is filled. The position is a 12-month position available 1 July 1992. Materials should be sent to: **Professor Thomas E. Roche, Head, Department of Biochemistry, Willard Hall, Kansas State University, Manhattan, KS 66506-3702.**

The university is an Equal Opportunity Employer, and encourages applications and nominations of women and minorities for this position.

HEAD, LABORATORY OF NEUROSCIENCES, AGING AND NUTRITION, USDA Human Nutrition Research Center on Aging at Tufts University.

To initiate program in neuro- and/or neuro-behavioral sciences: Center located on the Tufts University Health Sciences campus in Boston. Proven record of scientific accomplishment and willingness to explore problems of nutrition and aging required. Some core research funding is anticipated. *Tufts is an Equal Opportunity/Affirmative Action Employer.*

Please send curriculum vitae, cover letter and at least four references to: **David Rush, M.D., Head, Neurosciences Search Committee, 711 Washington Street, Boston, MA 02111 (telephone: 617-556-3320; FAX: 617-556-3295).**

CELL/MOLECULAR PHYSIOLOGIST THE UNIVERSITY OF CHICAGO

The Committee on Cell Physiology invites applications for a **FACULTY APPOINTMENT** for qualified candidates in the area of cellular and molecular physiology. Candidates with research interests in the areas of membrane receptors, signal transduction and second messenger mechanisms, membrane transport, cell cycle control or other aspects of cellular regulation will be considered. The successful candidate will be a tenure-track appointee in the Department of Pharmacological and Physiological Sciences. Applicants should provide a brief statement of research interests and plans, curriculum vitae and bibliography, and the names of three individuals who are willing to write letters of recommendation to:

**Dr. Mitchel Villereal, Chairman
Cell Physiology Committee
947 East 58th Street/MC 0926
The University of Chicago
Chicago, IL 60637**

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POSITIONS OPEN

TENURE-TRACK POSITION UNIVERSITY OF MICHIGAN

The Department of Periodontics/Prevention and Geriatrics at The University of Michigan has a tenure-track position available for an individual interested in cell/molecular biology of soft and hard connective tissues. Interest in aging research highly desirable. The person should have a Ph.D. or equivalent degree with several years of experience preferred. Level of appointment open; rank and salary commensurate with qualifications. *The University is an Equal Employment Opportunity/Affirmative Action Employer and specifically invites women and minorities to apply.* Submit curriculum vitae, a statement of research interests and goals and names of three references to: **Dr. M. J. Somerman, Chair, Periodontics/Prevention and Geriatrics, The University of Michigan, School of Dentistry, Ann Arbor, MI 48109-1078.**

BIOLOGY, ENTRY LEVEL, tenure-track position with major teaching responsibility in introductory microbiology. To begin September 1992. Additional teaching in introductory biology and area of expertise. Ph.D. required, teaching load 15 credit hours per quarter. Augusta College is a 5500-student, senior unit of the University System of Georgia. Application deadline 16 March 1992. Send curriculum vitae, a statement of teaching philosophy, and names, addresses, and telephone numbers of three references to: **Dr. William Wellnitz, Biology Department, Augusta College, Augusta, GA 30910.** *Augusta College is an Affirmative Action/Equal Opportunity Employer and specifically invites and encourages applications from minorities and women.*

DEPARTMENT OF PHYSIOLOGY SCHOOL OF MEDICINE MEHARRY MEDICAL COLLEGE

TWO TENURE-TRACK POSITIONS are available immediately in the Department of Physiology. Applications are invited for individuals with interest in the areas of **CARDIOVASCULAR PHYSIOLOGY** and **NEUROSCIENCE**. The department has rather broad interest but would encourage applications from individuals who incorporate cellular and molecular biological approaches in their research. Candidates should have a Ph.D. and/or M.D. degree, postdoctoral experience, and a demonstrated record of excellence in research. The successful candidate will be expected to participate fully in the department's teaching program and to develop an independent extramurally funded research program.

The college has a strong commitment to research and offers excellent start-up funds and well-equipped facilities. Applicants are asked to provide curriculum vitae, a summary of research plans, reprints of three representative publications, and three letters of reference to:

**Dr. James G. Townsel
Professor and Chairperson
Department of Physiology
Meharry Medical College
1005 D. B. Todd, Jr. Boulevard
Nashville, TN 37028
Telephone: 615-327-6288**

RESEARCH INSTRUCTOR HUMAN GENETICS AT THE UNIVERSITY OF UTAH

The University of Utah, Department of Human Genetics, would like to fill a faculty position at the research instructor level. The department would like to recruit a candidate who has an M.D. and/or Ph.D. with four or more postdoctoral years of research in molecular genetics of the human. Research experience with a variety of techniques, including the generation of monoclonal antibodies, receptor-binding methods, positional cloning of genes causing hereditary disease, and detection of sequence variants at the DNA and RNA level by Southern and Northern blotting, and the polymerase chain reaction. Single-stranded conformation polymorphism method would be highly desirable.

Application deadline will be 3 March 1992. Applications submitted after the deadline may be considered if no qualified candidates have applied by the deadline.

Send curriculum vitae and references to: **Dr. Raymond Gesteland, Human Genetics Recruitment Committee, University of Utah, Building 533, Room 2100, Salt Lake City, UT 84112.**

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Be a principal contributor to technology development in non-invasive medical monitoring. Responsible for measurement, analysis and development support of new analytical technologies, this position requires an MS or PhD in analytical chemistry, biophysics, bioengineering or related field with three or more years experience supporting product development. Experience in analytical chemistry/instrumentation, especially spectroscopy/optics is essential.

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MOLECULAR BIOLOGIST

Wyeth-Ayerst Research is a multi-national leader in the research and development of a broad range of highly advanced pharmaceuticals. We currently have a position available in the Biotechnology and Microbiology Division at our Radnor, PA headquarters.

This scientist will work in the Technological Support Subdivision and participate in the development of viral vaccines and biologicals.

Candidates should have BS/BA degree plus at least two years of research experience, or an MS degree. Training in molecular biology, biochemistry and/or microbiology is desirable, and familiarity with methods for characterization of proteins would be helpful.

Wyeth-Ayerst Research offers a competitive salary, comprehensive benefits package and opportunities for advancement. For immediate consideration, forward your resume and salary history/requirements, to: **Wyeth-Ayerst Research Personnel, Position #99, P.O. Box 8299, Philadelphia, PA 19101-0082.** An equal opportunity employer, M/F/D/V.

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IMMUNOLOGY/ COMPLEMENT BIOLOGY

RESEARCH SCIENTIST

Positions are available for Ph.D. level scientists with at least 1-3 years postdoctoral training in immunology or complement biology research. An interest in transplantation biology would be advantageous as would experience in molecular biology. Good oral and written skills a must. **Code RSX-1.**

RESEARCH ASSOCIATE

Several openings exist for the BS or MS level scientist with 2-3 years experience in immunological related techniques including ELISA's, monoclonal antibody production, complement assays. **Code RAX-1.**

MOLECULAR BIOLOGISTS

RESEARCH ASSOCIATES

Several openings exist for the BS or MS level scientist with 2-3 years experience in recombinant DNA technology, in vitro mutagenesis, mammalian cell culture and/or biochemistry. **Code RAH-1.**

TRANSGENICS

Opening exists in our transgenic animal facility for a BS or MS level research associate-micronjectionist. Applicants should be skilled in DNA pronuclear injection and/or ES cell manipulation. Molecular biology skills preferred. **Code RTG-1.**

DNX offers an excellent working environment and an ideal location (midway between New York and Philadelphia), as well as competitive compensation and a superior benefits package. Individuals interested in a challenging opportunity at an exciting and rapidly growing company are invited to submit a curriculum vitae or resume indicating position code reference and the names of three references to:



**DNX
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303B College Road East
Princeton, NJ 08540**

POSITIONS OPEN

BOSTON UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

The Boston University School of Medicine is continuing to expand upon its initiative in the area of molecular pharmacology and molecular neurobiology. A **FACULTY POSITION** is available at any level. Start-up funds, core facilities, and laboratory space are available to foster the establishment of state-of-the-art research programs. Please send your curriculum vitae, a brief statement of your research accomplishments and plans, and the names and telephone numbers of references to: **Dr. David H. Farb, Chairman, Department of Pharmacology and Experimental Therapeutics, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118. Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITION THE HEBREW UNIVERSITY HADASSAH MEDICAL SCHOOL DEPARTMENT OF ANATOMY AND EMBRYOLOGY

The Faculty of Medicine invites applications for the tenure-track position of **LECTURER OR SENIOR LECTURER** in the Department of Anatomy and Embryology beginning 1 October 1992. Candidates may hold a Ph.D. and/or M.D. degree. Postdoctoral training is required. Excellence in research and teaching will be of prime importance in the decision of the Search Committee. Preference will be given to candidates who have shown independence in their research activities as well as the utilization of updated techniques to answer questions of importance to medical science. Preference will also be given to candidates with experience in the teaching of anatomy and/or neuroanatomy and/or embryology and teratology. Interested candidates should send curriculum vitae, list of publications, three to five selected reprints, short summary of research activities and plans, and three letters of recommendation to: **S. David Gertz, M.D., Ph.D., Chairman, Department of Anatomy and Embryology, The Hebrew University-Hadassah Medical School, P.O. Box 1172, Jerusalem 91010, Israel.** Applications must be received not later than 15 April 1992.

FACULTY POSITION CANCER/TRANSPLANTATION BIOLOGY

The Center for Cancer and Transplantation Biology of the Children's Research Institute/Children's National Medical Center seeks to recruit an investigator (M.D. or Ph.D.) with a background in immunology or molecular biology and demonstrated interest in tumor cell microenvironment, tumor-host interactions and/or mechanisms of neoplasia. Development of an independent laboratory program is envisioned, to complement an established research program in tumor cell glycosphingolipids. Active clinical investigation in pediatric oncology and bone marrow transplantation exists within the Department of Hematology-Oncology. Interested candidates should submit curriculum vitae, summary of research interests, and three letters of reference to: **Stephan Ladisch, M.D., Director, Center for Cancer and Transplantation Biology, CRI/CNMC, 111 Michigan Avenue, N.W., Washington, DC 20010. Telephone: 202-939-3898.**

The Fred Hutchinson Cancer Research Center is seeking applications for **FACULTY POSITIONS IN THE BASIC SCIENCES DIVISION**. Successful applicants will generally have completed postdoctoral training but may be at any level from junior to senior faculty. Areas of interest include most of molecular and cellular biology. The primary criterion will be evidence of an ability to establish a vigorous and independent research program capable of generating important insights into basic biological processes.

