

# Don't let small sample dialysis get out of hand.

Take control with the new Pierce Slide-A-Lyzer™ Dialysis Cassettes!

Load a sample for dialysis easier and faster than ever with this revolutionary new system. The new Pierce Slide-A-Lyzer™

Dialysis Cassette replaces the mess and hassles of conventional tubing with a more convenient, more effective approach.

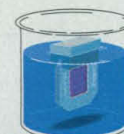


1.

No more boiling, soaking, tying, or clamping - all you need is a syringe to load and remove your sample from these ready-to-use, disposable cassettes. The

exclusive cassette design gives you total sample control, good surface-to-volume ratio and consistently reliable sample recovery. For even

greater convenience, use the accessory Buoys to float your sample during dialysis, and as a bench-top cassette stand during loading and recovery.



2.

Pierce Slide-A-Lyzer™ Cassettes have a 0.5 - 3.0 ml sample capacity, 10,000 molecular weight cut-off, and are ideal for routine dialysis of protein, nucleic acid and carbohydrate samples.



3.

Product #	Description	U.S. Price
66425	<b>Slide-A-Lyzer™ 10K Dialysis Cassettes*, 10 pack</b> Contains: 10 cassettes (10,000 Molecular Weight Cut-off, 0.5 - 3.0 ml sample capacity)	\$49
66430	<b>Slide-A-Lyzer™ Buoys, 10 pack</b>	\$12
66490	<b>Slide-A-Lyzer™ Syringe and 18G Needle Accessories, 10 pack</b> Contains: 10 each of 5 cc single-use, sterile, polypropylene syringes with Luer-Lok® tips and single-use, sterile, 18-gauge, 1" needles compatible for use with the Slide-A-Lyzer™ Dialysis Cassette. Ideal for nucleic acid applications.	\$9

Call for your FREE copy of Pierce's Life Science & Analytical Research Products or Molecular Biology Catalog!

To order in the U.S.A.: Pierce • 3747 N. Meridian Rd. • P.O. Box 117 • Rockford, IL 61105 • Telephone: 800.874.3723 FAX: 800.842.5007

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Outside Europe and the U.S., contact Pierce U.S. for your local Pierce distributor. Telephone: 815.968.0747 FAX: 815.968.8148

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## INTERNATIONAL SCIENCE FOUNDATION

### Announces Grant Assistance Program for the Former Soviet Union and Baltics

The International Science Foundation (ISF) announces a program to facilitate assistance efforts undertaken by non-profit donor organizations in support of non-commercial scholarly research and education programs in the Former Soviet Union (FSU) and Baltic countries. The absence of safe, reliable, and tax-free channels to send assistance to the FSU and Baltic science and educational communities has been a major stumbling block and deterrent to Western organizations.

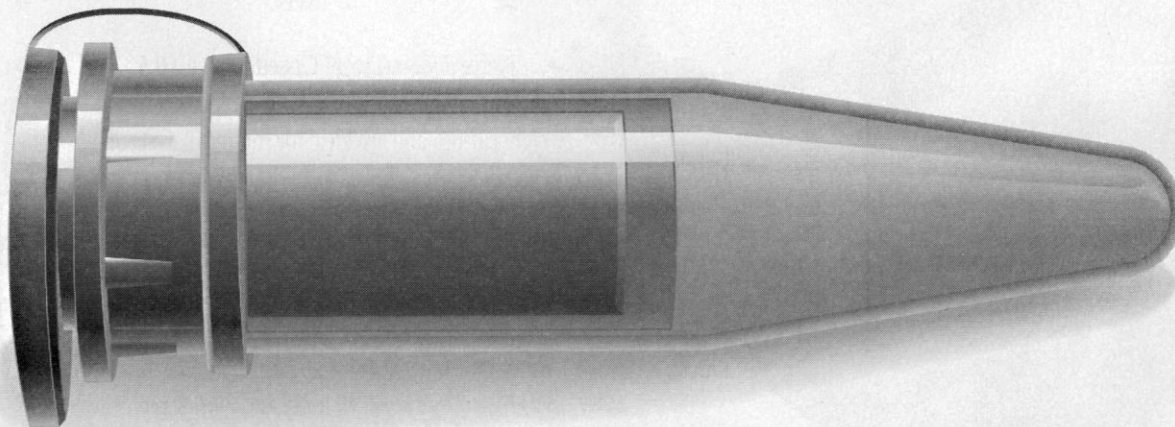
ISF has been engaged in its own grant-making programs involving the transfer of over \$80 million in direct cash, material and travel support to researchers from the FSU and Baltic countries. ISF will now make its established infrastructure in the FSU and the U. S. available to other donor organizations. In this manner, ISF will be able to assist in the transfer of funds, the purchase and delivery of material goods, and the provision of travel support to eligible recipient organizations throughout the FSU and Baltic countries. ISF's infrastructure **includes exemptions from personal income, VAT and customs taxes** throughout the region, which typically account for 40% of the total value of a donation in additional costs.

