



Autosuppression For Ion Chromatography

The Self-Regenerating Suppressor (SRS) for ion chromatographs is a postcolumn device used to enhance conductivity detection while expanding separation capabilities. SRS improves anion and cation detection limits by two orders of magnitude or more compared with other ion analysis techniques, according to the manufacturer. The device accomplishes this by increasing analyte conductivity signals of interest while decreasing eluent background, noise, and sample counterion interferences. Dionex Corp. Circle 89.

mRNA Isolation Kit

SEROSEP is a new kit designed for cost-effective isolation of mRNA. The system is based on oligo-(dT) coupled magnetizable particles. Serotec. Circle 90.

Thermal Cycle Sequencing

The Uniplex Chemiluminescent DNA Sequencing Kit is for thermal cycle sequencing, a process that makes use of a thermostable DNA polymerase to amplify the DNA template during the sequencing procedure. With thermal cycle sequencing, only nanogram quantities of template are needed for sequencing, recalcitrant DNA structures can be sequenced through, and the pre-reaction steps of denaturing double-stranded DNA and annealing primers are eliminated. The kit contains the DNA polymerase, all the reaction mixes, and all the

detection reagents, including biotinylated primers, biotinylated alkaline phosphatase, streptavidin, and the chemiluminescent substrate. It can be used to sequence templates in a variety of standard sequencing vectors, such as M13, pUC, RD20, pBR322, lambda gt10, lambda gt11, and other commercially available vectors. Millipore. Circle 91.

Optical Radar for Interactive Displays

DynaSight optical sensor is a low-power optical radar that allows for dynamic three-dimensional viewing of the real-time display of a computer workstation. People use head movements for changes in visual perspective, such as for spatial context and to reveal obscured details. The DynaSight emulates on the screen the results of this behavior. A sensor measures the dynamic position of the human head relative to the real-time display and changes the display to correspond with the positions of the viewer's eyes. The sensor is delivered in the form of the DynaSight Developer's Kit, with application examples that run on IBM-compatible computers. The graphics demonstrations require VGA color, EGA color, or a graphics adapter that supports the Texas Instruments Graphics Architecture. Origin Instruments Corp. Circle 92.

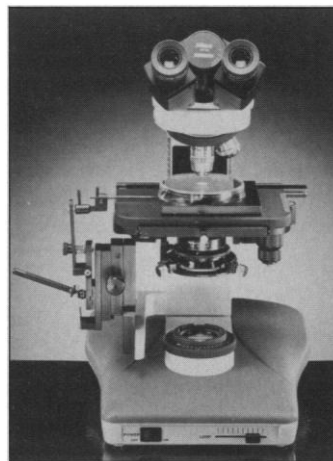
Sequencing Gel Dryers

This line of gel dryers offers three sizes: Minidry, with an 18 by 18 cm drying surface; Mididry, with a 30 by 40 cm surface; and Maxidry, with a 30 by 60 cm surface. The temperature range is from 20° to 90°C. A specially designed groove surrounds the drying surface for tight sealing. The

gels are heated from the bottom and a vacuum removes the moisture from the bottom to dry the gel homogeneously. Biometra. Circle 93.

Yeast Genetics Microscope

The Tetrad Dissection Microscope is designed for use in yeast genetics. Incorporating a Nikon Labophot Microscope modified



with a fixed stage, the instrument features a joystick manipulator and a specimen holder for an inverted petri dish. Optics include planachromat $\times 2$ and $\times 4$ objectives, $\times 15$ wide-field eyepieces, and a long working-distance condenser. Micro Video Instruments, Inc. Circle 94.

Nonradioactive DNA Probe Labeling

Enhanced chemiluminescence (ECL) probe-amp reagents have been designed for the preparation of fluorescein-labeled DNA during polymerase chain reaction (PCR) and for ECL detection following hybridization. In the ECL probe-amp reaction, fluorescein-11-dUTP is used as the label. Flu-

orescein-labeled PCR products can be examined using ultraviolet light following electrophoresis. The use of fluorescein as a hapten also offers the benefit that the degree of labeling can be measured in a rapid transilluminator-based assay that can make use of the natural fluorescence of the hapten. Amersham International. Circle 95.

Literature

Waters Sourcebook of Chromatography includes more than 1500 products for sample preparation, analysis, and purification. In addition to product specifications and ordering information, each section contains a chemistry overview with illustrations and chromatograms as well as column and application selection guides. Millipore. Circle 96.

Handbook of Fluorescent Probes and Research Chemicals, 1992-1994 includes more than 1800 products for cell biology, biochemistry, neuroscience, molecular biology, immunology, and diagnostics research. New products include fluorogenic latex particles, optical filters, long-wavelength ion indicators, fluorescent probes for cell receptors and ion channels, and reactive dyes. Molecular Probes. Circle 97.

Mike Just Started Using ORIGIN Cell Culture Products is a brochure about media additives and reagents for the cultivation and maintenance of B cells and T cells, the generation of hybridomas, and the study of hematopoietic cells. IGEN, Inc. Circle 98.

Guide to Reliable pH, Ion, and Conductivity Measurements is a full-color brochure. Radiometer America Inc. Circle 99.

Products For Molecular Biology: 1992 contains more than 140 new products including several new tools for nucleic acid electrophoresis, hybridization, and genetic research including DNA detection systems, Contig mapping probes, and thermal stable polymerase. Sigma Chemical Co. Circle 100.

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.

Science

PERSONNEL PLACEMENT

LINE CLASSIFIED ADVERTISEMENTS

- **Deadlines:** Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Call for holiday deadlines. Advertisements must be submitted in writing.
- **How to Submit a Classified Ad:** Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training.
- **Mail or FAX materials to:**
Science Classified Advertising
1333 H Street, N.W., Room 814
Washington, DC 20005
Telephone: 202-326-6555
FAX: 202-682-0816
- **Rates:** Ads are \$42 per line; \$420 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads.
- **Ads from Outside the U.S.:** A discount of \$30 will be offered to advertisers making payment in U.S. dollars by checks drawn on U.S. banks. Contact Annemarie Vis at +44 223 424695 (24-hour FAX and phone).
- **Credit Cards:** *Science* accepts MasterCard and VISA. Discount does not apply to credit cards.
- **Cancellations:** Deadline for cancellation is 10 a.m., Tuesday, 10 days prior to issue date.

DISPLAY PERSONNEL ADVERTISEMENTS

For rates and info. about fractional display ads (all ads 1/2 page and larger), contact:

Recruitment Advertising
Deborah Cummings
Telephone: 202-326-6541

Janis Crowley, Recruitment
Advertising Manager
Telephone: 212-496-7704
FAX: 202-682-0816

Annemarie Vis
European Recruitment Advertising
+44 223 424695
(24-hour FAX and phone)

CONDITIONS: Personnel advertising is accepted only with the understanding that the advertisers do not discriminate among applicants on the basis of race, sex, religion, age, color, handicap or sexual preference. The AAAS encourages employers to actively recruit and employ underrepresented minority groups. *Science* reserves the right, at its discretion, to decline to publish advertisements submitted to it.

POSITIONS OPEN

EVOLUTIONARY BIOLOGIST

The Biology Department of Wesleyan University invites applications for a tenure-track faculty position at the level of **ASSISTANT PROFESSOR**. Applications are encouraged from all areas of evolutionary biology that incorporate a strong genetic or molecular component. We are seeking individuals with postdoctoral research experience and demonstrated research ability. The successful candidate will be expected to pursue a fundable research program and to participate actively in the departmental Ph.D. program. Wesleyan's Biology Department is housed in well-equipped modern laboratories with a research-oriented faculty attracting a high level of outside funding. The teaching commitment is one undergraduate or graduate course in population or evolutionary biology each semester. Send curriculum vitae, statement of research plans, and three letters of recommendation to: **Evolution Search Committee, Department of Biology, Wesleyan University, Middletown, CT 06459-0170** by November 16, 1992. *Wesleyan University is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority candidates.*

HARVARD UNIVERSITY, DEPARTMENT OF CHEMISTRY, ASSISTANT PROFESSOR OF PHYSICAL CHEMISTRY. Applications are invited for an assistant professorship in any area of physical chemistry. Applicants should arrange to have three letters of recommendation sent independently and should provide curriculum vitae and a description of future research plans. *Harvard University is an Affirmative Action/Equal Opportunity Employer. Applications from women and minority group members are welcome.* Applications and supporting materials should be sent by December 1, 1992, to: **Professor Charles M. Lieber, Department of Chemistry, Harvard University, 12 Oxford Street, Cambridge, MA 02138.**

TENURE-TRACK POSITION

The Department of Physiology in the Medical School wishes to fill a tenure-track position at the **ASSISTANT PROFESSOR** level. Our focus in this recruitment is on aspects of membrane biophysics and cellular and molecular biology which can relate to established programs in cardiovascular physiology and pathophysiology (hypertension, coronary angiogenesis). The department also has a very active training program in cardiovascular physiology. A campus-wide program in molecular biology provides state-of-the-art facilities. The successful applicant will be expected to establish an independent laboratory. Other duties will include teaching in the medical physiology course and at the advanced graduate level. Requires Ph.D., M.D., or D.V.M. and at least two years of postdoctoral experience. Salary and start-up funds are competitive.

Send current curriculum vitae to:

Dr. Allan W. Jones
Department of Physiology
University of Missouri
MA 415 Medical Sciences
Columbia, MO 65212
by January 1, 1993.

The University of Missouri is an Equal Opportunity Employer with special initiatives to recruit and encourage development of women and minorities.

Biochemistry ASSISTANT PROFESSOR. The Texas Tech University (TTU) Department of Chemistry and Biochemistry invites applications for a full-time, tenure-track Assistant Professor position. A Ph.D. degree is required; postdoctoral experience is preferred. The successful candidate should have outstanding potential in teaching and research and establish a vigorous research program in an area of biochemistry or molecular biology that complements those of the existing Biochemistry faculty. Research areas of particular interest include, but are not restricted to, plant molecular biology of algae or cyanobacteria, protein structure-function aspects of rational drug design or *in vitro* studies of eukaryotic gene expression. Candidates should submit curriculum vitae and a description of proposed research and arrange for three letters of recommendation to be sent by November 1, 1992 to: **Dr. Robert W. Shaw, Department of Chemistry and Biochemistry, Mail Stop 1061, Texas Tech University, Lubbock, TX 79409-1061.** *TTU is an Equal Employment Opportunity/Affirmative Action/ADA Employer.*

POSITIONS OPEN

MICROBIAL GENETICS

The Department of Biological Sciences anticipates making a full-time tenure-track faculty appointment in the area of microbial genetics. This appointment is expected to be made at the **ASSISTANT PROFESSOR** level, but under exceptional circumstances experienced candidates with outstanding records will be considered for appointment at higher rank. Applicants using prokaryotic or eukaryotic model systems to study basic molecular or cellular problems are especially encouraged to apply. The successful candidate must have a Ph.D. and extensive postdoctoral experience and will be expected to establish an extramurally funded research program, train graduate students, and participate in undergraduate education. In order to ensure full consideration, applications must be received by December 11, 1992. Applicants should send curriculum vitae along with a summary of research interests and goals, and arrange to have at least three letters of reference sent to:

Dr. Graham Hatfull
Genetics Search Committee
Department of Biological Sciences
University of Pittsburgh
Pittsburgh, PA 15260
Telephone: (412) 624-4266

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

DEVELOPMENTAL BIOLOGIST Lafayette College

We invite applications for a tenure-track position in developmental biology initially funded by a grant from the Howard Hughes Medical Institute. Appointment will be at the level of **ASSISTANT PROFESSOR**, to begin August 1993. Ph.D. and postdoctoral experience and training in molecular techniques are required. Research interest focused on gene regulation in invertebrate systems is preferred, particularly in the areas of pattern formation, developmental neurobiology or developmental genetics using gene manipulation or immunological approaches. We seek an individual committed to excellence in teaching and research within the context of a selective, undergraduate, liberal arts institution. Teaching duties will include courses in developmental biology, embryology, a senior seminar and, alternating yearly with each other, a specialty section of Biology 102 and an advanced course in the person's area of interest. The successful applicant is expected to maintain a vigorous research program and to mentor undergraduate research projects. Competitive salary and start-up funds. Applications, including curriculum vitae, graduate transcript and three letters of reference, should be sent by November 15, 1992, to: **Dr. Shyamal K. Majumdar, Head, Department of Biology, Lafayette College, Easton, PA 18042-1778.** *Lafayette College is committed to Equal Opportunity through Affirmative Action.*

ASSISTANT PROFESSORS. The Department of Physiology invites applications for two assistant professor positions (tenure-track). Ph.D. degree or equivalent with three years of postdoctoral training. Candidates who plan to develop an independent research program in cellular, molecular or biophysical aspects of cell signaling systems or membrane biology are especially encouraged to apply. However, excellent candidates in all areas of cell physiology will be given serious consideration. Applicants should submit curriculum vitae and a brief statement of research plans and have three letters of reference sent to: **James T. Stull, Ph.D., Department of Physiology, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9040.** *An Affirmative Action/Equal Opportunity Employer.*

MOLECULAR GENETICS

The Department of Molecular Biology and Genetics at The Johns Hopkins University School of Medicine has a position available at the **ASSISTANT PROFESSOR** level. Candidates of exceptional promise in the general research area of eukaryotic molecular biology and teaching are invited to apply by submitting curriculum vitae, a brief statement of future research plans and the names of three references to: **Dr. Thomas J. Kelly, Department of Molecular Biology and Genetics, The Johns Hopkins University School of Medicine, Baltimore, MD 21205.** *The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

MOLECULAR BIOLOGY

The Department of Biology of Pomona College invites applications for an anticipated opening at the tenure-track **ASSISTANT PROFESSOR** level to begin in Fall 1993. Applicants should have a broad background in biology with extensive training in molecular biology, including postdoctoral experience, in such areas as: endocrinology, immunology, microbiology or virology. The successful applicant will teach one upper division course each semester and establish an active research program that will involve undergraduates. Start-up funds are available. The appointee will participate also in an interdisciplinary molecular biology program supported by the Howard Hughes Medical Institute. We particularly encourage applications from women and members of underrepresented groups. The successful candidate will demonstrate a commitment to teaching an ethnically diverse student body in a liberal arts setting. To assure full consideration send curriculum vitae, statements of research and teaching interests, citing specific courses to be taught, and three letters of recommendation by November 15, 1992 to: **Dr. David Becker, Search Committee Chair, Department of Biology, Pomona College, Claremont, CA 91711. Telephone: (714) 621-8000, extension 2950.**

Pomona College is an Affirmative Action/Equal Opportunity Employer.

PURDUE UNIVERSITY, ASSISTANT PROFESSOR, PLANT PATHOLOGY RESEARCH AND EXTENSION: Tenure-track, 12 month.

Research (70%): develop a creative research program on diseases of corn, including those caused by mycotoxin-producing fungi. Research may involve etiology, epidemiology, sources of resistance, and/or other means of controlling corn pathogens. **Extension (30%):** develop an effective extension program on mycotoxins, including resistant germplasm, cultural practices, and storage conditions that influence mycotoxin production.

Ph.D. in plant pathology or related area required. Postdoctoral experience preferred. Screening November 1, 1992, until a suitable candidate is found. Send curriculum vitae, copies of publications, transcripts, the names of five references, and a statement of research and extension goals to: **Dr. R. C. Coolbaugh, Botany and Plant Pathology, 1155 Lilly Hall, Purdue University, West Lafayette, IN 47907-1155. Telephone: (317) 494-4615.** *An Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF ARIZONA Culture, Science & Technology Program

Tenure-track **ASSISTANT PROFESSOR** in the Cultural, Social and Behavioral Contexts of Engineering and Technology. Appointment in the College of Engineering with Joint or Adjunct appointment in Social and Behavioral Sciences as appropriate (i.e., Anthropology, Sociology, History, etc.). Ph.D. required. Send curriculum vitae, publication list, summary of research interests and names of three references to: **Search Committee, c/o Professor D. R. Uhlmann, University of Arizona, Tucson, AZ 85721.** Closing date for applications is December 15, 1992. *Applications by women and minority candidates encouraged. The University of Arizona is an Equal Opportunity/Affirmative Action Employer.*

THREE ASSISTANT PROFESSOR POSITIONS DEPARTMENT OF MOLECULAR BIOLOGY PRINCETON UNIVERSITY

The Department of Molecular Biology at Princeton University invites applications for three assistant professorships in any one of the following areas:

1. Cellular and Developmental Aspects of the Immune System.
2. Cell/Structural Biology: cell/cell interaction and signalling; cytoskeletal and chromosome dynamics; cell cycle, protein structure, cell surface.
3. Neurobiology: molecular neurobiology employing genetics and/or cell biology techniques.

Applicants should send curriculum vitae, a summary of research interests, and the names of at least three references to the attention of one of the search fields listed above and addressed to:

**Department of Molecular Biology
Princeton University
Princeton, NJ 08544**

Application deadline is December 1, 1992.

Princeton University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

Section of Experimental Oncology Department of Radiology University of Utah

The Section of Experimental Oncology is seeking applications for tenure-track faculty positions from individuals with research interests in the molecular biology of cancer. Up to three junior level positions (**INSTRUCTOR** or **ASSISTANT PROFESSOR**) are available. Current research interests of the unit include chromosome and gene instability, cell cycle regulation, and radiation induced alterations of chromatin structure and repair. We are seeking individuals to strengthen these areas as well as to develop new programs relevant to tumorigenesis. Potential for faculty appointment includes a tenure-track position in the Department of Radiology with the possibility of joint appointment in another department and the Human Molecular Biology and Genetics Program as appropriate to the research interests and background of the applicant. Applicants should have a Ph.D. or M.D. degree and at least three years of postdoctoral training. Those interested in applying should submit curriculum vitae, description of research interests, and the names of three references to: **Dr. Mark Meuth, Head, Section of Experimental Oncology, Department of Radiology, University of Utah Health Sciences Center, 50 North Medical Drive, Salt Lake City, Utah 84132.** The recruitment will remain open until 1 December 1992 or until suitable candidates are identified. *The University of Utah is an Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF BIOCHEMISTRY UNIVERSITY OF COLORADO, BOULDER

The Department of Chemistry and Biochemistry invites applications for a tenure-track faculty position. Preference will be given to candidates at the Assistant Professor level, but candidates at all levels will be considered. The appointment is part of a major expansion in staff and facilities in biochemistry. Applicants should have a Ph.D. in chemistry or biochemistry and a major commitment to conducting a vigorous and innovative research program in biochemistry. Applicants in all areas of biochemistry are welcome. Applicants should send curriculum vitae, representative reprints, and statement of research plans and have three letters of reference sent to: **Biochemistry Search Committee, Department of Chemistry and Biochemistry, University of Colorado, Campus Box 215, Boulder, CO 80309-0215.** Applications will be evaluated beginning November 1, 1992 with a final application deadline of December 15, 1992. The earliest starting date for the position is January 1, 1994. The University of Colorado at Boulder has a strong institutional commitment to the principle of diversity in all areas. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities and disabled individuals.