A completed application should contain curriculum vitae, statement of research plans, and letters from three references. Applications will be received until 1 April 1992 and should be addressed to:

Search Committee
Division of Basic Sciences, M120
Fred Hutchinson Cancer Research Center
1124 Columbia Street
Seattle, WA 98104

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POSITIONS OPEN

POSTDOCTORAL POSITION(S) IN MAIZE MOLECULAR GENETICS. Available 1 June 1992 or thereafter, to study dosage-sensitive regulatory effects on selected molecularly defined loci in maize, using genetical and molecular techniques. A background in genetics or molecular biology is desirable. Interested individuals should send curriculum vitae and the names and addresses of three references to: **Dr. James A. Birchler, Division of Biological Sciences, 117 Tucker Hall, University of Missouri, Columbia, MO 65211.**

POSTDOCTORAL POSITION. Current studies focus on: (1) DNA photolyase and the mechanism of enzymic photorepair of DNA damaged by ultraviolet light; and (2) structure/function relationships in bacterial sarcosine oxidase, a multisubunit enzyme using two different flavins and tetrahydrofolate as cofactors. Applicants interested in enzymology, recombinant DNA technology or photochemistry are encouraged to send curriculum vitae and names of three references to: **Dr. Marilyn Jorns, Department of Biological Chemistry, Hahnemann University School of Medicine, Broad and Vine, Philadelphia, PA 19102-1192.**

DANA-FARBER CANCER INSTITUTE HARVARD MEDICAL SCHOOL

A **POSTDOCTORAL POSITION** immediately for a project involving the erythropoietin receptor and signal transduction. Experience in cell culture and molecular biology is advantageous, but highly motivated individuals are encouraged to apply. Send curriculum vitae and the names of three references to: **Dr. Alan D'Andrea, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.**

POSTDOCTORAL POSITION available immediately to study mRNA expression in postischemic brain for a 5-year NIH-funded project. Experience in molecular biology techniques desired. Send curriculum vitae and names and telephone numbers of three references to: **Dr. Kusum Kumar, Michigan State University (MSU), Department of Pathology, 620 East Fee, East Lansing, MI 48824 or FAX: 517-336-1053, attention Dr. Kumar. MSU is an Affirmative Action/Equal Opportunity Institution.**

POSTDOCTORAL POSITION IMMUNOGLOBULIN TRANSCRIPTION AND SIGNAL TRANSDUCTION

A postdoctoral position is available to study regulation of transcription and mechanisms of signal transduction during B-cell development. Preference will be given to recent graduates with experience in cell biology and/or molecular biology. Salary is commensurate with experience. Please send curriculum vitae, statement of research interests and the names of references to: **Dr. Sankar Ghosh, Section of Immunobiology and Department of Molecular Biochemistry and Biophysics, BCMH, Yale University School of Medicine, P.O. Box 9812, New Haven, CT 06536-0812.**

POSTDOCTORAL POSITIONS, MOLECULAR BIOLOGY available spring or summer to study thermophilic DNA interacting proteins and their use in genetic disease detection, especially the Ligase Chain Reaction. Applicants with experience in DNA synthesis, PCR, protein-DNA interactions, DNA sequencing, and/or site-directed mutagenesis preferred. Salary based on experience. Send curriculum vitae and names of three references to: **Dr. Francis Barany, Department of Microbiology, Box 62, Cornell University Medical Center, 1300 York Avenue, New York, NY 10021. FAX: 212-746-8587. Equal Opportunity Employer.**

POSTDOCTORAL POSITION 1 July 1992 for a molecular biologist interested in diabetes mellitus and/or lipoprotein metabolism. Skills in DNA manipulation, eukaryotic cell culture and transfection of DNA essential. Send curriculum vitae, letter stating interests, and three names for references to: **Dr. Norman C. W. Wong, The University of Calgary, 3330 Hospital Drive, N.W., Calgary, AB, Canada T2N 4N1.**

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POSITIONS OPEN

POSTDOCTORAL POSITION AIDS IMMUNOLOGY

Position is available 1 May 1992 for 2 years to study CD8 T cell responses to HIV-1 in naturally infected and vaccinated subjects. M.D. or Ph.D. applicants should send current curriculum vitae with names of three references by 1 April 1992 to: **Janis V. Giorgi, Ph.D., Division of Clinical Immunology and Allergy, Department of Medicine, UCLA School of Medicine, 10833 Le Conte Avenue, Los Angeles, CA 90024-1745. The UCLA School of Medicine is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS. Available immediately to investigate the role of early genes in tumor growth arrest and programmed cell death. Requires Ph.D. in basic sciences and experience in molecular biology. Send curriculum vitae and telephone numbers of three references to: **Vivek Rangnekar, Ph.D., Department of Surgery, University of Kentucky, 800 Rose Street, Lexington, KY 40536. Telephone: 606-257-2677.**

POSTDOCTORAL POSITIONS available immediately to study either (1) the role of protein kinases in yeast growth control, or (2) mechanisms of site-specific recombination in *H. influenzae*. The yeast research will include molecular/genetic and biochemical analysis of the protein kinase C pathway in this organism. The recombination studies focus on the regulation and catalysis of insertion and excision within tRNA genes. Experience in the techniques of contemporary molecular biology and biochemistry preferred. Positions supported by training grant requiring U.S. citizenship or permanent resident status. Send curriculum vitae and names of references to: (1) **Dr. David E. Levin** or (2) **Dr. John J. Scocca, Department of Biochemistry, Johns Hopkins University, 615 North Wolfe Street, Baltimore, MD 21205.**

POSTDOCTORAL ASSOCIATE. A position is available for an ambitious, interactive individual trained in molecular biology to join a group studying glutamate receptors. Our work involves electrophysiological and molecular biological approaches to understanding the roles of NMDA and AMPA receptors in neurologic disorders. Ongoing projects include functional studies of mutant receptors, the identification and characterization of gene regulatory elements, and the functional and molecular characterization of native receptors in individual hippocampal neurons, all in the context of comprehending the cellular mechanisms of epileptogenesis and associated disorders. Please forward curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Raymond Dingledine, Department of Pharmacology, University of North Carolina, Chapel Hill, NC 27599. Equal Opportunity Employer.**

PROKARYOTE GENOMIC SEQUENCING POSTDOCTORAL POSITIONS

To begin on or about April 1992 to work on a bacterial genomic sequencing project. The candidate should have broad experience in recombinant DNA technologies, DNA sequencing, microbiology, microbial genetics and the use of computational facilities working with the bacterium *Rhodospirillum rubrum*, and the target of analysis is chromosome II (914-kb). Grant support for 1 year with a commitment for an additional 4 years. It will involve approximately four to five personnel including these positions. The candidates will play a major role in developing the project, directing junior personnel, and setting research priorities. The project will be conducted within the below-listed departments. Both automated and manual DNA sequencing, automated gel readers, oligonucleotide synthesis, PCR, VAX and PC networks are available, in addition to state-of-the-art facilities. Starting salaries will be competitive and a generous fringe benefit package will be provided including a comprehensive health plan.

Call **Dr. Samuel Kaplan** at 713-794-1742 or **Dr. George Weinstein** at 713-792-5266 or write to the listed address.

Microbiology and Molecular Genetics
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Biochemistry and Molecular Biology
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Houston, TX 77225

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POSTDOCTORAL SCHOLARSHIPS

1992-1993

Description

The postdoctoral scholarships of the Université du Québec à Rimouski entitle the researchers who recently obtained a Ph.D. to increase their experience in a specialized researchers field by participating to the works of a unit or a UQAR group of researchers performing inside the following Departments: Biology and Health Sciences, Economics and Management, Literature, Mathematics and Computing, Oceanography, Education, Humanities, and Religious Studies and Ethics.

The Université du Québec à Rimouski is a French speaking university located near the St. Lawrence estuary in Canada. This institution offers at the graduate level many teaching programs in all above mentioned Departments, postgraduate programs in Maritime Affairs, Regional Development, Education, Ethics, Project management, Maritime Resources Management, Literature, Wildlife Management and in Oceanography. The university also offers a Ph.D. in Oceanography and in Education.

Applicants from any country are admissible. They must have obtained their Ph.D. degree between July 1, 1990 and January 1, 1993. Ensuing the first year some scholarships may be renewed for a second year. The research stage may begin at any moment of the year between September 1, 1992 and August 31, 1993 and obligatorily after the scholar has satisfied to the requirements of her Ph.D. program.

The maximal amount for this scholarship is \$25 000 (Can.).

Modality of the request and the latest date

The University must receive the request form before **April 3, 1992** scholarship. To obtain the request form, the appropriate documentation or any other information about this concourse, we invite you to write to:

Monsieur Pierre Couture, D.Sc.
Doyen des études avancées et de la recherche
Université du Québec à Rimouski
300, allée des Ursulines
Rimouski (Québec) G5L 3A1
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FORMULATION SCIENTIST — This individual will supervise and be involved in laboratory work, develop formulations for new protein therapeutics for clinical testing and work on advanced delivery systems for product in late stage clinical trials. Position requires a Ph.D. with experience in protein chemistry, formulation or advanced delivery systems applicable to protein therapeutics.

PHARMACOKINETIC SCIENTIST — This professional will possess expertise in pharmacokinetics and protein analysis, and have a Ph.D. in pharmacokinetics, pharmacology or physiology.

PHARMACOLOGY SCIENTIST — The qualified candidate will be a Generalist with broad-based experience in cardiovascular, inflammation, neuroscience, growth factors and pharmacodynamics. Individual will test the efficacy of molecularly derived proteins in a variety of models of human disease. A broad physiology and research background is essential. A veterinarian degree with Ph.D. in physiology or pharmacology is preferable.

DISCOVER RESEARCH SCIENTISTS — These positions require a Ph.D. in biochemistry, chemistry, or a life science. Proven expertise in protein purification is essential. Interest in cell adhesion molecules, growth factors or cytokines and experience in synthesis and use of agents for chemical modification of proteins is preferred.

PROCESS BIOCHEMISTRY SCIENTIST — This professional will design and perform experiments related to large scale purification of recombinant proteins and be responsible for developing analytical methods and scalable purification processes for human pharmaceutical proteins. The ability to interact productively with other groups is a necessity, as is a broad background in protein purification.

QUALITY CONTROL BIOCHEMIST — This position involves developing and validating analytical tests and ensuring that all procedures follow FDA guidelines and cGMP regulations. A working knowledge of HPLC, gel electrophoresis, enzymatic assays, ELISA, DNA assays and LAL tests are required. A Ph.D. in biochemistry or related field and minimum 2 years' pharmaceutical experience are also required.

RESEARCH ASSOCIATES — Areas: Microbiology, Fermentation, Preclinical Development, Formulations/Pharmaceuticals, Analytical Biochemistry and Toxicology. These positions require a BS/MS in Biochemistry or a life science, computer literacy and 3-5 years' related experience.

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DEAN OF MEDICAL EDUCATION

Duke University Medical Center is seeking candidates for the position of Dean of Medical Education.

The Dean of Medical Education is the primary administrator responsible for the curriculum development, coordination and evaluation of the following educational activities within the Duke University Medical Center: medical student education, graduate medical education, continuing medical education, and allied health education. The Dean of Medical Education will work closely with both the Chancellor for Health Affairs and Vice Chancellor for Academic Affairs on strategic planning initiatives and will administratively report to the Vice Chancellor for Academic Affairs of the Medical Center. The administrative authorities of the Dean include admissions, student affairs, academic records, curriculum management, and administration of the Medical Center's educational programs. Minimal requirements include: earned doctorate(s), experience in academic administration, a distinguished record of research and/or teaching that would qualify for appointment to the rank of Professor, and a motivating interest in academic education.

Screening of candidates for the position will begin April 1, 1992 and will continue until the position is filled. Applicants should send a curriculum vitae and other credentials to: **Dean of Medical Education Search Committee, Box 3701, Duke University Medical Center, Durham, NC 27710.**

**Duke University
Medical Center**

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Project Manager DNA Products

Oncogene Science Inc., a biotechnology company located on Long Island, is expanding its diagnostic and research product development program.