ISF's full range of services is being offered to donor organizations for a fee of 10% of the value of the donated resources. All direct costs associated with the donation must be paid by the donor organization. ISF's capabilities include:

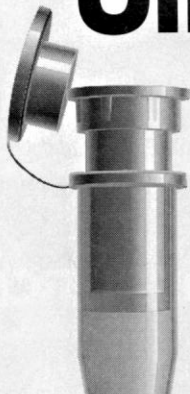
- A unique, proven method of **transferring personal support checks** to researchers which can be exchanged for hard currency in banks throughout the FSU and Baltic countries.
- Cost-effective means of **transferring research materials and supplies** obtained abroad.
- Facilities for **making equipment purchases** through FSU and Baltic vendors at significant discounts and assuring that equipment is delivered as ordered before payment is made.
- Agreements with Western **suppliers of biomedical and scientific equipment** at substantial discounts and with secure delivery mechanisms.
- **Significantly discounted airline tickets** for international travel and financial support to travelers from the FSU and Baltic countries.
- **On-site support** for FSU and Baltic recipients by experienced local staff.
- **Detailed accounting** for all grant activities.

For more information, please contact: Grant Assistance Program, International Science Foundation, 1054 31st Street, NW, Suite 110, Washington, DC 20007  
Telephone 202-342-2760 Fax 202-342-2765 E-mail: [info@isf.org](mailto:info@isf.org)

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Internet Lab Catalogue: access URL menu, type: <http://www.millipore.com>

\*See Patent No. 4683202 to Cetus Corp. © 1994 Millipore Corporation

# MILLIPORE

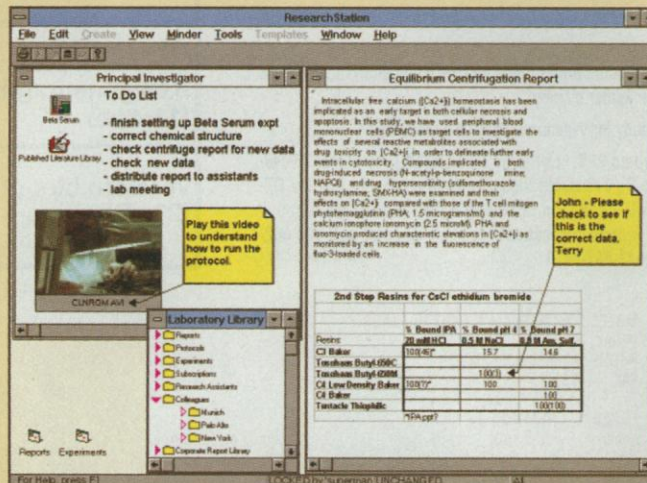
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\*Distributor prices may vary.



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- **High molecular weight DNA** is isolated in 3 hours and is ready for restriction analysis, Southern (See Figure) and dot blotting, PCR and molecular cloning.
- **Proteins** are isolated in 3 hours and are ready for Western blotting (See Figure).