BIOCHEMISTRY/MOLECULAR BIOLOGY MEHARRY MEDICAL COLLEGE

Faculty positions will be available 1992/93 in the Department of Biochemistry, at the level of **ASSISTANT OR ASSOCIATE PROFESSOR**. Applicants must have a Ph.D. or M.D. degree, or both, and appropriate formal postdoctoral research experience. Joint appointments in clinical science departments are possible. We are seeking individuals who have potential or demonstrated competence in the use of molecular biological approaches to conduct research in molecular medicine, or on fundamental biochemical/cell biological problems. Selected individuals must also be capable of, and committed to, making significant contributions to the teaching and administrative functions of the Department of Biochemistry. Successful applicants will be expected to develop/maintain a funded research program of high quality and to participate in the graduate and professional (medical, dental, and allied health) school teaching programs of the department. Applicants should send curriculum vitae, names of four individuals who may be contacted for reference, and a summary (not exceeding three pages) of potential research project(s) to: **Ifeanyi J. Arinze, Ph.D., Chairman, Department of Biochemistry, Meharry Medical College, Nashville, TN 37208.** *Meharry Medical College is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR WOUND AND BONE HEALING

The Division of Plastic Surgery at UMDNJ-Robert Wood Johnson Medical School, New Brunswick, NJ, is seeking a tenure-track scientist to direct its research efforts in wound and bone healing. An excellent opportunity exists to develop in these areas and in related aspects of biomaterials research. We are seeking qualified individuals having proven research activity, possessing the ability to undertake clinically relevant research. Requires a Ph.D. degree and experience in a related area. The successful candidate must be capable of securing outside funding after initial support. Please send a letter, curriculum vitae and copies of relevant publications to: **Gregory Borah, M.D., Chief, Division of Plastic Surgery, UMDNJ-Robert Wood Johnson Medical School, One Robert Wood Johnson Place, CN19, New Brunswick, NJ 08903-0019.** *UMDNJ, New Jersey's university of the health sciences, is an Affirmative Action/Equal Employment Opportunity Employer, M/F/H/V, and a member of the University Health System of New Jersey.*

UMD New Jersey

Tenure-track faculty position in Wildlife Ecology at Purdue University, Department of Forestry & Natural Resources, to be filled at the **ASSOCIATE PROFESSOR** level. Teaching responsibilities (70%) include teaching lower division courses in environmental conservation and wildlife ecology, and an upper division course in conservation biology on an alternate year basis with a graduate course in related area. Research responsibility (30%) is to develop and conduct a program in wildlife ecology or related area. Ph.D. in ecology, wildlife science, or related area, plus a demonstrated record of excellence in teaching and research required. Applications accepted through November 30, 1992 or until a suitable candidate found. Send résumé, transcripts, copies of publications, and names of five references to: **Dr. Dennis C. LeMaster, Chair, Search & Screening Committee, Department of Forestry & Natural Resources, Purdue University, West Lafayette, IN 47907-1159.** *Purdue University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

COMMUNITY ECOLOGIST

The Department of Zoology, University of Florida, announces a position at the **ASSISTANT PROFESSOR** level for an ecologist with research interests in tropical communities. Duties will include teaching introductory biology and general ecology, developing a graduate course in community ecology, supervising graduate student research, and interacting with faculty in the Zoology Department and in other UF academic units that have ecological or tropical orientations. Each applicant should submit curriculum vitae; names, addresses and telephone numbers of four references; a synopsis of research interests; and a detailed outline of an undergraduate ecology course. Send application materials by November 30, 1992 to: **Dr. Brian K. McNab, Chair, Community Ecology Search Committee, Department of Zoology, University of Florida, Gainesville, FL 32611.** Filling this position is contingent upon the availability of state funds. *The University of Florida is an Equal Opportunity/Affirmative Action Employer.*

MICROBIOLOGIST AND ECOTOXICOLOGIST/BOTANIST

The Department of Biology invites applications for two tenure-track **ASSISTANT PROFESSORSHIPS** from candidates committed to excellence in research and in teaching at introductory and advanced levels. **Microbiologist:** Preference will be given to applicants able to teach courses for students in prenursing and allied health programs and a graduate/undergraduate course in medical microbiology. **Ecotoxicologist/Botanist:** We seek a plant ecotoxicologist having interests complementing those of existing faculty in ecotoxicology and qualified to teach introductory botany. Submit curriculum vitae, reprints, statement of research interests, and three letters of recommendation to: **William E. Cooper, Chair, Department of Biology, Indiana University-Purdue University Fort Wayne, Fort Wayne, IN 46805** by December 11, 1992. *An Affirmative Action/Equal Opportunity Employer.*

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.

Leading the way for a healthier world

As a GLOBAL research-based pharmaceutical company, we are committed to helping people lead healthier lives through innovative pharmaceutical and nutritional products. It is from this commitment and position of strength that we move forward with a major expansion of our research and development activities. Currently, we have positions available in the following therapeutic areas:

CARDIOVASCULAR/ METABOLIC DISORDERS

Cellular/Molecular Biologists

Ph.D.

This Ph.D. position is responsible for studying the regulation of gene expression. As part of a multidisciplinary team, this position will utilize cutting edge technology to develop novel therapeutic agents for the treatment of atherosclerosis and diabetes. Candidates will have at least 3 years of Postdoctoral experience and a proven record of innovative research. Relevant experience in molecular/cellular biology pertaining to regulatory mechanisms of gene transcription is highly desired. **(Position #515)**

B.S./M.S.

The Molecular Biologist will support atherosclerosis and diabetes research. Candidates must have 0-3 years relevant experience in DNA cloning, sequencing, expression, mutagenesis and transfection, as well as RNA analysis. Experience in *in situ* hybridization and signal transduction preferred **(Position #517)**

Pharmacologist/Electrophysiologist

B.S./M.S.

The successful candidate will participate in studies on the modulation of ion channel function in isolated tissues. Expertise in the *in vitro* measurement of smooth muscle contractility and radiolabel ion fluxes or single cell voltage clamp techniques is necessary. Candidates must have 2-5 years of relevant experience in smooth muscle function and electrophysiology. **(Position #525)**

Biochemist

B.S./M.S.

The Biochemist will be responsible for profiling novel lipid lowering agents in *in vitro* models. Candidates must have 0-3 years relevant experience in biochemistry techniques, including enzymology, receptor binding, ELISA, and isolation and purification of enzymes. Experience in a lipid biochemistry laboratory and familiarity with cell culture and *in vivo* techniques would be considerable assets. **(Position #590)**

INFLAMMATION/IMMUNOLOGY

Cellular/Molecular Biologists

B.S./M.S.

The successful candidate for this position will independently design and conduct research focusing on the role of Cell Adhesion Molecules (CAMs) in inflammation. Candidates must have 4-10 years relevant experience in cell biology, biochemistry and immunology techniques, as well as extensive tissue culture experience. Prior research in the areas of inflammation and CAM expression and function is highly desired. **(Position #506)**

The Molecular Biologist will participate in research encompassing targets involved in immunomodulation and inflammation. Candidates must have 2-5 years relevant experience in molecular biology techniques, including cDNA cloning, transfection, protein expression, tissue culture, SDS-PAGE and Western blot. Computer literacy is a definite plus. **(Position #601)**

Wyeth-Ayerst offers an excellent compensation and benefits package in a highly professional environment. Our research laboratory is just minutes away from Princeton University and is convenient to many other cultural, educational and leisure activities. Please forward resume with salary requirements to: **WYETH-AYERST RESEARCH, Employment Supervisor, (Reference Position #), CN 8000, Princeton, NJ 08543-8000.** An equal opportunity employer, M/F/D/V responses encouraged. Principals only.



We're building on our success

Program Manager, Oceanic Biology

The Office of Naval Research is seeking a highly qualified individual to plan and manage a contract research program in the broad field of oceanic biology. The sponsored research is conducted principally at universities and government and industrial laboratories by leading scientists in the field. This is a Civil Service position at the GM-14 or 15 level (\$54,607 - \$83,502), depending upon qualifications.

The individual selected will establish goals for and conceive, organize and direct research and development programs in new areas of oceanic biology involving areas such as bio-optics, bioluminescence, sensory capabilities of marine organisms, and environmental and organism influences on particle dynamics. The incumbent will identify new research opportunities, evaluate and select research proposals for funding, manage funding resources, communicate ONR's interests to the scientific community, and represent the program within the Navy and DoD. This position provides the challenge and opportunity to have a significant impact on the direction and quality of research at the national level.

Applicants must have a Ph.D. or equivalent training in oceanography or in a biological area related to oceanography, and at least one year of professional experience or an equivalent combination of education and experience. To be qualifying, this experience must have been at a level of difficulty and responsibility equivalent to that of the next lower grade in the Federal Service. Demonstrated ability to manage a basic and/or applied research program or project and the ability to interact with senior scientific management officials is preferred.

Interested persons should send a resume, list of publications and a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers or from the address below), to: **OFFICE OF THE CHIEF OF NAVAL RESEARCH, Civilian Personnel Division, OCNR Code 01242, Attn: Announcement #92-25 (S), 800 North Quincy Street, Arlington, VA 22217-5660.**

Applications will be accepted through 2 November 1992 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplemental forms, please call (703) 696-4705 or TDD (703) 696-2681.

U.S. Citizenship Required

An Equal Opportunity Employer

RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY

The Department of Biotechnology is seeking applicants for our ongoing program of crop improvement. Pioneer offers competitive salaries, excellent facilities and a highly cooperative research environment. Successful candidates will be expected to interact extensively with ongoing programs in transformation, gene expression, gene isolation or RFLP programs.

PROJECT LEADER, VEGETABLE SEEDS TRANSFORMATION (JOB #1380-A) - The successful candidate will have experience in transformation/cell biology in cucurbits, solanaceous (tomato) and/or carrots to complement our ongoing program of plant improvement in these species. Traits of interest include disease and insect resistance, quality attributes and male sterility. This staff position will be part of an ongoing biotechnology effort in maize, sunflower, soybean, and alfalfa. Strong interpersonal skills will be required to develop collaborations both within Pioneer Hi-Bred International, Inc.'s extensive research program and external public and private organizations. **EDUCATION/EXPERIENCE:** Ph.D. or equivalent work experience in cell or molecular biology or related field plus 4 years of relevant research experience. Demonstrated ability to initiate and implement research in a collaborative environment is preferred. **CONTACT PERSON:** JO ANN JORGENSEN

RESEARCH ASSOCIATE, VECTOR CONSTRUCTION (JOB #1365-A) - The successful candidate for this position will be part of a team of people responsible for the design and construction of vectors for proper expression in plants. The vector construction effort is carried out in the DNA Core Facility of the Gene Expression group. **EDUCATION/EXPERIENCE:** B.S. degree or equivalent work experience in biological sciences, molecular biology or related field and 3 years directly related laboratory experience are required. Applicants should also have experience in cloning and/or vector construction methods. **CONTACT PERSON:** AMY LaMOTTE

RESEARCH ASSOCIATE, ALFALFA TRANSFORMATION (JOB #1388-A) - This position will be part of an existing group working on transformation of alfalfa and will be responsible for delivering agronomically important genes into alfalfa for traits such as insect and disease resistance. Collaboration with other researchers in the Biotechnology Department and Plant Breeding Division is expected. Experience with cell biology and genetic transformation of dicots is preferred. **EDUCATION/EXPERIENCE:** B.S. degree or equivalent directly related laboratory experience is required. **CONTACT PERSON:** JO ANN JORGENSEN

Applications received by November 2, 1992 will be assured of consideration. However, applications will be considered until the positions are filled.

Pioneer Hi-Bred International, Inc. is an Equal Opportunity employer. Please send TWO (2) resumes to the contact person listed above indicating the JOB # on the outside of the envelope and the names, addresses and telephone numbers of three references in your correspondence to:



PIONEER HI-BRED INTERNATIONAL, INC.
Plant Breeding Division
Department of Biotechnology Research
Attn: (Contact Person) JOB #_____
P.O. Box 38
Johnston, IA 50131-0038

Research-Outreach Methodology Position

The Institute for Children, Youth, and Families and the Institute for Public Policy and Social Research at Michigan State University seek to appoint one new faculty member with tenure (with assignment in the appropriate academic department or departments) to begin August 16, 1993. Rank is open but preference will be given to established scholars. Salary is competitive. The individual will serve as program director for the Research-Outreach Methodology (ROM) Program that is jointly administered by the two institutes.

A substantial portion of the research activities of the two institutes focuses on attempts to change problematic cause and effect patterns in specific public policy and/or youth/family areas in the real-world settings within which they occur. As such, the job demands an individual who combines two distinct sets of skills. First, the individual must have substantial methodological expertise, demonstrated in his or her publications about research designs and statistical methodologies (e.g. structural equation modeling, item response theory, time series analysis, factor analysis, and longitudinal design and data analysis). Second, the individual must have experience in the application of research designs and methodologies in real-world settings. The two institutes are actively formulating research agendas that involve real people in real-world settings. This necessitates someone willing to push the bounds of conventional methodological practice. In addition, the individual must have substantive research and teaching interests. Finally, the individual must also have an interest in and the ability to consult effectively and collaborate productively with colleagues from a broad array of disciplines and from numerous sectors of the community.

The ROM program director will facilitate research-outreach activities by: (1) applying existing methodologies to real-world research contexts; (2) inventing new methodologies or using old methodologies in innovative ways that are appropriate to specific social research contexts; (3) training of graduate and post-doctoral students; (4) oversee the ROM teaching and research program; and (5) pursuing his/her own area of scholarship.

Minorities and women are especially encouraged to apply. Send a letter of interest, curriculum vita, and the names, addresses, and telephone numbers of five references to: Dr. Richard M. Lerner, Chair, Research-Outreach Methodology Search Committee, Institute for Children, Youth and Families, Michigan State University, 2 Paolucci Building, East Lansing, MI 48824-1030. Review of applications will begin on November 15, 1992, and continue until a suitable candidate is identified. MSU is an affirmative-action, equal-opportunity institution.

HOWARD HUGHES MEDICAL INSTITUTE

FELLOWSHIPS FOR BIOLOGICAL AND BIOMEDICAL SCIENCES

The Howard Hughes Medical Institute announces the 1993 competitions for fellowship programs that support training in fundamental biological and biomedical research. Awards, based on international competitions, focus on research directed to understanding basic biological processes and disease mechanisms. Fellowships may be held at academic or not-for-profit research institutions.

■ Predoctoral Fellowships in Biological Sciences

Up to five years of support for full-time graduate study toward a Ph.D. degree in biostatistics, cell biology and regulation, epidemiology, genetics, immunology, neuroscience, or structural biology. Applicants must not have completed the first year of postbaccalaureate graduate study in biology. *Application deadline: early November.*

■ Postdoctoral Research Fellowships for Physicians

An opportunity for physicians to further their training in research. Three years of support for training in fundamental research subsequent to postgraduate clinical training. *Application deadline: early January.*

■ Research Training Fellowships for Medical Students

An opportunity for medical students in the United States to explore a burgeoning interest in fundamental research. Support is awarded for one year of full-time fundamental research in a laboratory at the student's medical school or another institution (except NIH). *Application deadline: early December.*

■ Research Scholars at the National Institutes of Health

Under this joint HHMI-NIH program, medical students in the United States spend an intensive year in research in the intramural program at the NIH in Bethesda, Maryland. Residence is provided at the Cloister on the NIH campus. *Application deadline: early January.*

FOR PROGRAM ANNOUNCEMENTS AND APPLICATIONS

FOR PREDOCTORAL FELLOWSHIPS:
Hughes Fellowship Program
The Fellowship Office
National Research Council
2101 Constitution Avenue, N.W.
Washington, DC 20418
(202) 334-2872

FOR OTHER PROGRAMS:
Howard Hughes Medical Institute
Office of Grants and Special Programs
Department AK93
6701 Rockledge Drive
Bethesda, MD 20817
(301) 571-8412

The Howard Hughes Medical Institute, an Equal Opportunity Employer, welcomes applications from all qualified candidates and encourages women and members of minority groups to apply

POSITIONS OPEN

DEPARTMENT OF ZOOLOGY UNIVERSITY OF WASHINGTON ASSISTANT PROFESSOR

A tenure-track appointment is available in the area of vertebrate functional biology. Those using modern approaches to basic questions in **PHYSIOLOGY, SYSTEMS OR CELLULAR NEUROPHYSIOLOGY**, or **FUNCTIONAL MORPHOLOGY** are especially encouraged to apply. Appointment will be at the assistant professor level. Responsibilities include teaching at the undergraduate and graduate levels, and establishment of a vigorous program of independent research. Applicants should submit curriculum vitae, statement of research and teaching interest, three reprints, and three letters of recommendation to: **Dr. R.T. Paine, Chairman, Department of Zoology NJ-15, University of Washington, Seattle, WA 98195**. Priority will be given to applications received before 30 November 1992. *The University of Washington is building a culturally diverse faculty and strongly encourages applications from women and minority candidates. Affirmative Action/Equal Opportunity Employer.*

Harvard University ASSISTANT PROFESSOR CELLULAR AND DEVELOPMENTAL BIOLOGY (CDB)

The Department of Cellular and Developmental Biology intends to make an assistant professor appointment (entry level) available starting either September 1993 or September 1994. Our department covers a broad range of topics in cellular biology, developmental biology and molecular genetics. We are seeking outstanding candidates in any of these fields. We strongly encourage applications from women and minority groups. Applications should include curriculum vitae, reprints of publications, and a statement of present and future research plans (1 to 3 pages). Complete applications and three letters of recommendation, *solicited by the applicant*, should be received no later than October 15, 1992 by: **CDB Search Committee, Cellular and Developmental Biology, Harvard University, 16 Divinity Avenue, Cambridge, MA 02138; Telephone (617) 495-2327**. *Harvard University is an Affirmative Action/Equal Opportunity Employer.*

SUNY HEALTH SCIENCE CENTER AT SYRACUSE FACULTY POSITION IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

We invite applications for a tenure-track position. While we expect to make the appointment at the **ASSISTANT PROFESSOR** level, candidates at higher levels also will be considered. Outstanding candidates in all areas of biochemistry and molecular biology are encouraged to apply. Applicants must have a Ph.D. or equivalent degree in biochemistry or related field, postdoctoral experience, demonstrated research productivity and a commitment to excellence in teaching medical and graduate students. Send letter of application (with curriculum vitae and summary of research plans) and have three letters of reference forwarded to: **Dr. Harvey S. Penefsky, Chair, Search Committee, Department of Biochemistry and Molecular Biology, 750 East Adams Street, Syracuse, NY 13210**. Review of applications will begin December 7, 1992 and continue until the position is filled.

An Affirmative Action/Equal Employment Opportunity/ADA Employer.

PLANT/MAIZE MOLECULAR GENETICIST

The Department of Zoology and Genetics seeks applicants for a tenure-track position at any academic level. Plant molecular biologists using genetic approaches will be given special consideration. Laboratory and greenhouse space are available in the new molecular biology building, and generous start-up funds will be provided. Modest teaching responsibilities are determined by the interest and expertise of the individual. Application deadline is November 15, 1992 or until the position is filled. Send curriculum vitae, a description of future research, and three letters of reference to: **Alan G. Atherly, 2216 Molecular Biology Building, Iowa State University, Ames, IA 50011**.

POSITIONS OPEN

ASSISTANT PROFESSOR in Visual Science. The University of Rochester invites applications for a tenure-track position involving teaching and research. Available September 1, 1993, this position could reside in the departments of Psychology, Computer Science, Neurobiology and Anatomy, Ophthalmology, or Physiology. We are particularly interested in applicants with research interests in mechanisms of high level visual processing. Applicants must have a Ph.D., or an M.D. with research experience. Send by January 1, 1993, curriculum vitae, research description and plans, reprints/preprints, and three names for recommendations to: **David Williams, Center for Visual Science, University of Rochester, Rochester, NY 14627**. *The University of Rochester is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT OR ASSOCIATE PROFESSOR Positions in Immunology, Virology and Pathogenic Microbiology Department of Microbiology and Immunology Loyola University Chicago

Applications are invited for tenure and tenure-track faculty positions in the Department of Microbiology & Immunology at Loyola University Chicago, Stritch School of Medicine. We are seeking talented investigators whose research interests are in molecular aspects of the immune system, virology, or microbial pathogenicity to join a growing interactive group of investigators. Candidates are expected to develop independent, externally funded, high quality research programs. Excellent new facilities and attractive start-up funds are available.

Submit curriculum vitae, statement of research interest and a list of three references 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.

