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Monoclonal Antibodies

Mouse monoclonal antibodies (mAbs) are available to estrogen receptor (clone ER-LH1) and to human progesterone receptor protein (clone 1A6). The mAbs are effective on Zamboni-fixed frozen human tissue. **Vector Labs. Circle 88.**

A new panel of mAbs to sheep leukocyte antigens includes anti-CD1, anti-CD8, and anti-CD45. **Serotec. Circle 89.**

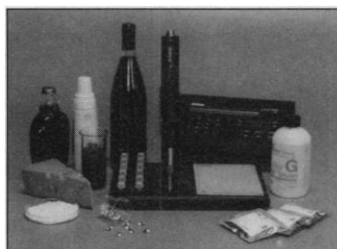
A range of mAbs is available against cadherins, a family of calcium-dependent cell adhesion molecules that are crucial for cell-cell associations in vertebrates. The mAbs include anti-human E-cadherin, anti-mouse E-cadherin, anti-mouse P-cadherin, and anti-chicken E-cadherin. The mAbs can be used for adhesion blockade, histology, immunoblotting, and protein immunoblotting. **British Bio-technology Products. Circle 90.**

Equation-Solving Software

Version 2.4 of SolvEq equation-solving software offers increased speed for solving and studying systems of nonlinear equations. The program's unique isolation and ordering of separable sets of equations are now much faster. The program runs on IBM-compatible computers running DOS 3.1 or later with 512 kilobytes of memory. **Biosoft. Circle 91.**

Selective Electrode System

The Bio/Selective Electrode (BSE) 5500 Multi-Analysis System is a new device to measure sugars, alcohols, and organic acids that previously were not detectable by chemically selective electrodes. In the past these measurements required more sophisticated, expensive, and time-consuming techniques, such as high-performance liquid chromatogra-



phy. The BSE technique allows a technician to make a reading in as little as 20 s. The unit is 30 by 20 by 20 cm and is compatible with a variety of printers for outputting test data into reports. **Orion Research. Circle 92.**

Direct Gel Quantitation

The Lynx densitometry system now includes the ability to capture and analyze ethidium bromide-stained gels directly. It also offers gel documentation capability—at any point an inexpensive video print can be generated. The system is more than five times faster than its previous version due to advances in image processing technology. Software packages for DNA sequencing and two-dimensional gel analyses add to the versatility of the system. **Applied Imaging. Circle 93.**

DNA Sequence Reader

GelSeq is designed to help researchers enter, edit, and compare data from DNA sequencing gel x-ray film at a fraction of the cost of automatic sequence readers. The system includes analysis software and a hand-held 256 gray-level optical scanner. The film can be quickly scanned with the hand-held scanner and visualized on a video graphics array monitor. The sequencing is then entered into the software semi-automatically by using a mouse "point and click" procedure.

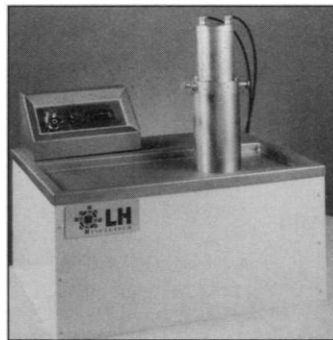
Search and edit features allow users to see the gel image side by side with the assigned sequence data. Predictor bars in each lane enhance the ease and accuracy of sequence determination. Output files are available in ASCII format for loading into other molecular biology programs. **UVP Inc. Circle 94.**

Protein Purification System

E-Z-SEP is a purification system for immunoglobulin G (IgG) and IgM monoclonal and IgG polyclonal antibody separation. The system uses a noncharged polymer network system that "entrap" the protein of interest. Several features differentiate it from traditional methods of column chromatography and membrane separation techniques, such as no salting in or out, no ionic exchange chromatography, and no dialysis needed. **Middlesex Sciences. Circle 95.**

Benchtop Cell Disrupter

The Z-series benchtop cell disruption system can operate at pressures of up to 40,000 psi for use on a wide range of difficult cells. The instrument includes a cooling system to reduce denaturing of product during cell disruption.



Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card and placing it in a mailbox. Postage is free.

The Z-series can be run on a semi-continuous basis and is directly scalable to larger systems. **LH Fermentation. Circle 96.**

Technical Time Series Software

Version 2 of VU-POINT software is for the analysis and graphing of technical time series data. Data files written by Nicolet, LeCroy, Analogic, and other brands of digital oscilloscopes can be imported, as can most binary and text files. A data space of up to 64 million points can be managed. VU-POINT supports Hercules and color graphics displays. Data can be saved as ASCII text, binary, or spreadsheet files. VU-POINT runs under DOS or Windows on IBM-compatible computers with 512 kilobytes of random access memory. **S-Cubed Division of Maxwell Labs. Circle 97.**

Literature

Tangential Membranes for Ultrafiltration and Microfiltration Applications is a brochure on highly selective polyethersulfone disc membranes. **Filtron. Circle 98.**

Biotechnology Exchange is a new monthly publication providing detailed information about technology transfer opportunities for the biotechnology industry. Each issue includes descriptions of technologies currently available for licensing from academic, government, and corporate sectors; a feature article highlighting the activities of a selected technology transfer organization; an overview of a significant or emerging area of biotechnology research; and a calendar of events. **Marketing Services Management. Circle 99.**

Working with Turbomolecular Pumps is a new handbook that describes the parameters that need to be considered to maximize pump performance and reliability. **Balzers. Circle 100.**

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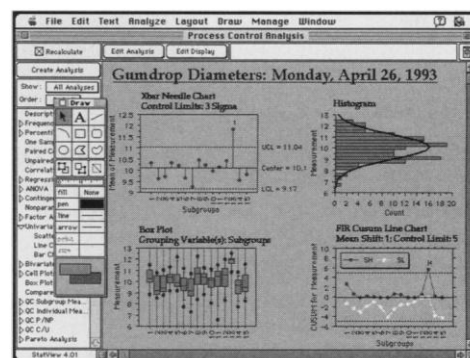
This summer, we're introducing QC Tools. QC Tools adds a "no compromise" set of QC statistics and graphs to StatView. With QC Tools, you can do Xbar, R, S, I, MR, CUSUM (with FIR), Capability, p/np, c/u, Pareto analysis, as well as ANOVA, box plots, normality plots, and all the other analyses that come standard with StatView.

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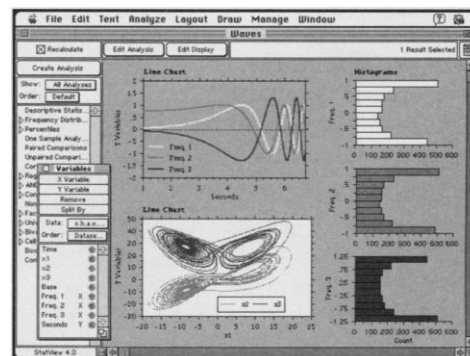
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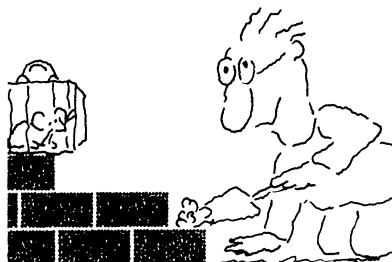
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Abstracts should be submitted on abstract forms. For further details and abstract forms, please contact Paddy Batchelder, Conference Manager, telephone: 510/426-9601, fax: 510/846-2242.

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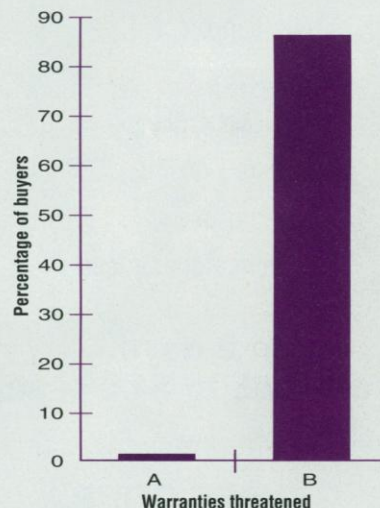


Fig. 1. A—percentage of car buyers told which brand of gasoline to buy or have their warranty voided. B—percentage of synthesizer buyers told which brand of chemicals to buy or have their warranty voided.



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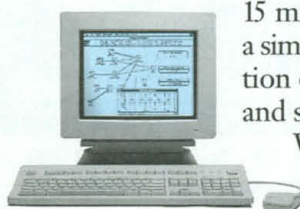
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PHYSICS—One year, **ASSISTANT PROFESSOR** (Ph.D.) or **INSTRUCTOR** (Active A.B.D.) September 1993; Experimentalist preferred, excellent teaching expected. Typical teaching load of two courses and two lab sections/semester. Eight-person faculty has research interests in astronomy, energy, nuclear physics, surface physics and physics teaching. Opportunities for modest college research funding. Screening commences July 1, 1993; applications considered until the position is filled.

Current salary range is \$24,937-\$34,859, may be higher based on qualifications, experience and increases in the New Jersey Higher Education Compensation Plan. Send letter of application, résumé, three letters of recommendation, and evidence of completion or expected date of completion of Ph.D. to: **Dr. Barbara Byrne, Dean of Natural Sciences and Mathematics; Stockton State College; AA29; Pomona, NJ 08240.** *Stockton is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.* R304159

MOLECULAR VIROLOGISTS/ONCOLOGISTS TENURE-TRACK FACULTY POSITIONS

The Department of Microbiology and Immunology, Louisiana State University Medical Center (LSUMC), invites applications and nominations for tenure-track faculty positions at the levels of **PROFESSOR, ASSOCIATE PROFESSOR, and ASSISTANT PROFESSOR.** We seek outstanding candidates with postdoctoral experience and demonstrated ability to direct an independent research program in the areas of molecular virology, viral genetics, and/or molecular investigations of HIV, oncogenes, tumor suppressor genes, or cancer. Candidates for senior positions must have a record of distinction in published research and in obtaining extramural research funding. Responsibilities include training doctoral and postdoctoral students and teaching in courses for graduate and medical students. Faculty are provided generous seed funds and participation in a research incentive plan. LSUMC and this Department are in a phase of expansion with the construction of a ten-story Biomedical Research Institute, development of Centers for Cancer and Arthritis Research, and growth of the department's doctoral program. Applicants should send curriculum vitae, a statement of research plans and funding, and three letters of reference to: **Dr. Dennis J. O'Callaghan, Professor and Head, Department of Microbiology and Immunology, Louisiana State University Medical Center, 1501 Kings Highway, Shreveport, LA 71130-3032.** *LSUMC-S is an Affirmative Action/Equal Opportunity Employer.*

The Department of Neurology, University of California, Irvine, has an opening for a Ph.D. in biochemistry at the **ASSISTANT ADJUNCT PROFESSOR** level. Candidate should have experience in teaching, HPLC, surface chemistry, bioconjugation, radioimmunoassays and primary neuron cell culture systems. Send curriculum vitae and names of three references to: **Dr. Stanley van den Noort, Chairman, 107 Irvine Hall, UCI, Irvine, CA 92715.** Refer to **Position #93-2.** *Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION

Applications are invited for a Faculty Position at the **RESEARCH ASSISTANT PROFESSOR** level, available starting January 1, 1994. The position involves teaching and research. Applicants must have a Ph.D. in respiratory physiology, and research and teaching expertise in respiratory epidemiology, biostatistics and computer analysis of large data sets related to respiratory effects of occupational and environmental exposures in various workplaces.

Send curriculum vitae and three references to: **Daniel E. Banks, M.D., Professor and Chief, Section of Pulmonary and Critical Care Medicine, P.O. Box 9166, West Virginia University School of Medicine, Morgantown, WV 26506-9166,** by June 11, 1993.

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BOTANIST—ASSISTANT PROFESSOR. The Biology/Microbiology Department at South Dakota State University invites applicants for a nine-month, **tenure-track** teaching/research position. Responsibilities will include teaching an introductory botany course, involvement in introductory biology program and developing advanced course(s) in expertise area. Development of a collaborative research program in area of expertise and pursuit of extramural funding support expected. The successful applicant must have a Ph.D. in botanical science or closely related area earned by January 1, 1994. Effective teaching ability or potential, skill in communicating with students, effective interpersonal relations skills, and evidence of research capability required. Candidates with a broad background in plant biology will be given preference. One year of postdoctoral research and experience in grant writing and generating extramural funding desirable. Specific area of research is flexible. Send letter of application with curriculum vitae, statements of teaching goals and research interests, documentation of experience related to the position's expectations and three letters of reference to: **Dr. Chuck McMullen, Head, Department of Biology/Microbiology, South Dakota State University, Box 2207B, Brookings, SD 57007.** Telephone: 605-688-6141. Review of applications begins July 6, 1993, and the position will remain open until filled. Starting date is negotiable. *Affirmative Action/Equal Opportunity Employer/Americans with Disabilities Act, reasonable accommodations 605-688-4128 (T/T/Voice 605-688-4394).*

EVOLUTIONARY BIOLOGIST

Princeton University invites applications for a tenure-track position in the Department of Ecology and Evolutionary Biology. We anticipate filling the position at the level of **ASSISTANT PROFESSOR**, but a more senior appointment is possible for truly exceptional candidates. We are particularly interested in receiving applications from individuals using modern approaches to study evolutionary mechanisms, either phylogenetic processes of diversification or the genetic basis of microevolution. Applicants should have a strong commitment to teaching and a well-developed conceptual basis to their research. A statement of research interests, reprints of three publications and three letters of recommendation should be sent to: **Dr. Peter R. Grant, Department of Ecology & Evolutionary Biology, Guyot Hall, Princeton University, Princeton, NJ 08544-1003.** The closing date for applications is September 4, 1993. *Princeton University is an Affirmative Action/Equal Opportunity Employer.*

BIOLOGICAL OCEANOGRAPHER

We seek a Ph.D. marine microbial ecologist for a 9-month, tenure-track position at the **ASSISTANT PROFESSOR** level to begin in August 1994. The position involves research, teaching at the graduate and undergraduate levels, and service. Applicants may have research interests in the microbes of either the water column or the benthos. Send a letter describing research interests, curriculum vitae, and the names, addresses and telephone numbers of three references to: **Search Committee, Department of Oceanography, Florida State University, Tallahassee, FL 32306.** Application review will begin in July 1993 and continue until a suitable candidate is found. *The university is an Equal Opportunity/Affirmative Action Employer.*

Postdoctoral Opportunities In The Biomedical Sciences.

Listed below are a few of the outstanding opportunities for conducting research that are now available with leading scientists at the National Institutes of Health.

Cancer Epidemiology **Joseph F. Fraumeni, Jr., MD**

Opportunities for research in epidemiology include studying the role of occupation, radiation, diet/nutrition, genetics, infectious agents, lifestyle factors, medications, and environmental pollution in the development of cancer. Emphasis is placed on interdisciplinary studies that combine epidemiologic and experimental approaches. Fellowships in biostatistics and methods development are also available. Applications are accepted on a continuing basis from candidates with a variety of academic, clinical and research backgrounds. Epidemiology and Biostatistics Program (OE-34), NCI, EPN, Room 543.

Cellular Biology of Alzheimer's Disease **Benjamin Wolozin, MD, PhD**

The biochemical pathways contributing to Alzheimer's disease are being investigated using cell lines of human olfactory neuroblasts obtained from Alzheimer's patients and control donors. Immunohistochemical and molecular techniques are then employed to investigate the biology of amyloid precursor protein and its interaction with G proteins, tau protein, and second messenger systems. Applicants must have less than five years postdoctoral experience. Laboratory of Clinical Science (OE-34), NIMH, Building 10, Room 3D41.

Clinical Neurochemistry and Aminergic Mechanisms **David S. Goldstein, MD, PhD**

Central and peripheral mechanisms of stress and neurologic disorders are being studied in humans and laboratory animals in order to better understand neural cardiovascular regulation. Procedures utilized include HPLC assays for the detection of biogenic amines and their metabolites, PET scanning, tracer catecholamine kinetics, direct sympathetic nerve recording, and *in vivo* microdialysis. Clinical Neuroscience Branch (OE-34), NINDS, Building 10, Room 5N262.

Control of DNA Replication **Dhruba K. Chattoraj, PhD**

Mechanisms that regulate initiation of DNA replication are being studied using plasmids of *E. coli* both *in vivo* and *in vitro*. Current projects in the laboratory include quantitative analysis of DNA-protein interactions, protein structure-function relations, and mechanisms of chaperone mediated protein folding. Candidates should have a background in molecular genetics, and preferably protein purification, and less than three years postdoctoral experience. Laboratory of Biochemistry (OE-34), NCI, Building 37, Room 4D18.

Eucaryotic Cell Morphogenesis **Enrico Cabib, PhD**

Yeast cell walls and septa are used as models for morphogenesis in eucaryotes. Experimental approaches range from enzymology and molecular biology to ultrastructural studies. Topics under study include mechanisms of activation of chitin synthetase zymogens and the function of GTP-binding proteins in glucan synthesis regulation.

Experience in yeast genetics and molecular biology is required. Laboratory of Biochemistry and Metabolism (OE-34), NIDDK, Building 10, Room 9N115.

Molecular Biology of Retrovirus Replication **Judith G. Levin, PhD**

Replication of HIV and other mammalian retroviruses is being investigated using genetic, biochemical, and molecular biological techniques. Current work is focused on two areas of interest: structure-function studies of reverse transcriptase and the molecular mechanisms involved in translational control of retroviral *pol* gene expression. Applicants should have a background in molecular biology and biochemistry. Laboratory of Molecular Genetics (OE-34), NICHD, Building 6B, Room 216.