We are currently seeking qualified candidates for the position of Project Manager-DNA Products who will be responsible for developing and supporting DNA diagnostic and research reagents. Qualified candidates will have a Ph.D. in Molecular Biology or experience in nucleic acid/DNA product development. Experience with PCR, in situ hybridization or diagnostic product development is a plus.

Oncogene Science, Inc. offers an excellent compensation and benefits package. For consideration, please send your resume including references and salary history to: **Oncogene Science, Inc. 106 Charles Lindbergh Blvd., Uniondale, New York 11553, Attention: JS.** An Equal Opportunity Employer

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POSITIONS OPEN

PROJECT LEADER POSTDOCTORAL SCIENTIST

Two positions available for creative and motivated individuals, to conduct research on human reproductive disorders, such as preterm delivery and endometriosis. Project leader position requires Ph.D. with postdoctoral experience. Postdoctoral position requires recent Ph.D. Candidates must have expertise in a wide range of techniques in molecular biology and immunology. Particular preference will be given to project leader candidates with experience in inflammatory diseases research. Send résumé including names of three references to: **Dr. N. N. Murdter, Adeza Biomedical, 1240 Elko Drive, Sunnyvale, CA 94089.**

POSTDOCTORAL POSITION PLANT POPULATION ECOLOGY CONSERVATION BIOLOGY

The USDA Forest Service, Pacific Northwest Research Station, is recruiting for a position to participate in team research on conservation biology of wild populations of Pacific Yew subject to harvesting for Taxol production. Responsible for: (1) development of spatially based population models to evaluate the effects of harvesting; and (2) evaluate relative importance of sexual and asexual reproduction in different environments. Candidates must have a Ph.D. in plant population ecology, conservation biology or forest ecology with strong skills in computer simulation modeling. Initial appointment is for 1 year; additional years dependent on funding availability and performance. Salary commensurate with experience. GS-11/12 (\$32,423 to \$38,861). Please send curriculum vitae and names of three references to: **Dr. Thomas A. Spies, USDA Forest Service, Pacific Northwest Research Station, Corvallis, OR 97331. Telephone: 503-750-7354.** Applications must be received by 20 March 1992. *USDA Forest Service is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION UNIVERSITY OF PENNSYLVANIA

Available to study a hormone-induced subunit of the amiloride-sensitive sodium channel. A Ph.D. with training in standard molecular genetic techniques for cloning of new proteins is required. Experience in protein biochemistry and tissue culture desirable. Please send curriculum vitae and names of three references to: **Bonnie Blazer-Yost, Ph.D., Renal Research, A303R, Veterans Affairs Medical Center, University and Woodland Avenues, Philadelphia, PA 19104.**

POSTDOCTORAL ASSOCIATE, RIBOZYMES

A position is available immediately to study catalytically active RNAs with a view to their development as inhibitors of HIV replication. Experience in the organic or physical chemistry of nucleic acids or in molecular biology is desirable. Submit curriculum vitae and names and telephone numbers of three references to: **Dr. John Goodchild, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.** *An Affirmative Action/Equal Opportunity Employer, M/F/H.*

POSTDOCTORAL POSITION. The U.S. Environmental Protection Agency (EPA) Health Effects Research Laboratory (HERL), in cooperation with the University of North Carolina, Center for Environmental Medicine, has postdoctoral fellowships in pulmonary toxicology. A position is immediately available to join the molecular biology laboratory employing cellular and molecular approaches to investigate pollutant-induced lung injury and disease. Areas of study include: extracellular matrix metabolism; cellular toxicity and growth; cytokine and oncogene expression; fibrinogenesis and fibrinolysis, and leukocyte adhesion and migration. A Ph.D. or equivalent is required in biochemistry, cellular/molecular biology or molecular pharmacology/toxicology. Send current résumé to: **Kevin L. Dreher, Ph.D., Pulmonary Toxicology Branch, HERL, U.S. EPA, MD 82, Research Triangle Park, NC 27711. Telephone: 919-541-3691; FAX: 919-541-4324.** Other positions in pulmonary physiology, biochemistry, immunology and systemic pharmacokinetics are also anticipated; these inquiries should be directed to **Daniel L. Costa, Sc.D.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION. MOLECULAR MECHANISM OF IMMUNITY IN AGING. A position is available immediately for an NIH-funded project to study molecular mechanisms of regulation of the immune response in aging. Research involves investigations of the age-associated changes in antibody repertoire. Applicants should have a strong background in immunology and preferably also in molecular biology. Send curriculum vitae and name and telephone numbers of three references to: **Dr. Edmond A. Gold, Immunology of Aging Group, Department of Microbiology and Immunology, University of Maryland School of Medicine, BRB-13-009, 655 West Baltimore Street, Baltimore, MD 21201.** *An Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIPS to study the role of FGF receptors in the response to vascular injury. Required: Ph.D. in molecular or cell biology or biochemistry; experience in quantitative PCR, in situ hybridization, and MAb development helpful. One position available 1 June 1992 (to join PI on sabbatical at address below), another to start 1 September 1992 (at Texas Heart Institute and University of Texas Medical School at Houston). Contact: **Mary Harlan, Texas Heart Institute, Cardiology Research (MS 1-191), P.O. Box 20345, Houston TX 77225. Telephone: 713-791-3710.**

POSTDOCTORAL FELLOWSHIP available on NIH Training Grant in Departments of Physiology, Pharmacology, and Biochemistry in May 1992. Excellent professional training in the following areas: regulation of membrane ion channels, energy transduction by ion pumps and carriers, biochemical requirements for restoring ischemic heart tissue, angiogenesis, mechanisms responsible for depression of heart function in circulatory shock, hormonal regulation of gene transcription, intracellular ionic release in vascular smooth muscle and secretory cells, and molecular mechanisms for endothelium-dependent release of vasoactive substances.

Ph.D., M.D., D.V.M., or equivalent degree required. Environment conducive to maximum interaction with talented faculty, fellows, and students. Focus is on development of broad skills and knowledge-base essential for the effective scientist communicator as well as acquisition of detailed in-depth expertise required to solve complex biological problems. Competitive salary commensurate with experience. Please send names of three references and curriculum vitae to: **Dr. Allan Jones, Chairman, Department of Physiology, MA 415 Medical Sciences Building, University of Missouri-Columbia, Columbia, MO 65212.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL TRAINING IN ENVIRONMENTAL TOXICOLOGY

Postdoctoral fellowships in Environmental Toxicology, supported by the National Institute of Environmental Health Sciences (NIEHS), are available at Oregon State University (OSU) through the Toxicology Program and the Environmental Health Sciences Center. Successful candidates will engage in research with an emphasis on basic mechanisms for toxicity of environmental agents. NIEHS fellowships are available on a competitive basis to applicants (*U.S. citizens and permanent residents only*) with a recent degree in chemistry, biochemistry, pharmacology, or the biological sciences. Research opportunities would be available under the direction of toxicology faculty members as indicated: Biochemical and genetic mechanisms of chemical carcinogens (G. S. Bailey, Ph.D.); cellular effects and environmental distribution of chlorinated hydrocarbons (L. R. Curtis, Ph.D.); mechanisms of immunotoxicity of chlorinated hydrocarbons (N. I. Kerkvliet, Ph.D.); mechanism of neurotoxicological effects of pyrethroids (T. F. Murray, Ph.D.); mechanisms of chemically induced cell injury (D. J. Reed, Ph.D.); enzyme systems involved in metabolism of xenobiotics (D. E. Williams, Ph.D.).

To apply for an NIEHS fellowship, send curriculum vitae, academic records, and three letters of references to: **Donald R. Buhler, Ph.D., Chairman, Toxicology Program, Environmental Health Sciences Center, Oregon State University, Weniger Hall 317, Corvallis, OR 97331-6504; telephone: 503-737-2363.** Application closing date is 30 March 1992. *OSU is an Affirmative Action/Equal Opportunity Employer and has a policy of being responsive to dual-career couples.*

POSTDOCTORAL POSITION IN QUANTITATIVE TOXICOLOGY/PATHOLOGY

The Chemical Industry Institute of Toxicology (CIIT) is an independent, non-profit research institute. Our mission is to improve the scientific basis for understanding and assessing the potential adverse effects of chemicals, pharmaceuticals, and consumer products on human health. We are currently seeking a postdoctoral fellow to conduct quantitative studies of pathological responses to chemical exposure.

The successful candidate will be responsible for developing quantitative descriptions of major tissues, such as liver and kidney, at the cellular level and for using this data to develop computer simulation models of normal tissue growth and pathological responses to toxic chemicals. Individuals with (A) strong quantitative skills who are interested in working on biological problems or (B) biomedical training interested in developing skills in computer programming and simulation modeling are encouraged to apply. Applicants must have a doctoral degree in a relevant discipline such as applied mathematics, computer science, chemical engineering, biochemistry, anatomy, pathology, or toxicology.

CIIT is located in Research Triangle Park, NC, which offers many cultural and recreational activities as well as access to three major universities. We offer competitive salary and benefits and a stimulating work environment. Interested applicants should submit a curriculum vitae with the names of three professional references, representative reprints and summary of research interests to: **Human Resources Manager, CIIT, P.O. Box 12137, Research Triangle Park, NC 27709.**

The logo for the Chemical Industry Institute of Toxicology (CIIT) features the letters "CIIT" in a bold, serif font, enclosed within a rectangular border.

An Equal Opportunity Employer (M/F/H/V)

The recent opening of the new Glaxo Inc. Girolami Research Institute, located in Research Triangle Park, NC represents Glaxo's continued commitment to the discovery and development of drugs for unmet patient needs. We invite you to experience the challenges and accomplishments a future with us holds for you. The following opportunity is now available.

CELL CULTURE SCIENTIST

We are currently expanding the capacity of our Fermentation Facility to include the scale-up of recombinant organisms for the production of heterologous proteins. A position has been created for a Cell Culture Scientist who will be responsible for the culturing of mammalian/insect cells in various bioreactor systems.

Background should include a B.S., M.S., or Ph.D. Degree in a Biological or Chemical Engineering discipline with a minimum of 2-4 years of relevant experience. Specific experience with the operation and maintenance of cell bioreactor equipment is required. Familiarity with downstream processing systems and/or recombinant technology is desired.

*Join Glaxo and enjoy an excellent salary, flexible benefits, an on-site recreation and fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction. Equally appealing is our world famous scientific, industrial and academic community in Research Triangle Park, NC. Send your resume, and salary history, to: **Human Resources Department, Job # 9126-JR-SC, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709.** (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/H/V.*

Glaxo Inc.

NEOSE PHARMACEUTICALS

Neose Pharmaceuticals, Inc. is a rapidly growing company dedicated to discovering and synthesizing oligosaccharide-based drugs. With a powerful, proprietary technology for synthesizing oligosaccharides, and a scientific team that has pioneered research into the functions of the complex carbohydrates, Neose is at the leading edge of contemporary exploration into oligosaccharide pharmacology.

Neose is expanding into its new laboratory facilities in Horsham, PA, a suburb of Phila., and invites applications from Ph.D.- and B.A.-level scientists with interests and abilities in the following disciplines:

CELL BIOLOGY

Cell biologists will utilize cell, tissue, and organ culture methods; experience with cell-cell and pathogen-cell adhesion assays will be helpful.