HEMATOPATHOLOGIST—The Department of Pathology, University of Virginia School of Medicine, is seeking a Hematopathologist at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level with experience in oncologic hematopathology, including bone marrow and lymph node interpretation. A funded or fundable research program is desirable. Send letters of inquiry with curriculum vitae and names of three references to: **Donald Innes, M.D., Department of Pathology, Box 168, University of Virginia Health Sciences Center, Charlottesville, VA 22908**. *An Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS DEPARTMENT OF PHYSIOLOGY

Applications are invited for tenure-track positions at the level of **ASSISTANT, ASSOCIATE and FULL PROFESSOR** for a new and growing Department of Physiology. Candidates must have a Ph.D. or M.D. and proven research capabilities in the area of membrane and cellular physiology and biophysics. The Department is housed in newly renovated space. Successful candidates will be expected to establish and maintain vigorous independent research programs supported by extramural funding. In addition, they will be expected to participate in a moderate teaching load to medical and graduate students. Salary, space and start-up funds are highly competitive. Applicants should submit a letter outlining their future research interests, up-to-date curriculum vitae and the names and addresses of their references to:

**Dr. John M. Russell
Department of Physiology
Medical College of Pennsylvania
2900 Queen Lane
Philadelphia, PA 19129**

The UCLA Department of Pathology invites applications for a faculty position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level in Cytopathology at the affiliated program at Olive View Medical Center. The appointee will have responsibilities in patient care, research and teaching of Residents and Medical Students. Candidates should be board certified and experienced. Submit curriculum vitae and names and addresses of three references to: **George Smith, M.D., Professor and Acting Chair, UCLA Department of Pathology and Laboratory Medicine, 10833 LeConte Avenue, Los Angeles, CA 90024-1732**. *UCLA is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

FACULTY POSITIONS IN NEUROSCIENCE/CELL BIOLOGY

Two **ASSISTANT/ASSOCIATE PROFESSOR** positions in Neuroscience/Cell Biology are available, Department of Anatomy, LSU Medical Center, New Orleans. A Ph.D. and two to three years of postdoctoral experience are required. Applicants must have an outstanding funding record/potential. Salary levels are competitive, with ample space and start-up funds. Joint appointments in the Neuroscience and LSU Eye Centers are encouraged. Send curriculum vitae, research interests, and names of three references to: **Dr. R. Ranney Mize, Department of Anatomy, LSU Medical Center (LSUMC), 1901 Perdido Street, New Orleans, LA 70112-1393**. *LSUMC is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR/ ASSOCIATE PROFESSOR NEUROBIOLOGY, CELL AND MOLECULAR BIOLOGY

Department of Pathology, Columbia University

The Division of Cell and Molecular Biology in the Department of Pathology invites applications for two tenure-track positions. One position is in Neurobiology and the other field is open. The successful candidate will join an existing group of over 20 established investigators in neurobiology, cell biology, oncogenesis, molecular biology and molecular pathobiology. The department has active postdoctoral and predoctoral training programs and an excellent research-oriented residency program. Applicants must hold either an M.D. or Ph.D. degree and be capable of establishing a strong independent research program. Please send curriculum vitae and names of three references to: **Michael L. Shelsanski, M.D., Ph.D., Chair, Department of Pathology, Columbia University, 630 West 168th Street, New York, NY 10032**. *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE PROFESSOR OF CLINICAL PATHOLOGY. The Department of Clinical Pathology, School of Veterinary Medicine, University of California, Davis, CA 95616, invites applications for this tenure-track position which focuses on clinical biochemistry/molecular diagnostics. Requires a D.V.M., Ph.D. or equivalent and an aptitude for teaching, service and research. Board certification is desirable. Send curriculum vitae, a list of publications, names of at least three references and any other materials or information deemed important and pertinent by the applicant to: **Dr. J. J. Kaneko, Chair, Search Committee**. *The University of California is an Equal Opportunity Employer. Closing date December 1, 1992 or until filled.*

FACULTY POSITIONS DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE

Applications and nominations are invited for faculty positions at the **ASSISTANT, ASSOCIATE OR FULL PROFESSOR** level for September 1993. We are seeking applicants who are using contemporary approaches to investigate problems in the general areas of cell signal transduction, growth control, and protein structure and design. Exceptional applicants in other areas will also be considered. Applicants at the Assistant Professor level should have a Ph.D., postdoctoral experience, a strong record of research accomplishments, and demonstrable potential for the development of an independent research program. The Department has hired several new faculty in recent years and at present consists of 17 full-time faculty and several joint appointees as well. The Department and College are well equipped and have research support facilities that include nucleic acid and protein synthesis and sequencing, NMR, EM, etc. Applications should include curriculum vitae, a summary of current and future research plans and the names of at least three individuals for references. Review of applications will begin after November 1, 1992 and will continue until the positions are filled. Send applications or nominations to: **Chair, Faculty Search Committee, Department of Biochemistry (M/C 536), University of Illinois College of Medicine, 1853 West Polk Street, Chicago, IL 60612**. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*



**Public Announcement
Regarding a
New Research and Development Project on
Ultimate Manipulation of Atoms and Molecules**

Announced by the New Energy and Industrial Technology
Development Organization on October 1, 1992

In order to promote the research and development of industrial technology, the New Energy and Industrial Technology Development Organization (NEDO) would like to inform all interested companies and research organizations regarding the research and development project described below. This new project is being undertaken as part of the National Research and Development Program (the Large-Scale Project) of the Agency of Industrial Science and Technology, Ministry of International Trade and Industry of Japan.

Theme of the Research and Development Project

"Ultimate Manipulation of Atoms and Molecules"

Outline of the Research and Development Work to be Entrusted

The purpose of this project is to develop techniques for probing and manipulating atoms and molecules on solid surfaces or in three-dimensional space with extreme precision, and their support techniques, as common fundamental technology for such fields as new materials, electronics and biotechnology.

Style of the Research and Development

This project will be implemented as joint research and development between a national laboratory and project participants.

The project's research activities will be carried out at one place especially organized for this project.

Procedures for Application

(1) Qualification Criteria

All companies or research organizations who meet the following qualification criteria may submit an application to participate in the above project:

1. The applicant must be a company or organization having human resources who are experienced and well qualified to carry out the research and development in the field covered by or related to the project.
2. The applicant must be in sound financial condition and have the ability to manage its finances as necessary to smoothly carry out the project work.
3. The applicant must be able to comply with NEDO's instructions, if such are necessary, to fully carry out the project work.
4. The applicant must have attended the explanatory meeting held by NEDO as set forth in item(2) below or been represented at the meeting by a responsible agent or representative who is capable of accurately conveying the contents of the meeting in detail.

(2) Explanatory meeting

An explanatory meeting will be held on the date shown below in order for NEDO to fully explain the details of the project's research and development work to be entrusted and the application documents to be submitted. All companies or research organizations who are interested in submitting an application to participate in the project are required to attend this meeting or to send an agent or representative to attend on their behalf. Japanese will be the only language used during the meeting.

Date: Friday, October 16, 1992

Time: 14:00 to 15:00

Place: NEDO's Head Office
30th Floor, Sunshine 60 Building
1-1, Higashi-Ikebukuro 3-Chome
Toshima-ku, Tokyo 170

(3) Further Information

For further information regarding the research and development work to be entrusted under the above project, please contact NEDO by telefax as follows:

New Energy and Industrial Technology
Development Organization
Contract Division
Accounting Department
28th Floor, Sunshine 60 Building
1-1, Higashi-Ikebukuro 3-Chome
Toshima-ku, Tokyo 170 Japan
Telefax: 03-5992-1184

POSITIONS OPEN

ASSISTANT or ASSOCIATE PROFESSOR. Applications are invited for tenure-track positions at the rank of Assistant or Associate Professor in the Department of Biochemistry at the University of Puerto Rico (UPR) School of Medicine. Candidates for these positions should have experience at the postdoctoral level and a strong commitment to excellence in research and teaching. Scientists with interests in all areas of biochemistry will be considered. However, those with research interests in molecular biology, enzyme biochemistry and/or protein structure-function relationships are particularly encouraged to apply. Adequate facilities and start-up funds will be provided to establish a competitive research program. Send curriculum vitae, statement of future research plans, and the names, addresses, telephone and FAX numbers of three or more references to: **Dr. Sydney Craig, Chair, Department of Biochemistry, University of Puerto Rico School of Medicine, P.O. Box 365067, San Juan, PR 00936-5067.** Review of applications will begin on 26 October 1992.

UPR is an Equal Opportunity/Affirmative Action Employer.

FULL PROFESSOR POSITION Markey Center for Molecular Genetics Department of Microbiology and Molecular Genetics University of Vermont

The Department of Microbiology and Molecular Genetics at the University of Vermont has expanded greatly over the past several years to develop an interactive department of twenty full-time faculty. We will be moving into a new building in the Spring of 1993 with modern molecular genetics teaching and research facilities. As part of a long-term commitment to expand our molecular genetics research, we are seeking an outstanding scientist with a strong track record for a position as Full Professor who would thrive and participate in an interactive and cooperative environment. Candidates with research interests in any area of Molecular Genetics will be considered who would complement our department's strengths in RNA processing, DNA recombination, replication and repair, and signal transduction.

Interested candidates should submit an application including curriculum vitae, a description of research interests, the names and addresses of three references to: **Dr. Janet Kurjan, Department of Microbiology and Molecular Genetics, University of Vermont, College of Medicine and College of Agriculture and Life Sciences, Burlington, VT 05405.** This position will remain open until filled.

The University of Vermont is an Equal Opportunity/Affirmative Action Employer; women and people from diverse racial, ethnic, and cultural backgrounds are encouraged to apply.

DIRECTOR OREGON REGIONAL PRIMATE RESEARCH CENTER

The President of the Oregon Health Sciences University (OHSU) and the Board of Trustees of the Medical Research Foundation of Oregon (MRF) invite applications for the position of Director, Oregon Regional Primate Research Center (ORPRC). Sponsored by the NIH and MRF, ORPRC conducts basic and applied research with simians and other species uniquely suited for the solution of human health problems. ORPRC scientists also provide graduate and professional training. Center scientists have joint appointments and research collaborations at OHSU, Portland, Oregon.

Candidates are expected to be highly-regarded scientists employing state-of-the-art techniques in research programs that complement interests at ORPRC in developmental and reproductive sciences, neurosciences, molecular medicine or the pathobiology of metabolic and infectious diseases. Experience in academic or scientific administration is also important. Prior experience involving primate research is preferred. Send curriculum vitae with funding history, career goals, relevant experience and names of four references by October 31, 1992, to: **Ms. Laurie Schweiker, ORPRC, 505 N.W. 185th Avenue, Beaverton, OR 97006, Telephone: (503) 690-5210.** MRF/ORPRC is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

ASSOCIATE DEAN AND DIRECTOR INTERNATIONAL PROGRAMS IN AGRICULTURE PURDUE UNIVERSITY

Purdue University seeks an experienced professional to provide intellectual and administrative leadership to its international programs in agriculture. In its vision for the 21st century, Purdue's School of Agriculture is committed to bringing more international content into its classroom and extension education curricula and to developing a range of overseas study and internship opportunities for its undergraduate students, field research opportunities for its graduate students, and collaborative research relationships for its faculty. The School also plans to continue its involvement in overseas institutional development projects commensurate with faculty interest. Applicants must have an earned doctorate; professional experience in an area of food, agriculture, or natural resources; broad international or cross-cultural experiences; and excellent leadership, communications, and grantsmanship skills. Letter of application, résumé, and five letters of reference should be submitted by 1 December 1992 to: **Dean R. L. Thompson, Attn: IPAA Search Committee, 1140 AGAD, Purdue University, West Lafayette, IN 47907-1140 USA.** Purdue University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

CHAIR, DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

The State University of New York Health Science Center at Syracuse invites applications and nominations for the position of Chair of the Department of Microbiology and Immunology. Candidates must have a Ph.D. or M.D. degree, or both, a distinguished record of research accomplishments, a commitment to teaching, and a desire to build and lead a department of prominence. The Department is undergoing extensive renovations of its research facilities and a number of vacant state-funded tenure-track lines are available to the new Chair. Applications from women and minorities are encouraged. Curriculum vitae of interested candidates and nominations should be sent to: **Richard L. Cross, Ph.D., Department of Biochemistry and Molecular Biology, SUNY Health Science Center at Syracuse, 750 East Adams Street, Syracuse, NY 13210, Telephone: (315) 464-5127.** Review of curricula vitae will begin November 1, 1992 and continue until the position is filled.

An Equal Employment Opportunity/Affirmative Action/ADA Employer.

ASSISTANT MEMBER MEMORIAL SLOAN-KETTERING CANCER CENTER

The Program in Molecular Biology, Sloan-Kettering Institute (SKI) Memorial Sloan-Kettering Cancer Center (MSKCC) invites applications for two positions as Assistant Member. The successful candidates will have demonstrated outstanding potential for a research career and will be using a combination of molecular genetic, cell biological, or modern biochemical approaches to study either (1) the cell cycle or (2) developmental genetics of vertebrates.

Applications should include curriculum vitae, a summary of current research activities and future research plans, and three letters of references. Please send applications concerning vertebrate developmental genetics to: **Dr. Elizabeth Lacy or Dr. Peter Besmer, Co-Chairs, Developmental Genetics Search Committee, Program in Molecular Biology, Sloan-Kettering Institute, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.** Applications concerning the cell cycle should be directed to **Dr. Kenneth J. Marians, Chairman, Molecular Biology, Sloan-Kettering Institute, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.** All applications must be complete by December 1, 1992.

SKI/MSKCC is an Equal Opportunity Employer.

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

POSITIONS OPEN

DIRECTOR OF ELECTRON MICROSCOPE SUITE

Meharry Medical College seeks a director for its college-wide EM facility. Experience in TEM and SEM techniques required. Opportunity for collaborative work available. Salary is negotiable depending on qualifications and experience. NOTE: Interested faculty may apply. Send curriculum vitae and relevant work experience to: **Dr. James C. Story, Chairman, Department of Anatomy and Cell Biology, Meharry Medical College, 1005 D. B. Todd Boulevard, Nashville, TN 37208.** Meharry is an Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION

The Department of Biochemistry, Purdue University, is searching for candidates for a position supported in part by the Walther Cancer Research Institute. The successful candidate will have a strong record of research accomplishments in a relevant area of mammalian molecular biology, such as regulation of gene expression, oncogene function, signal transduction, membrane receptors, retroviral studies, and the like. He/she will participate in the departmental teaching program, assume a leading role in the activities of the Purdue Cancer Center, and be an active participant in the programs of the Walther Institute. We envision the appointment to be made at the **ASSOCIATE PROFESSOR** level, so independent funding and scientific accomplishments must be demonstrated.

Applications for this position should include curriculum vitae, a statement of research interests, documentation of grant support, and the names and addresses of three references. Nominations of candidates are most welcome. Send materials to:

**Search Committee
Purdue University**

**1153 Department of Biochemistry
West Lafayette, IN 47907-1153 U.S.A.**

PURDUE UNIVERSITY IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER.

**The University of Tasmania at Hobart
Tasmania, Australia**

**SENIOR LECTURER/LECTURER/
ASSOCIATE LECTURER in Anatomy
(REF 87/92)**

The Anatomy Department has two vacancies within the ranges Senior Lecturer/Lecturer/Associate Lecturer commencing January and June 1993 for three- to five-year contracts. The level of appointment will be based on qualifications. Research competence is sought in some area of neurobiology that would interface with ongoing collaborative research initiatives involving the Departments of Anatomy and Physiology, the latter under the direction of Professor Norman Saunders. Current research interests involve differentiation of central and peripheral nervous systems, plasticity, response to injury, and regeneration. Teaching will be in gross anatomy and/or neurobiology for undergraduate science, psychology, graduate and medical students. Previous teaching experience in gross anatomy is not essential. Salary will be within the range \$A28,700 to \$A57,913 per annum. Information about academic aspects of these positions can be obtained from: **Professor Bryce L. Munger, FAX: 61-02-20-2679, eMail: B.Munger@nat.utas.edu.au** and position information and application forms are available from the **Staff Office Secretary, FAX: 61-02-20-2751.** Applications quoting reference number should reach the **Acting Staff Officer, University of Tasmania at Hobart, GPO Box 252C, Hobart, Tasmania, 7001, Australia** by 20 November 1992.

POSTDOCTORAL POSITION available immediately to study regulation of neuronal gene expression in models of CNS injury. Experience in signal transduction or molecular biology preferred. Salary \$27,000 to \$30,000, including health benefits. Send curriculum vitae, summary of research experience, and names of three references to:

**Dr. Michael Miles
University of California at San Francisco
San Francisco General Hospital
Building 1, Room 101
San Francisco, CA 94110**

The University of California is an Equal Opportunity Employer.

**National Institutes of Health
Research Scientist/
Postdoctoral Fellow**
(Cell and Molecular Biologist)

The Bone Research Branch, National Institute of Dental Research seeks an outstanding candidate with graduate education in Biological Chemistry and experience in Cell Biology or Molecular Biology for a senior postdoctoral fellowship position. Applicants should have at least 5 - 6 years postdoctoral training and experience in endocrinology and connective tissue research. The applicant should be familiar with: tissue culture techniques in general, biological assays for metabolism and structure of matrix macromolecules such as proteoglycans, hyaluronic acid and collagen, protein chemistry techniques, and purification of protein receptor molecules. Knowledge in molecular biology techniques such as DNA recombination, construction of cDNA libraries and cDNA probes for matrix macromolecules is required. Extensive experience in the use of computers for analysis of ligand-receptor interactions, chromatography and electrophoresis analyses, immunoassays, and ELISA, and in the use of commercially available computer programs for word processing, scientific graphics, and spreadsheets is desirable. A substantial record of publications of original work in the corresponding areas is required. Starting salary will be commensurate with qualifications and experience. The range will be \$33,500 - \$84,000 per annum. Interested candidates should submit a curriculum vitae, several reprints, summary of research interests and names of three references no later than November 15, 1992.

Material should be sent to:

Faye M. Harbrant
Personnel Management Specialist
**National Institute of Dental
Research**
Building 31, Room 2C23
9000 Rockville Pike
Bethesda, Maryland 20892



NIH is an Equal Opportunity Employer



**THE UNIVERSITY
OF QUEENSLAND**

Equal opportunity in employment is University policy

**Lecturer in Zoology – Vertebrate
Ecology/Biology (Tenurable)**
Department of Zoology

Applications are invited for a newly created Lectureship in Zoology. Preference will be given to a candidate with demonstrated research expertise and teaching experience in vertebrate biology, vertebrate ecology in particular. The successful applicant will be responsible to the Head of Department (Professor Gordon Grigg) and will be expected to contribute to undergraduate teaching, develop an active research program and attract postgraduate students and external funding. Also he/she will be encouraged to develop an active involvement in the University's Centre for Conservation Biology.

Applicants should be Zoologists with an appropriate Doctoral degree.

Salary range: A\$41,000 to A\$48,688.

The Zoology Department has 17 academic staff and 22 support staff. Research interests include terrestrial and marine ecology, genetics and conservation biology, systematics and evolutionary biology, animal physiology and palaeontology. There are good support facilities, including electron microscope unit, sea water aquarium system, aquaculture ponds, aviaries, a 16m trawler, extensive physiological and histological equipment, a laboratory equipped for molecular genetics and field stations on Stradbroke Island in Moreton Bay and at Heron Island on the Great Barrier Reef. Recent University initiatives relevant to Zoology include the Centre for Conservation Biology, an Aquaculture Group, a School of Marine Science, the Centre for Molecular Biology and Biotechnology and the Vision, Touch and Hearing Centre.

Closing date for applications: 6 November 1992.

Please send original plus seven copies of application and resumé to Director of Personnel Services, The University of Queensland, Qld 4072 Australia quoting Reference No. 40392. More information: Professor Gordon Grigg, Department of Zoology, phone +61 7 365-2471, fax +61 7 365-1655.

Protein X-Ray Crystallographer

Strong growth in the area of medicinal chemistry research has created an exceptional opportunity with Pfizer Inc, a Fortune 100 multinational leader in pharmaceutical research and healthcare products.

We are seeking a highly motivated research scientist with a PhD and postdoctoral experience in protein X-ray crystallography. Additional academic or industrial experience is desirable. Qualified applicants should be highly skilled in the use of state-of-the-art X-ray crystallographic methods to solve the three-dimensional structures of proteins and protein-ligand complexes.

Join an exciting protein crystallography laboratory equipped with a Siemens 18 kilowatt rotating anode source, four circle diffractometer and area detector with expected addition of another rotating anode source and additional diffractometers equipped with area detectors. This laboratory is also supported by Pfizer's Cray Y-MP2E supercomputer. In addition you will enjoy close collaborations with computational chemists, protein NMR experts, protein chemists and medicinal chemists.

We offer a stimulating professional environment in an attractive Connecticut shore area complemented by a competitive salary/benefits package. If qualified, please submit a detailed resume with salary history/requirements in confidence to: **Mr. Charles P. Norris, Supervisor Employee Resources, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, CT 06340.** An equal opportunity employer.



Central Research

Bringing science to life.

IMMUNOTHERAPEUTICS INC.

ImmunoTherapeutics, Inc., a company involved in the development of drugs for the treatment of cancer and other diseases, has three senior level positions open.