Neurocytobiology **Maria Spatz, MD**

Cell cultures derived from cerebrovascular cellular elements and glia are established to conduct studies on receptors and receptor-mediated signal transduction involved in ischemic injury. At least two years experience in clinical and basic studies of cerebral ischemia and trauma, and in the establishment of long-term brain cultures, is required. This position may lead to a tenure-track appointment. Stroke Branch (OE-34), NINDS, Building 36, Room 4D04.

Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings you may access the NIH EDNET Bulletin Board's POSTDOC conference by Internet (cu.nih.gov) or via modem (1,301-402-2221 or 1,800-358-2221). The settings for modem access are "7,Even,1". When connected to NIH, type in ",vt100" at the connect message, "F5E" at initial, and "AJL1" at account.

The Postdoctoral Research Fellowship Opportunities catalog may be requested from the address below. An electronic version of the catalog may be accessed via the network-based (Internet) Gopher Information System. To access the NIH Gopher server, Gopher client software (available via anonymous ftp "boombox.micro.umn.edu") must be running on your computer and configured to point to "gopher.nih.gov", port "70". Select NIH Information to reveal the NIH Office of Education directory. Those interested in receiving information on other postdoctoral opportunities, clinical training opportunities, or accessing Gopher may contact the Office of Education, Building 10, Room 1C129. Phone: 301-496-2427.

To Apply

If you hold a graduate doctoral degree (e.g., PhD, MD/PhD) or a professional degree (e.g., MD, DO, DDS, or DVM) accompanied by previous laboratory research experience, and would like to be considered for one of these positions, please send a cover letter, *curriculum vitae*, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



National Institutes Of Health

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POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOCHEMISTRY. Tenure-track position in the Department of Chemistry, available January 1, 1994. Duties include teaching graduate and undergraduate courses and establishment of an externally funded research program. Research interests in plant or environmental biochemistry, or bio-organic chemistry preferred. A Ph.D. with a strong background in chemistry required; postdoctoral experience desired. Submit résumé, research plans, and three letters of reference by July 15, 1993, to: **Dr. Gregory Boyer, Faculty of Chemistry, State University of New York—College of Environmental Science and Forestry, Syracuse, NY 13210.** *SUNY-CESF is an Equal Opportunity/Affirmative Action Employer. Women and Minorities are especially encouraged to apply.*

FACULTY POSITIONS IN THE RADIATION SCIENCES

The Medical Research Council of Canada Group in the Radiation Sciences, Université de Sherbrooke, seeks applications for three tenure-track positions at the **INSTRUCTOR, ASSISTANT or ASSOCIATE PROFESSOR** level. Applicants should have research interests relevant to photo- or radiobiology and have expertise in either tumor immunology/biology, molecular biology, pharmaceutical chemistry or medical imaging. A Ph.D. and postdoctoral experience are required and applicants should be capable of developing an externally funded research program. Associate professor candidates must already have independent grant support.

In accordance with Canadian law, this announcement is initially directed towards Canadian citizens and resident aliens, but all applications will be considered. Send curriculum vitae, description of research interests and arrange for three letters of recommendation to be sent to: **Johan van Lier, Ph.D., Chairman, Department of Nuclear Medicine and Radiobiology, Faculty of Medicine, Université de Sherbrooke, Sherbrooke, Québec, Canada J1H 5N4.**

HUMAN BEHAVIORAL PHARMACOLOGIST

Applications are invited for a tenure-track position in the Department of Psychiatry and Human Behavior at the University of Mississippi Medical Center. The position will be at the **ASSISTANT or ASSOCIATE PROFESSOR** level, depending upon qualifications. Candidates should have a Ph.D. in Psychology, Pharmacology or Neuroscience and/or M.D. with expertise in behavioral pharmacology using human subjects. The successful candidate will be expected to develop an externally funded research program in human behavioral pharmacology and to establish collaborative relations with other scientists within the department. Salary will be commensurate with rank and start-up funds and space are available. Applicants should send curriculum vitae, a statement of current and future research goals and names of three references to: **William L. Woolverton, Ph.D., Chair of Search Committee, Department of Psychiatry and Human Behavior, the University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216.** Applications will be accepted until August 31, 1993. *Equal Opportunity Employer, M/F/D/V.*

ASSISTANT OR ASSOCIATE PROFESSOR

Applications are invited for a tenure-track faculty position in the Department of Microbiology and Immunology at Loyola University Chicago, Stritch School of Medicine. We are seeking a talented teacher/investigator to join our energetic and highly interactive faculty. The applicant will coordinate the microbiology and immunology course for medical students and develop an independent, high-quality research program. Excellent new facilities and attractive start-up funds are available.

Submit curriculum vitae, statement of teaching/research interests and goals, and three letters of recommendation to: **Dr. Katherine L. Knight, Chairperson, Department of Microbiology and Immunology, Loyola University Chicago, Stritch School of Medicine, 2160 South First Avenue, Maywood, IL 60153.**

Loyola University Chicago is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR position to conduct research in potassium channel structure and function and teach graduate students. Requirements: Ph.D. in cell biology (with formal courses in molecular biology), four years of postdoctoral training in ion channel regulation and biophysics, three years of teaching university students, and research experience in molecular biological techniques including site-directed mutagenesis, DNA sequencing, cDNA library construction and the PCR; as well as electrophysiological techniques including two-electrode voltage clamp, patch clamp and single channel analysis. At least five research publications in peer reviewed journals in required areas of research, of which at least two are as primary author. Send curriculum vitae and names and addresses of three references to: **Mr. Richard Sessions, Vollum Institute, L474, Oregon Health Sciences University, Portland, OR 97201-3098.** Recruitment period is 30 days after publication of this ad. *OHSU is an Equal Opportunity/Affirmative Action Employer.*

ASSOCIATE OR FULL PROFESSOR, GENETIC/MOLECULAR MECHANISMS OF DISEASE. The Department of Comparative Medicine, Schools of Medicine and Dentistry, University of Alabama at Birmingham (UAB), invites applications for a tenure-track position at the rank of Associate or Full Professor. We seek an independent investigator of genetic and molecular mechanisms in disease pathogenesis, with a strong commitment to development and use of animal models of human diseases. Investigators using novel approaches to gene transfer and expression, development of new embryonic stem cell systems (e.g., rat or rabbit), improved gene knockout or other innovations in animal modeling are encouraged to apply. Teaching responsibilities are modest and primarily at the graduate level. The Department of Comparative Medicine cosponsors with the Department of Pathology the Graduate Program in Molecular and Cellular Pathology, and has an NIH-funded training program. UAB is a research intensive university ranked 17th in NIH funding. Send curriculum vitae to: **J. Russell Lindsey, Chair, Department of Comparative Medicine, Schools of Medicine and Dentistry, UAB, Birmingham, AL 35294-0019.** *UAB is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT CHAIR

The Department of Neurobiology and Physiology, Northwestern University, Evanston, invites applications for the position of Assistant Chair. This is a regular, full-time, non-tenure-track position with the rank of lecturer. The Assistant Chair's duties include project management, planning analyses, assistance in the writing of grants, development of industrial relations, administration of graduate recruitment, coordination of graduate training and research. Candidates must have a Ph.D. in life sciences; administrative and academic experience is preferred. Send curriculum vitae and arrange for three letters of reference to be sent to: **Dr. David Ferster, Associate Chair, Department of Neurobiology & Physiology, Northwestern University, 2153 North Campus Drive, Evanston, IL 60208.** Applications will be evaluated as they are received with the final deadline set at August 1, 1993. *Northwestern University is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon eligibility to work in the United States.*

COORDINATOR OF MICROVASCULAR RESEARCH: Research Faculty Position, Department of Emergency Medicine, Louisiana State University Medical Center in Shreveport. Activities include independent research; collaboration with other investigators; supervision of students and Emergency Medicine resident projects; consultation on statistical analysis, research design, methodology, grant writing, and research teaching. Contact: **Donna Carden, M.D., Louisiana State University Medical Center; P.O. Box 33932; Shreveport, LA 71130-3932.** *LSUMC-S is an Equal Opportunity Employer.*

ANATOMY FACULTY

The American University of the Caribbean, School of Medicine in Montserrat, West Indies, seeks Anatomy Faculty. Send résumé to: **P.O. Box 400, Montserrat, West Indies.** FAX: (809) 491-2913.

POSITIONS OPEN

TWO STAFF POSITIONS

Department of Chemistry, Indiana University

(1) **ASSISTANT COORDINATOR FOR GENERAL CHEMISTRY:** Manage and train staff for freshman laboratories; help faculty develop new experiments and lecture demonstrations; act as safety officer for teaching laboratories. Requirements: B.S. or M.S. degree in chemistry or related area; at least one year of laboratory experience. (2) **MANAGER OF INSTRUCTIONAL COMPUTING:** Responsible for development and operation of undergraduate instructional computing, including two instructional computer rooms; assist staff with computer needs. Requirements: B.S. or M.S. degree; experience with computers. Submit résumé and names of three references by June 15, 1993, to: **Prof. Dennis G. Peters, Associate Chairman, Department of Chemistry, Indiana University, Bloomington, IN 47405.**

DIRECTOR, SOUTHEAST POULTRY RESEARCH LABORATORY. Supervisory Veterinary Medical Officer, GM14/15, (\$56,627 to \$86,589 per annum), Agricultural Research Service (ARS), USDA, Athens, Georgia. The incumbent participates in the planning, conducting and reporting of research directed toward improving immunization programs, developing methodology to monitor local and systemic immune responses, and conducting a variety of fundamental and applied studies needed for the control and eradication of poultry diseases. The Laboratory staff consists of scientists, engineers and 22 support staff who are responsible for providing research support for the U.S. poultry industry and specifically for the USDA's Animal and Plant Health Inspection Service's prevention and control activities for Newcastle disease, avian influenza, and *Salmonella enteritidis* in poultry. ARS invites Veterinarians with a Ph.D. in Microbiology or related Health Science and an in-depth knowledge of animal health to apply. Experience in leading a research team; experience in facility management, and training or experience in biological containment or biological safety is also desirable. *Applicants must be U.S. citizens.* For additional information about the position and the application requirements contact: **Carol Gramlich, USDA, ARS, PD, 6305 Ivy Lane, Room 341, Greenbelt, MD 20770-1435, Telephone: (301) 344-1507.** Applications in response to this advertisement should be marked **ARS-D35-022(S-3-008).** Applications must be postmarked by July 9, 1993. *USDA, ARS is an Equal Opportunity Employer.*

HEAD, IMMUNOLOGY DEPARTMENT

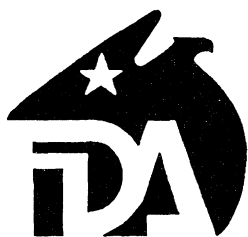
HOLLAND LABORATORY AMERICAN RED CROSS BIOMEDICAL SERVICES

The Holland Laboratory is expanding its research program with the establishment of a Department of Immunology that will carry out basic research in fields of immunology that are important for blood transfusion and transplantation. Nominations and applications are sought for the position of Department Head. The individual will be expected to develop an outstanding research program and to interact productively with other basic and applied groups at the Holland Laboratory. Resources are available to ensure that a distinguished department can be established.

Candidates must have a record of strong research productivity in cellular immunology, mechanisms of immune tolerance, autoimmune disease, or other topics consistent with a program in transfusion biology. Individuals must have leadership skills and evidence of national or international recognition.

Please send nominations, inquiries and applications, including complete curriculum vitae, to: **Leon W. Hoyer, M.D., Director, Holland Laboratory, 15601 Crabbs Branch Way, Rockville, MD 20855.**

Washington, D.C.: **FACULTY POSITION** in Hematopoiesis Research. Long-term funded, challenging position for development of strategies for stem cell transplantation. Rank and salary commensurate with accomplishments for individual with Ph.D. and experience in hematopoietic stem cell biology. Address inquiries and curriculum vitae to: **Amitabha Mazumder, M.D., Director, BMT Program, Lombardi Cancer Center, 3800 Reservoir Road, N.W., Washington, DC 20007.**



CHALLENGING BIOMEDICAL EMPLOYMENT OPPORTUNITIES

DHHS/PHS/FOOD AND DRUG ADMINISTRATION CENTER FOR BIOLOGICS EVALUATION AND RESEARCH CENTER FOR DRUG EVALUATION AND RESEARCH

The Centers for Biologics and Drug Evaluation and Research are searching for **outstanding Physicians and Scientists** interested in a challenge by participating in the development and approval process for new biological and drug products. Physicians and scientists serve on multidisciplinary scientific teams of highly skilled professionals. Duties may include reviewing and evaluating Investigational New Drug applications and biological product license or new drug applications; reviewing proposed labeling; evaluating adequacy of the methods, facilities and controls used for manufacture of biologics and/or drugs, and summarizing findings and making recommendations for approval or non-approval of applications. Some positions offer the unique opportunity to conduct biomedical research in combination with review responsibilities. These positions have a high degree of independence and involve complex medical, scientific, and regulatory issues. Opportunities for professional development may include further training, attendance at scientific meetings and conferences, and clinical activities.

Qualifications: Physicians must have completed all requirements for a Doctor of Medicine or Osteopathy Degree from an accredited institution. Graduates of foreign medical schools must submit a copy of their permanent Educational Commission for Foreign Medical Graduates (ECFMG) certification. Physicians should be board eligible or certified in a primary specialty or have completed at least four years residency training or possess equivalent experience. A background combining research experience with clinical medicine is preferred along with specialty training and expertise in one or more of the following areas: oncology, infectious diseases, hematology, rheumatology, epidemiology, pediatrics, pulmonary diseases, allergy, immunology, parasitic diseases, pathology, pediatric pulmonology, gastroenterology, or related disciplines. For scientists, doctoral level degrees in biological or physical sciences, pharmacology, toxicology, or related disciplines, along with advanced training and/or experience in the development, manufacture or testing of biologics, drugs and/or antibiotics is desirable.

For all candidates, experience in the pharmaceutical industry along with computer applications would be desirable. In addition, candidates should have highly developed analytical, written and oral skills, as well as the ability to research problems and issues and to use mature judgment in problem solving.

Candidates for Civil Service or Commissioned Corps appointments must be U.S. citizens. Candidates for Fellowships may be either U.S. citizens or resident aliens eligible for citizenship within four years.

Location: Offices and laboratories are strategically located on the campus of the National Institutes of Health in Bethesda, Maryland, or in several locations throughout the Rockville, Maryland, area.

Salary: For physicians, Civil Service salary range for GS-13 through GS-15 is \$59,099 to \$91,029. In addition, some positions may include a Physicians' Comparability Allowance. For scientists (other than M.D.), Civil Service salary range for GS-11 through GS-15 is \$33,623 to \$86,589. Salary, benefits, research support, and level of responsibility are commensurate with education and experience. Also, positions may be filled by appointment in the U.S. Public Health Service, Commissioned Corps, or in the Fellowship Program, with commensurate salary and benefits.

How To Apply: Interested candidates should send an Application for Federal Employment (SF-171) and/or current detailed Curriculum Vitae along with bibliography, statement of regulatory/research interest, transcripts, and names of three references to:

FDA/Center for Biologics Evaluation & Research
Attention: Ms. Blumenthal (71)
Suite 200N - HFM-125
1401 Rockville Pike
Rockville, Maryland 20852-1448

FDA/Center for Drug Evaluation and Research
Attention: Ms. Alderman
Rm. 6B-05 - HFD-20
5600 Fishers Lane
Rockville, Maryland 20857

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NATIONAL INSTITUTE OF MENTAL HEALTH

STAFF FELLOWSHIP

The NIMH is seeking a Staff Fellow with Ph.D. and at least 3 years research experience beyond the Ph.D. to conduct animal studies on the neuronal mechanisms relevant to schizophrenia. Demonstrated expertise in studies on cortical regulation of subcortical dopamine system, and experience with stereotaxic lesioning of adult and neonatal rats, performing microdissection and histological evaluation of brain tissue, microdialysis as well as receptor binding and/or in situ hybridization techniques required. Expertise in behavioral testing and use of computers in data acquisition is necessary. Training in neurochemistry and behavioral pharmacology desirable. Salary approximately \$38,000 - \$42,000 per annum. U.S. citizenship required. Send curriculum vitae, brief statement of research achievements, and names of 3 references to:

Dr. Daniel R. Weinberger
Clinical Brain Disorders Branch
Neuroscience Center at
St Elizabeths Hospital
WAW Building, Room 500
Washington, DC 20032



NIMH is an Equal Opportunity Employer

DEPARTMENT OF MICROBIOLOGY, UNIVERSITY OF MASSACHUSETTS, AMHERST FACULTY POSITIONS

The Department of Microbiology at the University of Massachusetts, Amherst has three faculty openings. We are seeking individuals with a strong research background that will complement established research and teaching programs in our department. Each of the three positions is open at the Professor, Associate Professor, or Assistant Professor (tenure track) level. We plan to fill two of the positions at the Assistant Professor level, and the other at a senior level. Candidates must have a Ph.D. degree with postdoctoral research experience preferred. Each appointee will be expected to develop an independent, extramurally-funded research program. A commitment to high-quality teaching is essential. Salary is commensurate with qualifications and experience.

Positions are available in the following areas:

Prokaryotic diversity. We are seeking an investigator interested in the metabolic diversity of prokaryotes, with demonstrated experience in combining the techniques of biochemistry and genetics for the study of biological processes that occur in prokaryotic cells.

Microbial genetics. We are particularly interested in applicants studying contemporary genetics problems such as the evolution of genomes, regulation of gene expression, or plant-bacterium interactions, in novel microorganisms.

Host-parasite interactions. We are seeking a candidate whose research encompasses biochemical aspects of microbial pathogenesis, particularly in mammals.