BIOCHEMISTRY

Biochemists will be involved in enzyme discovery and purification; process scale-up experience will be advantageous.

ORGANIC CHEMISTRY

Chemists will synthesize novel, carbohydrate-based compounds; experience in analysis, separation, and process will be desirable.

In addition to a competitive salary and benefit plan, Neose offers employees an unusual opportunity to participate in, and benefit from, the growth of an exciting, dynamic new research and development effort.

Please send resumes to:

Ms. Stacy Bardol, Manager,
Administration
Neose Pharmaceuticals, Inc.
3600 Market Street, Suite 100
Philadelphia, Pennsylvania 19104

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**UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
PERSONAL INFORMATION MANAGEMENT
LIBRARIAN-BASIC SCIENCES
Library and Center for Knowledge Management**

The University of California, San Francisco Library seeks applications from innovative individuals for appointment as the basic sciences specialist in its **Personal Information Management Program**. UCSF is a health sciences university; its schools of Dentistry, Medicine, Nursing, and Pharmacy and the Graduate Division award advanced professional and research degrees in the basic natural and behavioral sciences related to health.

The Personal Information Management Librarian for Basic Sciences will be part of a team of personal information management specialists in the Interactive Learning Laboratory, which will design, plan, and coordinate a health sciences informatics curriculum in collaboration with each of the campus' schools, with specific responsibility for developing and implementing a consulting service tailored to the specialized information needs of UCSF basic scientists. Service will be delivered to clients in the library as well as in offices, laboratories, and classrooms located at several geographically distributed UCSF sites. Major responsibilities will be to assist clients with their telecommunications, database searching, personal database building, information retrieval, and file management problems; serve as the Library's subject and database specialist in the basic sciences; participate in the informatics instruction program including course development and teaching. Other areas of responsibility include participation in the collection development and public information programs.

Qualifications include a Master's degree in library or information science from an ALA-accredited school, or equivalent education and experience; an additional graduate degree (doctorate highly desirable) in molecular biology, biochemistry, or related field; a minimum of three years' experience in an academic or corporate science environment, preferably in the health sciences; superior interpersonal and communications skills; excellent technical background including a record of microcomputer expertise and database search and management skills; ability to function effectively as a member of a team; commitment to excellent service.

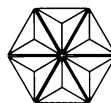
Appointment will be to the Librarian series, Assistant Librarian/Associate Librarian rank (salary from \$28,688 to \$50,496 p.a., depending on qualifications). This position is represented by a bargaining agent. Application deadline: open until filled. Address letters of application with résumé to: **Kenneth R. Weeks, Asst. Director for Planning & Administration, UCSF Library, San Francisco, CA 94143-0840. EOE/AA**

Postdoctoral Fellow Seattle, Washington

The Bristol-Myers Squibb Pharmaceutical Research Institute in Seattle (formerly ONCOGEN), performs research dedicated to pursuing novel approaches to the development of therapeutic products in the areas of immunology, infectious diseases and cancer.

We are currently seeking a postdoctoral fellow to study molecular and immunological aspects of the control of T-cell responsiveness by B7/CD28/CTLA-4 interactions. Candidates should have a Ph.D. in one of the following disciplines: molecular biology, immunology, or biochemistry and recent immunology experience.

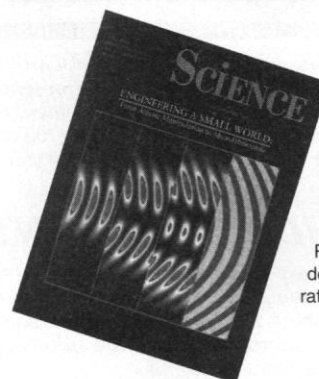
We offer a creative work environment, competitive salaries, an excellent benefit package and relocation assistance. Our facility offers open and well-equipped laboratories and views of the Puget Sound and Olympic Mountains. Please forward your resume to: **BRISTOL-MYERS SQUIBB PHARMACEUTICAL RESEARCH INSTITUTE, Human Resources Department, Position #92-0107, 3005 1st Avenue, Seattle, WA 98181. An Equal Opportunity Employer, M/F/D/V.**



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Department Head Department of Agricultural Engineering University of Minnesota

The College of Agriculture, University of Minnesota, is seeking candidates for the position of Head, Department of Agricultural Engineering. The Head serves as administrative officer of the department; provides leadership to multidisciplinary programs in teaching, research, extension, and international activities; represents the Department both within the University and to the wider community. This appointment includes a twelve-month, tenured faculty appointment, with rank negotiable. The appointee may continue his or her professional interests and activities within the Department's programs, as appropriate.

Qualifications include an earned doctorate in Agricultural Engineering, a related engineering discipline, or a scientific discipline with a strong engineering emphasis; demonstrated achievement in research, teaching, extension or industry; minimum of five years of professional experience. Desired qualifications include demonstrated ability in fiscal management, administration and leadership; effective communication skills; and an understanding of the land grant system. Must be eligible for permanent employment (U.S. citizen or appropriate visa status). Application deadline is April 15, 1992. Send letter of application, a current resume, a separate one-page statement of career goals within the context of the position, and the names, addresses, and telephone numbers of three (3) references to: Billie J. Wahlstrom, Search Committee Chair, Department of Rhetoric, 202 Haecker Hall, 1364 Eckles Avenue, University of Minnesota, St. Paul, MN 55108.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Environmental Toxicologist – Associate/Full Professor

The University of Nebraska Medical Center seeks an established investigator for a tenure-leading faculty position, to conduct a research program in environmental toxicology in collaboration with the Water Center, University of Nebraska-Lincoln. Areas of research specialization include, but are not limited to, carcinogenic and other health effects of water contaminants such as nitrate and pesticides.

The appointee will be expected to participate in intercampus toxicology and water-related teaching and research activities. The successful candidate will have a primary appointment in the Eppley Institute for Research in Cancer and Allied Diseases, an NCI-Designated Laboratory Cancer Center. Substantial new laboratory space and access to state-of-the-art core facilities in chemical and biological sciences are available. All faculty are expected to have joint appointments in an academic department at UNMC and in the Water Center at UNL.

Academic rank and salary in this tenure-leading position are dependent on qualifications.

Please submit curriculum vitae, statement of research interest, and names of at least three references to:

Raymond W. Ruddon, M.D., Ph.D.

Director

The Eppley Institute for Research in Cancer and Allied Diseases
University of Nebraska Medical Center
600 South 42nd Street
Omaha, Nebraska 68198-6805

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

Minorities and women are encouraged to apply.



University
of Nebraska
Medical Center

Mammalian Genetics

Agracetus, Inc., a biotechnology company owned by W.R. Grace & Co., is seeking highly motivated individuals to join an expanding research program addressing broad applications in mammalian gene transfer technology using the company's proprietary ACCELL™ gene delivery systems.

Research Scientists

Candidates should hold a Ph.D. degree and will have demonstrated experience in mammalian gene transfer, gene therapy, vector construction, mammalian physiology, somatic cell and biochemical genetics, or broadly related areas of research. Relevant postdoctoral experience is highly desirable. The successful candidates will initiate new research projects in collaboration with ongoing programs directed toward mammalian genetic modification.

Research Assistants

Candidates should hold a B.S. or M.S. degree and should have demonstrated capabilities in one or more of the following areas: cell biology, molecular biology, immunology, cytogenetics, analysis of gene expression in transfected mammalian cells or transgenic animals. The successful candidates will join highly interactive research teams in the development of mammalian gene transfer technology.

Agracetus offers a competitive salary and a comprehensive benefits package. Our research complex, located near the University of Wisconsin in Madison, provides an ideal setting for both career and lifestyle enhancement. Send resume to:
**Vice President of Research, Agracetus, Inc., 8520
University Green, Middleton, WI 53562.** We are an Equal Opportunity Employer.

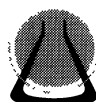


Agracetus

Ph.D. -Scientist Natural Products Discovery (Position #92-40)

PANLABS, INC. is expanding its U.S. Laboratory. Opportunity exists for an individual having a thorough grounding in general microbiology or microbial ecology and experience in devising isolation schemes for unique microorganisms from a variety of different sources. Familiarity with the isolation and taxonomic determination of unusual actinomycetes is highly desirable. Culture collection maintenance will also fall under this persons responsibilities. Good communication skills and be able to work in a team setting. Requirements include Ph.D. in Microbiology.

PANLABS is a growing international company providing R&D services to the pharmaceutical industry worldwide for 21 years. Located in the high tech corridor north of Seattle, PANLABS offers competitive salaries and benefits. Submit CV with 3 references to:



PANLABS

PANLABS, INC.

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Position #92-40
11804 North Creek Parkway South
Bothell, Washington 98011-8805

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POSITIONS OPEN

POSTDOCTORAL FELLOW

Service fellowship available to study anatomical aspects of the development of mammalian neocortex. Experience in neuroanatomical techniques, tissue culture, and electron microscopy is essential. At least 2 years of postdoctoral experience is required. Starting salary will be commensurate with qualifications and experience. Send curriculum vitae and names and addresses of three references to: **Brent Stanfield, Ph.D., National Institute of Mental Health (NIMH), NIH Animal Center, P.O. Box 289, Poolesville, MD 20837. NIMH is an Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIPS are available in the Division of Dermatology, Duke University Medical Center, in the areas of: (1) Regulation of collagen biosynthesis, (2) characterization of molecular defects in inherited connective tissue diseases, (3) characterization of dermal extracellular matrix—epithelial cell interactions, and (4) molecular mechanism of human autoimmune diseases. Preference will be given to candidates with experience in molecular biology and immunologic techniques. Salary negotiable. Send curriculum vitae and names of three references to: **Dr. Russell Hall, Box 3135, Duke University Medical Center, Durham, NC 27710. Duke University is an Equal Opportunity Employer.**

POSTDOCTORAL FELLOWS

Research positions available to study cellular and molecular mechanisms of CNS injury. M.D. and/or Ph.D. required. Training in molecular biology essential. Tissue culture/immunocytochemistry experience desirable. Send curriculum vitae, relevant publications and names of three references (with telephone numbers) to: **Alan I. Faden, M.D., Georgetown University Medical Center, Medical-Dental Building (NW101), 3900 Reservoir Road, N.W., Washington, DC 20007. An Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP RESEARCH ASSOCIATE

Positions available to study the cellular and molecular immunology of autoimmunity and regulation of autoaggression. Additional opportunities available to study the mechanism of novel immunosuppressive drugs. Knowledge of cellular immunology and molecular biological techniques is desirable. Send curriculum vitae and names of three references to: **Dr. Allan D. Hess, Bone Marrow Transplant Unit, Oncology 3-127, The Johns Hopkins University, 600 North Wolfe Street, Baltimore, MD 21205.**

POSTDOCTORAL RESEARCH ASSOCIATE POSITION

Research associate position available (Ph.D. in medicinal chemistry or pharmacology) to conduct synthesis and pharmacological evaluation of few novel nitrogen heterocycles that have exhibited some analgesic, anti-inflammatory and hyperglycemic activities on preliminary testing. Salary range: \$27,000 to \$29,000 per year. If interested, please apply before 21 March 1992: **Dr. Ken Redda, College of Pharmacy and Pharmaceutical Sciences, Florida A&M University, 127 Dyson Pharmacy Building, Tallahassee, FL 32307; telephone: 904-599-3910/3623.**

POSTDOCTORAL—RESEARCH ASSOCIATE positions are available 1 May 1992 for study of (1) regulation of P-450 expression by protein kinases, (2) the role of reactive oxygen species in signal transduction, and (3) immunosuppressive properties of tumor promoters and role of immunosuppression in chemical-induced cancer. Positions require a Ph.D. and 0 to 4 years of postdoctoral experience. Positions (1) and (2) require expertise in cloning, DNA sequencing, CAT reporter constructs, transfection and PCR. Position (3) requires expertise in cellular immunology. Research will be conducted at the Institute of Chemical Toxicology, Wayne State University, Detroit, Michigan, in the laboratory of J. J. Reiners.