SYNTHETIC PROTEIN CHEMIST

Major areas of responsibility include peptide and carbohydrate synthesis, conjugation, and linking technology.

BIOCHEMIST/IMMUNOLOGIST

Major areas of responsibility include preclinical drug development and evaluation in-vitro and in-vivo.

SENIOR SCIENTIST

Major areas of responsibility include production and quality control. A knowledge of analytical techniques, GLP, GMP, and Database management is essential.

Applicants for the above positions should have a Ph.D. and several years relevant experience. The individuals will be involved in continuing Phase I and II trials of current proposed products, as well as new drug and product development.

ITI offers a competitive salary, benefits, and a stock incentive/stock option program.

Reply with resume and the names of two references to Gerald Vosika, President and Research Director, 3505 Riverview Circle, Moorhead, MN 56560.

IMMUNOTHERAPEUTICS INC.

ROCKEFELLER FOUNDATION BIOTECHNOLOGY CAREER FELLOWSHIPS

The Rockefeller Foundation announces a program of career development fellowships designed to enable scientists from developing countries, trained at outstanding centers for advanced research in biotechnology, to continue to work at those or other institutions for three months each year, over a period of at least three years, conducting advanced research and keeping abreast of new developments in their fields. The program will focus upon the development and application of advances in molecular and cellular biology and immunology relevant to agriculture, health, reproductive biology, and environmental protection.

Funding will be shared between the Foundation and the host laboratory, with the Foundation providing travel and per diem support. It is hoped that the fellowships will encourage the establishment of ongoing working relationships between outstanding younger scientists working at third world institutions, and research teams at advanced laboratories.

Applicants to this program should have at least Ph.D.- or M.D.-level training, a proven record of scientific productivity, and a permanent position at a research or teaching institution in their home country. A written project proposal must be developed and submitted jointly by the candidate and the laboratory sponsor.

Information about application procedures can be obtained by writing to **Biotechnology Career Fellowships, Fellowship Office, Rockefeller Foundation, 1133 Avenue of the Americas, New York, New York 10036, USA.**



The Environmental Research Laboratory of the United States Environmental Protection Agency in Gulf Breeze, Florida, invites applications for three positions:

Research Ecologist (Wetlands), GS-13, Conducts and supervises laboratory and field research on the effects of toxic chemicals and other anthropogenic stresses on coastal wetlands utilizing toxicological and ecological principles at the organism, population, community, and ecosystem level.

Senior Research Aquatic Biologist, GM-14, Directs the technical development and planning of complex, multidisciplinary research programs. Research involves assessing/predicting the effects of toxics, pesticides, and other environmental contaminants on near-shore, estuarine, and marine organisms, populations, and communities.

Research Microbiologist, GM-403-14, Biodegradation Team Leader to conduct research on the microbial degradation of xenobiotics and the development of strategies for the bioremediation of hazardous wastes; works with Regional Offices' Hazardous Wastes Branches to advise and assist on clean-up of Superfund hazardous waste sites.

EPA is an Equal Opportunity Employer. Applicants must be United States citizens. Send a completed Federal Standard Form 171 (available from Federal office) and a curriculum vitae postmarked by 11/14/92, to: Environmental Protection Agency Personnel Office, Post Office Box 98516, Las Vegas, Nevada 89193-8516.

NYU
Medical
Center

ASSISTANT RESEARCH SCIENTISTS

We currently have outstanding opportunities for recent Ph.D.s with training in molecular biology and tissue culture.

Candidates must have an interest in Cellular Immunology. Project involves gene expression in human T-cells and mechanism of action of immunosuppressive drugs.

Please send C.V. to Ms. Singh, Professional Recruiter, New York University Medical Center, 550 First Avenue, New York, NY 10016

TENURE TRACK FACULTY POSITIONS Massachusetts Institute of Technology Center for Cancer Research and Department of Biology

Applicants are sought for two tenure track faculty positions at the level of Assistant Professor. These positions will be joint appointments between the Center for Cancer Research and the Department of Biology. We are particularly interested in applicants working in the general areas of protein biochemistry, signal transduction, cell cycle regulation, cell adhesion and migration, metastasis, and cellular immunology. Emphasis will be placed on studies of mammalian systems. Applicants should have significant research accomplishments, the ability to establish and maintain a vigorous research program, and a commitment to excellence in education at the undergraduate and graduate levels. Applicants should arrange that at least three letters of recommendation be sent from scientists who can evaluate their accomplishments and future potential for research and teaching, and should also send a curriculum vitae, a summary of research accomplishments and proposed research, and copies of key publications or preprints. Applications should be sent to:

**CCR Search Committee
Massachusetts Institute of
Technology, Bldg. E17-110
77 Massachusetts Avenue
Cambridge, MA 02139**

M.I.T. is an equal opportunity/affirmative action employer. Women and minority candidates are especially encouraged to apply

University of Nottingham

Department of Genetics

Professor and Head of Department

The University is seeking an outstanding scholar to head the Department in succession to Professor Bryan Clarke, FRS, who has been appointed to a Research Chair.

Both the University and the Department are unequivocally committed to the support of basic research at a high level. They are interested in enhancing the already high standing of the Department recognised in the last Research Assessment Exercise and in the support that it receives from the Research Councils.

The Department is exceptionally well equipped for research in molecular and population genetics.

An additional Lectureship will be advertised after consultation with the new Professor.

Informal enquiries to Professor B C Clarke FRS or Professor R G Lloyd, Department of Genetics, Queen's Medical Centre, Nottingham NG7 2UH (tel 0602 420639 (Clarke) or 0602 709406 (Lloyd); FAX 0602 422225).

Further details and application forms, returnable not later than 31 October, from the Personnel Officer, University of Nottingham, University Park, Nottingham NG7 2RD (tel 0602 515780 or FAX 0602 515205).
Ref No 1568.



Department of Genetics

Case Western Reserve University School of Medicine

The Department of Genetics invites applications for up to four tenure-track positions at the Assistant Professor, Associate Professor, or Professor rank as part of a major expansion. Applicants should have demonstrated expertise and productivity in any area of classical or molecular genetics, with ability to develop a strong, independent research program. Existing laboratories in the department focus on the genetics of *Drosophila*, *C. elegans*, mouse, and humans. Areas of concentration in the department will be in developmental genetics, chromosome structure and function, genome organization and mapping, and the genetics of inherited disease. Planned expansion is supported by significant new resources, including 40,000 square feet of state-of-the-art research space in a new Biomedical Research Building scheduled to open in January 1993, with generous equipment and start-up funding provided by the Markey Center for Developmental Genetics and by the Center for Human Genetics. The Department of Genetics participates in the multidisciplinary Biomedical Sciences Training Program for Ph.D. students. Candidates will be expected to participate in the teaching of medical and graduate students. Strong interdepartmental interactions at Case Western Reserve University School of Medicine are encouraged and provide for an unusually supportive research environment and opportunity for achievement.

Applicants should send curriculum vitae, description of research plans, and names of three references (with contact numbers) to: **Dr. Huntington F. Willard, Chairman, Department of Genetics, Case Western Reserve University School of Medicine, Cleveland, OH 44106-4955.** *Case Western Reserve is an Equal Opportunity Action Employer.*

HEAD CHEMOPREVENTION RESEARCH

IIT Research Institute (IITRI), a leading R&D organization based in Chicago, is seeking an experienced and highly qualified Ph.D., M.D. or D.V.M. to lend direction and professional expertise to the current activities and ongoing development of our research in cancer chemopreventive drugs.

As this position exercises a high degree of control over our operations and future direction in the area of cancer chemoprevention, candidates must have no less than 10 years experience with studies involving *in vivo* carcinogenesis and a significant record of publications in the field. A comprehensive understanding of *in vivo* and *in vitro* study models and drug discovery methodology is vital. Candidates must also possess a considerable history of peer-reviewed research grants and/or contracts from the NIH and other comparable sources.

IITRI provides an excellent compensation and fringe benefits package. For consideration, please forward a CV and letter of application to: **L. Amft, Sr. Personnel Representative, IIT Research Institute, 10 West 35th Street, Chicago, IL 60616-3799.** Equal opportunity/affirmative action employer.

IIT Research Institute **IITRI**

ROCHE

SENIOR SCIENTIST IN-VITRO DIAGNOSTICS

Roche Diagnostic Systems, a subsidiary of Hoffmann-La Roche Inc., is consistently demonstrating its commitment to improving the quality of life by undertaking some of the most important challenges of our time.

To maintain this commitment, we are seeking a Senior Scientist to become involved with fundamental research on immunologically based assays for detection of drug analytes in blood and urine. The candidate should have a Ph.D in Biochemistry, Immunology or related discipline and at least 3 years of industrial diagnostic experience. Previous supervisory experience as well as hands-on familiarity with novel assay technologies will be major pluses. Strong communication skills are essential.

In return, we offer salaries commensurate with your experience and education, a generous bonus and benefits package, and the support of a management team with a firm commitment to a healthier tomorrow. Roche Diagnostic Systems is located in a pleasant, suburban New Jersey location in a new state-of-the-art, multi-purpose facility. For confidential consideration, please send your resume and salary history to: **Human Resources Dept. ADG, Roche Diagnostic Systems, Inc., 1080 U.S. Highway 202, Branchburg, New Jersey 08876.** We are an equal opportunity employer.

ROCHE

Roche Diagnostic Systems

a subsidiary of Hoffmann-La Roche Inc.

POSITIONS OPEN

BIOCHEMISTRY/MOLECULAR BIOLOGY RESEARCH/FACULTY POSITION ORTHOPEDIC RESEARCH LABORATORY

Department of Orthopedic Surgery
Brigham and Women's Hospital
Harvard Medical School

The Department of Orthopedic Surgery at the Brigham and Women's Hospital seeks well-qualified applicants with a background in biochemistry or molecular biology for a research position in the Orthopedic Research Laboratory. Associated with this position is an academic appointment in Orthopedic Surgery in the area of Biochemistry or Molecular Biology at Harvard Medical School. Candidates should have completed 3 to 5 years of relevant postdoctoral experience. The applicant should have the capability of directing an independent program in musculoskeletal research and an interest in collaborating in multidisciplinary projects with other Laboratory investigators. There will be opportunities to participate in teaching and to act as research adviser to medical students, graduate students, residents, and postdoctoral fellows.

Areas of interest in functional biochemistry and molecular biology include: protein and proteoglycan interactions with cells, with extracellular matrix, or with biomaterials in processes related to tissue regeneration and remodeling or degeneration.

Applicants should send curriculum vitae, a statement of research interests and the names of three references to: Myron Spector, Ph.D., Director, Orthopedic Research Laboratory, Department of Orthopedic Surgery, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. Telephone: (617) 732-6702 FAX: (617) 732-6705.

Brigham and Women's Hospital is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

FACULTY POSITION IN PHARMACOLOGY

Northeast Louisiana University School of Pharmacy invites applications for a faculty position in Pharmacology. The School is Louisiana's only state-supported center for pharmaceutical education and offers the M.S. and Ph.D. in the Pharmaceutical Sciences in addition to B.S. degree programs in both Pharmacy and Toxicology. Candidates should have an earned Ph.D. degree and postdoctoral experience in pharmacology. An undergraduate pharmacy degree is desirable but not required. The successful candidate will participate in teaching at the graduate and undergraduate levels, direct dissertations and theses of graduate students and conduct independent and collaborative research. Considerable latitude relative to areas of research interest is permitted but expertise in biochemical and/or cardiovascular pharmacology is desired. Salary and rank associated with this 12-month tenure-track position will be commensurate with experience and qualifications.

Interested individuals should submit a letter of application including a statement of career objectives, complete curriculum vitae, and the names of four references before November 1, 1992 to: Dr. Paul Ferguson, Head, Division of Pharmacology and Toxicology, School of Pharmacy, Northeast Louisiana University, Monroe, LA 71209-0470. *Northeast Louisiana University is an Equal Opportunity Employer. Applications are encouraged from women and members of minority groups.*

Multidrug Resistance Transporters

POSTDOCTORAL POSITIONS are available for studies of the drug specificities, regulation, molecular structures and mechanisms of the multidrug resistance pumps from human tumor cells and malaria parasites. Research will involve both biochemical and molecular biological approaches. Send curriculum vitae and names of three references to: Dr. Gene A. Scarborough, Department of Pharmacology, CB #7365, F.L.O.B., University of North Carolina, Chapel Hill, NC 27599. *Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS available in laboratories studying development of immunogenic vaccines by genetic engineering and molecular biology of NK and T Cell activation. Please send curriculum vitae and have three letters of reference sent to: Dr. Stephen E. Wright and Dr. James M. Trevillyan, respectively, Research Service (151), VA Medical Center, 6010 Amarillo Boulevard West, Amarillo, TX 79106.

POSITIONS OPEN

CASE WESTERN RESERVE UNIVERSITY FACULTY POSITION

The Department of Molecular Biology and Microbiology at Case Western Reserve University School of Medicine invites applications for a junior or intermediate level, tenure-track position from individuals interested in the basic biology of prokaryotes. We are interested in individuals with research interests in molecular aspects of microbial pathogenesis, the molecular genetics of bacteria or bacteriophage, or microbial responses to environmental stimuli. The Department offers minimal teaching responsibilities, close faculty interaction, and an expanding graduate student population, all of which contribute to an excellent research environment. Collaborations within the University and among the Medical School faculty are encouraged. Competitive start-up funds will be available to the successful applicant. Applications will be reviewed starting November 1, 1992 and will continue until the position is filled. Candidates should submit curriculum vitae, a statement of research interests and the names of three references to:

Dr. Fritz Rottman, Chairman
Department of Molecular Biology and Microbiology
Case Western Reserve University School of Medicine
10900 Euclid Avenue
Cleveland, OH 44106-4960

UNIVERSITY OF WISCONSIN-MADISON TENURE-TRACK FACULTY POSITION PARASITOLOGIST

Applicants should have a demonstrated record of excellence in research, training in general or veterinary parasitology, and documented teaching experience. Successful candidate will participate in the teaching of veterinary parasitology, in graduate training, and in the development of an independent research program. Salary and rank commensurate with training and experience. Send curriculum vitae and names of at least three references to: Dr. R.D. Schultz, Professor and Chair, Department of Pathobiological Sciences, School of Veterinary Medicine, University of Wisconsin-Madison, 2015 Linden Drive West, Madison, WI 53706. Applications will be accepted until October 16, 1992.

TRUDEAU INSTITUTE

A POSTDOCTORAL POSITION IN IMMUNOLOGY is available for a person with training in cellular/molecular immunology or parasitology to study the immune response to experimental *Toxoplasma gondii* infections.

THE TRUDEAU INSTITUTE is a not-for-profit, basic research institute with modern facilities, in-house animal production, and efficient management. The Trudeau Institute is located on the shore of Saranac Lake, eight miles from Lake Placid. Competitive salary and fringe benefits are offered and institute housing will be made available.

Applications consisting of curriculum vitae and the names and addresses of three references should be sent to:

Lawrence L. Johnson, Ph.D.
Trudeau Institute, Inc.
P.O. Box 59
Saranac Lake, NY 12983

POSTDOCTORAL BIOCHEMIST/MOLECULAR BIOLOGIST POSITION available in mechanisms of carcinogenesis of aromatic hydrocarbons and estrogens to study DNA adducts and sequence specificity of adducts and mutations. Competitive salary. Send curriculum vitae with names of three references to: Professor Eleanor Rogan, Eppley Cancer Institute, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-6805. *Affirmative Action/Equal Employment Opportunity Employer.*

POSTDOCTORAL POSITION IN MOLECULAR IMMUNOLOGY to study somatic mutation of immunoglobulin genes in B lymphocytes. Research will focus on identifying DNA sequences that target hypermutation to antibody variable genes. Candidate should have a strong background in molecular biology. Please send curriculum vitae to: Dr. P. J. Gearhart, Department of Biochemistry, Johns Hopkins University School of Hygiene, 615 North Wolfe Street, Baltimore, MD 21205.

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study the role of neuropeptides and novel proteins in drug addiction and neuroleptic drug action, using a diverse range of techniques, including RNase protection, *in situ* hybridization, PCR quantitation, and subtraction hybridization. Candidates should have a strong background in molecular biology and a desire to develop novel techniques. Send curriculum vitae and names of three references to: Dr. Kevin A. Sevarino, Division of Molecular Psychiatry, Department of Psychiatry, Yale University School of Medicine, 34 Park Street, New Haven, CT 06508.

Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION. A one-year postdoctoral position with the possibility of renewal is available immediately in the Division of Biomedical Marine Research. The focus of the research involves the discovery and biological evaluation of antitumor and signal transduction agents from marine sponges as part of a three-year NIH-funded project. Experience with protein kinase C and/or tyrosine kinase enzyme assays/kinetics, *in vitro* tumor promotion and cytotoxicity assays is required. Interested candidates should send a letter of application, current curriculum vitae, and the names and addresses of three references by November 2, 1992 to: Dr. Ross E. Longley, Division of Biomedical Marine Research, Harbor Branch Oceanographic Institution, Inc., 5600 Old Dixie Highway, Fort Pierce, FL 34946. *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION in cerebral blood flow regulation and cerebral ischemia research, including therapy evaluation and autonomic function in cerebral ischemia, available immediately. Nationally funded projects with competitive salary. Research will involve either (1) studying normal cerebral blood flow regulation and its application to cerebral ischemia, (2) potential therapies and diagnostic methods for very early focal cerebral ischemia, or (3) autonomic and endocrine dysfunction during cerebral ischemia. Techniques for cerebral blood flow include quantitative autoradiography, laser Doppler flowmetry, or micro-thermal conductivity. A knowledge of animal physiology and surgery preferred. Send curriculum vitae, a summary of research interests, and three references to: Dr. S.C. Jones, Cerebrovascular Research Laboratory, NC3-104, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195-5286. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS, MAIZE GENOME MAPPING: To study the genetic basis of quantitative variation in kernel composition of maize and to work towards the development of a polymerase chain reaction based molecular marker map of maize. Available December 1992. *We are an Equal Opportunity/Affirmative Action Employer.* Send curriculum vitae and the name of four references (with telephone numbers) to: Dr. Torbert R. Rocheford, Department of Agronomy, University of Illinois, Urbana, IL 61801. FAX: (217) 333-9817.

Molecular Biology/Gene Expression POSTDOCTORAL POSITIONS

Positions available immediately to study transcriptional regulation by tumor virus oncogenes (Cell: 65, 1063). Candidates should have a recent Ph.D. and a background in molecular biology. Send curriculum vitae and three letters of reference to: Dr. Pradip Raychaudhuri, University of Illinois College of Medicine, 1853 West Polk Street (M/C 536), Chicago, IL 60612. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS

Postdoctoral positions are available to participate in a comprehensive interdisciplinary research program to study the mechanisms of animal lentivirus pathogenesis and persistence and to evaluate in animal models various strategies for AIDS vaccine development. Positions are available for qualified personnel in the areas of molecular biology and genetics, immunochemistry, and synthetic peptide/protein biochemistry. Interested candidates should submit curriculum vitae and names of three references to: Dr. R. C. Montelaro, Department of Molecular Genetics and Biochemistry, E1240 Biomedical Science Tower, University of Pittsburgh School of Medicine, Pittsburgh, PA 15261. *An Equal Opportunity/Affirmative Action Employer.*

Medizinische Akademie Magdeburg/Germany

Neuroscience at Magdeburg/Germany

13 Senior Faculty Positions in

Neurology (C4)
Neurosurgery (C4)
Neurobiochemistry (C3)
Neuropathology (C3)
Neuroanatomy (C3)
Clinical Neurophysiology (C3)
Clinical Pharmacology (C3)

Pharmacology and Toxicology (C4)
Human Genetics (C4)
Cell Biology (C3)
at the Institute for Anatomy
Child Psychiatry (C3)
Endocrinology & Metabolic Disorders (C3)
Medical Information Sciences (C3)

The Magdeburg Medical School (Medizinische Akademie Magdeburg) is located in Magdeburg, the State Capital of Sachsen-Anhalt.

Due to restructuring of the faculty, positions at the associate (C3) and the full professor (C4) level are available.

A major effort of the Medical School will be to establish an internationally competitive neuroscience research program.