Our department has a long-standing tradition of excellence in the physiology, genetics, and ecology of diverse microorganisms, as well as in immunology and virology. Extramurally-funded research groups are active in all the above-mentioned areas. The department maintains vigorous undergraduate and graduate programs in Microbiology, and faculty members are associated with interdepartmental graduate programs in Molecular and Cellular Biology, Neuroscience and Behavior, and Organismic and Evolutionary Biology.

Mail applications including *curriculum vitae*, description of current research, statement of future research plans, and names and addresses of three references to: **Chair, Faculty Search Committee, Department of Microbiology, University of Massachusetts, Amherst MA 01003.** Deadline for applications is Sept. 30, 1993, or until suitable candidates are identified.

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RESEARCH

Join Our Family.

One of Connecticut's leading health care systems, combining the resources and caring values of Saint Francis Hospital & Medical Center, Mount Sinai Hospital, and BlueRidge Center, is seeking candidates for the position of

RESEARCH SCIENTIST

Bone Biology
Saint Francis Campus

Candidates will join our NIH-supported Bone Biology Laboratory, to work on molecular and cellular biology of the bone. Completion of a doctoral degree and a postdoctoral fellowship is required, with prior molecular and cellular biology experience. Candidates will be eligible for an appointment at the University of Connecticut School of Medicine.

Interested candidates should send a resume and references to: **Dr. Ernesto Canalis, Director, Department of Research, Saint Francis Hospital and Medical Center, 114 Woodland Street, Hartford, CT 06105-1299**



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Our work in thrombosis and inflammation has the potential to dramatically improve both treatment and prevention of related cardiovascular diseases. This promises to be an exciting year at Corvas International as we move our family of product candidates toward commercialization. We seek highly motivated individuals with expertise in the following disciplines:

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Our beautiful Torrey Pines location places us in the midst of academic and institutional research excellence, as well as the area's expanding biotech industry. We offer competitive compensation packages and more importantly, a highly interactive and stimulating scientific environment. For consideration, please send a CV and a letter of interest to: Corvas International, Inc., Human Resources, 3030 Science Park Road, San Diego, CA 92121. Equal Opportunity Employer.

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Roche Institute of Molecular Biology

POSTDOCTORAL POSITIONS SYNAPSE DEVELOPMENT

Two postdoctoral positions are available immediately to study the molecular mechanism of synapse formation. 1) physiological studies on the neurotrophic regulation of synaptic development and plasticity. Experience in patch-clamp techniques is required. Also desirable is a background in biochemistry, pharmacology or immunocytochemistry. 2) molecular characterization and cloning of factors that regulate various aspects of synapse development and signal transduction events associated with it. Requires experience in biochemistry and molecular biology. Some experience in electrophysiology is desirable.

The Roche Institute is an independent academic research institute equipped with state-of-the-art research facilities and located in a suburban setting 10 miles west of New York City. Salaries and benefits are competitive. Training will be provided in both electrophysiology and biochemistry/molecular biology. Interested applicants should send a curriculum vitae and the names, addresses and phone numbers of three references, and a brief description of research experience and interests to: **Dr. Bal Lu, Roche Institute of Molecular Biology, Nutley, NJ 07110.** We are an equal opportunity employer.

ROCHE**Hoffmann-La Roche**

The Rockefeller Foundation POSTDOCTORAL POSITION IN AGRONOMY (SOIL FERTILITY)—MALAWI

The Rockefeller Foundation seeks a postdoctoral agronomist for a Foundation-funded program of maize research in Malawi. Over 80% of the Malawian population relies on maize as a staple food. The crop is planted on approximately 70% of arable smallholder land each year. Most of the maize varieties grown are unimproved and of relatively low yield potential. The Government of Malawi's Department of Agricultural Research has developed an interdisciplinary maize improvement research plan that is being implemented with Foundation support. The Malawi maize research team consists of a small but well-qualified group of national scientists.

The successful applicant will have an excellent academic record, developing-country field work experience and the ability to work cooperatively as a member of a research team. Practical soil lab experience is essential. The agronomist will provide soil and plant analyses for ongoing field agronomy programs. He or she will develop innovative research ideas, in collaboration with Malawian colleagues and within the research priorities of the maize research team, to help increase crop productivity on depleted smallholder soils.

The maize agronomy program is developing improved production technologies that address the critical production constraint of low soil fertility. Agronomists are studying improved soil fertility management practices using high analysis fertilizer, biological nitrogen fixation, and intercropping, in collaboration with the agroforestry researchers in the Department of Agricultural Research and in the regional program of the International Centre for Research in Agroforestry (ICRAF).

The position will be based at Chitedze Research station outside Lilongwe, the capital of Malawi, but will require extensive field work throughout Malawi. The Lilongwe office of the Rockefeller Foundation will provide local logistical support for the post but the appointee will work under the direction of the National Maize Research Coordinator. Within this environment, he or she will be expected to contribute positively toward the detailed formulation and implementation of appropriate research activities.

Interested candidates should send a letter by June 20, 1993, indicating why they are qualified for and interested in the position, enclosing a current curriculum vitae to:

Malawi Postdoctoral Search
Agricultural Sciences Division
The Rockefeller Foundation
1133 Avenue of the Americas
New York, New York 10036

The Rockefeller Foundation is an Equal Opportunity/Affirmative Action Institution.

Mitotix, Inc., a well-funded new biopharmaceutical company, is developing cell-cycle based therapeutics for cancer and infectious diseases.

We are looking for creative, highly motivated and enthusiastic **Post-Doctoral Scientists** with a strong record of achievement in either the academic or industrial environment.

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Protein biochemists, with experience in protein purification and characterization and/or peptide chemistry.

Structural biologists, with experience in macromolecular computer modeling and/or protein structure determination by physicochemical methods.

Two-year Fellowships will be awarded, with the possibility of a third year, based on performance. We offer competitive salaries and benefits, a wonderful location in the heart of Cambridge's scientific community, and the chance to work with leading science and business professionals. We are strongly committed to research and encourage participation in scientific meetings and publication of scientific results.

Send a curriculum vitae and the names and addresses of three references to: Giulio Draetta, Vice President for Biological Research, **Mitotix, Inc.**, One Kendall Square, Building 600, Cambridge, MA 02139, USA. An Equal Opportunity Employer.

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**1993 ALBANY CONFERENCE
MOLECULAR MECHANISMS OF DRUG RESISTANCE
SEPTEMBER 9-12, 1993**

THE 1993 ALBANY CONFERENCE ENTITLED "MOLECULAR MECHANISMS OF DRUG RESISTANCE" will bring together an international grouping of experimental scientists to present their work on the strategies by which microbial and neoplastic cells evade the actions of drugs. A strongly interdisciplinary program is planned, organized into five sessions based on the molecular mechanisms involved. In each session, results derived from work on a variety of organisms will be presented and efforts will be made to generalize from this interdisciplinary base. Resistance mechanisms to be considered will include drug inactivation, target modification, permeability, and transport; where the underlying molecular genetic principles are understood, they are to be discussed as well. Systems to be evaluated are bacteria, parasites, viruses and neoplasms. In addition, a workshop devoted to *Mycobacterium tuberculosis* will explore current efforts to understand the genetic and mechanistic bases of multidrug resistance in this organism.

The scheduled speakers are - **Keynote:** Julian Davies

Permeability and Membranes: Nicola Carter, Doris Cully, Ronald Kaback, Hiroshi Nikaido, Tom Tritton; **Drug Efflux:** Michael Gottesman, Stuart Levy, Sarah Volkman; **Target Modification/Amplification:** Stephen Beverley, Alex Tomasz; **Drug Resistance in TB:** Julia Inamine, William Jacobs, Douglas Smith, Douglas Young; **Drug Inactivation:** Eric Cundliffe, James Knox, Kenneth Tew; **Novel Drug Design/Overcoming Resistance:** Robert Jackson, Fred Oppenheims

THE CONFERENCE will begin with an opening session on Thursday evening, September 9, and continue until noon on Sunday, September 12.

CONFERENCE FEE: \$475 includes registration, accommodations (double occupancy) meals and transportation between the conference center and Albany Airport.

FOR FURTHER INFORMATION call conference coordinator Carole Keith at 518-442-4327; Fax: 518-442-4767; E-mail: carole@uacsc2.albany.edu - Or write: 1993 Albany Conference, PO Box 8836, Albany, NY 12208-0836 USA.

SPONSORING INSTITUTIONS: Wadsworth Center for Laboratories and Research, New York State Department of Health; The University at Albany, SUNY; Albany Medical College; Nucleic Acid Technologies Foundation.

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Our entrepreneurial environment naturally evolves as a function of our mission: the development of recombinant DNA-based human therapeutics, utilizing the principles of cellular and molecular biology...through rapid product development and innovative commercialization strategies. We currently have a position in our Neurobiology Department for the following professional:

Research Associate

Candidate must have a BA/BS or MS degree in Biology or a related field, with 3+ years of relevant experience. Your responsibilities will include stereotaxic small animal surgery, radioligand binding and autoradiography, as well as neurochemical, enzyme and signal transduction studies.

At Amgen, our employees work in an environment that provides the freedom to manage their projects, regulate the quality of work and make decisions within company goals. And we back this freedom with a compensation and benefits package that reflects the level of our commitment. Interested candidates should submit their resume, for confidential consideration, to: Amgen Inc., Staffing, Job Code OA-SC-JC-009, Amgen Center, Thousand Oaks, CA 91320-1789.

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**CELL BIOLOGY
ASSAY DEVELOPMENT**

ONYX Pharmaceuticals is a young and vibrant company devoted to the discovery and development of cancer therapeutics through research into molecular oncology mechanisms. We are seeking a highly motivated scientist, interested in a very stimulating and challenging environment, to join our Drug Discovery group.

The successful candidate will have completed a postdoctoral fellowship with at least three years of subsequent experience in assay development at a pharmaceutical company. This person will propose and develop novel screens as well as evaluate active compounds. Broad experience with a variety of assays for small molecule inhibitors, including cell-based, receptor and enzyme-linked approaches is desirable.

ONYX is located in pleasant surroundings, north of Berkeley, California. A highly interactive atmosphere prevails, where publications and open discussions are encouraged. The current scientific team is a very motivated group with a strong interest in creating a world-class pharmaceutical company. If you are interested in joining us, please send your resume and a list of references to: ONYX Pharmaceuticals, Department D, 3031 Research Drive, Richmond, CA 94806. EOE.

ONYX
PHARMACEUTICALS

SCIENTISTS

Emisphere Technologies, Inc., a publicly held company, is developing its breakthrough, patented **oral drug delivery technology** and is currently conducting a search for scientific personnel. Emisphere offers a stimulating work environment and a competitive compensation package, including an excellent opportunity to participate in the success of the Company through an employee stock option plan. Positions Available Include:

PEPTIDE CHEMIST

Candidates must have a minimum of five years hands-on experience in the area of peptide chemistry, solution and solid phase peptide synthesis, and the structure identification of peptide oligomers. Experience with molecular modeling software desirable. Ph.D. degree preferred, but not required.

PHYSICAL CHEMIST

Ph.D. with 1-3 years or M.S. with 5+ years experience to investigate the physicochemical properties of materials used as part of a proprietary, microsphere oral delivery system. Broad background in physical and/or **pharmaceutical chemistry** is essential with experience in the analysis of organic compounds, including polymers by MS, NMR, FTIR, HPLC, etc. Supervisory experience preferred. Please send your resume to:



Ms. Sally Love
Emisphere Technologies, Inc.
15 Skyline Drive
Hawthorne, New York 10532
Fax: (914) 347-7493

RESEARCH SCIENTIST

Houghten Pharmaceuticals Inc. (HPI), a San Diego-based drug discovery company, has a challenging opportunity for a Research Scientist to support our rapidly expanding R&D efforts in the Pharmacology Department.

Responsibilities include designing major experiments, evaluating test data, conducting and writing literature reviews for future project ideas, supervision of lab personnel, and interaction with other departments to produce products.

The ideal candidate will have a PhD in Pharmacology or Physiology with 1-3 years' postdoctoral experience. Proven ability in at least 2 of the following areas is a must: pharmacokinetics/pharmacodynamics, toxicology, cardiovascular, metabolism or musculoskeletal. Both *in vitro* and *in vivo* experience is required and previous exposure to the pharmaceutical industry is preferred.

HPI offers comprehensive benefits including relocation assistance and equity participation. For consideration, please submit your resume to:

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We wish to appoint experimental scientists to lead groups responsible for the design and implementation of our scientific activities. These positions have significant growth potential and are available in the following areas:

MOLECULAR & CELL BIOLOGY

You will be responsible for the design and development of DNA vectors that have tissue-specific function and provide for controlled activation of *in vivo* gene expression. Applicants must have a Ph.D. plus 2 to 5 years experience.

VECTOR PRODUCTION & PROCESS DEVELOPMENT

You will be responsible for the design, development and scale-up of DNA vector production and purification to GLP and GMP standards. Applicants will have a Ph.D. or a M.S. and substantial industrial biotechnology experience.

PHARMACOLOGY/PHARMACOKINETICS

Your responsibilities will be the design, development and analysis of studies to determine the behavior of DNA vectors in normal and diseased animal models. Applicants must have a Ph.D. or D.V.M. plus 5 years experience in pharmacology, pharmacokinetics or pathophysiology.

FORMULATION SCIENCE

You will be responsible for optimizing the formulation of DNA vectors. Applicants will have a Ph.D. and at least 2 years experience in the formulation of colloidal systems.

PHYSICAL AND BIOPHYSICAL ANALYSIS

Your role will be to assess the physical and biophysical characteristics of DNA vectors. You will have a Ph.D. and at least 2 years relevant experience in determining the colloidal properties of macromolecules and particulate systems.

STAFF ASSOCIATES

We wish to make a number of technical appointments in each of the areas given above. We seek individuals with demonstrated technical skills, strong work ethic, excellent academic training and a desire to learn and to grow. Candidates will have a B.S. or a M.S. plus at least 2 years experience.

GENEMEDICINE is backed by several of the most successful venture capital investors in biotechnology, has strong ties to the laboratories of its scientific founders at Baylor College of Medicine and is located close to the Texas Medical Center—the world's largest medical research facility. We offer a highly competitive compensation package including stock options. For confidential consideration, please send your CV and a letter outlining the applicability of your background for the position of interest to:

GENEMEDICINE, INC., Human Resources Director, 8080 North Stadium Drive, Suite 2100, Houston, TX 77054-1823

An Equal Opportunity Employer

GENEMEDICINE, INC.

POSITIONS OPEN

POSITION IN BIOLOGICAL SCIENCES Wagner College, Staten Island, New York

Tenure-track position in Biological Sciences effective August 23, 1993. Rank and salary determined by qualifications and experience.

Qualifications: Doctorate in anatomy and physiology or related area. Prior teaching or relevant work experience preferred. Responsibilities: Teach undergraduate courses in anatomy, physiology, endocrinology, neurophysiology and nutrition. Send letter of application, résumé, official transcripts and three letters of recommendation to: **Dr. Mildred Nelson, Vice President for Academic Affairs, Wagner College, Staten Island, NY 10301.** Applications will be reviewed immediately until position is filled. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION IN BONE BIOLOGY

Investigation of human and canine osteoblastic progenitor and stem cell populations. Selection, isolation, *in vitro* modulation, potential tissue engineering applications. Experience with PCR, Northern Blot Analysis, and/or immunohistochemistry desirable. Post (or FAX) curriculum vitae and names and telephone numbers of three references to: **Dr. George Muschler, Department of Biomedical Engineering (Wb3), 9500 Euclid Avenue, Cleveland, OH 44195; Telephone: 216-444-5338; FAX: 216-445-9506.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS

Postdoctoral positions for an NCI training program in molecular and cellular mechanisms of carcinogenesis are available at The University of Texas (UT) M. D. Anderson Cancer Center—Science Park. Research programs focus on the following areas: DNA repair and mutagenesis, carcinogen metabolism and adduct formation, tumor promotion, role of oncogenes and/or tumor suppressor genes in multistage carcinogenesis, normal and tumor cell differentiation, retrovirology, chemoprevention and nutrition in cancer. *Applicants must be U.S. citizens or permanent residents and must have a Ph.D., M.D., or D.V.M. degree.* For applications forms, contact: **Dr. Thomas Slaga, Director, UT Science Park—Research Division, P.O. Box 389, Smithville, TX 78957; Telephone: 512-237-2403.** *We are an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSTDOCTORAL POSITION

A position is available in the laboratory of **Neurotoxicology** in the Department of Environmental Health at the University of Washington in Seattle. A doctorate in basic Biomedical Sciences and previous experience in biochemistry and molecular biology are required. Expertise with cell culture and imaging techniques is desirable. The work involves the study of the regulation of receptor-activated second messenger systems and gene expression in the developing brain and their disruption by neurotoxins. The position is available for a period of 3 years and the salary is commensurate with experience. *U.S. citizens or permanent residents only.* Please send curriculum vitae and names of three references to: **Dr. Lucio G. Costa, Department of Environmental Health, SC-34, University of Washington, Seattle, WA 98195; Telephone: 206-543-2831; FAX: 206-685-4696.** *The University of Washington is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL AND GRADUATE TRAINING IN INSECT NEUROBIOLOGY

The Arizona Research Laboratories Division of Neurobiology, a unit devoted to cellular, developmental, and molecular neurobiology and neuroethology of insects, invites inquiries from prospective postdoctoral fellows and predoctoral students. Inquiries, including résumé, statement of interests and plans, and names and addresses of 3 references, should be sent to: **Dr. John G. Hildebrand, Director, ARL Division of Neurobiology, 611 Gould-Simpson Building, University of Arizona, Tucson, AZ 85721.** Positions will be filled year round through June 1994. *The University of Arizona is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION available to investigate mechanical, biochemical, and physiological aspects of smooth muscle contraction. Studies include isolated contractile proteins, detergent and alpha-toxin permeabilized fibers, and intact tissues to examine Ca^{2+} dependent regulation of contraction and G-protein dependent signal transduction pathways. Experience in muscle research desirable but not necessary. Please send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Robert S. Moreland, Bockus Research Institute, Graduate Hospital, 415 South 19th Street, Philadelphia, PA 19146.**