Applicants should send curriculum vitae to:

**Dr. John J. Reiners, Jr.
M. D. Anderson Cancer Center
Science Park—Research Division
Smithville, TX 78957**

Wayne State is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE position is available 1 March 1992 to study the acute and chronic aspects of the negative effect of alcohol on antihypertensive therapy. Studies will involve hemodynamic and electrophysiologic measurements in chronically instrumented conscious rats as well as central administration of drugs to investigate the role of central sympathetic pathways in the interaction. Candidates must have a Ph.D., M.D., D.V.M. or equivalent degree. Familiarity with hemodynamic measurements is desirable. Send curriculum vitae, description of research experience, and names of three references to: **Dr. Abdel A. Abdel-Rahman, Department of Pharmacology, School of Medicine, East Carolina University, Greenville, NC 27858.** Federal law requires proper documentation of identity and employability at the time of employment. *An Affirmative Action/Equal Employment Opportunity Employer.*

RESEARCH ASSOCIATE POSTDOCTORAL FELLOW

Position available for Ph.D. to join and aid in the direction of an active hematopoiesis and stem cell transplantation program. Laboratory studies include (1) mechanisms of mobilization of blood stem cells, (2) influence of cytokines on stem cell subpopulations, (3) role of donor stem cells and host preparation on engraftment, and (4) protection of stem cells with regulatory molecules. Direct inquiries to:

**Peter Mauch, M.D.
Harvard Medical School, JCRT
50 Binney Street
Boston, MA 02115**

POSTDOCTORAL FELLOW OR RESEARCH ASSOCIATE WANTED

Applications are invited for a postdoctoral fellowship or research associate position in an active molecular virology laboratory. Laboratory focus is on retroviral pathogenesis. Candidates must have Ph.D. in molecular biology or related field. Position available immediately. Please send curriculum vitae with three references to: **Dr. Roger J. Pomerantz, Chief, Infectious Disease Division, Department of Medicine, Jefferson Medical College, 1025 Walnut Street, Suite 813, Philadelphia, PA 19107. Equal Employment Opportunity.**

POSTDOCTORAL RESEARCH ASSOCIATE. Position available for up to 3 years to investigate structural basis of protein-protein interactions and protein stability using site-directed mutagenesis together with chemical and physical techniques. Applicants with experience in molecular biology and/or protein chemistry are preferred. Send curriculum vitae and the names of two referees to: **Dr. Keith Brew, Department of Biochemistry and Molecular Biology (R629), University of Miami School of Medicine, P.O. Box 016129, Miami, FL 33101. The University of Miami is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE. A position is available to participate in studies of fundamental mechanisms of cardiac injury in models of sepsis and reperfusion injury for up to 3 years. Applicants with experience in myocyte and/or endothelial cell culture and molecular biological techniques are sought. Can you work in a fast-growing, well-funded environment, handle significant responsibilities, provide enthusiasm and creativity while making a good salary in a great city as you contribute to our mutual success? If so, send your curriculum vitae to: **R. D. Goldfarb, Ph.D., Section of Cardiology, Rush Medical College, 1653 West Congress Parkway, Chicago, IL 60612.**

RESEARCH ASSOCIATE to design and perform studies in molecular biology. Design and test site-specific mutants of enzymes; conduct protein assays; develop and characterize antibodies for immunoassays. Requires independent research. Must have B.S. or equivalent in biochemistry; 3 years of research experience in protein purification, mutagenesis, immunoassays, enzymology and cloning techniques; one publication in the area of protein purification. Salary: \$20,000 per year; 40 hours per week. Apply at the **Texas Employment Commission, Houston, Texas**, or send résumé to the **Texas Employment Commission, TEC Building, Austin, TX 78778, J.O. #6599175. Ad paid by an Equal Employment Opportunity Employer.**

POSITIONS OPEN

RESEARCH ASSOCIATE IN CARBOHYDRATE BIOCHEMISTRY

The University of Georgia Complex Carbohydrate Research Center (CCRC) seeks a staff chemist/biochemist interested in dividing his/her time between active participation in research on the structural characterization of ribosomal polysaccharides and analytical service work conducted on carbohydrate samples submitted to the CCRC by other investigators. Ph.D. desired in chemistry or biochemistry or an equivalent combination of education and experience. Experience with one or more of the following techniques required: GC, GC-MS, LC, NMR spectroscopy. Salary depends on experience. Position available immediately; applications will be reviewed after 15 March 1992. Please send curriculum vitae and letter of application to: **Dr. Russell W. Carlson, Complex Carbohydrate Research Center, The University of Georgia, 220 Riverbend Road, Athens, GA 30602. An Equal Employment Opportunity/Affirmative Action Institution.**

BIOCHEMISTS AND MICROBIOLOGISTS

Pel-Freez, is seeking motivated individuals for excellent career opportunities in biotechnology. Successful candidates will possess expertise in protein purification or microbiology with at least a B.S. and 5 years of related industrial experience. Working knowledge of molecular biology or microbial fermentation is highly desirable. Submit résumé and salary history to: **Human Resources Department/BP Pel-Freez, P.O. Box 68, Rogers, AR 72757. Equal Opportunity Employer.**

CENTERS FOR DISEASE CONTROL NATIONAL CENTER FOR INFECTIOUS DISEASES HEMATOLOGIC DISEASES BRANCH BIOLOGIST

A position is available to study hematologic diseases associated with infectious agents. A Ph.D. with a background and experience in the molecular mechanism of hematologic diseases and viral etiology is preferred. Previous experience with retroviruses is highly desirable. The incumbent should be experienced in recombinant DNA technique, DNA cloning and sequencing, viral genetics, and PCR analysis. Applicants should be capable of collaborative and independent investigations as evidenced by publications. This position is with Dr. Jung-Chung Lin, Molecular Biology Section, Hematologic Diseases Branch, Division of HIV/AIDS, and will be a term appointment not to exceed 2 years. Salary range: \$38,861 to \$60,070, depending on experience. To apply, please send curriculum vitae and three names and addresses of references by (end of month ad appears) to: **Ms. Janie Oddy, Personnel Management Office, Centers for Disease Control, 1600 Clifton Road, N.E., Atlanta, GA 30333.**

CONSERVATION SCIENTIST. The Department of Conservation and Scientific Research, Freer Gallery of Art/Arthur M. Sackler Gallery, Smithsonian Institution, has an opening for a GS-11 conservation scientist, salary \$32,423 to \$42,152 per annum. This position is for the technical study and analysis of works of art and other cultural properties. The basic requirement is an M.S. or equivalent in a relevant branch of physical science plus additional experience. Previous experience in conservation science is an advantage. Apply using form SF-171 (Application for Federal Employment), plus supplemental sheet giving examples of experience and training, to: **Smithsonian Institution, Office of Human Resources, Branch 1, P.O. Box 23762, Washington, DC 20026-3762, quoting reference 92-1027A. Closing date 3 April 1992. Further details: John Winter, telephone: 202-357-4880; FAX: 202-633-9105. Equal Opportunity Employer.**

INTERN

International environmental consulting. Salary: \$21,000 per year. Two to three years. Administrative aspects of small ecological consulting firm and not-for-profit foundation. B.S. to Ph.D. in biological or physical sciences. Skills: word processing, bookkeeping. Experienced, rapid worker, fast learner necessary. Independent, self-motivated. References and résumé required. FAX: **305-285-9727.** Begins now. *Equal Opportunity/Affirmative Action Employer.*

NATIONAL INSTITUTES OF HEALTH

VIROLOGIST

Postdoctoral position is available in the Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases (1) to study the pathogenesis of human and porcine rotaviruses in animal models, (2) to characterize rotavirus strains of human and animal origin using virologic and genetic techniques, and (3) to develop new vaccine candidates for eventual human use, if safe and antigenic, using cold-adaptation, genetic reassortment or strain characterization studies. Applications are invited from individuals having a doctoral degree in Medicine, Veterinary Medicine, Microbiology, Virology, or Pathobiology. Previous experience with molecular techniques is preferred. Salary will be commensurate with experience.

Qualified and interested candidates should send curriculum vitae and names and addresses of three (3) references to: **Albert Z. Kapikian, M.D., Head, Epidemiology Section, Laboratory of Infectious Diseases, NIAID, NIH, Bldg. 7, Room 103, 9000 Rockville Pike, Bethesda, MD 20892; FAX: (301) 496-8312**

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Associate Vice President, Research & Associate Dean, College of Medicine

The Ohio State University invites nominations and applications for a joint appointment as Associate Vice President, Office of Research and Associate Dean, College of Medicine. Individual will play a key role in strengthening the health and life sciences research and scholarship environment at the University; serve as liaison to various federal, state and local agencies concerning research stimulation and the Graduate School regarding graduate education; serve on various internal and external committees; develop research grant funding programs; coordinate research equipment allocations; direct professional/graduate medical education program.

Qualifications include: necessary academic credentials and appropriate experience to hold the rank of professor in a life science area; distinguished record of research and teaching; substantial experience in funded research; knowledge of federal funding process.

Nominations/applications including cover letter and resume should be sent to Susan Erskine, Office of Research, OSU, 208 Bricker, 190 N. Oval Mall, Columbus, OH 43210-1355; materials should be received by March 20, 1992.

The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, covered veterans and disabled individuals are encouraged to apply.

Branch Manager



The National Renewable Energy Laboratory (NREL), formerly the Solar Energy Research Institute, is the nation's primary national laboratory for R&D and testing in renewable energy. We collaborate with universities, private industry, and government agencies to move technological innovations from the laboratory to the marketplace.

As Branch Manager you will provide leadership and manage research and development for the biological production of fuels, chemicals, and materials from renewable resources. Oversee a large team of molecular biologists, biochemists, enzymologists, and microbiologists, in understanding and improving microorganisms and enzymes to perform biologically catalyzed transformations.

Requirements include a Ph.D. in molecular biology, biochemistry, microbiology or related field. A strong background in interdisciplinary research, demonstrated technical expertise and accomplishments, and an established reputation are also essential. Prior experience in managing interdisciplinary groups in academic or industrial research and obtaining research funding is expected along with strong leadership capability and excellent interpersonal and communication skills. More than 10 years experience in applied biological sciences and 2 to 4 years or more in managing personnel is desired.

We offer a competitive salary and comprehensive benefits package, including relocation assistance. For immediate consideration, please send your resume to: **Human Resources Office, E4220-964, NREL, 1617 Cole Blvd., Golden, CO 80401.**

For information regarding current job opportunities at NREL contact: **JOB LINE (303) 231-1192**

NREL is an equal opportunity employer. Women and minorities are encouraged to apply.