For neuroscientists or neuroscience oriented clinicians Magdeburg provides a particularly attractive academic environment. A large number of neuroscientists are already working at the Medical School. There are also opportunities to collaborate with the "Institute for Neurobiology", a research institute devoted to the study of neuroplasticity (60 scientists) and located on campus, and with a 200-bed neurological rehabilitation clinic (currently in the planning stage). In 1993, the Medical School will become part of the Otto-von-Guericke University of Magdeburg.

Salaries will be according to German university standards, commensurate with applicant's age and previous experience. Professors are tenured and will be guaranteed staff scientist and technical assistant positions in addition to clinical personnel.

Requirements: MD (for all clinical positions) or PhD (only for neuroanatomy, cell biology, neurobiochemistry and medical Information Sciences), strong publication record, demonstrated skill in obtaining outside research funding, and experience in teaching and clinical duty. Knowledge of the German language is required. The Medical School is an equal opportunity employer.

Applications are due within 3 months after this announcement. Because they are to be made in a standard format, interested candidates should request further information and application materials, specifying the position of interest, from:

Medizinische Akademie Magdeburg
Büro des Rektors
Leipziger Str. 44, D-3090 Magdeburg
Germany
Fax: +49-391-672749

Pharmacology of Inflammation

Merck Research Laboratories, the world's leading research-based pharmaceutical company, is currently seeking to consolidate and expand the pharmacology expertise within the Department of Immunology and Inflammation, by the recruitment of **TWO SENIOR PHARMACOLOGISTS**. The successful candidates will direct research groups which provide the essential quantitative *in vivo* pharmacology components of our multi-disciplinary approaches to the identification and characterization of novel agents of potential therapeutic utility in acute and chronic inflammatory and immune disorders. The current interests of the Department include neuropeptides, cytokines, chemotaxins, cell adhesion molecules, metalloproteinases, immuno-regulants, and autoimmunity.

The first position requires expertise in animal models of arthritis, particularly in assessing the actions and interactions of cytokines and metalloproteinases in the patho-aetiology of inflammatory joint diseases. Primary responsibilities will include the establishment of appropriate animal models to evaluate agents that modulate cellular recruitment, cytokine biosynthesis and/or action, and the neuroimmune axis. A Ph.D. in Pharmacology, Immunology or a related discipline, with at least 3 years post-doctoral experience are required. Leadership potential, a solid publication record, excellent communication skills, and the ability to interact productively with scientists in other disciplines are essential.

The second position requires a background in general pharmacology, both *in vitro* and *in vivo*, that is suitable to probe the mediators and mechanisms (both cellular and humoral) underlying acute and chronic inflammation in various organ systems, including the skin, the lung, and gastrointestinal tract. Primary responsibilities will include the establishment of appropriate animal models in which to evaluate the efficacy of new agents that inhibit neuropeptide, cytokine and chemotaxin biosynthesis or action. A Ph.D. in Pharmacology or a related discipline, with at least 3 years post-doctoral experience and expertise in relevant aspects of *in vivo* pharmacology are required. Leadership potential, a solid publication record, excellent communication skills, and the ability to interact productively with scientists in other disciplines are essential.

Merck Research Laboratories is located in Rahway, New Jersey approximately 25 miles from New York City. Our salaries, benefits and growth potential are excellent. For consideration please send your resume with the names of 3 references to **Susan F. Marsella, AD #125, Merck & Co., Inc., R80-A3, P.O. Box 2000, Rahway, NJ 07065.** EEO/AA/VH/Employer.



The Marine Biomedical Institute of The University of Texas Medical Branch at Galveston, Texas, is seeking to fill an endowed position, the Cecil and Ida Green Chair in Marine Biomedicine. Candidates will be distinguished, internationally recognized neuroscientists with an interest in the application of physical techniques to the study of nervous system function and in the use of marine organisms for such studies. Fields of particular relevance include membrane biophysics and molecular physiology. The holder of the Cecil and Ida Green Chair will strengthen the neuroscience program at UTMB and will have opportunities to interact with faculty in other research groups on campus, such as the Department of Physiology and Biophysics and the Sealy Center for Molecular Science. The position is at the rank of full Professor (with tenure), with an appointment in the appropriate department(s) of the School of Medicine. It is expected that the chairholder will participate in graduate and medical education in addition to developing a strong research program.

Interested applicants should send a detailed curriculum vitae, an outline of current research interests, and three letters of reference to: George T. Bryan, MD, Vice President for Academic Affairs and Dean of Medicine, UTMB, Galveston, Texas 77555-0133. UTMB is an equal opportunity affirmative action employer M/F/V/H. UTMB hires only individuals authorized to work in the United States.

ASSISTANT/ASSOCIATE PROFESSOR OF PHYSIOLOGY

The Department of Physiology of UMDNJ-Robert Wood Johnson Medical School invites applications for several state supported tenure-track positions at the level of Assistant or Associate Professor. We seek individuals who will establish productive research programs investigating physiological processes at the cellular or molecular level. Candidates should have several years of postdoctoral experience. Faculty are expected to participate actively in our teaching of Medical Physiology and may participate in several active graduate programs.

UMDNJ-Robert Wood Johnson Medical School is located on the science campus of Rutgers University, 35 miles from New York City, in a pleasant suburban setting. Send a complete CV, a brief description of research interests and the names of 3 references to: **Harvey R. Weiss, PhD, Chairman, Search Committee, UMDNJ-Robert Wood Johnson Medical School, Department of Physiology, 675 Hoes Lane, Piscataway, NJ 08854-5635.** UMDNJ, New Jersey's university of the health sciences, is an Affirmative Action/Equal Employment Opportunity Employer, m/f/h/v, and a member of the University Health System of New Jersey.



**ASSISTANT/ASSOCIATE PROFESSOR
CELL BIOLOGY,
DEVELOPMENTAL BIOLOGY,
GENETICS
DARTMOUTH COLLEGE**

The Department of Biological Sciences is currently seeking applicants for a tenure track position at the Assistant or Associate Professor level. Candidates should be using molecular and/or biochemical approaches to investigate important problems in the broadly defined areas of cell biology, developmental biology or genetics. The individual will join an interactive faculty studying a number of model systems including *Arabidopsis*, *C. elegans*, *Drosophila*, squid and yeast. The successful candidate will be expected to supervise an independent research program that will attract extramural funds, to provide research training for graduate and undergraduate students, and to participate in the graduate and undergraduate teaching programs of the department. Candidates should have a Ph.D. (or equivalent) and at least two years of postdoctoral experience.

A curriculum vitae, statement of research and teaching interests and three letters of recommendations should be sent to:

Dr. Victor Ambros
Chair, CDG Search Committee
Department of Biological Sciences
Dartmouth College
6044 Gilman
Hanover, NH 03755-3576
Phone (603)646-2364, FAX(603)646-1347

Application review will begin on October 15th, 1992.

Applications from women and members of ethnic minority groups are strongly encouraged.

Dartmouth College is an Equal Opportunity/Affirmative Action Employer.

CELL BIOLOGIST/HISTOLOGIST

The Department of Anatomy, College of Medicine, University of Saskatchewan, Saskatoon, Canada, invites applications for two tenure-track faculty appointments at the rank of ASSISTANT PROFESSOR. The appointees will participate in the cell biology and histology teaching programs of the department and teaching experience in these areas is desirable.

Applicants for both positions must have postdoctoral training and active research programs in cell biology or the anatomical sciences. The successful candidates will be expected to actively contribute to graduate courses and training in their areas of research specialty. The Department has excellent facilities for research utilizing tissue culture, electron microscopy, cell and molecular biological techniques.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents. The University of Saskatchewan is committed to the principles of Employment Equity.

An application, including curriculum vitae, names of three referees, and a statement of proposed research and previous teaching experience should be submitted by 31 December, 1992 to:

Dr. G. D. Burkholder
Department of Anatomy
University of Saskatchewan
Saskatoon, Saskatchewan S7N 0W0
Canada

POSITIONS OPEN

POSTDOCTORAL POSITION

Research will involve the analysis and isolation of genes that affect functioning of the dioxin (Ah) receptor, which mediates susceptibility to chemical carcinogens. Experiments will employ recombinant DNA (e.g. *in vitro* mutagenesis, gel retardation, DNA transfection, cDNA library construction) and protein biochemistry (e.g. antibody characterization, Western blot) procedures. Experience in recombinant DNA techniques is essential. Experience in protein biochemistry and tissue culture procedures is preferred. Please send curriculum vitae and names and telephone numbers of three references to: **Dr. Oliver Hankinson, UCLA/Laboratory of Biomedical and Environmental Sciences, 900 Veteran Avenue, Los Angeles, CA 90024. UCLA is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL ASSISTANT position available in ophthalmic research to study mechanisms of corneal wound healing. Responsible for carrying out experiments to quantitate the levels of specific mRNA expressed in injured corneal tissues and identify cell types expressing such genes by *in situ* hybridization. Must have Ph.D., M.D. or equivalent. Send curriculum vitae with three references listed to: **Winston Kao, Ph.D., Department of Ophthalmology, University of Cincinnati, Medical Center, Cincinnati, OH 45267-0527. An Affirmative Action/Equal Opportunity Employer.**

TULANE MEDICAL CENTER

**TULANE
REGIONAL PRIMATE RESEARCH CENTER
DEPARTMENT OF PARASITOLOGY**

POSTDOCTORAL ASSOCIATE is sought to join a multidisciplinary group working on Lyme disease. The task is the molecular cloning of newly-identified antigens of *Borrelia burgdorferi*. Please send curriculum vitae and names of three references by October 30, 1992 to: **Dr. Mario T. Philipp, Head, Department of Parasitology, Tulane Regional Primate Research Center, Covington, LA 70433. Tulane University is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately to develop novel angiogenesis inhibitors for the treatment of cancer and inflammatory diseases. Interdisciplinary, interactive group exploring diverse ways of targeting drugs or toxins to tumor vascular endothelium. Experience in cell culture techniques and/or working with mice an advantage. Send curriculum vitae and names of three referees to: **Philip E. Thorpe, Ph.D., Cancer Immunobiology Center, University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines, Dallas, TX 75235-8576. FAX: 214/688-2637. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION (Research Associate) available for studies on the molecular mechanisms of HIV-1 neurotropism and neurovirulence. Projects involve molecular genetic manipulation of viral gene expression, identification of viral and cellular elements responsible for HIV-1 neurotropism, and characterization of transcription-regulatory mechanisms involved in neurovirulence. Send curriculum vitae, brief research summary, and three letters of reference to: **Dr. David J. Volsky, Molecular Virology Laboratory, St. Luke's/Roosevelt Hospital Center and College of Physicians and Surgeons, Columbia University, 432 West 58th Street, New York, NY 10019. An Equal Opportunity/Affirmative Action Employer.**

TWO POSTDOCTORAL POSITIONS are available immediately to study the Molecular Genetics of Normal and Leukemic Cell Development. Experience in Molecular Biology is essential. Send curriculum vitae and the names of three references to: **Dr. Robert Hromas, Hematology and Biochemistry, IB 442, 975 West Walnut Street, Indiana University Medical Center, Indianapolis, IN 46202. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOW. To examine the regulation of growth and differentiation of hematopoietic cells. Studies will focus on the stimulation of c-Jun protooncogene activity by PKC activators and regulation of cell cycle transition by GM-CSF (PNAS: 89:5341, 7247 and JBC 267:17001). Experience in molecular biology and/or protein chemistry is required. Contact: **Dr. A. Kraft, University of Alabama at Birmingham, Tumor Institute, 1824 6th Avenue South, Room 558T, Birmingham, AL 35294.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP

Molecular and cytogenetic analysis of hepatocarcinogenesis in hepatitis B virus transgenic mice (Cell 59:1145). Technical experience with karyotype, FISH and RFLP analysis desired. Send résumé and three references to:

**Francis V. Chisari, M.D.
The Scripps Research Institute
10666 North Torrey Pines Road
La Jolla, CA 92037**

HOLLAENDER POSTDOCTORAL FELLOWSHIPS available to conduct energy-related research in the life, biomedical, and environmental sciences. Fellowships are tenable at Department of Energy laboratories with programs sponsored by the Office of Health and Environmental Research. Stipend is \$37,500. A doctoral degree received after May 1, 1991, is required as is U.S. citizenship or PRA status. Deadline is January 15, 1993. Contact: **Hollaender Postdoctoral Fellowships, Science/Engineering Education Division, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831-0117, Telephone: (615) 576-9975.**

POSTDOCTORAL FELLOWSHIPS at the Scripps Institution of Oceanography (SIO). Applications are invited for postdoctoral awards from new or recent Ph.D.'s in all major areas of research conducted at SIO, including physical, chemical, and biological oceanography; marine geology, geochemistry, and geophysics; marine chemistry; marine biology; and ocean engineering. Specific areas of interest might include continental margins and coastal sciences, marine meteorology and air/sea interaction, global climate change, atmospheric chemistry, large scale ocean circulation, marine microbiology, marine biotechnology, isotope geochemistry, remote sensing, and satellite oceanography. Awards are competitive, with major emphasis on potential for independent, creative research. Awards are for one year with stipends commensurate with experience, plus benefits, and a small budget for research, publications, travel, etc. Renewals for a second year, depending upon performance, are possible. Include letter of application, complete graduate transcripts, curriculum vitae, addresses and telephone numbers of at least three (3) references, and a concise synopsis of the applicant's (a) doctoral research, and (b) research interests to be pursued at SIO. All application materials must be received by December 15, 1992. Awards will be announced in February 1993. Letter of application and questions should be addressed to: **University of California, San Diego, Mellon Postdoctoral Committee, Scripps Institution of Oceanography-S-0208, 9500 Gilman Drive, La Jolla, CA 92093-0208. The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOW POSITION

Position available immediately in the laboratory of Dr. Harold A. Singer at the Weis Center for Research to study the role(s) of protein kinase C isozymes and calcium/calmodulin-dependent protein kinase II in regulating smooth muscle function. Applicants should have experience with biochemical and/or molecular approaches applied to the study of one or more of the following: protein kinases, contractile and/or cytoskeletal protein regulation, signalling pathways involved in regulating cell growth.

Send curriculum vitae and the name and addresses of three references to: **Geisinger Human Resources Department (HS), 100 North Academy Avenue, Danville, PA 17822-1529.**

POSTDOCTORAL FELLOW. The Department of Medicine has an opening for a postdoctoral fellow to study the immunopathogenesis of human rheumatoid arthritis. The successful applicant will determine the characteristics of a novel antigen expressed mainly on diseased endothelium. The applicant will also investigate the role of angiogenic and other cytokines in rheumatoid arthritis. Requirements include a Ph.D. and/or M.D. with a strong background in molecular biology (mammalian mRNA analysis, expression cloning), immunology (Western blotting, immunoprecipitation) and authorship skills. Send curriculum vitae to: **Dr. Alisa Koch, Northwestern University Medical School, 303 East Chicago Avenue, Ward Building 3-315, Chicago, IL 60611. Northwestern University is an Affirmative Action/Equal Opportunity Employer.**

THE SECOND 21st-CENTURY EARTH AWARDS

Global Environmental Problem Proposal Competition Proposal-Toward a Lasting Earth

ORGANIZERS : Nihon Keizai Shimbun, Inc./Global Industrial and Social Progress Research Institute (GISPRI)

SUPPORTERS (tentative) : Ministry of International Trade and Industry/Environment Agency/Ministry of Foreign Affairs/Ministry of Education

COOPERATORS : The United Nations University/Japan Junior Chamber Inc./International Institute for Applied Systems Analysis/Resources for the Future

TATA Energy Research Institute/The Royal Institute of International Affairs/World Resources Institute

SPONSOR : Toho Mutual Life Insurance Co.

OVERALL THEME

Proposal-Toward a Lasting Earth

ENTRY CONTENTS

GENERAL STUDY SECTION : Researched proposals for the amelioration or solution of such global environmental problems as climate change, deforestation or biodiversity preservation.

LIFESTYLE PROPOSAL SECTION : Environment-related proposals with immediate relevance to everyday life, indicating concrete suggestions for behavior policies for the general consumer.

ENTRY QUALIFICATIONS

Individual(s). Entries for the Lifestyle Proposal Section can be accepted only from residents of Japan.

METHOD OF ENTRY

Articles must be written by Japanese or English. The following details should be provided on the prescribed application form or on the cover of the submitted article: Address, Name of author or group representative, Age, Sex, Profession, Affiliation or school. Submitted entries will not be returned.

GENERAL STUDY SECTION : Papers should be 20 to 40 pages (400 characters per page) in Japanese or 15 to 30 typed (double-spaced A4) pages in English. They should be accompanied by an abstract of up to 600 characters (250 words).

Only unpublished original papers will be accepted. Entries based on the contents of materials recently presented in such forms as academic journals, journals of professional associations and academic symposia will, however, also be accepted. (In such cases, the source of the materials included should be specified.)

LIFESTYLE PROPOSAL SECTION : Works should be up to 15 pages (400 characters per page) in Japanese. Only unpublished original papers will be accepted.

* The specified length of articles in both sections includes the accompanying materials and bibliography.

DEADLINE : December 25 1992.

CRITERIA FOR AWARDS

The following criteria shall be applied in the judging of entries for both sections :

1. Originality of the proposal. 2. Logical consistency of the proposal. 3. Freedom from need for experimental

confirmation or verification. 4. Comprehensibility of proposal for general readers and accessibility for intelligent evaluation by said readers. 5. Feasibility of the proposal.

SCREENING COMMITTEE MEMBERS

Takashi Mukaibo (Chairman, Global Industrial and Social Progress Policy Forum/Professor Emeritus, The University of Tokyo) Hisashi Ishitani (Professor, The University of Tokyo) Yoichiro Ichioka (Director Chief Editorial Writer, Nihon Keizai Shimbun, Inc.) Yoichi Kaya (Professor, The University of Tokyo) Jiro Kondo (President, Science Council of Japan) Katsuo Seiki (Executive Director, Global Industrial and Social Progress Research Institute <GISPRI> Kei Takeuchi (Professor, The University of Tokyo) Keiko Nakamura (Professor, Waseda University) Katsuya Nagata (Professor, Waseda University) Shinji Fukukawa (Advisor to Global Industrial and Social Progress Research Institute <GISPRI>/Former Vice Minister, Ministry of International Trade and Industry)

Evaluation committee (in random order with honorifics omitted) : Committee members from MITI and the Environment Agency are also expected to participate.

AWARDS

All prizes are subject to government taxes.

GENERAL STUDY SECTION : 21st-Century Earth Award (one cash prize of 5 million yen) ; Nihon Keizai Shimbun Award (one cash prize of 2 million yen) ; GISPRI Award (one cash prize of 2 million yen)

LIFESTYLE PROPOSAL SECTION : 21st-Century Earth Award (one cash prize of 1 million yen) ; Nihon Keizai Shimbun Award (one cash prize of 300,000 yen) ; GISPRI Award (one cash prize of 300,000 yen) ; also commendation awards given as appropriate.

COPYRIGHTS FOR AWARD-WINNING ENTRIES

The copyrights for the winners of the 21st-Century Earth Award, the Nihon Keizai Shimbun Award and the GISPRI Award shall belong to the organizers. Publishing and merchandising of award-winning articles shall be discussed separately.

ANNOUNCEMENT OF WINNERS AND

PRESENTATION OF AWARDS

Announcement of the winners will be made in March 1993 in the Nihon Keizai Shimbun. With the exception of the commendation awards, abstracts of award-winning entries will be published in the Nihon Keizai Shimbun, and the articles will be published in full in the Nikkei Science magazine. A ceremony will be held for the presentation of awards (except commendation awards) to the winning entrants.