POSTDOCTORAL POSITION—Available immediately to study the regulation of calcium and the molecular components regulating neurohormone release at nerve endings. Experience in whole-cell or single channel recording and in optical techniques for measuring second messengers strongly preferred. Send curriculum vitae and references to: **Dr. Edward Stuenkel, Department of Physiology, University of Michigan, Ann Arbor, MI 48109-0622.** *University of Michigan is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS: Available immediately. To work on nicotinic acetylcholine receptors of nerves and muscles. Two positions: (1) an experienced molecular biologist to work on cloning, mutagenesis, and expression; and (2) an experienced histologist to use mAb and *in situ* hybridization probes to localize neuronal nicotinic receptors and do EM on expressed receptors. Send curriculum vitae and 3 reference names with addresses and FAX or telephone numbers to: **Dr. Jon Lindstrom, Department of Neurosciences, University of Pennsylvania Medical School, 217 Stemmler Hall, Philadelphia, PA 19104-6074, or FAX: (215) 573-2015.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITION available to study the molecular biology of HIV gene expression by various transcription factors and cytokine mediated signal transduction. Experience in cell and molecular biology or protein chemistry is necessary. Send curriculum vitae, names of three references, research background and interest to: **Dr. Ranjit Banerjee, Department of Neoplastic Diseases, Box 1131, The Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.** *An Equal Opportunity Employer.*

POSTDOCTORAL COLLEAGUE, to join project relating electrophysiology, Ca-handling mechanisms, secretory and morphogenic capabilities of peptidergic neurons *in situ* and culture. Experience in: patch-clamping, optical Ca measurements or video-enhanced microscopy. Training is offered in the others. Start September 1993, for 2 years; open at least until July 21, 1993. Send curriculum vitae, names of 3 references to: **Ian Cooke, Békésy Laboratory of Neurobiology, University of Hawaii, 1993 East-West Road, Honolulu, HI 96822; FAX: (808) 956-6984, Telephone: (808) 956-6776.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION. DEVELOPMENTAL BIOLOGY. One to two years beginning July 1, 1993, to study regulation of the epithelial-mesenchymal transformation of the avian somite and factors controlling the migration of sclerotome cells. Refer questions to: **Dr. Paul McGuire, Department of Anatomy, Telephone: 505-277-5555.** Send curriculum vitae accompanied by a cover letter with an original signature and two references to: **UNM Medical Center Human Resources, Medical Building 2, Room 101, Albuquerque, NM 87131-5023.** Refer to **Requisition #538-93B.** Application deadline June 25, 1993. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately to conduct electrophysiological and pharmacological studies of the inositol phosphate cascade in photoreceptors. Please submit curriculum vitae and three letters of recommendation to:

**Alan Fein, Ph.D.
Department of Physiology MC3505
University of Connecticut Health Center
Farmington, CT 06030**

An Affirmative Action/Equal Opportunity Employer, M/F/D/V.

POSITIONS OPEN

POSTDOCTORAL POSITIONS—HARVARD MEDICAL SCHOOL. Fully funded positions are currently available in two project areas: the basic virology and pathogenesis of HIV-1/AIDS; and the development of novel transduction vectors for application to gene therapy. Current work encompasses a multidisciplinary approach taking advantage of ready access to extensive clinical reagents and expertise in addition to the resources of a complete molecular biology lab, including exceptional BL3 level tissue culture facilities. Candidates should have experience in molecular biology or virology. Please send curriculum vitae and references to: **Dr. Ernest Terwilliger, New England Deaconess Hospital, CRI-5, 194 Pilgrim Road, Boston, MA 02215.**

POSTDOCTORAL POSITIONS available for the study of protein-DNA interactions, using biophysical, biochemical and molecular biological approaches. Current projects include studies of DNA unwinding by helicases and helix destabilizing proteins. Send curriculum vitae and the names of three references to:

**Dr. Timothy M. Lohman
Biochemistry & Molecular Biophysics
Washington University School of Medicine
Box 8231
660 South Euclid Avenue
St. Louis, MO 63110**

POSTDOCTORAL POSITION is available immediately to study coronavirus rhinitis in a rat model. Research will emphasize host immune responses in the development and clearance of rhinitis and in the prevention of re-infection. Applicant must hold a Ph.D., D.V.M., M.D. or equivalent degree and have demonstrable expertise in rodent immunology. The position will be supported by a fellowship from Miles Inc. for an initial appointment of 2 years at a stipend commensurate with education and experience. Applicants should send current curriculum vitae and the names of three references to: **Dr. Susan Compton, Section of Comparative Medicine, Yale University School of Medicine, P.O. Box 3333, 333 Cedar Street, New Haven, CT 06510.** *Yale University and Miles Inc. are Affirmative Action/Equal Opportunity Employers.*

EXTRACELLULAR MATRIX BIOLOGY POSTDOCTORAL POSITION

To investigate macromolecular and cell-matrix interactions in the development of extracellular matrices; or changes in gene expression modulating matrix assembly. Experience in cell, developmental and/or molecular biology required. Send a letter summarizing background and interests, curriculum vitae and the names of 3 references to: **David E. Birk, Ph.D., Department of Anatomy and Cellular Biology, Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111.**

POSTDOCTORAL POSITION available for studies of sphingolipid function in yeast, including roles in proton transport, osmotic stress and heat tolerance. Experience in membrane biochemistry or molecular biology desirable. Send curriculum vitae and the names of three references to: **Dr. Robert Dickson or Dr. Robert Lester, Department of Biochemistry, University of Kentucky Medical Center, Lexington, KY 40536-0084.**

An Equal Opportunity/Affirmative Action Employer.

UCLA SCHOOL OF MEDICINE DEPARTMENT OF PHARMACOLOGY POSTDOCTORAL SCHOLAR

Postdoctoral Scholar position is available to study the regulation of metabolism in acute and chronic animal models of myocardial ischemia and reperfusion using biochemical and molecular techniques. Applicants should have a Ph.D. or equivalent in Biochemistry or related field.

Please send applications with curriculum vitae and names of 2 referees to: **Dr. Denis Buxton, Department of Pharmacology, UCLA School of Medicine, Room B2-086 CHS, Los Angeles, CA 90024-1721.** *Equal Opportunity/Affirmative Action Employer.*

SCIENCE recruitment ads reach thousands of scientists in all disciplines, worldwide. **Classified Advertising telephone: 202-326-6555. FAX: 202-682-0816.**

BIOTECHNOLOGY
DIRECTOR OF RESEARCH

Ph.D. with demonstrated national recognition for research achievement in biochemistry, molecular biology, or cell biology. Desired areas of expertise include growth factors, receptors, signal transduction, and cell interactions. The ideal candidate will have a strong track record of scientific accomplishment. Excellent communication and interpersonal skills are essential.

Individual will be responsible for building and directing a first class research program. Duties will include leadership and active participation in research activities. Duties will also include the development of external collaborations to augment in-house research efforts. Our goals are to develop products for bone and cartilage repair. We are evaluating an osteogenic protein product in clinical trials.

Stryker Biotech is a division of Stryker Corporation, a company which develops, manufactures and markets products for the medical and orthopaedic community. Please send your curriculum vitae and references in confidence to Human Resources #100, Stryker Biotech, P.O. Box 8356, Natick, MA 01760-0053.

Research Scientist

Animal Health Product Development

Pfizer, a multinational, research-based leader in healthcare products, has a challenging opening on the staff of its Animal Health Products R&D group, Central Research Division.

Based at our Terre Haute, Indiana research facility, you will be involved in the development of new animal health/veterinary pharmaceuticals. This will involve preparation of clinical research plans and protocols to ensure that potential products meet efficacy and safety requirements for regulatory submission. As a primary investigator, you will be responsible for the conduct of clinical trial programs, primarily involving collaboration with outside investigators and also some on-station research.

This important assignment requires a PhD or a DVM plus an MS with a major in a relevant discipline or the equivalent. You should have some knowledge of the animal health industry and, preferably, some industrial research experience. Good written and verbal communications skills are essential.

We can provide all the professional and personal satisfactions of a Fortune 100 company, including a competitive salary, excellent benefits, relocation assistance and growth potential. For confidential consideration, please send your resume and salary history to: **Ms. Christina Batjer, Pfizer Inc, Box 88, Terre Haute, IN 47808.** We are an equal opportunity employer.



Central Research
Bringing science to life.

Announcement and call for abstracts for:

Conference on Advances in AIDS Vaccine Development - 1993

Sixth NCVDG Meeting

October 30 - November 4, 1993
Radisson Plaza Hotel
Alexandria, Virginia, USA



ORGANIZED BY:
Division of AIDS,
National Institute of Allergy
and Infectious Diseases, NIH

To receive conference registration and abstract submission information, please call or write to:



Debra Steward
Technical Resources, Inc.
3202 Tower Oaks Blvd.
Rockville, MD 20852
301/770-3153
FAX 301/468-2245

Deadline for abstract submission is
August 1, 1993

Challenging Post-Doctoral Career Opportunities In MOLECULAR BIOLOGY AND BIOCHEMISTRY

We are a well-funded, independent biomedical research institute located on the North Shore University Hospital campus on Long Island, convenient to New York City and Cold Spring Harbor Labs. We're looking for capable, creative professionals to work alongside noted investigators and become involved with well-established and new research projects:

- **AIDS PATHOGENESIS** – Headed by Dr. Eric Verdin, this group will focus on the mechanism of HIV-1 gene regulation with a special emphasis on the role of chromatin. Experience in molecular biology/protein biochemistry and/or immunology would be preferred.
- **HIV-MOLECULAR VIROLOGY** – Working with Dr. Michael Bukrinsky, you'll address the molecular mechanisms of HIV infection of macrophages. Expertise in molecular biology is required.
- **GENE REGULATION** – As a member of the group headed by Dr. Richard Currie, your studies will involve the post-transcriptional and translational mechanisms of TNF mRNA metabolism in relation to glucocorticoid hormone action and therapeutic control of TNF expression. Expertise in protein biochemistry and molecular biology is desired.

We can offer you an excellent salary and benefits program, commensurate with experience. For confidential consideration, please forward your "c.v.", with salary requirement and indication of position of interest, to: Human Resources Department-AHG, The Picower Institute, 350 Community Drive, Manhasset, New York 11030. We are an equal opportunity/affirmative action employer.



**The Picower Institute for
Medical Research**



LEUKON

Leukon, a recently established biotechnology company, is recruiting scientists at all levels to develop a research program focusing on the role of chemoattractants and adhesion molecules in the tissue and leukocyte subset selective recruitment of cells in inflammation. We are looking for team-oriented investigators who have demonstrated excellence and are committed to the development of novel therapeutics for acute and chronic inflammation.

We seek scientists with expertise in cell biology, molecular biology, biochemistry, immunology, and animal models of inflammation. Projects are available in the following areas: lymphocyte and granulocyte chemotaxis and interaction with endothelial cells, organ-specific lymphocyte homing, receptor-ligand interactions, identification of novel molecules on microvascular endothelium and lymphocyte subsets, expression and structure-function studies of cloned genes, and development of appropriate inflammatory disease models to evaluate lead compounds. In addition, individuals with demonstrated expertise in hybridoma work and immunohistochemistry are encouraged to apply.

We have solid venture capital funding, an outstanding scientific advisory board chaired by Dr. Timothy Springer and are located in close proximity to Harvard Medical School. Leukon offers competitive salaries, excellent health benefits, a generous relocation package and an incentive stock option plan. This is your opportunity to get in at the ground floor and have a major impact on the future of our product development. For confidential consideration, please submit a resume to: **Dr. Walter Newman, Director of Research, 800 Huntington Avenue, Boston, MA 02115.** We are an equal opportunity employer.

CHAIR, DEPARTMENT OF IMMUNOLOGY AND INFECTIOUS DISEASES THE JOHNS HOPKINS UNIVERSITY SCHOOL OF HYGIENE AND PUBLIC HEALTH

Nominations and applications are invited for the position of Chair, Department of Immunology and Infectious Diseases at the Johns Hopkins University School of Hygiene and Public Health. The mission of the Department is to advance the understanding of basic biological mechanisms involved in infectious diseases of public health importance and to apply this knowledge to the control of those diseases. Education of masters, doctoral and post-doctoral students is also at the core of the departmental mission.

The Department has ongoing research projects in the areas of host-parasite relationships, genetics, immune responses, and molecular biology. This is a dynamic department with ongoing international collaborations and strong relationships with other departments within the University. It carries out its educational and research agendas in an institutional setting that has enormous strengths in infectious diseases encompassing molecular, quantitative, clinical and policy expertise. It has an established program in AIDS research and actively participates in the multidisciplinary University-wide Center for AIDS Research. The department has approximately 50 students at the pre-doctoral level.

Candidates for this position should have strong academic and research accomplishments; proven administrative abilities; and an interest in working collaboratively with colleagues in the largest school of public health in the world (350 full-time faculty and \$100+ million research budget) and an outstanding, adjacent Hospital and School of Medicine. A broad view of infectious diseases and the ability to provide vibrant leadership are required. This person will be expected to lead the department in new directions in critical and newly-emerging diseases. High priority areas for future development may include, but are not limited to, prevention of AIDS, other Sexually Transmitted Diseases, Tuberculosis, and parasitic infections.

Nominations, applications and inquiries should be received by July 15, 1993 at the address below. Minorities and women are encouraged to apply. The Johns Hopkins University is an Affirmative Action/Equal Opportunity Employer.

Dr. Mary Lou Clements
Chair, Immunology and Infectious Diseases Search Committee
c/o Ms. Robin Fox
The Johns Hopkins University School of Hygiene and Public Health
Room 1041
615 N. Wolfe Street
Baltimore, MD 21205-2179

POSTDOCTORAL RESEARCH ASSOCIATE

The Immunohematology/Immunochemistry Research Program of the Blood Research Institute-The Blood Center of Southeastern Wisconsin seeks qualified individuals (M.D., Ph.D., and/or M.D.-Ph.D.) with research interests in either immunohematology or vascular biology plus experience/expertise in protein chemistry, molecular biology, or cell biology. Candidates for postdoctoral fellowship training or for staff appointment will be considered. Please send resume and references to: **Peter J. Sims, M.D., Ph.D., Associate Director, Blood Research Institute, The Blood Center of Southeastern Wisconsin, 1701 W. Wisconsin Ave., Milwaukee, WI 53233.** Equal Opportunity Employer-M/F/H/V.



National Institutes of Health

Loan Repayment Program for AIDS Research

➤ Almost everyone in the biomedical research community is familiar with the National Institutes of Health (NIH) and the number of grants and contracts we award to researchers throughout the country. Did you know that in this fiscal year close to 15% of our \$1 billion HIV/AIDS budget is devoted to HIV/AIDS research activities conducted at NIH's 306 acre campus in suburban Maryland? Located close to the center of Washington, D.C., the NIH employs more than 4,000 doctoral level scientists (Ph.D.'s, M.D.'s, D.D.S.'s, D.M.D.'s, D.O.'s, and D.V.M.'s), and our 500-bed clinical center is home to more than half of the research beds in the country.

➤ Did you also know that the NIH offers the only Federally sponsored, research-based loan repayment program? NIH's Loan Repayment Program for AIDS Research (LRP) enables physicians and scientists to receive repayment of their educational loans—up to \$20,000 per year—when they join our HIV/AIDS research team for a minimum service period of only two years. Other LRP benefits include reimbursement for Federal, State and local tax liabilities, and all LRP benefits are made in addition to attractive Federal salaries and associated benefits. Positions may be in basic, clinical, laboratory or

subspecialty research programs at more than eighteen NIH institutes.

➤ The NIH provides exceptional training opportunities in basic and clinical research. The following are some examples of the HIV/AIDS research projects in which our LRP participants are engaged: *a molecular analysis of the viral burden in blood and lymphoid tissue of HIV-infected individuals on antiretroviral agents; a longitudinal study of the neurological dysfunction and neuroimmunological profile in HIV-infected, asymptomatic individuals; the design and synthesis of synthetic peptide polymers for the production of anti-HIV vaccines; and a randomized trial of a sustained-released intraocular drug delivery system for ganciclovir therapy of cytomegalovirus.*

➤ The LRP may be just the program you are seeking to help manage your educational debt burden. Telephone the LRP InfoLine, 24-hours a day toll-free, at 800-528-7689, to obtain our recently updated *Applicant Information Bulletin*, a summary of our HIV/AIDS research accomplishments and plans, and a *User's Guide to the NIH EDNET*, an electronic bulletin board listing NIH's postdoctoral training opportunities.