NATIONAL RENEWABLE ENERGY LABORATORY

ANALYTICAL CHEMIST Microscopy and Surface Scientist

International Paper, a leader in the pulp and paper industry, has a new opportunity available in our Analytical Sciences Group located at our Corporate Research Center in Tuxedo, NY.

The individual selected for this position will provide theoretical and practical assistance to solve problems using advanced microstructural and microanalytical techniques. Typical responsibilities may include providing analyses using both optical and electron microscopy and development of microscopic or surface analytical methods for materials analysis and/or product characterization.

The successful candidate should have an advanced technical degree with hands-on experience in light and electron microscopy and energy dispersive X-ray analysis. The candidate must be able to analyze and interpret visual data and develop concise reports containing support illustrations, conclusions, and recommendations. Experience in the pulp and paper industry is a strong plus. Skill and/or knowledge in surface analysis techniques is desirable.

We offer a competitive compensation and benefits package and an attractive work environment. To explore this challenging technical position, please send your resume in confidence to:

Human Resources

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An Equal Opportunity Employer M/F/D/V

Biochemist/Enzymologist

Merck Sharp & Dohme Research Laboratories in West Point, a leader in pharmaceutical and biological research, is currently offering several excellent career opportunities in our Biological Chemistry Department.

The first position involves anticoagulation projects with responsibilities for protein purification from human plasma, activation of zymogens, enzyme mechanistic studies and characterization of inhibitors. Candidates should have an M.S. degree in biochemistry, chemistry or the equivalent with a strong background in enzyme kinetics, protein purification, protein-protein interaction and isolation of natural products. One to 3 years experience in protein purification and enzymology is required.

The second position requires extensive experience and interest in enzyme kinetics and protein purification. Candidates should have an M.S./Ph.D. degree in biochemistry, enzymology or the equivalent along with strong quantitative abilities.

The third position involves a multidisciplinary effort aimed at identifying novel strategies for the treatment and/or prevention of thromboses. Candidates should have a Ph.D. in biochemistry, pharmacology or related field. Expertise in enzymology and protein chemistry is desired.

Excellent salary and benefit programs accompany this position at our modern research facilities located 25 miles northwest of Philadelphia. Please send curriculum vitae with cover letter to: **Personnel Manager, Ad #D-4, Research Personnel, WP42-2, Merck Sharp & Dohme Research Laboratories, West Point, PA 19486.**

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Saint Mary's College is a Catholic, selective, coeducational, liberal arts college of about 3,500 students, 2,200 of whom are undergraduates. Operated by the Christian Brothers, it is located 21 miles east of San Francisco. The School of Science is a vigorous and growing academic unit with a faculty of 42 (26 full-time/7FTE part-time) representing the disciplines of Biology, Chemistry, Mathematics, Physics, and Psychology.

Please send nominations or application letter, along with curriculum vitae, names, addresses, and telephone numbers of at least five references, and relevant supporting materials to: Dr. William J. Hynes, Academic Vice President, P.O. Box 4257, St. Mary's College, Moraga, CA 94575; (510) 631-4406. Salary and rank dependent on exp. & qualifications. Review of applications will begin on March 6, 1992, and continue until the position is filled. Committed to diversity and an Equal Oppty. Employer, the College encourages women, people of color, Christian Brothers, disabled individuals & veterans to apply.



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ASSISTANT SCIENTIST *Tumor Biology*

To become a member of our Transcriptional Regulation Group, we are seeking an individual who has working experience in either recombinant DNA methodologies (cloning, southern and northern transfer and hybridization, DNA sequencing, SDS-gel

electrophoresis) or protein expression and purification.

The successful candidate will have B.S. degree with 2-4 years' experience or M.S. with up to 2 years' experience and protein analysis background using SDS gel/immunoprecipitation/Westernblot analysis. Experience with cell culture, DNA and transient transfection, stable cell line development using recombinant plasmids, promoter-reporter gene and DNA gel-shift assays would be beneficial. Respond to Box #91-38 (GC).

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Evaluate and implement new technologies to investigate physiological and pharmacological mechanisms of cough.

To qualify, you must have a B.S. degree in Biology, Physiology or Pharmacology with 2-7 years' experience and/or M.S. degree with 0-5 years' experience. Prior *in vivo* electrophysiology, airway pharmacology, and/or computer experience a plus. Respond to Box #DD-91-95 (KB).

We offer highly competitive salaries and an excellent benefits package. Please send resume, indicating appropriate box number, to Schering-Plough Research, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

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POSITIONS OPEN

RESEARCH ASSOCIATE. Study ultrastructure and immunological responses of human skeletal muscle in different aged peoples to eccentric exercise. Apply immunohistochemical techniques to examine appearance of cytokines after exercise. Study human tissues for data on body functions related to aging and/or exercise; effects of exercise and diet on insulin sensitivity and glucose tolerance using euglycemic glucose clamp. Select tissue for microscopic study using microtome and other equipment and employ stain techniques. Analyze cells concerned with degeneration and regeneration. Research cell physiology and morphology to ascertain physical and chemical factors involved in growth. Perform tests to determine glucose levels; operate glucose clamp procedures. Study influence of physical and chemical factors on human cells. Salary: \$24,000 per year; 35 hours per week; requires Ph.D. in physiology or M.D., 1 year of experience in exercise physiology and research. Special requirements: exercise physiology, muscle analysis, electron microscopy, immuno-electron microscopy, histochemistry, cytochemistry, glucose clamp. Submit two copies of résumé to: **Commonwealth of Massachusetts, Department of Employment and Training, Job Order #2450, P.O. Box 8968, Boston, MA 02114.**

POSITION OPEN FISHERIES RESEARCH ADMINISTRATION

The U.S. Fish and Wildlife Service in Gainesville, Florida, seeks a **SENIOR FISHERIES RESEARCH MANAGER** to administer its National Fisheries Research Center located on the campus of the University of Florida, with field stations at Marion, Alabama, and Stuttgart, Arkansas. The center is responsible for a wide-ranging program of biological research on exotic, anadromous, and intercoastal fish resources of regional and national importance. The center director is responsible for integrating management of a broad, multidisciplinary program on fish population dynamics, ecology, and aquaculture. Salary range is \$64,000 to \$83,000 (GM-15). An Application for Federal Employment (SF-171) should be submitted to the U.S. Fish and Wildlife Service, Department of Interior, Region 9 Personnel, MS 100 ARLSQ, 1849 C Street, N.W., Washington, DC 20240. For further information, telephone: 703-358-1743. Applications must be received by COB 27 March 1992. *The U.S. Fish and Wildlife Service is an Affirmative Action/Equal Opportunity Employer.*

FREE LANCE WRITING SCIENCE TEST QUESTIONS

Opportunity for work at home writing science questions for college and pre-college testing programs administered nationally by American College Testing (ACT). Work involves variety of science areas and requires precise writing to meet exacting standards. Current teaching or teaching within past 5 years at high school or college level required, as is undergraduate or graduate degree.

For additional information, write as soon as possible to: **Editorial Manager, Test Development Department (S), ACT National Office, 2201 North Dodge Street, P.O. Box 168, Iowa City, IA 52243.** Include (1) area of specialization—biology (botany, zoology), chemistry (general biochemistry), physics, physical science; and (2) résumé listing formal education and teaching experience, including identification/dates of courses taught and degrees.

ACT is a nonprofit organization recognized as an international leader in testing, student financial aid, guidance, and research services.

ACT is an Equal Opportunity/Affirmative Action Employer.

The Department of Commerce (DOC) NOAA/Office of Oceanic and Atmospheric Research (OAR)/Program Development and Coordination Staff is seeking applicants for the position of **PHYSICAL SCIENTIST, GM-1301-15** (\$64,233 to \$83,502). Duties: The position serves as the OAR staff expert and focal point for global change research, climate and atmospheric chemistry, and related national and international public policy issues. This position is located in Silver Spring, Maryland. Applicants must submit the June 1988 edition of the Standard Form 171 by 12 March 1992 to: **NOAA/Personnel Operations Division/NOS-OAR Operations Branch, SSMC-1, OA213, #3230, 1335 East West Highway, Silver Spring, MD 20910.** For additional information and a list of quality ranking factors call: 301-713-0506 refer to vacancy #: **OA/M-92-15-MMP.** *DOC is an Equal Opportunity Employer.*

POSITIONS OPEN

FLOW CYTOMETRY SPECIALIST

Morehouse School of Medicine is seeking a qualified individual to maintain and operate a new Flow Cytometry Core Facility equipped with the Becton-Dickinson FACStar^{PLUS} Sorter and FACScan Analyzer. Applicant must have significant experience with flow cytometry and cell sorting instrumentation and methodology, computerized data analysis, sample preparation and handling. Competitive salary commensurate with experience. Send curriculum vitae, description of relevant experience and names of three references to: **Dorothea V. Parker, Morehouse School of Medicine, 720 Westview Drive S.W., Atlanta, GA 30310.**

MOLECULAR AND POPULATION GENETICS-FISHERIES. The Cooperative Institute for Fisheries Molecular Biology, consisting of four cooperating institutions, invites applications to join a team using molecular genetic techniques (allozyme analysis, mtDNA, IEF, and DNA fingerprinting) in investigations on stock identification, population structure, aquaculture technology development, and phylogenetic relationships of harvested estuarine and marine fishes, mollusks and crustaceans. Applicants are sought for an **ASSISTANT** or **ASSOCIATE MARINE SCIENTIST** position (contract) at the Marine Resources Research Institute of the Marine Resources Division, South Carolina Wildlife and Marine Resources Department (SCWMRD), Charleston, South Carolina. Salary range is \$30,000 to \$40,000. Applicants should have a Ph.D. and laboratory and field experience. Please send preliminary application materials, including curriculum vitae statement of research interests and goals, and three letters of reference to: **Molecular Genetics Search, Personnel, Marine Resources Research Institute, Marine Resources Division, P.O. Box 12559, Charleston, SC 29422-2559.** Filling of this position is subject to receipt of funding. *The SCWMRD prohibits discrimination on the basis of race, sex, color, national origin, handicap or age.*

PROTEIN PEPTIDE CHEMIST

Biological Resources Branch, National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH). Position available for qualified protein/peptide chemist to work in the Biological Resources Branch, NIAID, NIH, in Frederick, Maryland. Candidate should have expertise in protein sequence and compositional analyses. Experience in synthesis, HPLC purification and analyses of peptides including mass spectrometry would be helpful. Salary will be commensurate with credentials. Prefer M.S./B.S. with experience. *U.S. citizenship required. NIH is an Equal Opportunity Employer.* Qualified and interested candidates should send curriculum vitae and names and addresses of three references to: **John E. Coligan, Ph.D., Chief, Biological Resources Branch, NIAID, NIH, Building 4, Room 413, 9000 Rockville Pike, Bethesda, MD 20892.** Telephone: 301-496-3213.