ADDRESS FOR APPLICATIONS/INQUIRIES :

21st-Century Earth Awards Secretariat 3-1-4-1004 Tsukiji, Chuo-ku, Tokyo 104, Japan Tel. : 03-3545-6897 Fax. : 03-3545-9769

RESEARCH FELLOWSHIPS IN GERONTOLOGY AT THE UNIVERSITY OF MICHIGAN

Postdoctoral research fellowships, supported in part by training grants from the National Institute on Aging are available at the University of Michigan Institute of Gerontology. Stipends and related expenses will be provided to qualified applicants. Postdoctoral trainees must have completed a Ph.D., M.D., or equivalent degree. Prospective faculty mentors represent the behavioral, biological, clinical and social sciences, and the humanities as follows:

W. A. Achenbaum, Ph.D.	J. B. Halter, M.D.
R. C. Adelman, Ph.D.	A. R. Herzog, Ph.D.
N. B. Alexander, M.D.	N. Krause, Ph.D.
J. A. Ashton-Miller, Ph.D.	J. Liang, Ph.D.
F. L. Bookstein, Ph.D.	R. A. Miller, M.D., Ph.D.
S. F. Bradley, M.D.	D. Rosenblatt, M.D., Ph.D.
D. T. Burke, Ph.D.	A. B. Schultz, Ph.D.
B. M. Carlson, M.D., Ph.D.	D. G. Steel, Ph.D.
J. A. Faulkner, Ph.D.	M. A. Supiano, M.D.
D. J. Fink, M.D.	M. S. Terpenning, M.D.
B. E. Fries, Ph.D.	B. R. Troen, M.D.
A. Gafni, Ph.D.	L. M. Verbrugge, Ph.D.
M. M. Gross, Ph.D.	W. G. Weissert, Ph.D.
K. Guan, Ph.D.	

Candidates should forward a letter of interest, identification of a potential mentor, complete curriculum vitae and bibliography, graduate transcript, representative article (if available), and at least three letters of recommendation to: Rae D. Packer, Institute of Gerontology, University of Michigan, 300 North Ingalls, Ann Arbor, Michigan 48109-2007. The application deadline for Summer and Fall fellowships is March 31, 1993. *The University is an Equal Opportunity/Affirmative Action Employer.*

NIH AIDS POSTDOCTORAL FELLOWS MEETING March 28 - April 4, 1993 Keystone, Colorado

The meeting will be held in conjunction with the Keystone Symposia on Frontiers in HIV Pathogenesis, and Pediatric HIV Infections. Topics will include HIV molecular biology and regulation; strategies for designing vaccines and anti-HIV agents; pathogenic mechanisms including the central nervous system, early acute infection, immune deficiencies, tropism, and virus variation; and epidemiology of HIV transmission and progression. The meeting will provide opportunities for interaction with leading AIDS researchers through plenary lectures, poster sessions, oral presentations, and tutorials.

Travel Assistance for Minorities

Funds will be provided to a limited number of minority scientists to attend the meeting in order to encourage participation of minority groups that are underrepresented in AIDS research (African Americans, Alaskan Natives, Native Americans, Hispanics, and Pacific Islanders). Minority scientists eligible for travel assistance are full-time predoctoral students, postdoctoral fellows, junior faculty, and physicians in training who either are engaged in or are planning careers in AIDS research.

For registration forms, application forms for travel assistance, or further information contact:

NIH AIDS Postdoctoral Fellows Meeting
c/o Keystone Symposia
Drawer 1630

Silverthorne, CO 80498

Telephone: (303) 262-1230; Telefax: (303) 262-1525

Submission deadline for registration forms and travel assistance applications is December 2, 1992.



IBI, a Kodak company and leading developer of DNA and Protein Sequence Analysis software to the research scientist, is seeking a Computational Biologist to join our in house development team.

Computational Biologist

The selected candidate will be responsible for evaluating current sequence analysis methods and be responsible for developing new analyses for our software product line.

The ideal candidate will have a graduate degree in the Life Sciences and have a proven track record in developing software in this market. The candidate must be fluent in "C" and any Macintosh experience would be extremely beneficial.

Competitive compensation package includes paid medical, dental insurance and company bonus. If you are interested in joining the IBI and Kodak team in developing innovative software tools for the Life Science Research community, send a current resume, including salary history and position desired, to IBI, Software Development Group.



INTERNATIONAL BIOTECHNOLOGIES, INC.
Subsidiary of Eastman Kodak Company
P.O. Box 9558, New Haven, CT 06535

An Equal Opportunity Employer

MILES

Pharmaceutical
Division

At Miles Research Center in West Haven, CT, you'll be working in the Institute for Molecular Biologicals, conducting innovative biomedical research.

As the expanding Research Center of an international pharmaceutical leader, we offer scientific challenges and career opportunities for individual growth.

CELL/MOLECULAR BIOLOGIST

A staff position is open in the Biologicals Discovery group, which is devoted to the discovery and cloning of novel proteins with potential therapeutic use. We are looking for an individual who is highly motivated, with a Ph.D. and 2-3 years of postdoctoral experience, and has demonstrated expertise in one or more of the following areas: the growth and differentiation of mammalian cells, expression cloning, or the molecular biology of growth factors/cytokines and their receptors.

We offer attractive compensation, industry competitive benefits and a generous relocation program. Resumes, including salary history, should be forwarded in confidence to: **Miles Inc., Pharmaceutical Division, Dept. AA/JG, 400 Morgan Lane, West Haven, CT 06516.**

An Equal Opportunity Employer M/F/D/V

MOLECULAR BIOLOGIST

Faculty position in Molecular Biology is available at the University of Pittsburgh Medical Center. An experienced scientist is being recruited jointly by the Department of Otolaryngology and the Department of Molecular Genetics and Biochemistry to work collaboratively in the field of head and neck oncology. Collaboration with clinicians and other scientists readily available. Over 50 head and neck tumor cell lines current being cultured in our laboratory. Academic appointment and salary are flexible.

Please direct inquiries to:

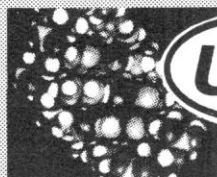
Jonas T. Johnson, M.D., F.A.C.S.

Professor and Vice Chairman
Department of Otolaryngology

The University of Pittsburgh
School of Medicine

Director, Division of Head and
Neck Oncology
and Immunology

The Eye & Ear Institute of Pittsburgh
203 Lothrop Street, Suite 500
Pittsburgh, PA 15213



**Pioneering In
Peptide Technology
And Combating Immune
Disorders And Infectious Diseases**

DIAGNOSTIC RESEARCH AND DEVELOPMENT

UNITED BIOMEDICAL, INC. (UBI), is a dynamic and growing biopharmaceutical company devoted to the development and manufacture of diagnostic products, vaccines and therapeutics to combat immune disorders and infectious diseases.

UBI is currently expanding its Diagnostic Research and Development Program in the areas of HIV, Hepatitis C, HTLV and other infectious diseases. Opportunities exist for **TECHNICAL ASSOCIATES, SCIENTISTS and ASSISTANT DIRECTORS** who have a strong commitment to excellence, and are dedicated to actively participating in goal-oriented, multidisciplinary diagnostic research and development products.

Located on Long Island, in close proximity to Cold Spring Harbor Laboratory and the State University of New York at Stony Brook, yet only 45 miles from Manhattan, UBI offers an active and stimulating scientific environment. **An excellent benefits package and competitive salary accompany these positions.**

Please send CV, indicating position of interest, along with salary requirements to:

Manager, Human Resources-S



UNITED BIOMEDICAL, INC.

25 Davids Drive, Hauppauge, NY 11788

Equal Opportunity Employer M/F/D/V



**IBEX
Technologies**

Ph.D. Biomedical Engineers

Several positions are available in our medical devices group for scientists with 0-5 years experience. The group focuses on development and testing of immobilized enzyme reactors for extracorporeal therapy. Requires experience in fluid mechanics, biocompatible materials and reactor design.

Ph.D. Carbohydrate Chemist

This person will be involved in establishing a research group focusing on the characterization of glycosaminoglycans and GAG modifying enzymes.

M.S./Ph.D. Regulatory Affairs

We are looking for a candidate with a scientific background and 2-5 years experience in the pharmaceutical industry to coordinate regulatory approval efforts for medical devices and therapeutics. Experience with GMP, protein purification and FDA regulations will be considered.

IBEX Technologies is an equal opportunity employer located in the Montreal metropolitan area. We offer a competitive compensation package that is combined with challenging work and the opportunity to make significant contributions to a growing company. To apply please send curriculum vitae to: IBEX Technologies, Human Resources, 5645 Chemin St. François, Ville St. Laurent H4S 1W6.

Clinical Director

**Center for Human Genetics and Department of Genetics
Case Western Reserve University School of Medicine
University Hospitals of Cleveland**

The newly established Center for Human Genetics invites applications for a Clinical Director who will be responsible for organizing and directing the clinical genetics services at University Hospitals of Cleveland, including Rainbow Babies and Childrens Hospital, both affiliated with Case Western Reserve University School of Medicine. The Clinical Director must be a diplomate of the American Board of Medical Genetics and will assume responsibility for the clinical service, including diagnostic laboratories for Clinical and Molecular Cytogenetics (Dr. S. Schwartz, laboratory director) and Prenatal Screening (Dr. L. Dickerman, laboratory director). In addition to directing the clinical service, the candidate will assist the Director of the Center, Dr. H. F. Willard, in all aspects of the Center's academic, research, and teaching activities. The candidate will be appointed at a senior rank in the Department of Genetics and an appropriate clinical department and will be expected to establish an active human genetics research program and/or to interact and collaborate with research faculty within the Center. The Center for Human Genetics maintains strong ties with clinical departments and programs as an essential part of its mission. The Clinical Director will have significant resources available for increased development of the clinical service, as part of a major institutional commitment to excellence in human and medical genetics.

Applicants should send curriculum vitae, summary of clinical, administrative and research experience, and names of three references (with contact numbers) to: **Dr. Huntington F. Willard, Director, Center for Human Genetics, Case Western Reserve University School of Medicine, Cleveland, OH 44106-4955.**

Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL RESEARCH FELLOWSHIP Department of Microbiology The University of British Columbia

A position is available in a group investigating virulence mechanisms in oral gram-negative pathogens. Experience in the characterization of outer membranes using biochemical and molecular biological techniques preferred. The University of British Columbia welcomes all qualified applicants especially women, aboriginal people, visible minorities and persons with disabilities.

Please send applications with curriculum vitae and names and addresses of three referees to: **Dr. B.C. McBride, Department of Microbiology, 6174 University Boulevard, Vancouver, B.C. CANADA V6T 1Z3.**

POSTDOCTORAL FELLOWS/ RESEARCH ASSOCIATES

Positions available in multidisciplinary neuroscience laboratory to study central neural, cellular, and molecular mechanisms relating to cardiovascular control, hypertension, and stroke. Areas of interest/background: (a) chemical/molecular anatomy of central networks with emphasis on receptors; (b) cell biology relating to neurotransmitter regulation of neuronal protection in vitro; (c) electrophysiology, integrative and/or cellular, relating to actions of specific neuronal systems and their transmitters and receptors; (d) pharmacological and molecular studies of novel receptors and signal transduction mechanisms. Funding through NIH training grant (*U.S. citizens and permanent residents only*). Please send curriculum vitae to: **Donald J. Reis, M.D., Division of Neurobiology, Cornell University Medical College, 411 East 69th Street—KB410, New York, NY 10021. Equal Opportunity/Affirmative Action Employer/M/F/H/V.**

POPULATION GENETICS/ CONSERVATION BIOLOGY

The Population Change and Genetic Diversity research group at the University of North Dakota and North Dakota State University seeks applications for three **POSTDOCTORAL ASSOCIATES** and three **GRADUATE RESEARCH ASSISTANTS** with an interest in molecular approaches to population genetics. A laboratory technician/manager is also expected to be recruited. We have a three-year, NSF-funded collaborative research program examining the genetic structure of natural populations and its implications for conservation biology. Taxa currently being studied include recent and fossil arctic insects, tropical rainforest trees, and terrestrial and aquatic vertebrates. Applicants should send a letter stating research interests and experience, curriculum vitae, and names of references to: **Dr. Diana Lieberman, Department of Biology, University of North Dakota, Grand Forks, ND 58202-8238.** Review of applications will begin 1 December 1992. *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATE. Position is available to study the neurophysiology of subcortical pathways mediating ocular accommodation and vergence eye movements. Work involves behavioral and electrophysiological (single-unit) studies using trained primates. Excellent research environment. Contact: **Dr. L. Mays, Vision Science Research Center, University of Alabama at Birmingham, Birmingham, AL 35294. Equal Opportunity/Affirmative Action Employer.** Telephone: 205-934-1158; FAX: 205-934-5725; INTERNET: optp014@uabdp.dpo.uab.edu

SENIOR RESEARCH ASSOCIATE in Molecular Endocrinology to investigate the regulated expression and function of the POMC gene (rodents) and teach graduate students and M.D. fellows. Qualifications: Ph.D. (Biochemistry), three years of experience teaching biochemistry to university students, and a minimum of three years of postdoctoral experience in molecular and cellular endocrinology of neuropeptides including the production of transgenic mice, tissue culture, gene expression in cell lines, radioimmunoassay, cDNA library construction, and expression cloning. Demonstrate independent relevant research by publication of at least 15 research papers in peer-reviewed journals, at least 8 as primary author. Recruitment period 30 days after publication of this ad. *OHSU is an Affirmative Action/Equal Opportunity Employer.* Send curriculum vitae and names and telephone numbers of three references to: **Dr. Malcolm J. Low, Vollum Institute, L474, Oregon Health Sciences University, 3181 S. W. Sam Jackson Park Road, Portland, OR 97201-3098.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH POSITION available immediately to study lipid biosynthesis and function in *Saccharomyces cerevisiae*. Candidates who have experience working with *S. cerevisiae*, and/or also with HPLC analysis of phospholipids and phospholipid derivatives, should submit curriculum vitae and the names of three references to: **Dr. P. McGraw, Department of Biological Sciences, University of Maryland, Baltimore, MD 21228. UMBC is an Equal Opportunity Employer.**

POSTDOCTORAL/RESEARCH ASSOCIATE in gene expression to study cis-acting transcriptional regulation of *Drosophila* muscle genes in transgenic flies (see *Mol. Cell. Biol.* 11,1901 (1991)) and isolation of transcription factors regulating early and late muscle gene expression. Position is available beginning January 1993 or later. Applicants must have a Ph.D., and experience in recombinant DNA methods and/or genetics is desirable. Send curriculum vitae and names of three references to: **Dr. Robert V. Storti, Department of Biochemistry (MC/536), University of Illinois College of Medicine, 1853 West Polk Street, Chicago, IL 60612. UIC is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE

Postdoctoral position available to study protein-DNA, protein-ligand, and protein-protein interactions involved in prokaryotic and eukaryotic genetic regulation. Experience in protein purification/characterization and in molecular biological methods essential. Send curriculum vitae, a summary of research experience, and have letters from three references forwarded to: **Dr. K. S. Matthews, Department of Biochemistry & Cell Biology, Rice University, Houston, TX 77251. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATES

Positions available immediately to study the action of sedative-hypnotics and opioid analgesics. Applicants will join federally funded ongoing research project. Current studies include the use of molecular, pharmacological and biochemical techniques (e.g., receptor bindings, mRNA measurement, in situ hybridization, and autoradiography) in GABA_A receptors. Previous experience in one or more of these techniques is preferred. Send curriculum vitae and two letters of reference to: **Dr. I. K. Ho, Department of Pharmacology and Toxicology, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505. The University of Mississippi Medical Center is an Equal Opportunity Employer, M/F/D/V.**

RESEARCH ASSOCIATE position available immediately to study the molecular and cellular biology of the alveolar epithelium, with an emphasis on development/growth/differentiation. Applicants should have a Ph.D. with research experience in molecular cell biology and ability to integrate into a lung research group. Expertise desirable in techniques of DNA cloning, RNA and DNA analysis, PCR, subtractive hybridization and/or in situ hybridization. Interested individuals should forward curriculum vitae and the names of three references to: **Dr. Edward D. Crandall, Director, Will Rogers Pulmonary Research Laboratory, University of Southern California, 2025 Zonal Avenue, GNH 11-900, Los Angeles, CA 90033. USC is an Equal Opportunity Employer.**

RESEARCH ASSOCIATE position available October 7, 1992. Individual should have an M.D. or Ph.D. and at least five years of postdoctoral experience working on heart cells and should be skilled in the following: voltage-clamp methods, use of fluorescence microscopy to measure intracellular ion activity; use of imaging methods including video, confocal and wide-field fluorescence microscopy; use of flash photolysis in biological systems. Additionally some experience in cardiac cell culture and isolation methods is needed. Individual should be independent and should preferably have current funding and/or grant-writing experience. Send curriculum vitae and have three letters of reference sent to: **W. J. Lederer, M.D., Ph.D., Department Physiology, University of Maryland School of Medicine, 660 West Redwood Street, Baltimore, MD 21201 by October 13, 1992. FAX: (410) 328-8341. The University of Maryland is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

RESEARCH ASSOCIATE

Applications are invited for a position in research on neurodegenerative disorders (Alzheimer). The successful candidate should hold a Ph.D. or M.D., have a strong background in molecular biology/enzyme chemistry and a few years of postdoctoral training. The position, paid according to BAT, is limited to 2 years and intended for German citizens to facilitate reintegration into German research institutions. Foreign scientists, however, are equally encouraged to apply. Please send curriculum vitae and list of publications to: **Dr. P. Gebicke, Psychiatrische Universitätsklinik, Hauptstrasse 5, D-7800 Freiburg, Germany. FAX: 49/761-270-6523.**

CONSULTANT

Our client is seeking part-time consultants to advise on the feasibility of biotechnology ventures in developing markets in India, China, and Myanmar. Requirement is for **BIOCHEMISTRY/MICROBIOLOGY** Ph.D.'s or doctoral candidates with specialization in Immunology, Toxicology/Neurotoxicology, or Genetics/Genetic Engineering. Native language ability, current area familiarity, and English language skills a must. Flexible hours; relocation/travel not required. Send résumés and pertinent abstracts/research papers (confidentiality assured) to: **T. J. Lynn & Sons, Attn: Mr. Clark, P.O. Box 301, Savage, MD 20763. Written responses only.**

CONCERNED SCIENTISTS

Eco-balance 2000, a nonprofit research institute dedicated to the preservation of the global ecosystem, is preparing an assessment of the proliferation of nuclear materials and technology to developing countries. We are particularly interested in scientists or technicians with firsthand information or direct experience. Personal interviews will be conducted from November 1992 through June 1993. All replies will be held in strictest confidence. Please respond to:

**Dr. Ian McCallister
Eco-Balance 2000
Post Office Box 1242
Laurel, MD 20725-1242
U.S.A.**

CHEMIST, PHARMACEUTICAL (Protein Biochemist), Pennsylvania

Purifies and characterizes proteins and glycoproteins using biochemical methods, immunological methods and biophysical methods including LALLS (low angle laser light scattering for molecular weight determination and aggregate studies); performs tissue culture of several cell tumor cell lines; engages in research in the areas of immunology (including proficiency in hybridoma technology), protein chemistry, and synthesis, radiolabelling and *in vivo* biodistribution of radiopharmaceuticals; designs, executes, interprets and analyzes experimental studies to evaluate novel radioimmunoconjugates; develops assays *in vitro* and *in vivo* to measure the therapeutic effects of antisense, triple helix and double stranded oligonucleotides, characterizes the kinetics and cellular targeting *in vitro* and *in vivo* of modified and unmodified oligonucleotides delivered by various methods; produces and characterizes monoclonal antibodies using hybridoma technology; and labels immunoconjugates and proteins with radioisotopes. Requirements: Ph.D. degree in Protein Biochemistry or Pharmaceutical Sciences; three (3) years of experience in the job offered or four (4) years of experience as a Graduate Research Assistant; must have three years of research experience in the following areas: purifying and characterizing proteins and glycoproteins using biochemical methods, immunological methods and biophysical methods including LALLS (low angle laser light scattering for molecular weight determination and aggregate studies), immunology, including proficiency in hybridoma technology, protein chemistry, tissue culture, and synthesis, radiolabelling and *in vivo* biodistribution of radiopharmaceuticals; must have published two (2) scientific publications in the area of characterization of glycoproteins using low angle laser light scattering (LALLS). 40+ hours per week; \$48,415 per year. Refer to **J.O. #4494368** and submit résumé or curriculum vitae to: **The Philadelphia Job Bank, 444 North Third Street—Third Floor, Philadelphia, PA 19123.**

McGILL UNIVERSITY DEPARTMENT OF BIOLOGY

The Department of Biology at McGill University invites applications for a tenure-track position at the ASSISTANT PROFESSOR level in MOLECULAR BIOLOGY. The Department seeks candidates who have demonstrated research ability in the identification, isolation, and characterization of genes governing physiological and/or developmental phenomena in a genetically well characterized system. We are particularly interested in filling the position with a PLANT MOLECULAR BIOLOGIST, but applications from individuals working in other areas of molecular biology will be considered.