This program is administered without regard to race, color, national origin, handicap, age, sex, or religion



**Texas A&M
University
Head,
Department of
Biology**

The College of Science, Texas A&M University, invites applications for the position of Professor and Head of the Department of Biology. The successful candidate will be a distinguished scholar who possesses an outstanding record of leadership, research and teaching. The Head provides academic and administrative guidance for a vigorous 42-member faculty whose interests span molecular, cellular, and organismal facets of animal, microbial, and plant systems. He or she will ensure that the quality of the teaching programs and research environment within the Department are maintained and enhanced. The Head will maintain an active personal research program, and will promote interaction with other academic and research units of the University, including the Colleges of Agriculture and Life Sciences, Engineering, Liberal Arts, Medicine, and Veterinary Medicine, and the Institute of Biosciences and Technology. The Department of Biology offers undergraduate and graduate degrees in molecular and cellular biology, botany, microbiology, and zoology, and participates in several interdisciplinary programs. The faculty, approximately half of whom were hired within the past seven years, secures more than \$3.5 million annually in external competitive funding to support research and innovative teaching. Several faculty members have received national honors, including three NSF Presidential Young Investigator Awards. The Department maintains excellent support facilities for terrestrial and aquatic animal care (AAALAC-approved), transgenic plant growth, and gene technology. Applicants should submit a letter of intent, curriculum vitae, and the names, addresses and telephone numbers of five references to Dr. Fuller Bazer, College of Science, Texas A&M University, College Station, TX, 77843-3257. Inquiries may be directed to Dr. Bazer, Search Committee Chair, by telephone (409-862-2659) or Fax (409-862-2662). Applications should be received by September 1, 1993, although the search will continue until a suitable candidate is identified. Texas A&M University is an Equal Opportunity Affirmative Action Employer/Educator, and is sensitive to the needs of dual-career couples.

Team Leaders and Research Investigators

MicroGeneSys is pursuing the development of novel vaccines for infectious diseases and cancer. The following positions are available for qualified individuals:

TEAM LEADERS AND RESEARCH INVESTIGATORS will participate in new and established research programs in a collaborative environment. Team leaders will direct specific vaccine and core technology programs and research investigators will participate in discovery and product development activities. Qualifications include a Ph.D. or M.D. degree with 3 or more years of post-doctoral and/or industry experience.

VIROLOGY / MICROBIOLOGY. Broad understanding of pathogenesis and host immunity in viral or microbial diseases is essential. Applicants should have a strong foundation in virology, microbiology, and molecular biology related techniques and experience in vaccine research.

PROTEIN CHEMISTRY. Strong background in the development of purification protocols for recombinant proteins is required. Experience with the purification of viral and cell membrane glycoproteins is desirable. The successful applicant will work with research groups to define the structural, biological and immunological activity of purified proteins as well as with scientists responsible for formulation and scale-up activities.

IMMUNOLOGY. Experience and strong interest in the development of vaccines for the prevention and treatment of infectious disease and cancer are required. Background in characterization of T and B cell responses, formulation and adjuvant research, and animal models is desired. The successful candidate will participate as a leader or team member with other research scientists in the discovery and development of prophylactic and therapeutic subunit vaccines.

MicroGeneSys offers a creative research environment, competitive salaries, an excellent benefit package and relocation assistance. Our campus-like facility is between the Hartford and New Haven metropolitan areas in a rural setting overlooking the beautiful central Connecticut hills. Please forward your resume and salary history in complete confidence to:



MicroGeneSys is an
Equal Opportunity Employer

MicroGeneSys, Inc.

Human Resources, Dept. TLRI
1000 Research Parkway
Meriden, CT 06450-7159

Wyeth-Ayerst Research

Wyeth-Ayerst Laboratories is a Division of Fortune 100 American Home Products Corporation, a leading manufacturer and marketer of health care products with multi-billion dollar annual sales and an impressive record of growth and profitability.

Microbiology & Biotechnology Division, Radnor, Pennsylvania POSTDOCTORAL SCIENTIST

Become an integral member of our osteoporosis research team. We would like to talk with you if you are a recent Ph.D. with training in cell biology, molecular biology or a related field. The project involves applying cell and molecular biology techniques to our studies of bone remodeling.

This is a one year appointment which may be renewed for another year. For the above position, please submit curriculum vitae to: **Wyeth-Ayerst Research, Human Resources, Position #S003S, P.O. Box 8299, Philadelphia, PA 19101.**

In Vitro Toxicology Laboratory, Princeton, New Jersey RESEARCH SCIENTIST

This scientist will be directly responsible for the operation of a laboratory developing screening procedures in *in vitro* toxicology techniques. The work will involve the screening of potential drug products for effects on target cell cultures. Requirements include a Ph.D. or equivalent in toxicology or a related discipline and 3-5 years experience in cell and tissue culture techniques. The ability to innovate the design of appropriate experiments is also required.

For the above position, please forward your curriculum vitae with salary requirements to:

**Wyeth-Ayerst Research,
Human Resources,
Position #SC-648,
CN 8000, Princeton,
NJ 08543-8000.
Equal Opportunity
Employer. M F D V.**



**WYETH
AYERST**

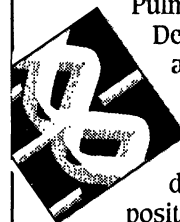
Leading The Way for a Healthier World

GENENTECH

Our focused approach to science has resulted in the richest product pipeline in our industry. As we move these human therapeutics to market, we're continually seeking top professionals to join us.

Associate Scientist/Scientist

Working in the area of
Pulmonary Drug



Delivery, you will administer peptide and protein drugs to animals and quantify the deposition and disposition of these materials.

You will be involved in the design of aerosol delivery systems and in fundamental aspects of drug delivery to, and through the lung.

You should have a PhD or equivalent in Pharmaceuticals, Physiology or related field and be familiar with aerosol and intratracheal administration of drugs to experimental animals and with chromatographic methods of drug analysis. Experience handling radioactive materials and/or knowledge of lung histology is desirable.

Genentech offers an exceptional benefits package which includes fully paid dental/medical/vision coverage for you and your dependents, child care facilities, free health club membership and a generous relocation package. For immediate consideration, please send your resume to: Genentech, Inc., Human Resources, Dept. SW/IG, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We promote and actively support affirmative action and equal employment opportunity.

Genentech, Inc.

National Institutes of Health (NIH)

SCIENTIST

The National Center for Human Genome Research seeks outstanding candidates with a Ph.D., M.D., or equivalent degree and experience in molecular biology or genetics, chemistry/biochemistry, bio-engineering, or computational biology to coordinate review of a broad spectrum of applications concerned with physical and genetic mapping, sequencing, informatics, and ethical issues related to genomic research. The position offers an exciting opportunity to join a talented team of scientists managing the Human Genome Project and shaping the future of biology and medicine. Salary range is \$40,298 to \$73,619; citizenship required. Candidates should submit curriculum vitae and names of three references to:

**Linda Engel
Chief, Office of Scientific Review
National Center for Human
Genome Research, NIH
Building 38A, Room 604
9000 Rockville Pike
Bethesda, MD 20892**

NIH is an Equal Opportunity Employer

INNOVATIVE IMAGING

Molecular Biosystems, Inc. (MBI), our dedication to quality & meaningful challenges has made us a leader in the development of contrast agents for medical imaging including ultrasound, MRI & CT.

RESEARCH ASSOCIATE

Responsible for R&D in collaboration with others for medical imaging agent projects. We require a BS Chemistry w/ 5 years laboratory experience beyond BS or MS w/ 3 years experience & demonstrated working knowledge of scientific principles. Background in data & image analysis, synthetic chemistry or biochemistry preferred. Computer experience w/ DOS/Windows & UNIX operating systems also preferred. Basic knowledge of statistical analysis of data; graphing of data using software needed. Must have excellent oral & written communications skills.

We offer competitive salaries, a comprehensive benefits package, & a pleasant working environment. Please send resume w/ salary history to:

**Molecular Biosystems, Inc.
HR Dept. A24-94
10030 Barnes Canyon Road
San Diego, CA 92121. EOE**



PENNSSTATE



**Twelfth
Summer Symposium
in Molecular Biology**
July 28-30, 1993

**"Structure/Function
Relationships In
Proteins and Enzymes"**

- I. Structure and Dynamics
of Apomyoglobin
- II. Metals in Enzymes:
Structural and Functional Roles
- III. Role of Proteins in
Regulation and Control
- IV. Molecular Recognition in
Signal Transduction Pathways

Keynote – Thomas J. Watson, Jr.
Lecture in Molecular Biology

Symposium Director: Kamal Rashid
Symposium Chair: C. Robert Mathews

Contact: Penn State Biotechnology Inst.
519 Wartik Laboratory
University Park, PA 16802
814-863-3650 or 800-833-5533



RESEARCH SCIENTIST

**Helping The Body To Heal Itself:
Bringing The Future Of Immunology
Closer To Today**

We cannot invent a better – or safer – system to fight disease than our own immune response system. Here at Immunobiology Research Institute, a Johnson & Johnson company, we are learning to harness the body's own natural ability to heal itself through powerful, non-toxic peptide drugs. Led by the world-renowned immunologist, Dr. Gideon Goldstein, and fully supported by the resources of Johnson & Johnson, IRI's scientists are conducting some of today's most far-reaching and exciting work in immunobiology.

We have an immediate opportunity for a highly motivated Research Scientist to join our Molecular Immunology Department. A PhD with 3+ years' postdoctoral experience and experience in molecular biological approaches to receptor isolation and characterization are required. Experience in cytokine/lymphokine receptor cloning and characterization is essential; a background in receptor-mediated signal transduction is a plus.

Our first-class laboratory, on our quiet university-like New Jersey campus, provides a superb research atmosphere which fosters the exploration of new ideas and the interchange of knowledge. We also offer an excellent salary, comprehensive benefits, and the opportunity to work side-by-side with some of the brightest figures in the pharmaceutical industry. If you would like to join our team, please send your resume to: Director, Human Resources Dept., Immunobiology Research Institute, Route 22 East, P.O. Box 999, Annandale, NJ 08801-0999. We are an Equal Opportunity Employer m/f/d/v.

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Miles Inc. is a leading chemical, health care and imaging technology company — a member of the Fortune 100 with one of the industry's most diverse and successful product lines. To help us ensure continued product quality, we are seeking a

RESEARCH SCIENTIST

Incumbent will perform chemical analyses in support of animal toxicology studies, develop and validate new analytical procedures, upgrade data acquisition and processing capabilities, and train subordinates. This position requires a Master's degree in Biochemistry, Pharmacology or Toxicology with five or more years industrial experience including expertise with HPLC, GLC and automated data processing. Qualified candidate must also possess strong communication skills, innovative outlook and ability to work well on a team.

The selected professional will be based at our Elkhart, Indiana facility and receive an attractive salary and benefits package. For confidential consideration, please send your resume to: **Ed Klimek, Sr. Personnel Representative, Dept. 412, Miles Inc., P.O. Box 40, Elkhart, Indiana 46515.**



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National Institute of Allergy and Infectious Diseases
National Institutes of Health

PROTEIN X-RAY CRYSTALLOGRAPHER

A protein crystallography laboratory is being established with intramural funding to conduct an original research program and to interact with other scientists within the NIH intramural program. Ph.D. or M.D. applicants should have a record of achievement in solving protein structures by X-ray crystallography. Salary commensurate with credentials and research experience.

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
NIAD, NIH
Bldg. 4, Room 413
9000 Rockville Pike
Bethesda, MD 20892
(301) 496-3213 phone
(301) 402-0284 fax



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POSITIONS OPEN

POSTDOCTORAL POSITION

Immediate postdoctoral position available to study mast cell proteinases and their interaction with inhibitors. Research involves (1) the mechanism of protease-inhibitor interactions by analysis of mast cell chymase interaction with recombinant forms of the protein inhibitor, α 1-antichymotrypsin, (2) the mechanism of human trypsin inhibition by auto-inactivation, and (3) recombinant expression of mast cell proteases. Position is supported by an NIH Training Grant. *Candidates must be U.S. citizen or holders of an Immigration Visa to the United States.* Reply to: **Dr. Norman Schechter, Department of Dermatology, University of Pennsylvania, 422 Curie Boulevard, Philadelphia, PA 19104-6142.** *Affirmative Action/Equal Opportunity Employer.*

TWO POSTDOCTORAL POSITIONS AVAILABLE. One will work on molecular biology and/or enzyme mechanics of the gamma-glutamyl carboxylase; the other will participate in the purification and cloning of an endothelial cell receptor for human coagulation factor IX. Send/FAX curriculum vitae and 3 letters of reference to: **Darrel Stafford, Department of Biology, 442 Wilson Hall, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3280, FAX: (919) 962-0597.**

POSTDOCTORAL POSITION DEPARTMENT OF MEDICINE HARVARD MEDICAL SCHOOL

A postdoctoral position is available for a recent Ph.D. to join a multidisciplinary laboratory studying the control of blood cell differentiation and mechanisms of neoplasia. Experience with molecular biological and/or protein biochemical techniques is required.

Send curriculum vitae, statement of research interests, and names of three references to:

Arthur J. Sytkowski, M.D.
Laboratory for Cell and Molecular Biology
New England Deaconess Hospital
Harvard Medical School
185 Pilgrim Road
BURL Building, 5th Floor
Boston, MA 02115

POSTDOCTORAL POSITION IN BONE RESEARCH

Position is available immediately to study the mechanisms underlying bone loss and its modulation using *in vivo* and *in vitro* models. Candidates must have a Ph.D. and experience in marrow cultures, cytokines, bone histomorphometry. Small animal surgery is desirable. Send letter of application and curriculum vitae and arrange for three letters of recommendation to be sent to: **Dr. Dike N. Kalu, Department of Physiology, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-7756. Telephone: 210-567-4335. FAX: 210-567-4410.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW EMORY UNIVERSITY. A position is open to participate in ongoing studies of transcriptional regulation of insulin-like growth factor-1 (IGF-1). Applicants should have experience with cell culture, subcloning, and characterization of DNA-protein interactions. Please send curriculum vitae and names and addresses of three references to: **Lawrence S. Phillips, M.D., Director, Division of Endocrinology and Metabolism, Emory University School of Medicine, 69 Butler Street, SE, Atlanta, GA 30303.** *An Equal Opportunity Employer.*

POSTDOCTORAL FELLOW POSITION

Postdoctoral fellowship position available at the Weis Center for Research in the laboratory of **Dr. Kenneth M. Baker** to study the molecular and biochemical regulation of cardiac cellular growth, including angiotensin-receptor signal pathways. Ph.D. or M.D./Ph.D. candidate with molecular background preferable.

Send curriculum vitae and the names and addresses of three references to: **Geisinger Human Resources (KMB), 100 North Academy Avenue, Danville, PA 17822-1529.** *Equal Opportunity Employer, M/F/H/V.*

POSITIONS OPEN

HIV RESEARCH AT JOHNS HOPKINS

TWO NIH-FUNDED POSTDOCTORAL FELLOWSHIPS IN AIDS RESEARCH available immediately to study: (1) HIV tropism and replication in novel *in vitro* model of placental infection; (2) HIV infection of cord blood subsets including stem/progenitor cells; (3) anti-HIV gene therapy in stem cells and SCID-human mice; (4) HIV quasispecies diversity *in vivo* and *in vitro*. Applicants with Ph.D. or M.D. with experience in virology, immunology, hematopoiesis, cell biology, or related field, and experience in modern molecular biology techniques, see Dr. David Schwartz at the IXth International Conference on AIDS, Workshop A21—Vaccines, or send curriculum vitae with names and telephone numbers of three references to: **David Schwartz, M.D., Ph.D., Department of Immunology and Infectious Diseases, Johns Hopkins University School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, MD 21205. FAX: (410) 955-2791, Telephone: (410) 955-1622.** *JHU is an Equal Opportunity Employer.*

Positions available for **Ph.D. POSTDOCTORAL FELLOWS, Ph.D. SCIENTISTS and RESEARCH ASSISTANTS, and TECHNICIANS** with bachelor's or master's degree in a rapidly growing and dynamic biopharmaceutical company in a northern suburb of Chicago.

The company is recruiting biochemists, molecular biologists, pharmacologists, cell biologists and chemists. Competitive salaries and benefits. Send curriculum vitae, list of publications and cover letter to: **Personnel Office, P.O. Box 856, Libertyville, IL 60048.**

FELLOWSHIPS IN REPRODUCTIVE BIOLOGY NORTHWESTERN UNIVERSITY

POSTDOCTORAL AND PREDOCTORAL FELLOWSHIPS are available in reproductive biology for highly qualified applicants. A diverse but integrated program offers research training in molecular, biochemical, cellular, physiological and behavioral aspects of reproduction. Participating faculty include: **Erwin Goldberg** (Molecular biology of the testis); **Mary Hunzicker-Dunn** (Ovarian signal transduction); **Jon Levine** (Neuroendocrinology of peptidergic neurons); **Daniel Linzer** (Molecular endocrinology); **Kelly Mayo** (Gene regulation in reproductive systems); **Neena Schwartz** (Gonadal-pituitary endocrinology); and **Fred Turek** (Photoperiodism and biological rhythms). Send curriculum vitae and names of three references to: **Dr. Jon E. Levine, Department of Neurobiology and Physiology, Northwestern University, 2153 Sheridan Road, Evanston, IL 60208.** Applicants must be eligible for NIH training support (U.S. citizen or permanent resident). *An Equal Opportunity Employer.*

POSTDOCTORAL FELLOW

Position is available immediately to study how aging modulates intracellular calcium metabolism. Experience with flow cytometry, image analysis, signal transduction and small animal surgery is desirable. Salary dependent on qualifications and experience. Send letter of application and curriculum vitae, and arrange for three letters of recommendation to be sent to: **Dr. Dike N. Kalu, Department of Physiology, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-7756. Telephone: 210-567-4335. FAX: 210-567-4410.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW position available immediately to investigate molecular mechanisms of HIV assembly and accessory gene function. Experience in molecular biology and protein biochemistry required.