**RESEARCH BIOLOGIST
GS/GM-401-12/13
(CONSERVATION BIOLOGY)
U.S. DEPARTMENT OF AGRICULTURE (USDA)
USDA—FOREST SERVICE
SOUTHERN FOREST
EXPERIMENT STATION
FOREST HYDROLOGY LABORATORY
OXFORD, MISSISSIPPI**

Incumbent will conduct research (personal and via cooperative agreement) on basic biology and habitat requirements of threatened, endangered, and sensitive (TES) species of native benthic fishes and freshwater mussels in both the Mid-South Coastal Plain uplands and the Interior Highlands, with the objective of evaluating impacts of forest management and other human activities on aquatic TES species, and of developing effective approaches to recover select, priority species. Should have detailed knowledge of conservation biology, biology and taxonomy of stream fishes and/or freshwater mussels, statistics and experimental design, use of computers in research, and ability to interpret and effectively report research results orally and in technical writing. Applicant must possess an advanced degree or equivalent in conservation biology or related field. Contact: **Dr. Walter A. Hough, Assistant Station Director; telephone: 504-589-3003** for information on position. Application materials sent on requests. *The USDA is an Equal Employment Opportunity Employer.*

POSITIONS OPEN



PRECLINICAL MANAGER-VACCINES

MicroCarb is a rapidly growing biotechnology company located on the I-270 Technology Corridor in Gaithersburg, Maryland, just minutes north of the National Institutes of Health, that is committed to the discovery and application of novel microbial adhesins, based on receptor technology, for the development of vaccines for human infectious diseases. We are currently seeking a creative scientist with proven expertise in conducting efficacy studies and evaluating humoral and cellular immune responses to candidate vaccines in appropriate animal models.

Background should include a Ph.D. in microbiology/immunology or a related discipline with several years experience in the vaccine industry. Familiarity with FDA protocols and regulatory affairs in bringing vaccines up to phase I clinical trials is also highly desirable.

MicroCarb's state-of-the-art research facility offers a challenging environment with a competitive compensation package and a full range of benefits. Please send your curriculum vitae, in confidence, to: **Dr. Howard C. Krivan, MicroCarb Inc., 300 Professional Drive, Suite 100, Gaithersburg, MD 20879.** *MicroCarb Inc. is an Equal Opportunity Employer.*

RESEARCH CHEMIST. The Centers for Disease Control (CDC), Atlanta, Georgia, is seeking to fill the following position. This position is established for the synthesis and analysis of ultra toxic/carcinogenic polycyclic aromatic hydrocarbons, polychlorinated dioxins, biphenyls, dibenzofurans, biphenylenes, steroids, alkaloids, and other environmental toxicants. Candidates with a Ph.D. in chemistry, 2 to 3 years of postdoctoral experience, and a solid record of accomplishments in chemical research are preferred. A strong background, and experience, in organic synthesis including synthesis of polycyclic aromatic hydrocarbon derivatives, alkaloids, amino acids, and steroids are required. Demonstrated abilities to synthesize ²H, ¹⁵N, and ¹³C labeled compounds and to isolate and identify degradates/metabolites at the microgram level are essential. The experience must demonstrate the use of glove box techniques in the synthesis of toxic/carcinogenic compounds in a chemical toxicant laboratory and experience in operating FT-NMR and GC/MS for structural confirmation. Extensive background in HPLC/UV-Vis, HPLC/ELSD and ECD, and in spectroscopic techniques, such as UV, NMR, fluorescence, IR, and MS, is strongly preferred.

Salary range is \$38,861 to \$50,516, depending on the experience. Applicants should send current curriculum vitae and completed Application for Federal Employment (Form SF 171—obtained from any federal facility) to: **Jenny Garner, NCEHC, Centers for Disease Control, MS-F29, Atlanta, GA 30333.** Applications must be received within 3 weeks of publication notice. *CDC is an Equal Opportunity Employer and provides a smoke-free environment.*

**RESEARCH FISHERIES BIOLOGIST
GS/GM-482-11/12/13
U.S. DEPARTMENT OF AGRICULTURE (USDA)
USDA—FOREST SERVICE
SOUTHERN FOREST
EXPERIMENT STATION
FOREST HYDROLOGY LABORATORY
OXFORD, MISSISSIPPI**

Incumbent will conduct research (personal and via cooperative agreement) on physical and biological factors regulating the structure of warmwater/coolwater stream fish communities in both the Mid-South Coastal Plain uplands and the Interior Highlands, with the objective of evaluating impacts of forest management and other human activities on fish habitat relations, population dynamics, and community composition. Should have detailed knowledge of fisheries biology/ecology, stream ecosystem ecology, statistics and experimental design, use of computers in research, and ability to interpret and effectively report research results orally and in technical writing. Applicant must possess an advanced degree or equivalent in fisheries biology/ecology or related field. Contact: **Dr. Walter A. Hough, Assistant Station Director; telephone: 504-589-3003** for information on position. Application materials sent on request. *The USDA is an Equal Employment Opportunity Employer.*

RESEARCH SCIENTIST, OLFACTION. EROX Corporation is seeking a researcher with a Ph.D. degree and postdoctoral training in Molecular Biology, Biochemistry or other Biological Sciences, and a strong background in recombinant DNA techniques and receptor biology to study and characterize mammalian olfactory and pheromone receptors and related genes. Experience and demonstrated accomplishment in cDNA cloning, subtractive hybridization, and protein 2-D gel analysis is preferred.

Must be capable of working independently and leading a small research group. The individual chosen will work at the company's Salt Lake City laboratories affiliated with the University of Utah and will have the opportunity to hold an Adjunct Faculty position at the University.

We offer a competitive salary, benefits, and relocation package, plus an excellent working environment and the opportunity for professional development.

Qualified individuals should respond to **Kevin McCarthy, Vice President and Chief Financial Officer, EROX Corporation, 535 Middlefield Road, #240, Menlo Park, CA 94025.** *EROX is an equal opportunity employer.*

SCIENTISTS / CHEMISTS



Emisphere Technologies, Inc., a rapidly growing, public company seeks scientists/chemists to join the Company's pharmaceutical research team which is focusing on oral drug delivery systems. Desired qualifications are as follows:

- Pharmacist or MS in pharmacology, chemistry or biochemistry
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- BS/MS in chemistry with 1+ years HPLC experience with knowledge of automated data collection and analysis – must be computer literate
- Laboratory Technician – BS plus 1 year experience with experimental work
- Chemist in Organic Laboratory – minimum of technical school training

Send cover letter, stating desired position, and resume to: Ms. Sally Love, Emisphere Technologies, Inc., 15 Skyline Drive, Hawthorne, New York 10532 Fax: (914) 347-2498



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- M.S. or B.S. degree with at least three years of laboratory synthetic, HPLC and NMR experience required.

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- Ph.D. degree plus experience required in the characterization of MAbs against cell surface markers and their use to target tumor cells *in vitro* and *in vivo*.
- Experience in the generation and immunogenetic analysis of immune responses to diverse antigens and/or haptens desirable.
- Research associates with experience in hybridoma methodology, HPLC, and antibody purification/fragmentation.

Enzymology

- Ph.D. and M.S. degree plus experience in enzyme kinetics, enzyme assay design. HPLC/FPLC, and protein isolation required.
- Experience in enzyme mechanistic elucidation and/or monoclonal antibodies helpful.

Molecular Biology

- Ph.D. degree and experience in molecular cloning, sequencing and PCR required.
- Experience in immunoassay systems, microbial genetics and phage cloning desirable. Protein purification experience helpful.

Pharmacology

- Responsibilities to include evaluation of cyto/systemic toxicity and anti-tumor activity of novel pharmaceuticals.
- M.S./Ph.D. degree as well as experience required in human tumor models both *in vitro* and using nude/SCID mice.

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PLANT/CROP ECOLOGIST AQUATIC ECOLOGIST

The Plant/Crop Ecologist position requires experience on the effects of chemical stress on aquatic and terrestrial plants in the field and in greenhouse microenvironments. The aquatic ecologist position requires experience in sampling and systematics to study population changes of invertebrates and vertebrates in freshwater ecosystems. M.S. or Ph.D. with 0 to 3 years of experience required.

Please submit résumé to: **Toxikon Environmental Sciences, 106 Coastal Way, Jupiter, FL 33477. Equal Opportunity Employer.**

RESEARCH HYDROLOGIST GS/GM-1315-12/13

**U.S. DEPARTMENT OF AGRICULTURE (USDA)
USDA—FOREST SERVICE
SOUTHERN FOREST
EXPERIMENT STATION
FOREST HYDROLOGY LABORATORY
OXFORD, MISSISSIPPI
POSITION IN HOT SPRINGS
ARKANSAS—2 YEARS**

Incumbent will conduct research (personal and via cooperative agreement) on physical and biological processes regulating the hydrologic behavior of forested watersheds in both the Mid-South Coastal Plain uplands and the Interior Highlands, with the objective of evaluating impacts of forest management and global change on streamflow amount and distribution and on transport of water and sediment through and within stream channels. Research to be at both headwater catchment and (for cumulative effects studies) landscape scales. Applicants should have detailed knowledge of forest hydrology and watershed management, hydrologic modeling and gauging procedures, statistics and experimental design, use of computers in research, and ability to interpret and effectively report research results orally and in technical writing. Applicant must possess an advanced degree or equivalent in hydrology, watershed management or related field. Contact: **Dr. Walter A. Hough, Assistant Station, Director; telephone: 504-589-3003** for information on position. Application materials sent on request. *The USDA is an Equal Employment Opportunity Employer.*

RESEARCH SCIENTIST

Applications are invited for a highly motivated scientist to join three other scientists at the Florida Hospital Cancer and Leukemia Research Center in sunny central Florida. Applicants must have a Ph.D. in molecular biology or biochemistry with emphasis in protein chemistry. Available immediately to clone, express, purify and characterize recombinant plant toxin molecules. Attractive salary, laboratory and environment. Interested candidates are invited to send their curriculum vitae, bibliography, and three letters of recommendation to:

**Dr. Arthur Frankel, Director
Florida Hospital Cancer and
Leukemia Research Center
616 East Altamonte Drive, #100
Altamonte Springs, FL 32701
Telephone: 407-339-1004**

The Agriculture Research Service (USDA) is recruiting a **RESEARCH PLANT PATHOLOGIST**. This position will be at the New England Plant, Soil and Water Laboratory, Orono, Maine. The successful candidate will be responsible for initiating, managing, and conducting research projects on the biology of early dying potato and the interactions among potato, potato nematode and verticillium spp. The position requires a professional knowledge of nematology, plant pathology, botany, epidemiology, statistics and sampling methods. *Applicants must be U.S. citizens.* Salary is commensurate with experience, approximately \$32,000 to \$46,000. Further information on the research program/position is available from **Dr. W. M. Clapham, USDA, ARS, N.E. Plant, Soil, and Water Laboratory, University of Maine, Orono, ME 04469. Telephone: 207-581-3266.** For information on application procedures/forms, contact **Alice MacNamara at 301-344-1920.** Applications in response to this advertisement should be marked 2N025 and sent to: **USDA, ARS, Personnel Division, 6305 Ivy Lane, Room 322, Greenbelt, MD 20770-1435, attention: A. MacNamara.** Applications must be postmarked by 2 April 1992. *The U.S. Department of Agriculture/Agriculture Research Service is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