The successful applicant will join a large (40 full-time faculty) and dynamic department with research strengths in cellular, molecular, and developmental biology, ecology, and neurobiology. The Department also has excellent technical facilities, including the McGill Phytotron and centres for photography, light and electron microscopy, biotechnology, and field stations.

Applicants should hold the Ph.D. degree in biology or a related field, and demonstrate capacity for independent research. Duties will include carrying out research and participating in teaching of undergraduate and/or graduate-level courses in cell and molecular biology. The position is available beginning 1 September 1993.

Please send CV, a statement of research interests, and representative reprints. Request three letters of reference. All materials should arrive by November 2, 1992. Send to:

Prof. Robert L. Carroll
Chairman, Department of Biology
McGill University
1205 Avenue Docteur Penfield
Montréal, Québec, Canada
H3A 1B1

The Department of Biology is also seeking candidates in the field of Cell and Molecular Biology for the NSERC sponsored (Canadian) Women's Research Fellowship. Same deadline.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. *McGill University is committed to equity in employment.*

MOLECULAR BIOLOGIST/IMMUNOLOGIST

The H. Lee Moffitt Cancer Center & Research Institute and the University of South Florida seeks applications for an Assistant Professor position in the Immunology program to participate in developing programs for the molecular basis of cancer biology and immunology.

Applicants should hold a Ph.D. in Molecular Biology/Immunology with research experience in gene transfection, transcriptional/posttranscriptional gene regulation and cDNA cloning that can be applied to human lymphocytes and tumor cells. The successful candidate will be expected to establish a vigorous research program in molecular immunology and biology, and successfully compete for extramural funding. This position may be tenure earning.

Send Curriculum Vitae to Julie Djeu, Ph.D., Immunology Program, or John C. Ruckdeschel, M.D., Center Director/CEO at H. Lee Moffitt Cancer Center & Research Institute. Address: Search Committee, Office of Faculty Recruitment, P.O. Box 280179, Tampa, Florida 33682-0179. Deadline for receipt is November 1, 1992.

H. Lee Moffitt Cancer Center & Research Institute, adjacent to the Health Sciences Center on the University of South Florida's Tampa Campus, includes a modern 162-bed cancer facility for children and adults, a large Ambulatory Services operation, a 20-bed bone marrow transplantation program and a new research building.



**H. LEE MOFFITT CANCER CENTER
& RESEARCH INSTITUTE**
University of South Florida College of Medicine

Moffitt Cancer Center is an Equal Opportunity Employer.
The University of South Florida is an Affirmative Action Equal Opportunity Employer.

Are Present Trends Sustainable?

Director, the 2050 Project

A director is sought for the 2050 Project, a 4-year international research project on sustainability being organized jointly by the World Resources Institute, the Brookings Institution, and the Santa Fe Institute. The study will examine the concept of sustainability in an integrated way, including environmental, economic, and social aspects, exploring both desirable future conditions and the transitions needed to reach them by the year 2050. The project will involve conventional analysis, non-linear adaptive modeling, construction and analysis of detailed scenarios, and policy research. It will also involve formal cooperation with researchers and institutes in all major regions of the world.

The Project Director will be based at the World Resources Institute in Washington, D.C., will report to the presidents of the three organizing institutions, and will work closely with an international Steering Committee and a distinguished Advisory Board. The Director's responsibilities include intellectual leadership of the project, management of core staff and contracted studies, and allocation of funds. The Director must have a strong interest in the issues of sustainability, relevant professional knowledge, demonstrated management experience, and the ability to deal effectively with a variety of constituencies.

Address inquiries and applications to: Chairman, 2050 Project Steering Committee, World Resources Institute, 1709 New York Avenue NW, Washington, D.C. 20006. WRI is an equal opportunity employer.

Doctoral Fellowships in Neuroscience

Benefits

- Financial support for a period of up to three years
- Travel funds to attend the Society for Neuroscience annual meeting
- Travel funds to visit universities being considered for graduate training
- Summer Training at the Marine Biological Laboratory in Woods Hole, MA

Eligibility

- American citizenship or permanent visa residency; and
- enrollment in a full time doctoral program.

An additional important factor for selection is that applicants be members of an underrepresented minority group, including but not limited to African Americans, Alaskan Natives, American Indians, Mexican Americans, Pacific Islanders, and Puerto Ricans.

Training is Provided in

- | | |
|------------------------------|---------------------|
| ○ Behavioral Neurobiology | ○ Neuroimmunology |
| ○ Cellular Neurobiology | ○ Neuropathology |
| ○ Developmental Neurobiology | ○ Neuropharmacology |
| ○ Membrane Biophysics | ○ Neurophysiology |
| ○ Molecular Neurobiology | ○ Neurotoxicology |
| ○ Neurobiology of Aging | |

Applications are accepted in the Fall and must be received no later than January 15 of each year. Awards are announced by March 1.

For information write:

**The American Psychological Association
Minority Fellowship Program/Neuroscience
750 First Street, NE
Washington DC 20002-4242
(202) 336-6027**

POSITIONS OPEN

CHEMIST, PHARMACEUTICAL (Research Investigator/Biophysics), Pennsylvania

Conduct research and apply advanced mathematical techniques (laboratory automation for biology and biochemistry experimentation, biochemical data analysis, and computer simulation and computational modeling) to complex biochemical systems in the context of pharmaceutical research and development projects; work closely with biologists and chemists to research molecular pharmaceutical transport processes; utilize supercomputing, fluorescence spectroscopy and absorbance spectroscopy, instrument control, IBM PC, Apple Macintosh, VAX/VMS, C, and FORTRAN to design and conduct automated biochemical and biophysical assays and other pharmaceutical processes. Requirements: Ph.D. degree in Physics/Biophysics or Biophysics; two (2) years of experience in the job offered or three (3) years of experience as a Research Assistant-Biophysics; must have at least three (3) years of Research Assistant-Biophysics experience or two (2) years of Research Investigator-Biophysics experience in conducting research and applying advanced mathematical techniques (laboratory automation for biology and biochemistry experimentation, biochemical data analysis, and computer simulation and computational modeling) to complex biochemical systems; performing research on molecular transport processes, and utilizing supercomputing, fluorescence spectroscopy, absorbance spectroscopy, and instrument control to design and conduct automated biochemical and biophysical assays, and other biomedical processes; must have well-developed expertise in supercomputing, fluorescence spectroscopy and absorbance spectroscopy, IBM PC, Apple Macintosh, VAX/VMS, and the following computer languages: C, FORTRAN. 40+ hours per week; \$48,300 per year. Refer to J.O. #4494367 and submit résumé or curriculum vitae to: The Philadelphia Job Bank, 444 North Third Street—Third Floor, Philadelphia, PA 19123.

ENTOMOLOGIST: Identification of specific insect pests, diseases and their natural enemies on almond, walnut, grape and apple agricultural crops. Monitor pest and natural enemies population dynamics and their interactions, and determine if economic injury levels are reached and whether or not control measures are required including checking orchards regularly for commercial growers. Provide commercial growers detailed information about orchard conditions which include insect pest status (major pests, their abundance and crop damage), plant diseases, weed and plant nutritional disorder and available management options including biological control, cultural practice and chemical treatment for specific conditions. University level training, research background or experience in the following: Biological control, population ecology, plant pathology, pest identification and management control in almond, walnut, grape and agricultural crops; statistics and word-processing including graphics. Ph.D. or equivalent in Entomology plus six months of related experience. Salary: \$3,188 per month. Clip this ad and send with résumé to Job #CR 4565, P.O. Box 9560, Sacramento, CA 95823-0560 no later than 17 October 1992.

RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER (RPSLMC), The Molecular Cardiology Laboratory of the Cardiovascular Research Laboratories is seeking an individual with the discipline and accuracy of a **MEDICAL TECHNOLOGIST** and the enthusiasm of a researcher to deal with experimental design and constantly changing technology in the field of genetics and molecular biology. The technical supervisor will be responsible for the operation of the research laboratory, development and implementation of new tests for genetic and acquired cardiovascular diseases, and will supervise technical personnel in the performance and reporting of tests, cell cultures and experiments. This individual will participate in the design and performance of protocols for testing and day-to-day experiments. Must have ASCP certification, five to eight years of clinical and research laboratory experience in Cell and Molecular Biology, and computer skills in IBM/MS-DOS personal computer systems. Interested candidates should contact: Dr. E. Rene Rodriguez, Section of Cardiology, Rush-Presbyterian-St. Luke's Medical Center, 1653 West Congress Parkway, Chicago, IL 60612 or call (312) 942-5254 or (312) 942-4263. RPSLMC is an Equal Opportunity Employer.

POSITIONS OPEN

BIODIVERSITY AND TROPICAL FORESTRY STAFF SPECIALIST (salary \$64,233 to \$83,502). USDA Forest Service, Forest Environment Research, Washington, DC, seeks Ph.D. in Biological Sciences including Ecology, Wildlife Biology, or Tropical Forestry, to provide leadership and coordination of national programs in biodiversity and tropical research. Formulates policies, research program objectives and budgets. Reviews and coordinates research programs of eight regional experiment stations. For vacancy announcement/application materials/additional information call: Doug Ryan, 202-205-1524.

CANCER RESEARCH

Search Reopened: Full-time position for Ph.D. or research-oriented physician to perform bench related oncology research. Prefer individual interested in biological response modifiers but may consider other medical oncology related research interests. Postdoctoral experience and demonstrated research potential are required. Please submit curriculum vitae, letter detailing research goals and names of three references to: David R. Pieper, Ph.D., Director of Physiology and Research, Providence Hospital, Southfield, MI 48037.

DEVELOPMENTAL NEUROBIOLOGIST Department of Physiology & Biophysics and the Regional Primate Research Center UNIVERSITY OF WASHINGTON

Candidates sought at a junior faculty level in fields of neurobiology, neurogenetics, neuroembryology, and related disciplines. Possible research areas include genetic control of neural development, determinants of migration of neural elements, fetal neuroimmunology, neurotransplantation and others. Focus on candidates who see opportunity to work with nonhuman primate models as essential to their research career goals. Background in primate research desirable but not necessary. Primary selection criteria will be history of scientific excellence and promise of continued research performance of highest scientific and academic standard. Send letter of application, curriculum vitae, and three personal references to: Albert F. Fuchs, Ph.D., Chair, Search Committee, Regional Primate Research Center, SJ-50, University of Washington, Seattle, WA 98195. Telephone: (206) 543-8014. University of Washington is an Affirmative Action/Equal Opportunity Employer.

QUANTITATIVE ESTUARINE/MARINE ECOLOGIST. An Assistant Marine Scientist position is available immediately for an estuarine/marine ecologist with the expertise required to conduct ecological assessments. The successful candidate will participate in developing a program to measure the status and trends in the ecological condition of Southeast estuaries. This position at the Marine Resources Research Institute, South Carolina Wildlife and Marine Resources Department (SCWMRD) is supported by a federally funded contract and is available for immediate filling. Applicant should have a Ph.D. degree (or equivalent experience) and be experienced in statistical analyses, sampling design, and database management. Application must be received prior to 15 November 1992. Please send curriculum vitae, statement of research interests and goals (<3 pages), and three letters of reference to: Dr. Fred Holland, Marine Resources Research Institute, PO Box 12559, Charleston, SC 29422-2559. The SCWMRD prohibits discrimination on the basis of race, sex, color, national origin, handicap, or age.

SENIOR DESIGN ENGINEER. Apply and analyze principles of advanced aerodynamics, thermodynamics, heat transfer, mechanics of materials, materials science and electronic instrumentation technology to design temperature and flow monitoring transducers for aircraft systems. Design new products, prepare detailed drawings and prepare manufacturing assembly procedures per aerospace customer specifications. Incorporate new ceramics, polymers and alloys to meet performance standards. Coordinate qualification programs for flight worthiness in accordance with customer specifications. **REQUIREMENTS:** Bachelor's degree in Mechanical Engineering (or equivalent); three years of experience in job offered. **SALARY:** \$45,000 per year for 40-hour week. All qualified applicants please apply at the Texas Employment Commission, Houston, Texas, or send résumé to: Texas Employment Commission, TEC Building, Austin, TX 78778. JO #6717932. Ad paid by an Equal Employment Opportunity Employer.

POSITIONS OPEN

BIOMATERIALS ENGINEER. Responsible for designing and developing processes to improve biocompatibility of variety of extracorporeal devices used in cardiovascular surgery. Work with Research and Development Staff to design and develop product specifications and validate performance of extracorporeal devices with improved biocompatibility. Conduct studies and research to expand knowledge base of blood material interactions, polymer science, chemical analysis, and ex vivo animal experimentation. Conduct in vitro, ex vivo, and in vivo animal experimentation. Apply biocompatible polymer coatings to surface; study effect of polymers on activation of platelets, coagulation, and complement systems; Interpret chemical and physical adsorption isotherms. Design pilot production facility and develop quality control procedures. Requires: Ph.D. in Biomedical Engineering with major field of study in biomaterials and two years of experience as chemical process engineer. Must have experience and working knowledge of the following: relationship between polymer structure and properties; polymer processing; in vitro, ex vivo and in vivo animal modeling; blood compatibility, hematology, and immunology; and spectroscopy techniques such as FTIR, X-ray photoelectron spectroscopy, X-ray fluorescence, scanning electron microscopy, and light microscopy. Salary: \$48,000 per year. Forty hours per week. Mail résumé to: Colorado Department of Labor and Employment, Attn: Rolynda Bain, Employment Programs, 600 Grant Street, Suite 900, Denver, CO 80203-3528 and refer to Job Order Number: CO4155948.

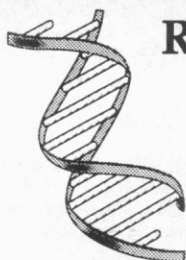
REPRODUCTIVE BIOLOGIST/ EMBRYOLOGIST

The Reproductive Endocrinology and Infertility Division is seeking a Ph.D.-level reproductive biologist/embryologist. This person will work in the *in vitro* fertilization section of the Reproductive Endocrine and Infertility lab and be responsible for overseeing an ongoing IVF lab, establishing micromanipulation procedures for the treatment of male-factor infertility and conducting basic research in either egg-sperm interaction, pre-implantation genetics or other related areas. This position entails a full academic appointment at the ASSISTANT or ASSOCIATE PROFESSOR level depending on qualifications.

Send curriculum vitae and three references to: John C. Nulsen, M.D., Director of the ARTS Program, Department of Obstetrics and Gynecology, University of Connecticut Health Center, Farmington, CT 06030-1230.

RESEARCH SCIENTIST/MOLECULAR BIOLOGY to oversee research projects involving obtaining cell lines, expressing different transmembrane receptors for development and testing pharmaceutical analogs of ligands and study mechanisms of their signaling activities utilizing gene cloning, electrophoresis, HPLC, microscopy, histology, molecular and cell biology techniques, and experimental oncology. Perform independent research in chemical carcinogenesis including the role of growth factors and their receptors in cell proliferation and carcinogenesis utilizing histology, experimental oncology and molecular biology methodologies in an interdisciplinary matrix including pharmacology and medicine. Master of Science in Molecular Biology plus three years of experience as Research Scientist/Medical Oncology required. Previous experience must include three years hands-on experience performing research in chemical carcinogenesis, role of growth factors and their receptors in cell proliferation and carcinogenesis, obtaining cell lines, expressing different transmembrane receptors for development and testing pharmaceutical analogs utilizing gene cloning, electrophoresis, HPLC and microscopy in interdisciplinary matrix including oncology, pharmacology and medicine. Forty hours per week. Hours 8:30 a.m. to 4:30 p.m. Monday to Friday. Salary \$44,000 per year. Send résumés to: Rhone-Poulenc Rorer Central Research, Position # JAO-YI, 500 Arcola Road, Collegeville, PA 19426. Equal Opportunity Employer.

SCIENTIST for national public-interest group to work on food safety issues. Related Ph.D. and advocacy experience preferred. Salary range \$35,000 to \$45,000 per year. Nonsmoking office. Send résumé, salary history, writing samples to: J. Douglas, CSPI, 1875 Connecticut Avenue, N.W., #300, Washington, DC 20009.



RESEARCH/DEVELOPMENT OPPORTUNITIES

Biochemistry/Pharmaceutical Development

ISIS Pharmaceuticals, a rapidly growing San Diego-based biopharmaceutical company, is seeking outstanding Scientists and Senior Scientists to join a team working on developing oligonucleotide therapeutics.

OLIGONUCLEOTIDE BIOCHEMISTRY (BS/MS & PhD Levels)

▲ The successful candidates will join a team in the Department of Drug Metabolism, characterizing the in vitro and in vivo disposition of oligonucleotides. The Department seeks candidates at both the BS/MS and PhD levels to support the development of analytical methods to characterize the metabolism of oligonucleotides in biological matrices. 2-5 years experience (at both levels) in DNA and RNA chemistry, HPLC and gel electrophoresis purification and analysis of oligonucleotides is required. Practical knowledge of nucleoside/nucleotide biochemistry and relevant biochemical techniques is strongly preferred. Code 115.

PHARMACEUTICAL DEVELOPMENT (PhD Level)

▲ The successful candidate will conduct research and development studies in our Development Chemistry Department on parenteral ocular delivery and topical dosage forms. A strong background in the delivery of biopolymers is required. Experience in experimental design and strong background in analytical methods are desirable. Candidate should have a PhD degree in pharmaceuticals or related field, plus 0-5 years experience. Code 116.

ISIS Pharmaceuticals offers a competitive salary, excellent benefits and equity participation. Submit cover letter, CV, and references, indicating the code # of position for which you are applying, to: Human Resources, SM, 2292 Faraday Avenue, Carlsbad, CA 92008. No phone calls please. Equal Opportunity Employer.



ISIS PHARMACEUTICALS

RESEARCH ASSOCIATE

Work on the isolation and characterization of biologically active molecules and cloning of proteins. Ph.D. in organic chemistry or biochemistry required. One-year position, funded by Sea Grant. Opportunity for successive appointments based on receipt of additional grant funding.

Salary: \$21,000 for position available October 1992.

William Paterson College, on a 250-acre suburban campus 20 miles from New York City, is an accredited state college offering 50 undergraduate and graduate programs. WPC is an affirmative action/equal opportunity employer.

Please send letter of application, curriculum vitae and three (3) letters of reference by October 19, 1992 to:

DR. GURDIAL SHARMA
Chair, Department
of Chemistry



**WILLIAM PATERSON
COLLEGE**
Drawer SS
Wayne, NJ 07470

TWO FACULTY POSITIONS The Division of Biological Sciences University of Missouri

We continue a multi-year hiring program with 2 tenure-track faculty positions at the Assistant Professor level, available in September 1993. The Division has established strong programs in Cell and Molecular Biology, Evolutionary Biology, and Neurobiology. We have an active graduate program with institutional support for students and postdoctoral associates, and a well-funded highly interactive faculty.

NEUROBIOLOGY

Candidates will be expected to develop an independent research program utilizing cellular, molecular, physiological, or neuroethological approaches to basic problems in neurobiology.

EVOLUTION OF BEHAVIOR

Candidates will be expected to develop an independent research program in evolution of behavior. Desirable areas of research include, but are not limited to studies of population/behavioral genetics, behavioral ecology, communication, and social behavior.

These positions are offered at highly competitive salary with excellent research start-up funds, laboratory space, and research support facilities. The applicants will be expected to participate in teaching at both the graduate and undergraduate level. Candidates should have a PhD and a demonstrated record of research accomplishment. A curriculum vitae, statement of research and teaching interests, copies of recent publications and the names, addresses and phone numbers of three references should be submitted by December 1, 1992 to: **Dr. John David, Director, Division of Biological Sciences, University of Missouri, 105 Tucker Hall, Columbia, Missouri 65211.**

The University of Missouri is an Equal Opportunity Employer and encourages applications from women and minorities.

Postdoctoral Opportunities Human Genome Research

The Human Genome Center at Lawrence Livermore National Laboratory (LLNL) has two postdoctoral research positions available to work within the context of the human genome initiative on the search for novel genes from various human chromosomes.