RESEARCH ASSISTANT position available. B.S./M.S. Previous experience with plasmids, mutagenesis, immunoprecipitation, cell culture required. Salary based on experience. Send curriculum vitae and names of three references to: **Dr. N. Landau, Aaron Diamond AIDS Research Center, 455 First Avenue, New York, NY 10016.**

POSITIONS OPEN

COLUMBIA UNIVERSITY CENTER FOR RADIOLOGICAL RESEARCH

Applications are invited for a **MOLECULAR BIOLOGIST** to join an active research group to characterize the molecular events involved in radiation transformation *in vitro* and carcinogenesis *in vivo*. Appointment can be made at the **POSTDOCTORAL FELLOW, ASSOCIATE RESEARCH SCIENTIST or ASSISTANT PROFESSOR** level depending on qualifications and experience. Send curriculum vitae, recent reprints and names of three references to: **Dr. Eric J. Hall, Director, Center for Radiological Research, Columbia University, 630 West 168th Street, New York, NY 10032.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIP

A position is available to study the genetics, biochemistry and molecular biology of mutants selected in cell culture or as whole plants. Current interest centers on the folate and branched-chain amino acid pathways of *Arabidopsis* and *Datura* in which a number of mutants have been generated that are resistant to antimetabolites with specific enzyme targets. These mutants are being characterized genetically, biochemically, and molecularly, and are also being used to investigate metabolic control of the pathways in question.

Candidates should be trained in the techniques of plant tissue culture, biochemistry (enzymology), molecular biology, and genetics. Familiarity with *Arabidopsis thaliana* as an experimental model system would be an advantage.

Send curriculum vitae, reprints, and a short letter of interest and arrange to have three letters of reference sent to: **Dr. John King, Department of Biology, University of Saskatchewan, Saskatoon, SK, Canada S7N 0W0. Telephone: (306) 966-4436, FAX: (306) 966-4461, Email: kingj@sask.usask.ca.** Applications will be accepted until the position is filled.

POSTDOCTORAL FELLOWSHIPS—Transcription regulation of cancer (A. Ruddell): Immunological and molecular approaches will characterize transcription factors regulating c-myc oncogene expression and retroviral induction of avian B cell lymphoma (*J. Virol.* 66:6578, 1992). **Molecular Virology/Gene Therapy (S. Dewhurst):** Genetic characterization of human herpesvirus 6, including analysis of viral termini and origin of replication. Future goals include HHV-6 based vectors for gene therapy. Send curriculum vitae and names of three references to: **Drs. A. Ruddell or S. Dewhurst, Department of Microbiology/Immunology, University of Rochester Medical Center, 601 Elmwood Avenue, Box 672, Rochester, NY 14642.**

Two- to three-year NIH FELLOWSHIP POSITION as part of "Motor Neuron Disease" (MND) program project investigating the selective vulnerability of the motor neuron. Projects include molecular pathogenesis studies of a neurotrophic virus (**Dr. R. Roos**), role of excitatory amino acids, free radicals, and calcium in neuronal damage (**Dr. R. Miller**) and human genetic studies of familial MND (**Dr. T. Siddique**, Northwestern Medical School). Send résumé and names of 3 references to: **Dr. Raymond P. Roos, Department of Neurology/MC2030, University of Chicago, 5841 South Maryland Avenue, Chicago, IL 60637.** *University of Chicago is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSTDOCTORAL RESEARCH ASSOCIATE.

The USDA Agricultural Research Service, Orlando, Florida, is seeking a Research Associate to identify and characterize plant defensive proteins (pathogenesis-related proteins) and their genes, determine elicitors, and evaluate the proteins against insects and pathogens. Candidates must have Ph.D.; experience in plant/insect biochemistry, protein purification, and molecular biology is desirable. Salary commensurate with experience (\$33,623 to \$43,712); 2-year appointment. Contact: **Dr. R. T. Mayer at 407-897-7304.** *An Equal Opportunity Employer.*

CLINICAL DIRECTOR, NIDCD

Opening Date: April 19, 1993

Closing Date: June 18, 1993

(All applications must be post-marked by the closing date.)

The National Institute on Deafness and Other Communication Disorders (NIDCD) is recruiting for the position of Clinical Director, NIDCD. The Clinical Director, NIDCD, will serve as the principal advisor to the Institute Director on biomedical scientific affairs involving the clinical research program. He/She will recommend and develop policies and programs for the execution of clinical research, determine the ongoing effectiveness of clinical research programs, and recommend or develop new or revise programs of clinical research related to diseases and disorders of hearing, balance, smell, taste, voice, speech, and language. In collaboration with senior officials, incumbent will participate in the design and implementation of overall Institute management policies including program planning, budget formulation, and resource allocation.

This is a Civil Service position in the Senior Executive Service (SES), with base salary currently from \$92,900 to \$115,700 per year depending on qualifications. SES members are eligible for various bonuses and awards and physicians may be eligible for a Physician's Comparability Allowance of up to \$20,000 per year, although total compensation cannot exceed the rate for Executive Level I (currently \$148,400 per year). Exceptional recruiting difficulty may result in payment of a recruitment or relocation bonus. The candidate must be a licensed physician with appropriate residency training in otolaryngology or other appropriate specialty of medicine. Alternatively, applicants may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service. The SES individual selected, if not presently in the Senior Executive Service, must serve a one year probationary period.

Further information about the position and qualification requirements may be obtained by contacting Ms. Gayle G. Mundell at (301) 402-0508 (Voice or TDD) or TDD (301) 402-1134. An Application for Federal Employment (SF-171) along with a Curriculum Vitae and Bibliography should be submitted to:

Ms. Gayle G. Mundell
Personnel Management Specialist, NIDCD
National Institutes of Health
National Institute on Deafness and other
Communication Disorders
Building 31, Room 3C11
9000 Rockville Pike, Bethesda, MD 20892



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BIOLOGY TRAINING COURSE IN ANTARCTICA

"Biological Adaptations of Antarctic Organisms"

A 4-week course will be offered in Antarctica in January 1994 that will emphasize cold adaptation, energy metabolism, and molecular genetics of antarctic organisms. This NSF-sponsored course will be held in the recently completed Cray Science and Engineering Center (46,000 sq. ft.) located at McMurdo Station in Antarctica. Applications are invited either from individuals wishing an introduction to antarctic biology prior to doing research in this environment in the future, or from individuals who have done research in Antarctica before and wish to develop new approaches and techniques. Applications are especially encouraged from graduate students, but the course is also open to postdoctoral fellows and other research scientists. This is an international course, open to all nationalities. The format of the course will consist of field collections and laboratory experiments together with lectures from course faculty and guest speakers. The themes for the 1994 course will be: (i) temperature adaptations of fish (A. DeVries, Univ. of Illinois), (ii) energy metabolism during larval development of marine invertebrates (D. Manahan, Univ. of Southern California), and (iii) osmoregulation and molecular genetics of algae (L. Goff, Univ. of California, Santa Cruz). Full Scholarships are available to qualified applicants to cover travel from home institution to McMurdo, and room and board while in Antarctica. Deadline for completed applications is July 31, 1993. To obtain an application form write to: Director, Science Support, Attn. McMurdo Biology Course, Antarctic Support Associates, 61 Inverness Drive East, Suite 300, Englewood, Colorado 80112, USA (Phone 303-790-8606; FAX 303-790-9130; E-Mail: SHEPHERD.ASA@ASA.ORG).

Research Scientist Invertebrate Pest Control

A leading agricultural products company is seeking a Ph.D. level scientist with a strong interest and research experience in crop protection research for a position in their Invertebrate Pest Control Group. Candidates should have:

- Ph.D. degree in Entomology or related discipline
- Demonstrated record of accomplishment in Hemiptera biology, with a specialization in Aphidology
- Research accomplishments in the chemical ecology of Hemiptera/host plant interactions, focusing on host plant recognition, selection and feeding by insects
- Experience in the application of electrophysiological techniques to study Homoptera feeding behavior
- Experience in the use of chemical/physical parameters in developing models of chemical/plant interactions
- Experience in the design, execution and analyses of laboratory assays and field efficacy evaluations of developmental and experimental pesticides vs commercial standards
- Experience in evaluation of combinations of alternative control strategies for sap feeding insects; and in insect bionomics
- Strong background in plant sciences, especially Agronomy, Crop Physiology, Plant Virology and Insect Vectors of Disease
- Demonstrated practical experience of global agricultural practices, especially in Europe and Africa; and in application of knowledge to solving problems in agriculture worldwide.

The successful candidate will become a member of a multidisciplinary research team focused on the development of innovative insect control strategies. We seek an individual who is creative, has value for environmental integrity and believes that science-based solutions for crop protection and crop production will have positive impact on the quality of life.

The position is located at our mid-Atlantic facility. Application deadline is June 30, 1993. Interested candidates are invited to forward their resumes and three references to:
Dept. RS-TH, Box 28, 834 Chestnut Street, Philadelphia, PA 19107

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Director, Minority Opportunities in Research Programs Branch

This is a civil service position in the Senior Executive Service (SES) with a salary range from \$92,900 to \$107,300.

Serves as the principal advisor to the Director, NIGMS, regarding the overall direction of and approaches to the Institute's minority research and research training programs. Advises NIGMS senior staff and, as appropriate, officials of other NIH ICDs, of NIH as a whole, or of other agencies, as well as members of Congress, on trends and developments concerning these programs as they relate to the missions of the NIGMS, NIH, PHS, DHHS, other Federal agencies, the biomedical research community, and related groups. Keeps the Director, NIGMS, and other officials fully informed of program and related considerations having significant bearing upon the planning, development, and administration of NIGMS minority research and research training programs. Oversees resource allocations and advises the Director, NIGMS, as to distribution among the various minority research and research training mechanisms supported by the Institute as well as priorities in regard to award of specific grants. Serves as a channel of communication with the NIH, other agencies, the Congress, and the extramural community regarding these programs.

Position information and qualifications requirements may be obtained by contacting:

Howard R. Chernoff, Personnel Officer
National Institute of General Medical Sciences
5333 Westbard Avenue, Room 803, Bethesda, MD 20892
(301) 594-7767

Application for Federal Employment (SF-171), CV and Bibliography must be submitted to above address and received no later than July 1, 1993.

Selection for this position will be based solely on merit, with no discrimination for non-merit reasons such as race, color, religion, sex, national origin, politics, marital status, physical or mental handicap, age, or membership or non-membership in an employee organization.

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EPA Research and Development

IMPROVED RISK SCIENCE RESEARCH PREPROPOSALS

The Environmental Criteria and Assessment Office in Cincinnati, OH (ECAO-CIN) seeks preproposals for Competitive Cooperative Agreements on improved human health and environmental risk assessment methodologies. This program will be funded as part of the U.S. EPA and Department of Defense/Energy's Strategic Environmental Research and Development Program (SERDP) created by the FY-91 Department of Defense Authorization Act. Proposed work will support an involvement in the determination of risk assessments and methods appropriate to federal facilities and surrounding areas. Of particular interest, are new approaches to real world situational analyses involving multiple risks through multiple environmental media (air, water, soil).

Preproposals will be accepted in the following areas: (1) Quantitative human health assessment methods for chemical MIXTURES from point or distributed sources, (2) Comparative risk assessments on MULTIPLE health effects amongst biological/chemical co-mingled environmental stressors, (3) Risk-oriented BIOMATHEMATICAL techniques such as categorical regression modeling and experimental design for threshold dose estimation, (4) PREDICTIVE in-vitro testing methods and decision trees that substantially reduce (75+%) whole animal testing for risk prioritization and/or screening schemes for products/packaging processes/wastes/recycling, and (5) Techniques for measuring, reducing, and expressing UNCERTAINTY as part of the process of risk characterization.

Preproposals will be reviewed by the Technical Evaluation Panel of scientists from inside and outside EPA. Criteria for award will be scientific merit and relevance to the goals of SERDP. Awards will range from \$50,000 to \$250,000 for three years depending upon funds availability.

To obtain a preproposal package, write to Ms. Nancy or FAX to Bauer, ECAO-CIN, 26 W. Martin Luther King Dr., Cincinnati, OH 45268 or FAX to (513-569-7475). The preproposal package should be limited to one to three pages. Six copies of the preproposal package must be postmarked on or before June 30, 1993.

TAMPA BAY RESEARCH INSTITUTE Laboratory Director/Professor

Tampa Bay Research Institute of St. Petersburg, Florida and Salem-Teikyo University of Salem, West Virginia are currently soliciting applications for two Senior Scientist Research Laboratory Director positions for its development of a joint Graduate Program in Molecular Biology/Biotechnology.

The focus of the research will be in the study of human virus latency with emphasis using molecular biology approach and antiviral therapy. The area of signal transduction and oncogenes will also be considered.

Salem-Teikyo University is planning to establish a Graduate Program to be implemented in the Fall of 1994. The incumbent must have demonstrated communication skill and ability to teach at the graduate level. The incumbent is encouraged to bring their established laboratory with them to the Tampa Bay Research Institute facility.

Successful candidates will direct graduate student research and have their research programs located in Florida. The candidate will also be required to teach one course per year at Salem-Teikyo University in Salem, West Virginia. Successful candidates will hold a joint appointment with the Tampa Bay Research Institute and Salem-Teikyo University.

Tampa Bay Research Institute is based in a modern facility with excellent individual laboratory and office space, and centralized facilities including a Biotechnology Service Laboratory, transgenic mice and in-house DNA sequence database.

Applicants should have a Ph.D. or equivalent. Interested individuals should send curriculum vitae, list of publications, a short statement of research achievements, and names and addresses of three referees to the Chairman, Search Committee, Tampa Bay Research Institute, 10900 Roosevelt Boulevard, St. Petersburg, FL 33716.

RESEARCH OPPORTUNITY AT COLD SPRING HARBOR LABORATORY

Genetic Basis of Disease

Advanced technical, postdoctoral and visiting scientist positions are available to join in work on the genetic basis of diseases, including cancer, and inherited disorders. The overall goal of the effort is to apply and develop molecular tools for the analysis of the differences and similarities between complex genomes (see Lisitsyn et al, 1993, Science, 259: 946-951). This work requires expertise in the techniques of molecular biology, particularly the manipulation of DNA. Experience with genome related research would be useful but is not necessary. Cold Spring Harbor Laboratory offers an outstanding intellectual environment in a bucolic setting within easy reach of New York City. Interested candidates should send a curriculum vitae and arrange to have three letters of reference sent to: Dr. Michael Wigler, Cold Spring Harbor Laboratory, P.O. Box 100, Cold Spring Harbor, NY 11724.

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No registration fee, but
attendance is limited to
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Registration deadline is
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Abstracts for poster presentation

may be submitted by registered
participants. Details will be
included with registration
materials. Abstract submission
deadline is August 1.

To register, and for hotel information, call or write:

Shirley Courtney
Division of Endocrinology,
Children's Hospital
Medical Center,
Elland and Bethesda Avenues,
Cincinnati, Ohio 45229
(513) 559-4209
Fax: (513) 559-7486



Children's Hospital Medical Center

THE NEUROSCIENCES INSTITUTE La Jolla, California

THE NEUROSCIENCES INSTITUTE (NSI), AN INDEPENDENT not-for-profit organization at the forefront of research on the brain, invites applications for positions in theoretical and experimental neurobiology. The NSI is also the home of the Neurosciences Research Program and serves as an international meeting place for neuroscientists; Fellows have opportunities to interact with visitors from many institutions worldwide. The NSI is now located on the campus of The Scripps Research Institute in La Jolla, California, where new buildings will be completed in the summer of 1994.

THEORETICAL NEUROBIOLOGY

APPPLICATIONS ARE INVITED FOR POSITIONS AS INSTITUTE Fellow in Theoretical Neurobiology. Since 1987, the NSI has had a research program dedicated to developing biologically based, experimentally testable theoretical models of neural systems. Current projects include large-scale simulations of neuronal networks, the design of behaving automata, and detailed formulations of biologically based models of perceptual systems. Advanced supercomputer facilities are available. Institute Fellows will have daily opportunities to interact with Fellows in Experimental Neurobiology.

Applicants should be at the postdoctoral or assistant professor level with strong backgrounds in experimental or theoretical neuroscience or related fields. Experience in computer modeling is especially welcome. Positions are now available.

EXPERIMENTAL NEUROBIOLOGY

APPPLICATIONS ARE INVITED FOR POSITIONS AS SENIOR Fellow and Junior Fellow in Experimental Neurobiology. The NSI is beginning a research program in experimental neurobiology designed to increase understanding of brain processes at several organizational levels from the molecular to the cognitive. After completion of new NSI laboratory facilities in the summer of 1994, research will be carried out in such areas as molecular biology, cellular neurobiology, pharmacology, neuroanatomy, functional brain imaging, and psychophysics. Fellows in Experimental Neurobiology will be expected to take advantage of opportunities for scientific exchanges with Fellows in Theoretical Neurobiology.

Applicants should be at the assistant professor (Senior Fellow) or postdoctoral (Junior Fellow) level and should have backgrounds in experimental neurobiology. Senior Fellows will be provided with adequate financial support to equip laboratories and maintain ongoing independent research programs. Starting dates for these positions will be July 1994 or thereafter.

ALL FELLOWS WILL RECEIVE STIPENDS APPROPRIATE TO their qualifications and experience. Candidates should send a short statement of research interests, a curriculum vitae, and the names of three references to: **Dr. W. Einar Gall, Research Director, The Neurosciences Institute, 3377 North Torrey Pines Court, La Jolla, California 92037.**

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- BIO/TECHNOLOGY, OCTOBER 1992

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SYSTEMIX



POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE MOLECULAR BIOLOGY

Development of ecologically sound microbial insecticides is the mission of Novo Nordisk Entotech, a wholly owned subsidiary of Novo Nordisk A/S, a Danish biotechnology company. In pursuit of that goal, we have opened a new position for an enthusiastic, motivated individual to study novel aspects of *cry* gene expression in *Bacillus thuringiensis*. This two-year position offers several specific, exciting projects to choose from, the opportunity to interact with a number of dedicated *Bacillus* molecular biologists, and competitive salary and benefits. Appropriate individuals will be imaginative and highly skilled in recombinant DNA techniques. Please submit cover letter and résumé that clearly indicate your research experience and career interests, as well as a list of three referees, to:

Dr. Lee F. Adams
Staff Researcher
Novo Nordisk Entotech, Inc.
1497 Drew Avenue
Davis, CA 95616-4880
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POSTDOCTORAL/RESEARCH ASSOCIATE.