RESEARCH SCIENTIST POSITION

The Department of Diabetes and Metabolism at the City of Hope Medical Center invites applications for a tenure-track research scientist position. Preference will be given to candidates at the assistant or associate research scientist level. The department is primarily focused on research related to the cellular and molecular mechanisms leading to cardiovascular and renal disease in states of insulin resistance and diabetes. In addition, collaborative studies related to mechanisms of altered insulin secretion and action are planned. Candidates must have a Ph.D. degree in an appropriate discipline and relevant postdoctoral experience. The candidate will be expected to develop and maintain an independent, externally funded research program. Start-up equipment and/or funds may be available. Applicants should send their full curriculum vitae, a letter of application including a description of research interests and names of three references by 15 April 1992 to: **Jerry L. Nadler, M.D., Director, Department of Diabetes, Endocrinology and Metabolism, City of Hope Medical Center, 1500 East Duarte Road, Duarte, CA 91010. Telephone: 818-301-8486; FAX: 818-301-8489. Affirmative Action/Equal Opportunity Employer.**

RESEARCH TECHNICIAN

Research technician needed to maintain plant cell cultures and isolate plant cell walls, cell wall polysaccharides, and oligosaccharide fragments of the polysaccharides. The technician will be trained to structurally characterize complex carbohydrates. Experience in any of the following techniques would be desirable: liquid or gas chromatography, working with enzymes, tissue culture, carbohydrate chemistry. B.S. required/M.S. preferred in biology or biochemistry. Salary negotiable depending on experience. Send applications by 15 March 1992 to: **Dr. Alan Darvill or Dr. Peter Albersheim, Co-Directors, Complex Carbohydrate Research Center, The University of Georgia, 220 Riverbend Road, Athens, GA 30602. An Equal Employment Opportunity/Affirmative Action Institution.**

SUPERVISORY RESEARCH PSYCHOLOGIST. The U.S. Army Natick Research, Development and Engineering (RD&E) Center is seeking a chief of the Behavioral Sciences Division. Natick's behavioral sciences program involves basic and applied research in feeding behavior, food habits, consumer behavior human factors engineering and anthropology. Candidates should demonstrate expertise and publications in one or more of these areas as well as experience in research program administration. Position is in the career civil service at the GM-15 level (salary range is \$64,233 to \$83,502 per annum). Interested candidates should submit curriculum vitae to: **U.S. Army Natick RD&E Center, Attention: STRNC-BCR (Prebensen), Natick, MA 01760-5013. Natick is an Equal Opportunity Employer. U.S. citizenship is required.**

SENIOR TOXICOLOGIST. Nichols Institute, a national leader in the health care industry, is seeking a senior toxicologist. Requires a B.S./B.A. in chemistry, biology, or medical technology with 4 years of toxicology experience; or a Ph.D. with 2 years of experience desired. Experience in Atomic Absorption Spectrometry or HPLC preferred. We offer a competitive compensation and excellent benefits in a *non-smoking environment*. Please send résumés to: **Nichols Institute, Human Resources, 33608 Ortega Highway, San Juan Capistrano, CA 92690-6130. Equal Opportunity Employer.**

COURSES AND TRAINING

GENETICS SHORT COURSE 20 TO 31 JULY 1992

33RD ANNUAL SHORT COURSE IN MEDICAL AND EXPERIMENTAL MAMMALIAN GENETICS. Conducted by Johns Hopkins University and The Jackson Laboratory at Bar Harbor, Maine. Morning and evening lectures covering the field are supplemented by workshops, tutorials, and demonstrations. Inquiries, applications to: **E. H. Birkenmeier, M.D., c/o Training and Education Office, The Jackson Laboratory, 600 Main Street, Bar Harbor, ME 04609; or V. A. McKusick, M.D., 1007 Blalock, Johns Hopkins Hospital, 600 North Wolfe Street, Baltimore, MD 21205.**

ANNOUNCEMENTS

CHALLENGES AND CONTROVERSIES IN CANCER RESEARCH. An International Cancer Conference Commemorating the American Quincentenary 1492 to 1992. To be held in Columbus, Ohio, 9 to 12 September 1992. Organized by The Ohio State University Comprehensive Cancer Center and the Istituto Nazionale per la Ricerca sul Cancro (IST-Genoa, Italy). Contacts: **Nancy Jones, Suite 1132, Arthur G. James Cancer Hospital and Research Institute, 300 West 10th Avenue, Columbus, OH 43210 or Claudio Lombardo, IST 16132 Genova—Viale Benedetto XV n10, Italy.**

COMPUTER MARKETPLACE

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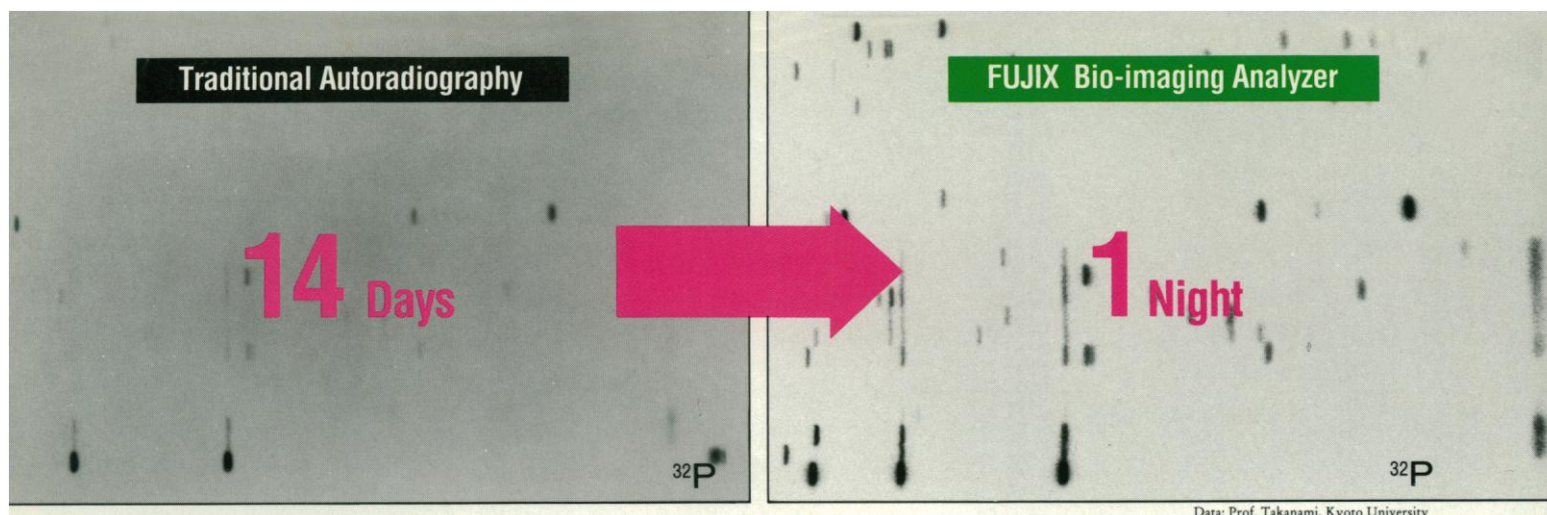
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Custom DNA Purified and Delivered in 48 hours.

\$7.50 per base • Purified
Guaranteed minimum 100 µg DNA

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FUJI'S PATENTED IMAGING PLATE

Fuji's patented photostimulable phosphor Imaging Plate (IP) takes the place of traditional x-ray film to expose your radio-labelled sample. Image data exposed on the Imaging Plate is read by a laser and computer processed to detect minute amounts of substances often undetected by traditional autoradiography.

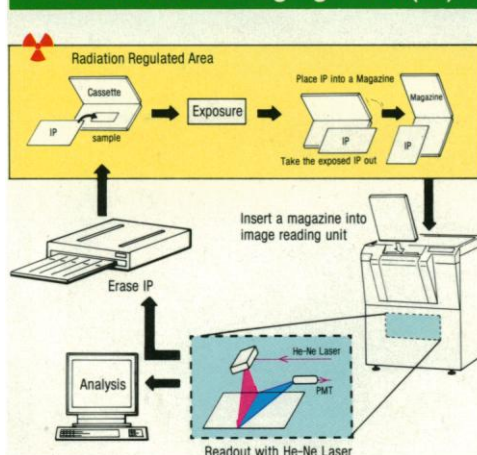
TODAY'S MOST SENSITIVE TECHNOLOGY

The erasable, reusable Imaging Plates are over 100 times more sensitive to radiation than conventional x-ray film. This greatly reduces exposure time and helps you get your results faster.

The wide dynamic range of the Imaging Plate, which exceeds five orders of magnitude, covers from the faintest to the greatest amount of activity, virtually eliminating re-exposures.

The Imaging Plate allows easy to handle operation and scanning in under three minutes without a darkroom. Because the exposure and reading processes are decoupled, productivity is increased. Bands or spots can be quantitated directly on the display, eliminating the need for liquid scintillation counting.

The Reusable Imaging Plate (IP)



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FAST AND EASY TO USE

The powerful SPARCstation™ 2 provides high performance not only in overall speed but also in the display of detailed images on its high resolution monitor. The mouse-controlled image analysis software offers many functions including quantitation, molecular weight determination, contrast setting, magnification, and superimposition. Images are stored in the workstation's fixed storage or in a removable 150MB cartridge for later analysis.

SUPERIOR PUBLICATION QUALITY HARD COPY

The Fujix photographic quality BAS HG Printer provides publication quality continuous tone black and white or color, prints or transparencies, without chemicals, darkroom, or plumbing.

EVALUATE FUJIX BAS2000 WITH YOUR OWN SAMPLES!

To learn more about how Fuji can accelerate your autoradiography or to arrange to evaluate the Fujix BAS2000 with your own samples, call Fuji Medical Systems—Biomedical Department toll-free 800-431-1850, (in CT 203-353-0300) or write: Fuji Medical Systems U.S.A., Inc., P.O. Box 4960, Stamford, CT 06907-0960.



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Simplify PCR[†]
of genomic DNA

GENERELEASERTM

Lysis is accomplished directly in the amplification tube on a thermocycler.

DNA from whole cells without prior purification.

- whole blood
- cell cultures
- bacterial colonies

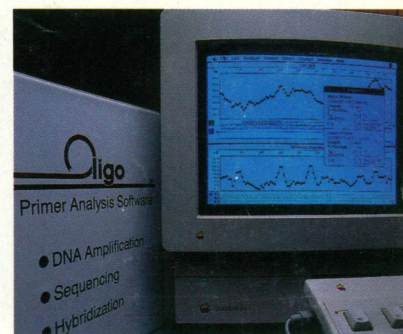
Sequesters cell lysis products which may inhibit enzymes and improves amplification yield and specificity

400 REACTIONS • \$100

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Primer Analysis Software



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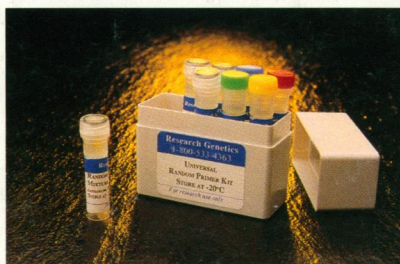
Peptides - Fast

8 to 12 mg
of Custom made,
High Quality Peptides
Shipped in 10 days

\$30.00 / residue

No set-up charges

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Custom Peptide Antibodies



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includes peptide synthesis
and antibody titers

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Purified and Delivered in 48 hours

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