One postdoctoral position will involve the design and implementation of new strategies for cloning and characterizing cDNAs. These strategies will involve the generation and selection of full-length cDNAs from regions of human chromosome 19 known to contain specific loci of interest.

The second postdoctoral position will use the linkages conserved between mice and humans to isolate coding regions. This position will also involve assays of gene function using gene targeting approaches.

Both positions require a PhD in Molecular Biology, Biochemistry, Genetics or equivalent. Extensive experience in recombinant DNA and cDNA work is desirable. For further details on these positions, contact **Dr. Greg Lennon, 510-422-5711.**

The Biology and Biotechnology Program at LLNL offers a wide variety of excellent research and computational facilities, in addition to a highly competitive salary and benefits package. Interested applicants are invited to contact Dr. Lennon, and send their curriculum vitae to: **Phil Harding, Professional Employment Division, Lawrence Livermore National Laboratory, P.O. Box 5510, L-725, Dept. A93107BS, Livermore, CA 94550. U.S. Citizenship preferred. Equal Opportunity Employer. M/F/D/V.**

University of California

 **Lawrence Livermore
National Laboratory**

PhDs • Pharmacology • Physiology

Your scientific expertise is the foundation for a strong future

Hoechst-Roussel Pharmaceuticals Inc., a fast-growing subsidiary of the Hoechst Celanese Corporation, a \$4.6 billion division of one of the world's leading producers of chemicals and pharmaceuticals, has several opportunities for published Pharmacologists or Physiologists. Primary responsibilities will entail developing contacts within medical institutions, universities, teaching hospitals and government research groups. In addition, you will prepare auxiliary technical materials and deliver technical updates/training to field sales personnel.

Ideal candidates will possess a PhD in Physiology or Pharmacology, and 2-3 years teaching experience at the university level. Special consideration will be given to individuals with a background in metabolic/endocrine physiology or pharmacology.

These highly visible positions will provide direct contact with prominent figures in the medical field and pharmaceutical industry.

We offer a superb compensation package, including an excellent salary plus expense account, a company car and outstanding company benefits. Positions are available in the Southwest, Southeast and Midwest.

Send Curriculum vitae with current earnings to:
Manager Human Resources, BB372, Hoechst-Roussel Pharmaceuticals Inc., Route 202-206, P.O. Box 2500, Somerville, NJ 08876. An affirmative action employer.

Hoechst-Roussel Pharmaceuticals Inc.

Hoechst 

The Hoechst name and logo are registered trademarks of Hoechst AG ©

Faculty Positions Eukaryotic Microbiology Plant Developmental Biology Purdue University Department of Biological Sciences

Applications are invited for 2 tenure-track positions at the Assistant/Associate Professor level. The Department can provide excellent research space, significant start-up funds and a large and vigorous graduate program. The campus has excellent interdisciplinary graduate programs in Biochemistry and Molecular Biology and Plant Biology.

Eukaryotic Microbiology (Dr. Arthur Aronson, Search Committee Chair)

Applications are encouraged from individuals employing combined genetic and molecular approaches to investigate fundamental problems in eukaryotic microbes (yeast, filamentous fungi, algae, and protozoans). Areas of interest include, but are not limited to: cell-cell interactions, morphogenesis, intracellular trafficking, cell cycle control, cytoskeleton, genome structure and evolution, and bioenergetics.

Plant Developmental Biology

(Drs. Jeffrey Bennetzen and Stan Gelvin, Search Committee Co-Chairs) Applications are encouraged from individuals employing molecular, genetic and cellular approaches to important questions in plant developmental biology. Areas of interest include, but are not limited to: signal transduction pathways, developmental mutants, and hormone responses.

Candidates are expected to develop a vigorous, extramurally funded research program and to participate actively in the teaching program of the Department. Applicants should send a *curriculum vitae* and a statement of research experience and goals, and should request that letters of recommendation from at least three referees be sent directly to the Dept. of Biological Sciences at Purdue University. Application materials should be addressed to the Chair of the appropriate search committee at:

Department of Biological Sciences
1392 Lilly Hall of Life Sciences
Purdue University
West Lafayette, IN 47907-1392



Applications will be accepted until December 15, 1992 or until position is filled. An Equal Opportunity/Affirmative Action employer.

POSTDOCTORAL POSITIONS Biotechnology and Microbiology

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. We currently have two Postdoctoral opportunities available in the Biotechnology and Microbiology division at our Radnor, PA Research facility.

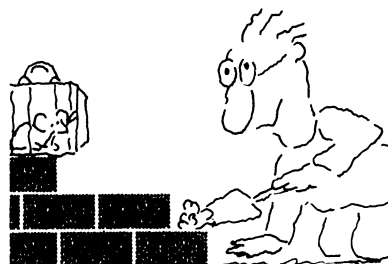
These positions offer the opportunity to become part of a professional research team. Candidates selected will have the opportunity to choose a project suitable to their background and interest. One position is on a team studying the molecular and immunological basis of human papillomavirus tumor induction and tumor regression, using *in vivo* and *in vitro* models. Candidates should be Ph.D.'s with solid background in molecular virology and/or immunology. The second position available is to study mammalian and E. coli gene expression, vector construction and antisense RNA expression using recombinant adenovirus. Position requires a Ph.D. with experience in molecular biology, e.g. mammalian and E. coli cell expression and tissue culture.

Wyeth-Ayerst offers a competitive salary and comprehensive company benefits. Qualified candidates are invited to submit a curriculum vitae to:
Recruitment Manager, Wyeth-Ayerst Research, Job #006-S, P.O. Box 8299, Philadelphia, PA 19101. Equal Opportunity Employer, M/F/D/V.

**WYETH
AYERST**

Leading The Way for a Healthier World

We'll Help You Build A New Lab



Let the free Science product information service put you in touch with the vendors whose products you will need.

Simply write us a letter stating the specifics about your proposed lab and the instruments and supplies you need. We will do the rest. Write to:

SCIENCE Magazine
New Lab Service Department
1333 H Street, N.W., Rm 830
Washington, DC 20005

The Global Weekly of Research
SCIENCE



CONGRESS
OF
GENETICS
BIRMINGHAM

XVII INTERNATIONAL CONGRESS OF GENETICS "Genetics and the Understanding of Life"

August 15-21 1993

INTERNATIONAL CONVENTION CENTRE, BIRMINGHAM, ENGLAND

President: Ralph Riley; Honorary President: Max Perutz

SCIENTIFIC PROGRAMME

PLENARY LECTURES: Richard Lewontin, Barry Hall, Elliot Meyerowitz, Obaid Siddiqi, Elizabeth Blackburn, French Anderson, Greg Winter, Walter Gehring, Henri Buc, Adrienne Clarke, Dick Flavell, Alec Jeffreys

FORTY SYMPOSIA: Behaviour; Cancer/HIV; Cell cycle; Cytogenetics; DNA structure/topology; Development; Epigenetics; Evolution; Gene expression; Genetic resources; Genome analysis; History; Human disease, diversity and genetics; Mutation/repair; Pathogen/host interactions; Population/ecological genetics; Quantitative genetics; Recombination; Senescence and cell death; Sex determination; Speciation; Transgenics/breeding; plus a wide range of

WORKSHOPS and POSTERS

PUBLIC AWARENESS PROGRAMME

DNA fingerprinting; Feeding the world; Human genetics; Origins and evolution; Diversity and conservation; Medical aspects; Current issues; The future

INTERNATIONAL COMMERCIAL EXHIBITION

Equipment; Instruments; Laboratory supplies; Software; Publishers (9211)Q

Further information from:

The Secretary General:

Derek Smith

R.S.I.L.

The University of Birmingham

Edgbaston

Birmingham B15 2TT, UK.

Tel: 021 414 5888.

Fax: 021 414 3850.

Recruitment Advertisers

SAVE 25%

Running your recruitment advertisement once may not be enough. Place the same ad again within the next four issues and we will give you 25% off your second insertion.

- **Get more attention**
- **Get more value**
- **Get more applicants**

Reach the global scientific community you need to maximize your recruitment efforts. Science does it bigger and better and now Science does it at greater savings for you.

Call, write, or fax:

Science Classified Advertising

1333 H Street, N.W.

Washington, D.C. 20005

Phone: 202-326-6541/6555

Fax: 202-682-0816

Upjohn

RESEARCH POSITIONS

Drug Metabolism/ Bioanalysis

The Upjohn Company, a recognized leader in the research, discovery and development of new pharmaceuticals, is seeking highly motivated and innovative individuals for Post Doctoral positions in our Drug Metabolism Research Group.

Research activities will include investigating the molecular mechanisms of neutrophil- and macrophage-induced cell injury, and the role of inflammatory mediators & adhesion molecules in the pathogenesis. An M.D. and/or Ph.D. in toxicology, pathology, biochemistry or related discipline is required. Experience with hepatic non-parenchymal cells and neutrophils is desirable.

Our location in Kalamazoo (a southwestern Michigan community midway between Chicago & Detroit) provides immediate access to abundant cultural and recreational pursuits and offers reasonable housing and living costs. Selected candidates will earn a very competitive compensation & benefits package and work in a stimulating, multi-disciplinary research environment. Applicants are invited to submit C.V., cover letter (please refer in your cover letter to position #127) and relevant materials to: **THE UPJOHN COMPANY, Corporate Recruiting, 7000 Portage Road, Kalamazoo, MI 49001-0199.** An Equal Opportunity Employer, M/F.

COURSES AND TRAINING

ANIMAL BEHAVIOR: INTERDISCIPLINARY TRAINING AT THE UNIVERSITY OF CALIFORNIA, DAVIS.

Opportunities are available for Postdoctoral Training, Graduate Training and Undergraduate Summer Fellowships through the Research Training Group in Animal Behavior, supported by the Directorate of Biological Sciences of the National Science Foundation. The aim of the program is to provide broadly interdisciplinary training for outstanding students to address problems in the study of animal behavior. **POSTDOCTORAL TRAINING:** 2-year appointment, starting stipend \$18,600 plus medical benefits. **DEADLINE:** December 15, 1992 (or until filled). **GRADUATE TRAINING:** 4 years of support, annual 9-month stipend of \$9,324 plus payment of tuition and educational fees (applicants must apply separately to a graduate program at UC Davis). **DEADLINE:** January 15, 1993. **UNDERGRADUATE SUMMER FELLOWSHIPS:** 2-month research internships, \$750 stipend plus room, board and roundtrip transportation to Davis. **DEADLINE:** February 15, 1993. *All applicants must be US citizens or permanent residents. The University of California is an Equal Opportunity/Affirmative Action Employer.* To receive an application contact: **Jeni Trevitt, Animal Behavior Program, University of California, Davis, CA 95616-8734. Telephone: (916) 752-4863; FAX: (916) 752-8391, e-mail: jmtrevitt@ucdavis.edu** (please specify postdoctoral, graduate or undergraduate application).

MEETINGS

"Diabetic Retinopathy: What Do We Really Know?"

April 12 to 14, 1993, Penn State's College of Medicine, Hershey, PA.

This international, multidisciplinary workshop is designed to define the state of the current knowledge of pathogenesis of early diabetic retinopathy, to identify means to test deficits in current knowledge, and to provide directions which will ultimately lead to mechanism-based treatment strategies. The program will consist of thematic oral presentations by invited speakers and small-group workshops on highly focused questions. Supported by the Juvenile Diabetes Foundation International. Registration fee: US \$150. Contact: **Thomas W. Gardner, M.D., Department of Ophthalmology, Telephone: 717-531-6051, FAX: 717-531-5475; or William A. Brennan, Jr., Ph.D., Department of Cellular & Molecular Physiology, Telephone: 717-531-5194, FAX: 717-531-7667; Penn State's College of Medicine, P.O. Box 850, Hershey, PA 17033 USA.**

ANNOUNCEMENTS

McDonnell Scholar in Molecular Oncology at Washington University School of Medicine

The Division of Hematology/Oncology is seeking applications from physician investigators who want to apply the newer advances in basic sciences to oncology. The purpose of the program is to serve as a bridge between postdoctoral training and independent faculty status. The awardee will be able to devote all of his/her time to the development of an independent research program in an environment where outstanding senior investigators are available for encouragement and support. The awardee will receive \$375,000 payable over three years, including a stipend of \$50,000 per year. The balance of the award is to be used for supplies and technical support at the discretion of the awardee. Candidates must have an M.D. degree or M.D./Ph.D. degrees and have demonstrated outstanding potential for creative investigation.

Applicants should submit curriculum vitae, a statement of research experience and specific interests, and three letters of recommendation postmarked no later than December 31, 1992 sent to:

**Stuart Kornfeld, M.D.
Washington University School of Medicine
Box 8125
660 South Euclid Avenue
St. Louis, MO 63110**

ANNOUNCEMENTS

1993 SUMMER FELLOWSHIPS MOUNT DESERT ISLAND BIOLOGICAL LABORATORY

The Mount Desert Island Biological Laboratory (MDIBL), an internationally renowned marine facility for biomedical and comparative physiological research, invites applications for fellowships in the following categories.

- *Young Investigator Fellowships*, sponsored by an NSF-EPSCoR grant and privately donated fellowship funds, are for scientists with a doctorate and evidence of independent research. Fellowship amount is based on individual needs and can include a stipend, laboratory space, housing, and funds for supplies and travel.

- *Undergraduate Student-Faculty Fellowships* supported by the Pew Charitable Trusts, Burroughs-Wellcome and the Grass Foundation are available for student/faculty pairs with the following qualifications: (1) undergraduate students with a minimum of 1 year of both biology and chemistry; (2) faculty members with Ph.D. actively teaching biology at the undergraduate level. A few individual student or faculty awards may be made. Awardees may work from 1 to 4 months at MDIBL with senior scientists or, in the case of faculty or student/faculty pairs, may choose to work independently. Funding provided for housing, travel, research costs and a stipend; maximum faculty award is \$14,000 with up to \$6,000 stipend; maximum student award is \$7,000 with up to \$2,600 stipend.

Applications may be obtained by calling the office at 207-288-3606 or writing to: MDIBL, P.O. Box 35, Salsbury Cove, ME 04672.

Young Investigator applicants write to **Department YIF**. Deadline for completed applications is 8 January 1993.

Undergraduate Student-Faculty applicants write to: **Department USFF**. Deadline for completed applications is 7 December 1992.

HARVARD UNIVERSITY Bullard Fellowships in Forest Research

Each year Harvard University awards a limited number of Bullard Fellowships to individuals in biological, social, physical and political sciences to promote advanced study, research or integration of subjects pertaining to forested ecosystems. The fellowships, which include stipends up to \$25,000, are intended to provide individuals in mid-career with an opportunity to utilize the resources and to interact with personnel in any department within Harvard University in order to develop their own scientific and professional growth. In recent years Bullard Fellows have been associated with the Harvard Forest, Department of Organismic and Evolutionary Biology and Kennedy School of Government and have worked in areas of ecology, tree physiology, forest management, policy and conservation. Fellowships are available for periods ranging from four months to one year and can begin at any time in the year. Applications from international scientists, women and minorities are encouraged. Fellowships are not intended for graduate students or recent postdoctoral candidates. Further information may be obtained from: **Committee on the Charles Bullard Fund for Forest Research, Harvard University, Harvard Forest, Petersham, MA 01366 USA. Annual deadline for applications is February 1.**

SCIENCE welcomes placement of line classified ads by FAX. Please include name and telephone number for our confirmation call when transmitting ad to:

FAX NUMBER: 202-682-0816

COMPUTER MARKETPLACE

STATISTICAL SOFTWARE

Accurate, easy to learn. For MS-DOS. Includes t-tests, ANOVA, chi-square tests, DOE, survival analysis, sample size and power analysis, curve fitting, graphics, more. Spreadsheet-style interface. Transfer graphics to other programs. Thousands of users. Base system: \$125. Complete: \$395. Ask for Dr. Hintze (PhD statistician) at (801) 546-0445. FAX: (801) 546-3907. NCSS, 329 North 1000 East, Kaysville, UT. 84037.

Circle No. 7 on Readers' Service Card

MARKETPLACE

Custom made
PEPTIDES
Around the globe
\$30.00 /residue
Shipped in 10 days
Your Source of Peptides
BIO-SYNTHESIS
1-800-227-0627 Fax: 214-420-0442

Circle No. 20 on Readers' Service Card

PEPTIDES
Custom synthesis
Fast turn-around
PEPTIDE TECHNOLOGIES
Call for brochure and quotes
(202) 234-3384 FAX -3385

Circle No. 37 on Reader's Service Card

PARTICLE SIZE STANDARDS

NBS traceable calibration standards and controls. Large assortment of diameters from 0.02 to 2000 μ m. Microspheres of polystyrene, glass and fluorescent materials. Free catalog available. Toll Free 800-334-3883. In Calif. 415-962-1100. FAX 415-962-0718

Duke Scientific Corporation 1135D SAN ANTONIO ROAD
PALO ALTO, CALIF. 94303

Circle No. 9 on Readers' Service Card

NEW! **CUSTOM DESIGNED GENES**
\$25/BASE PAIR
DESIGNED, ASSEMBLED, CLONED & PURIFIED
SEQUENCE GUARANTEED
GINO&YS CALL 1-800-2345-DNA

Circle No. 3 on Readers' Service Card

\$3.50/Base
Custom DNA Synthesis
No Set-up Fee, Shipped in 24 hours.
KEYSTONE LABORATORIES, Inc
1-800-788-4 DNA
1-800-786-4 DNA Fax

Circle No. 28 on Readers' Service Card

Custom DNA
Purified and Delivered in 48 hours.
\$7.50 per base • Purified
Guaranteed minimum 100 μ g DNA
Research Genetics
1-800-533-4363

Circle No. 10 on Readers' Service Card

GENERELEASER

**PCR* READY
DNA IN
10
MINUTES**

POWER PREP

Minimal sample : 1ul

Ideal for batch preps

Directly in tubes

Directly on thermocyclers

On blood, tissue, cultures etc.



Amplification of HLA DRB
producing a 272 bp product.
M=BioMarker Low

1=GeneReleaser treated 120
day old whole blood stored at 4C.

2=Same as 1 without GeneReleaser.

3=GeneReleaser treated 120 day
old whole blood stored at -20C.

4=Same as 3 without GeneReleaser.

FOR A FREE SAMPLE CALL BioVentures, Inc. 800-235-8938
or FAX 615-896-4837 or CIRCLE READER SERVICE No. 8

*PCR is covered by patents owned by Hoffmann LaRoche

WORLD'S ONLY REFRIGERATED MICROCENTRIFUGE THAT CAN SPIN ALL THIS:



No other refrigerated bench centrifuge can match the Centra-MP4R's extraordinary range of low to high speed applications.

For example, the MP4R can spin more tubes, faster, than dedicated refrigerated microcentrifuges. It separates a liter of sample in less space and in less time than other bench units. It takes batches of most tube sizes to 250mL. And it has program memory, rate control for delicate samples, and advanced features to meet the diverse needs of research applications.

So if you're in the market for a multipurpose centrifuge that can do it all, choose the one centrifuge that does it all best. The IEC Centra-MP4R.

INTRODUCING

Centra®-MP4R



Microcentrifuge Applications

22x1.5mL to 15,500xg; fast up/down; to -5°C at top speed. Also takes 60x1.5mL drum rotor.

Large Volume Spins

4x250mL to 3300xg; accepts a range of bottles including Falcon 175mL conical.

Large Batch Spins

Up to 48 tubes/run; multi-place adapters for most tube sizes. Sealed carriers for aerosol-free processing.

High Speed Pelleting

10mL, 30mL and 50mL tubes to over 14,000xg; 15 and 30mL Correx® tubes to 12,000xg.

Density Gradients

Slow start and stop control and floating drive provide gentle sample reorientation for high yields.

Microplates/Sample Trays

Spins standard microplates in a variety of well formats; takes tall sample trays and stacked plates.

Other Applications

Specialized rotors for TB Sputum; micro-hematocrits; spin filters, concentrators and columns; microscope slide deposition.

IEC

INTERNATIONAL EQUIPMENT COMPANY

300 SECOND AVENUE, NEEDHAM HEIGHTS, MA 02194 U.S.A.

TEL: (617) 449-8060 • TOLL FREE: (800) 843-1113 • FAX: (617) 444-6743

For information circle reader service number 25

For sales call circle reader service number 26