The Research Laboratory of Extracellular Matrix of the Department of Obstetrics and Gynecology, University of Rochester at Rochester General Hospital is a biochemical and physiology laboratory studying the mechanisms of cervical softening and the biochemical changes of cervical tissues in pregnant animals. We are looking for a Ph.D. or M.D. to work within our active research laboratory which integrates anatomy, physiologic and biochemistry. Specific areas include the hormonal control of the remodeling mechanism of the cervix focused on proteolytic changes induced by proteases, collagenase and elastase in uterine tissues and their inhibitors, as well as by cytokine regulation. Biochemistry and molecular biology expertise required. Send curriculum vitae to: Phyllis C. Leppert, M.D., Ph.D., and Shiu Yeh Yu, Ph.D., Department of Obstetrics and Gynecology, Rochester General Hospital, 1425 Portland Avenue, Rochester, NY 14621. The University of Rochester is an Equal Opportunity Employer.

POSTDOCTORAL RESEARCH SCIENTIST

Position available immediately at the Iowa City Veterans Administration and the University of Iowa Medical Center Campus to study biology of allergic inflammation and granulocyte chemotactic processes. Experience in immunology, cell biology, and molecular biology preferred. Salary commensurate with experience. Please send curriculum vitae and names of three references to: Thomas B. Casale, M.D., c/o Personnel Office, VA Medical Center, Highway 6 West, Iowa City, IA 52246. All applicants tentatively selected for VA employment are subject to urinalysis to screen for illegal drug use prior to appointment. Applicants who refuse to be tested will be denied employment with the VA.

For additional information contact:

CHRISTINE V. MASSEY
PERSONNEL SERVICE (05)
VA MEDICAL CENTER
IOWA CITY, IA 52246

Telephone: 319-338-0581, Extension 7731



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RESEARCH ASSOCIATE

POSTDOCTORAL RESEARCH FELLOWSHIPS for newly established Vascular Biology Program at Wayne State University (WSU). Areas of investigation include molecular and cellular biology of ion channels/pumps, transmembrane signaling and endothelial cell function. Projects include both *in vitro* and *in vivo* work. All nationally funded investigators. Please send résumés to: Program Coordinator: Rick Schiebinger, M.D., UHC-4H, 4201 St. Antoine, Detroit, MI 48201 or call (313) 745-4008 or FAX: (313) 993-0903 for more information. WSU is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

MOLECULAR REPRODUCTION—POSTDOCTORAL/RESEARCH ASSOCIATES: Several positions are available to become part of an interdisciplinary research team using molecular and cellular biological techniques to study growth, development and differentiation. Projects include • the molecular basis of cell adhesion during early mammalian embryogenesis • receptor-mediated changes during pregnancy and hypertension • mechanisms of gene potentiation. Interested individuals should forward curriculum vitae, copies of representative publications and three letters of recommendation to: **Postdoctoral Molecular Reproduction Program, C. S. Mott Center for Human Growth and Development, Wayne State University School of Medicine, 275 East Hancock, Detroit, MI 48201.** WSU is an Equal Opportunity Employer.

RESEARCH ASSOCIATE to study the molecular biology of the androgen receptor and aromatase in nonhuman primate brains and teach graduate courses in reproductive endocrinology. Requires: Ph.D. (physiology—reproductive endocrinology), 4 years of postdoctoral training with research experience using radio-receptor binding techniques, radioimmunoassays, molecular biology and recombinant DNA techniques (e.g., cloning, Northern and Southern blots, ribonuclease protection assay, reverse transcription, polymerase chain reaction, DNA sequencing and *in situ* hybridization). Experience with androgen receptor, aromatase cytochrome P450 biology, and brain dissection is essential. Requires at least 2 years of experience teaching graduate students. Publication of at least 8 research papers in peer-reviewed journals, at least 2 as primary author, will be considered as evidence of competence as an independent researcher. Applications will be considered for a month after publication of this advertisement. Send application letter, curriculum vitae and names of three references to: **Dr. John A. Resko, Department of Physiology, L334, Oregon Health Sciences University, 3181 SW Sam Jackson Park Road, Portland, OR 97201.** Equal Opportunity/Affirmative Action Employer.

The Liposome Company, a rapidly expanding Princeton-area biotechnology leader, has an immediate opportunity available in its Bio Sciences Department:

RESEARCH ASSOCIATE

We are seeking a Research Associate to assist in the design, implementation and analysis of preclinical drug development studies. The qualified candidate will possess a B.S./B.A. in Biology or related discipline and must have experience with small lab animals administering drugs I.V. Cell culture, ELISA assays and computer skills a plus.

We offer a competitive salary and comprehensive benefits. Interested candidates, please send résumé to: **Debra Pascale, Human Resources Department, The Liposome Company, One Research Way, Princeton, NJ 08540.** An Equal Opportunity Employer.

The Liposome Company

RESEARCH TRAINING IN GERONTOLOGY

Positions available in NIA training program directed toward basic research in gerontology with special emphasis on the nutritional manipulation of the aging processes. General areas include metabolism and exercise, endocrinology and neuroendocrinology, free radicals and membrane lipid peroxidation, immunology, cellular calcium and bone metabolism, molecular biology and regulation of gene expression. Send curriculum vitae, description of research interests and the names of three references to: **Dr. Byung P. Yu, Department of Physiology, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78274-7756.** Only U.S. citizens or individuals with permanent resident status may apply. An Affirmative Action/Equal Opportunity Employer.

A POSTDOCTORAL RESEARCH POSITION is available for a Ph.D. with molecular biology experience to study transcription factors involved in the regulation of protein metabolism during sepsis and other critical illness. Experience with techniques in the field of molecular biology required. Please submit cover letter, curriculum vitae and references to: **Per-Olof Hasselgren, M.D., University of Cincinnati Medical Center, Department of Surgery, 231 Bethesda Avenue ML #558, Cincinnati, OH 45267.**

POSITIONS OPEN

P/T RESEARCH DIRECTOR

National Audubon Society seeks accomplished ecologist to build long-term ecological research program on permanently preserved lands in southeast Arizona. Ph.D. in Ecology, Biology, Wildlife Management or related field. Experience in fundraising, familiarity with GIS technology and applications, understanding of arid lands and grasslands ecology. Commitment to conservation and responsible environmental activism.

Send résumé and salary history by July 15, 1993, to: **National Audubon Society, HR Department, 700 Broadway, New York, NY 10003.**

STAFF SCIENTIST AND/OR SENIOR POSTDOCTORAL FELLOW to investigate cellular immunology in multiple sclerosis. Gamma-delta T-cells isolated from patient CSF will be analyzed for T-cell receptor clonality, antigen specificity and cytokine production; this project is NIH funded. Additional studies include alpha-beta T-cell involvement in the disease process, elucidation of T-cell reactivity to self or viral antigens and the role of cytokine production. An outstanding opportunity to investigate disease-related immunopathogenesis. *Applications from women and minorities are encouraged.* Please submit curriculum vitae and 3 references to: **Ronald S. Murray, Rocky Mountain Multiple Sclerosis Center, Department 7500, 501 East Hampden Avenue, Englewood, CO 80110.** FAX: 303/788-5418.

CELL GROWTH AND DIFFERENTIATION RESEARCH SCIENTISTS needed for new research facility opening in Denver, Colorado. Cell Pathways, Inc. is expanding its research program on the mechanisms of colonic cell growth and differentiation in conjunction with the University of Colorado and the University of Arizona. Successful candidates will have a Ph.D. in Cell Biology, Biochemistry, Molecular Biology or Pharmacology with 3 plus years of experience in the regulation of cell growth and/or differentiation. Candidates should have a strong background in the use of cell culture and animal model systems for the study of growth factor/receptor interactions and intracellular signaling pathways. A knowledge of the regulation of the cell cycle and the molecular genetics of colonic cancer is desirable. We offer a highly competitive compensation/benefits/relocation package. Résumés including salary history should be submitted to: **Dr. Nancy Paranka, Corporate Recruiting, Cell Pathways, Inc., 5620 North Kolb Road, Tucson, AZ 85715.** An Affirmative Action/Equal Opportunity Employer.

ASSISTANT RESEARCH MICROBIOLOGIST to conduct studies on the role of cryptic self-determinants in induction of autoimmunity using lysozyme, MBP and mycobacterial heat-shock proteins. Requires Ph.D. in immunology; 3 years of postdoctoral experience as biomedical researcher; knowledge of autoimmune diseases, tuberculosis and leprosy; expertise in molecular biology and cellular immunology documented by publications; experience in tissue culture, production of monoclonal Ab, cell lines and hybridomas, EBV transformation of B cell, ELISA, peptide synthesis, HPLC, cultivation of mycobacteria and infection of mice with them, purification of DNA and RNA from mycobacteria, Western, Southern and Northern blotting, RFLP analysis, PCR technique, cloning of DNA, and in training students in experimental techniques in biochemistry, immunology and molecular biology. Salary: \$39,513 per year. Send curriculum vitae to: **Prof. Eli E. Sercarz, Department of Microbiology & Molecular Genetics, Life Science Building, 405 Hilgard Avenue, University of California, Los Angeles, CA 90024** by 21 June 1993. FAX: 310-206-5231. UCLA is an Affirmative Action/Equal Opportunity Employer.

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CELL BIOLOGISTS

Cellular/Microscopic Research... You will help solve pathobiological problems associated with the discovery and development of new drug compounds. The study of uptake, distribution, localization and toxicity of new compounds at the cellular level will be emphasized. We require a PhD and at least 5-10 years of post graduation experience. This must include a solid foundation in classical as well as contemporary cell biological concepts, broad knowledge of drug/cell interactions, proven high scientific standards, and a record of publishing in peer reviewed journals. Strong leadership skills are essential. Reply Code# MFM55149.

Neuroscience Research... You will participate in the team study of neurodegeneration in Alzheimer's disease, conduct biochemical and pharmacological assays on neuronal and astrocytic cell cultures including the implementation of cytotoxicity assays. This position requires a PhD in cell biology/neurobiology or a related discipline, with at least 2 years of post-doctoral experience. Experience in culturing primary neuronal cells and/or glial cells required. Immunohistochemistry and/or neuropathology experience a plus. Reply Code# CML65512.

Abbott provides an excellent salary and benefits package including profit sharing and a stock retirement plan. We are located in an attractive suburban area approximately 30 miles north of Chicago. For confidential consideration, please send a resume and salary history (indicating appropriate reply code) to: **Patricia Handy, Dept. 583, AP6D, Abbott Laboratories, One Abbott Park Rd., Abbott Park, IL 60064.** Abbott is an Affirmative Action Employer/Smoke-Free Environment.

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MOLECULAR VIROLOGY AND HOST DEFENSE

SmithKline Beecham Pharmaceuticals, a world-wide leader in pharmaceutical research, has two challenging opportunities within the Department of Molecular Virology and Host Defense, a 40-member group whose activities encompass basic and applied research on many aspects of molecular virology and immunology of infectious diseases including immunomodulators, hemoregulatory cytokine research, stromal cell biology, viral pathogenesis and discovery of novel anti-virals.

POSTDOCTORAL SCIENTIST

The successful candidate will participate in the purification, molecular cloning and biological investigation of a novel hematopoietic cytokine. This position will have a tenure of 2 years and is funded by the National Cancer Institute DHEW. Qualified candidates will have a Ph.D. in a biological, biochemical or molecular science or related area. In addition, he/she will have 0-2 years of postdoctoral research experience.

EXPERIMENTAL HEMATOLOGIST

As an Associate Senior Investigator, the successful candidate will have responsibility for new research initiatives in collaboration with a multidisciplinary/ multinational program team investigating natural and synthetic hematopoietic agents/cytokines and their application to infectious disease and oncology. Qualified candidates will have a Ph.D. or M.D. in a biological science and 2-5 years postdoctoral experience. Experience at the cellular and molecular levels with *in vitro* systems and *in vivo* models investigating differentiation of hematopoietic cells, especially erythroid and megakaryocyte lineage; hematopoietic growth factors or stromal cell biology is preferred. Outstanding applicants with broader backgrounds in aspects of cell biology relevant to hematopoiesis will also be considered.

Our state-of-the-art research facility is located in suburban Philadelphia, near historic Valley Forge. We offer a competitive compensation/ benefits/ relocation package, as well as the opportunity for growth in a scientifically intense environment structured on creativity, teamwork and commitment. Please send your CV, indicating the desired position, and the names of three references to: Dr. Louis M. Pelus, Assistant Director, Department of Molecular Virology and Host Defense, c/o Marilyn Leggieri, Employment Administrator, SmithKline Beecham Pharmaceuticals, PO Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/D/V.



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The successful candidate will have a solid educational basis in pharmaceutical technology completed by a fruitful experience in an industrial environment. Inventive and creative, the candidate should be open minded and interested in all pharmaceutical dosage forms, part of the job will be the survey of existing and emerging technologies. Next to the follow up of products already on the market, the candidate will be involved in the formulation of our new molecules; he/she will assure the technical interface between our research teams and our partners in Universities as well as the follow up of our development projects.

A sound knowledge of international regulatory requirements regarding Good Clinical Practices and Good Manufacturing Practices will be an

advantage for the integration of Quality Assurance in our development.

We would like to meet with candidates having a good sense of diplomacy, able to integrate the individuals participating in our R & D projects.

We offer to a candidate with strong capabilities, the possibility to become the N°1 assistant to our Director of Research.

If you correspond to this profile we propose you to participate in the expansion of our international industrial R & D Group. We offer state of the art equipment highly motivating working conditions and professional opportunities.

Applicants should address a handwritten letter, a CV with recent photograph, and salary requirements to: Mr C. Janin, 7, Avenue de Verdun, 92250 La Garenne Colombes France.

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Level of appointment is dependent on qualifications and experience.

The School of Anatomy has a vacancy for a Lecturer/Senior Lecturer. The School is responsible for teaching gross anatomy, histology, neuroanatomy and embryology to medical and science students, and has an active research program in all these areas with particular strengths in neuroanatomy and developmental neurobiology. The appointee is required to teach gross anatomy and at least one other subject, and will have developed a research program with the potential to attract external funding. The minimum qualification is a medical degree or a relevant PhD.

Experience in teaching, research or clinical practice is an advantage. The appointment will either be with tenure or on the basis of a contract with provision for conversion to tenure. Level of appointment and commencing salary are dependent on qualifications and experience. A clinical loading of A\$13,484 per annum will also be payable to an appointee with medical qualifications registrable in New South Wales.

The appointment is available from 1 January 1994. Although an appointment at the level of Lecturer is preferred, an appointment at Senior Lecturer level, may be considered for an applicant with exceptional qualifications. Membership of a University approved superannuation scheme is compulsory.

Further information is available from Associate Professor David Tracey, on telephone (61 2) 697 2471, facsimile (61 2) 313 6252.

Applications close 25th June, 1993.

PLEASE QUOTE Ref 150SCI

APPLICATION PROCEDURE

Applicants should submit a written application QUOTING REFERENCE NUMBER. Include business and private telephone numbers; a complete resume, (copies of academic transcript and qualifications where appropriate); and the names, addresses (and preferably facsimile numbers) of at least two referees to: The Recruitment Officer, Human Resources, P.O. Box 1, Kensington, N.S.W. 2033 Australia by applications close date. People from EEO groups are encouraged to apply.

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CHIEF OF MEDICINAL CHEMISTRY LABORATORY

The Centre de Recherche Pierre Fabre, located in the south of France (Castres), currently has a position available as chief of a Medicinal Chemistry Laboratory. The Research Center is aimed at the discovery of clinically efficacious drugs for the treatment of cardiovascular disease, cancer and central nervous disorders.

A senior scientist is sought who will report directly to the Director of Research and will head a laboratory of Medicinal Chemistry constituted of staff researchers and technicians. The position requires collaborating with an internationally diverse group of researchers in the definition and coordination of research projects. Applicants should have a training in organic chemistry at the Ph.D. level and at least five years of post-doctoral experience, including drug discovery research in the pharmaceutical industry.

Please send your CV, list of publications and coordinates of three referees under ref. G 396/S to **PIERRE FABRE S.A.** Recrutement Cadres - 11, rue Thérion Périé - 81106 CASTRES CEDEX - FRANCE

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Programmed Cell Death Umeå Center of Molecular Pathogenesis (UCMP) Umeå University, Sweden A call for scientists interested in programmed cell death

A new interdisciplinary research center (UCMP) devoted to **programmed cell death** will be formed. Internationally competitive scientists will be recruited with an interest in functional, molecular and structural aspects of this process.

UCMP will start from the 1st of July 1993, financed by the Swedish Government, the Umeå University and the local City and County Councils.

Umeå University is situated in an attractive area in Northern Sweden with a rich supply of cultural and sport activities. The center will be located in a new building (ready in of spring 1994) also including the Depts. of Microbiology and Cell and Molecular Biology, both leading research establishments in Scandinavia. The scientific environment also includes many internationally competitive groups in the fields of cell biology, immunology and chemistry.

The faculty will consist of one coordinator holding a permanent position and 4-5 independent group leaders with tenure track positions. To integrate functional and structural studies, one of the groups will be oriented towards X-ray crystallography.. The coordinator will be supported by a local Administrative Board and by an international Scientific Advisory Board chaired by Prof. Lennart Philipson, New York.

Positions offered:

Coordinator/professor

Group leaders/, assoc./assist. professors

The coordinator will receive post-doc fellowships and financial support covering the running costs for three years. The group leaders will be guaranteed financial support for post-doc fellows and seed money covering the running costs for the first two years.

Candidates are invited to send their CV, bibliography, a research proposal and the names of three academic references to Prof. Thomas Edlund, Dept. of Microbiol., Umeå Univ., S-901 87 UMEÅ, before August 1st. For further information, please contact Prof. Thomas Edlund by fax + 46-90-13 99 29.

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Professorship of Fisheries Biology

The University of Iceland, Department of Biology, announces a vacancy of Professor of marine fisheries biology. Candidates are sought who have an established international reputation for research. The Professor shall initiate research and teaching in marine fisheries biology, either in theoretical or experimental ecology of marine fish. Applications from candidates with research expertise in the area of fisheries ecology, population dynamics, life history tactics, evolutionary ecology, or behavioral ecology are especially welcomed although applications from individuals with other research interests will also be considered. We are looking for excellence and potential rather than specific field of research.

The Professor will be responsible for teaching courses in fisheries biology and to participate in related subjects and to supervise graduate students. Normally the language of instruction at the University of Iceland is Icelandic but a foreign candidate could speak a Scandinavian language or English for a period of time.

Applications with a comprehensive CV, copies of scientific works, and a short statement of research purpose if appointed should be sent to Personnel Service, University of Iceland, Sudurgata, IS-101 Reykjavik, Iceland, by July 6, 1993. For further information, please contact Logi Jónsson, Chairman, Biology Department (tel.: +354-1-694833, fax +354-1-694069).



INTERNATIONAL CAREER OPPORTUNITIES



**THE UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)
INVITES APPLICATIONS FOR THE POST OF DIRECTOR (D-2), INTERNATIONAL
REGISTER OF POTENTIALLY TOXIC CHEMICALS PROGRAMME ACTIVITY
CENTRE, FOR AN INITIAL TWO-YEAR FIXED TERM APPOINTMENT
EFFECTIVE OCTOBER 1993**

The International Register of Potentially Toxic Chemicals has as its main objective to facilitate access to information and data on chemicals, their effects on human beings and other living organisms in the environment, and measures and procedures for the control of hazards posed by chemicals. IRPTC has been established according to the mandate laid down in recommendation 74e of the UN Conference on the Human Environment, Stockholm, 1972. It operates a computerized information system on chemicals based on a network concept with National Correspondents and other contributing network partners. IRPTC is assisting Governments in implementing the London Guidelines for the Exchange of Information on Chemicals in International Trade and is responsible for the operation of the Prior Informed Consent (PIC) procedure for banned and severely restricted chemicals. IRPTC is an international participating institution in the International Programme on Chemical Safety with responsibility for data collection and dissemination.

Functions:

Under the general supervision of the Executive Director and Assistant Executive Director (Programme) the incumbent is responsible for the development and implementation of all policy, planning, budgeting and operational aspects of the IRPTC Programme Activity Centre; and specifically to: (1) develop a computerized information system on chemicals based on a central database connected with a network of contributing partners; (2) encourage inter-governmental, governmental, academic and industrial institutions with a common interest in chemical safety to assist in the development of the network for factual chemical data exchange according to harmonized procedures, and to participate in collecting and processing such data; (3) develop information exchange practices and procedures on hazardous chemicals, in particular those that have been banned or severely restricted in international trade; (4) develop and operate a query-response service providing data, documentation and advice to worldwide users on chemicals, their effects on humans and the environment and on measures and procedures for chemical hazard control; (5) disseminate high-quality data on chemicals to governments and others with responsibility for safe management of chemicals, in the form of hard copy publications and by electronic means; (6) encourage national authorities in establishing national chemical information systems for national needs, as appropriate, and for participation in a worldwide network for information exchange; (7) assist national authorities in improving their capabilities to manage chemicals safely by providing training and technical assistance in the use of data for hazard assessment, risk evaluation and risk management; (8) prepare and publish a regular Bulletin for worldwide dissemination of information and data on newly discovered chemical hazards, and newly published risk evaluations and control measures for chemicals including legislation for chemical hazard control; (9) prepare regular technical assessments of chemical pollution issues, critical at the global level; (10) represent the Executive Director at international conferences and meetings dealing with environmentally sound management of chemicals; (11) prepare Governing Council documents, evaluate and report on the performance of the IRPTC/PAC and the network; (12) administer the staff of the IRPTC/PAC; (13) plan, manage and report on the financial resources of the IRPTC/PAC.

Qualifications:

Advanced University degree in the field of toxicology, environmental chemistry or biochemistry, or specialization in any of these fields with a minor in one of the others. Twenty years or more experience at the national or international level in the field of toxicological, pharmacological or ecotoxicological research and familiarity with the field of environmental chemistry. Experience in hazard assessment and risk evaluation of chemicals, and in scientific information handling and electronic data processing. Experience with national decision-making and enforcement procedures for chemical hazard control. Experience in managing scientific projects involving consultants and contractors. Fluency in English or French and a working knowledge of the other essential. Working knowledge of other United Nations official language(s) an asset.

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Post Adjustment*	Post Adjustment*

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Deadline for applications: 5 August 1993

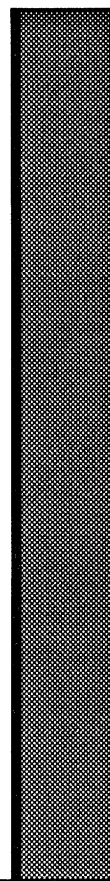
All applications be addressed to Chief Recruitment Unit, UNEP, P.O. Box 30552 Nairobi Kenya or Fax Nos: (2542) 226890; (2542) 215787; (2542) 217839. This vacancy may meanwhile be filled by a staff member or by a candidate from the roster. Qualified women candidates are encouraged to apply. Appointment against this post is limited to service within the United Nations Environment Programme. Candidates are requested to quote vacancy No. NA-93-12 and to attach an up-dated United Nations Personal History form available from nearest UN Office or on request from this office. If UN form is unavailable a detailed curriculum vitae including birth date, nationality and working knowledge of United Nations Official languages should be submitted. Candidates having a facsimile contact should provide number(s).

*Post Adjustment subject to change because of cost of living fluctuation.

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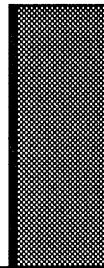
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GENE DISCOVERY/GENOMICS

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As a scientist with an interest in genomics technologies, you will participate in a multi-faceted program directed toward the identification and cloning of disease-related genes. We are looking for individuals with leadership abilities in each of the following areas: gene-mapping technologies, cDNA library construction and screening, and high-throughput automated sequencing. Publication in leading scientific journals will be actively encouraged. PhD, with appropriate Post Doctoral experience. **TZ-2293.**

Research Associates

In the cDNA core group, you will use your extensive knowledge of both construction and screening of cDNA libraries for the purpose of new gene discovery. You will also work to further develop and automate these technologies. BS/MS with 5+ years of relevant experience. **TZ-2393.**

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Within our sequencing group, you will have the opportunity to participate in a state-of-the-art, high-throughput, automated sequencing facility. This group performs a vital function in the gene discovery efforts of the company. BS/MS in biological sciences. **TZ-2493.**

BIOLOGY

Scientists

As a PhD with Post Doctoral experience, you will take a lead role in exploring the molecular mechanisms of various disease states, while establishing independent research programs and collaborations. You will make extensive use of the core facilities and gene discovery programs within the genomics group. You must have in-depth experience in mammalian molecular and cell biology. Publication in leading scientific journals will be actively encouraged. **TZ-2593.**

Research Associates

BS/MS level scientist with 5 years experience in Molecular Biology, Biochemistry or Biology. Must be flexible, and excel in some of the following areas: molecular cloning, PCR, protein chemistry, *in vivo* methods, prokaryotic/eukaryotic expression systems, constructing and screening cDNA and genomic libraries, and in situ hybridization. **TZ- 2693.**

BIOINFORMATICS

Scientist

Innovative scientist with demonstrated expertise in the field of DNA and protein sequence analysis. You will be required to develop algorithms and software to extract maximal information on gene organization and function from large amounts of genomic and transcribed sequence. You will work closely with scientists in genomics and molecular and cellular biology in an integrated effort to explore the molecular mechanisms of important disease states. This role is pivotal to the success of the research programs. **TZ-2793.**

Computer Scientist

You will install and develop a sophisticated information network to handle the extensive needs of the genomic, automated sequencing and biology components of the research program. You will be expected to become an expert in the analysis of DNA sequence and protein sequence and structure and to work closely with scientists in these areas. You should have experience in UNIX and Macintosh-based systems and be flexible in your approach. **TZ-2893.**

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POSITIONS OPEN

SENIOR STAFF FELLOW OR VISITING SCIENTIST: A position as Senior Staff Fellow or Visiting Scientist is available in the National Institute of Child Health and Human Development. Applicants should possess an M.D. and/or Ph.D. degree and have experience in signal transduction research, in particular the phosphoinositide signaling pathway, the regulation of higher inositol phosphates, and the mechanisms of calcium mobilization and influx. Knowledge of adrenal cell biology, and of receptors and actions of angiotensin II, is also required. Salary range \$45,000 to \$70,000 per annum according to qualifications and experience. Send curriculum vitae and names of three references by June 23, 1993, to: **Dr. Kevin J. Catt, Chief, Endocrinology and Reproduction Research Branch, Building 49, Room 6A36, National Institutes of Health, Bethesda, MD 20892. NIH is an Equal Opportunity Employer.**

STAFF SCIENTIST/SCIENTIST CENTER FOR BIOMEDICAL RESEARCH THE POPULATION COUNCIL

The Population Council is seeking a Scientist for its Contraceptive Development Program. Advanced Degree (Ph.D., M.D., D.V.M., or equivalent) in Immunology, Endocrinology, or Reproductive Physiology—preferably relating to reproductive physiology or contraception. Minimum of 2 years of relevant postdoctoral training, including experience in antibody production, characterization, and small animal surgery. Salary will depend upon qualifications and experience. Excellent benefits. Send résumé to: **Dr. Rosemarie Thau, The Population Council, Center for Biomedical Research, Tower Building, 1230 York Avenue, New York, NY 10021. An Equal Opportunity Employer, M/F.**

The Biotechnology Patent Examining Group of the Patent and Trademark Office is currently recruiting scientists for positions as **PATENT EXAMINERS**. Individuals with advanced degrees and/or equivalent experience in the fields of immunology, molecular biology, gene therapy, transgenic animals, animal science, biochemistry, protein engineering and microbiology are urged to send a résumé or SF-171 to the following address:

**Patent and Trademark Office
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Washington, DC 20231
K. Clark (180)**

For further information, call (703) 308-1123. U.S. CITIZENSHIP IS REQUIRED FOR EMPLOYMENT.

GENETIC EPIDEMIOLOGIST

For cancer genetics research program. Must be able to take a leadership role in supervision of a registry of high risk patients, and to facilitate multi-institutional collaboration. Candidates should have postdoctoral experience in both epidemiology and human genetics. The position carries an appointment at Cornell University Medical College. Working conditions and stipend are attractive. Send résumé to: **Dr. D. G. Miller, Strang Cancer Prevention Center, 428 East 72nd Street, New York, NY 10021.**

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RESEARCH ANIMAL ETHOLOGIST, permanent position with the USDA-Agricultural Research Service at West Lafayette, Indiana. Incumbent will be located in facilities of Purdue University's Animal Sciences Department. Responsible for initiating and developing a research program directed toward understanding the relationships among physiological parameters, animal behavior, and well-being. Research would include identification of internal states of animal cognition/perception and development of indicators of well-being for food-producing animals. Ph.D. and knowledge of animal physiology are desirable. Salary range \$40,298 to \$56,627 per annum based on qualifications and experience. For position information contact: **Dr. J. R. Wilcox, Telephone: 317-494-8074.** For the vacancy announcement and application procedures contact: **Beverly Webert, Telephone: 301-344-1921.** Applications must be marked 3N020 and postmarked by July 10, 1993. Incomplete applications will not be considered. **ARS is an Equal Opportunity Employer.**

IMMUNOLOGIST

The National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC), is seeking a qualified immunologist to conduct research in the Immunochemistry Research Section, Applied Biology Branch, Division of Biomedical and Behavioral Science. The successful candidate will be expected to develop an applied research program on immunologic aspects of occupational stress in addition to supporting and contributing to ongoing research efforts which include development of immunochemical and biological monitoring methods for assessing exposure to workplace hazards and research in biomarkers as precursors to occupationally related disease. Candidates should have research expertise and publications in one or more of these areas. The position may be filled as a Commissioned Officer in the U.S. Public Health Service or in the Career Civil Service (GS-11 or GS-12, salary range \$33,623 to \$52,385 depending on qualifications). Interested candidates should send curriculum vitae to: **Dr. R. DeLon Hull, NIOSH, MS C-26, 4676 Columbia Parkway, Cincinnati, OH 45226. Telephone: (513) 533-8122. NIOSH IS AN EQUAL OPPORTUNITY EMPLOYER AND OFFERS A SMOKE-FREE ENVIRONMENT.**

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ENGINEER/BIOLOGIST/ PHYSICAL SCIENTIST

The National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention, is seeking a Chief of the Physical Agents Effects Branch, Division of Biomedical and Behavioral Science, in Cincinnati, Ohio. The successful candidate will manage NIOSH's principal research program addressing the health and safety consequences of occupational exposure to such physical agents as noise, radiation, vibration, and thermal factors. Candidate should have research expertise and publications in one or more of these areas as well as experience in research program development and management. The position is in the Career Civil Service, GM-14 or GM-15. Salary range is \$56,627 to \$86,589, depending on qualifications. Interested candidates should send an application or curriculum vitae to: **Ms. Dorothy Surdick, NIOSH Personnel Office, 4676 Columbia Parkway, Cincinnati, OH 45226.**

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ANNOUNCEMENTS

Third International Workshop on the Identification of Transcribed Sequences in the Human Genome. October 2-4, 1993, New Orleans, Louisiana.

Send Abstracts by July 1, 1993, to:

**Dr. Ute Hochgeschwender
Unit on Genomics, NIMH
10/4N320
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Bethesda, MD 20892**

Additional information: **Dr. K. Gardiner, Telephone: (303) 333-4515.**

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WORKSHOP

Molecular and Structural Biology of Tissue Repair Workshop

Lister Hill Auditorium, Bethesda,
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The National Institute of General Medical Sciences (NIGMS), National Institutes of Health (NIH), is sponsoring a one-and-a-half day workshop entitled "Molecular and Structural Biology of Tissue Repair." The meeting will bring together structural biologists, including crystallographers, NMR spectroscopists and protein chemists; cell biologists; biomedical engineers; and surgeons from academia and the biotechnology industry, for the purpose of establishing a deeper understanding of the basic mechanisms involved in tissue repair. Topics to be covered will focus on the relationship between the high resolution structural studies of growth factors and other cytokines and the ultimate clinical applications. Some specific presentations will include the biology of growth factors; identification and cloning of relevant receptors; structural and biochemical studies on receptor/ligand interactions; and molecular studies of the transcription factors involved in regulating growth factor/cytokine expression and function.

For information, contact:

Ms. Linda Shein
Biophysics and Physiological
Sciences Program
NIGMS, NIH
5333 Westbard Avenue
Room 907
Bethesda, MD 20892
Telephone (301) 594-7800
FAX (301) 594-7700.



MEETINGS

SECOND INTERNATIONAL E. COLI GENOME MEETING

September 9-13, 1993, University of Wisconsin,
Madison, Wisconsin, USA.

The Second International *E. coli* Genome Meeting will include invited talks, poster sessions and workshops analyzing the *E. coli* genome at the genetic, sequence and structural levels with the goal being to facilitate a coordinated structure/function analysis of the genome. Specific topics include: reports of large scale sequencing efforts, new techniques in genome mapping, sequence determination and sequence analysis, genome evolution, global gene regulation, chromosome structure and inheritance. Scientific organizing committee is W. Reznikoff, W. Szybalski, A. Danchin, K. Isono, F. Neidhardt, C. Smith.

Registration material can be obtained from: Conference Services, Memorial Union, University of Wisconsin, 800 Langdon Street, Madison, WI 53706-1495; FAX: (608) 262-5487. Registration deadline is August 2, 1993.

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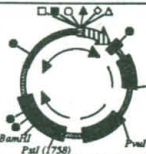
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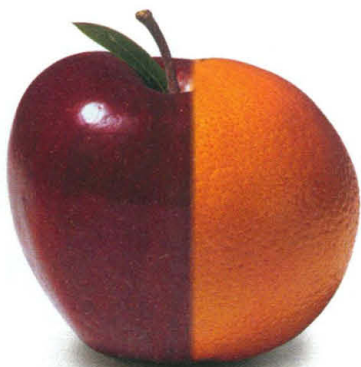
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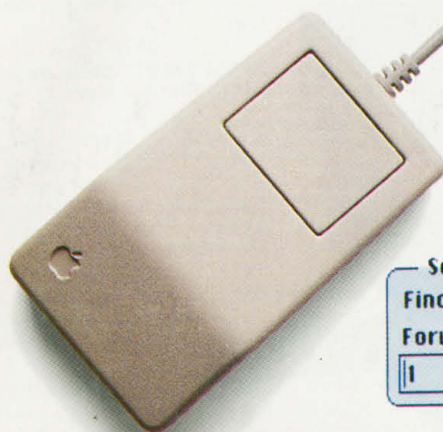
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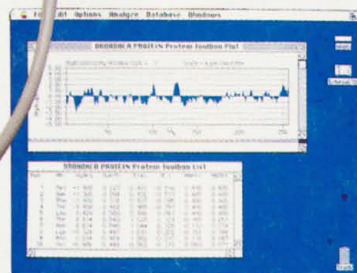
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