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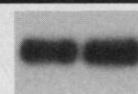
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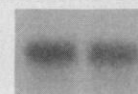
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Northern blot of rat  
growth hormone  
(rGH) mRNA (1 kb)



Southern blot of EcoRI  
rGH gene fragment  
(11.4 kb)



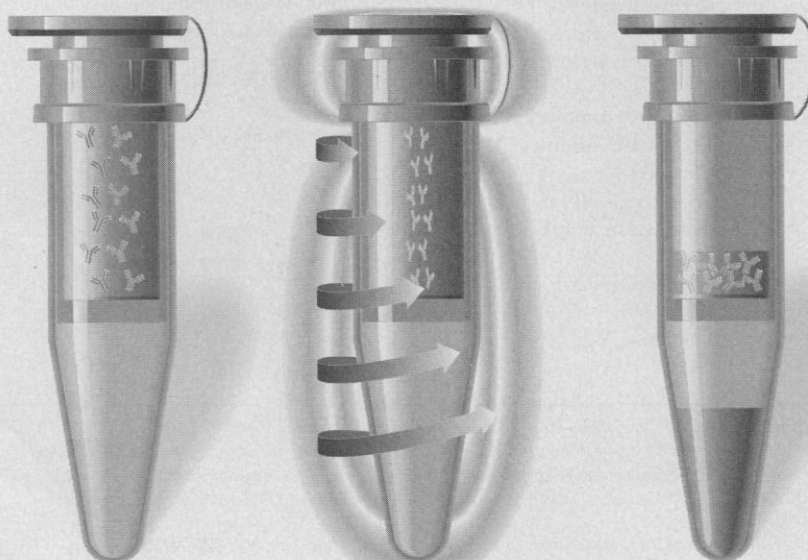
Western blot of rGH  
(22 kD)



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## ENDOCRINOLOGY

International Symposium on SEXUAL DIFFERENTIATION AND MATURATION  
Scientific Organization: I. Hibi (J) • Tokyo, Japan • March 2-3

10th Workshop on DEVELOPMENT AND FUNCTION OF THE REPRODUCTIVE ORGANS  
Scientific Organization: K. Ahrén and T. Hillensjö (S) • Stockholm, Sweden • May 29-31

SEX DIFFERENTIATION: CLINICAL AND BIOLOGICAL ASPECTS  
Scientific Organization: I. A. Hughes (UK) • Cambridge, United Kingdom • July 1-3

THE ROLE OF INSULIN-LIKE GROWTH FACTORS IN OVARIAN PHYSIOLOGY  
Scientific Organization: D. LeRoith (USA) • Montpellier, France • September 15-16

## IMMUNOLOGY

PREVENTION AND EARLY DETECTION OF HUMAN TUMORS  
Scientific Organization: F. Gavosto (I) • Turin, Italy • September 29-30

NEW HORIZONS IN GYNAECOLOGICAL MALIGNANCIES  
Scientific Organization: D. Ayalon (IL)  
Jerusalem, Israel • November 13-15

## RECENT ADVANCES IN:

4th Conference on RESEARCH POLICIES  
AND QUALITY ASSURANCE  
Scientific Organization: A. E. Shamoo (USA)  
Montecarlo, Monaco • June 25-28

2nd International Symposium on  
TRANSPLANT TOLERANCE  
Scientific Organization: S. Garattini (I) and G. Remuzzi (I)  
Bergamo, Italy • October 12



ARES-  
SERONO  
SYMPOSIA

# CALENDAR OF EVENTS

## GORDON RESEARCH CONFERENCES

co-sponsored by Ares-Serono Symposia for Europe

ANGIOTENSIN  
Il Ciocco, Barga, Italy • April 30-May 5

CHRONOBIOLOGY  
Il Ciocco, Barga, Italy • April 30-May 5

BIOLOGY OF AGING  
Il Ciocco, Barga, Italy • May 7-12

CATECHOLAMINES  
Il Ciocco, Barga, Italy • May 7-12

SUPERCONDUCTIVITY  
Eurotel, Les Diablerets, Switzerland • September 17-22

MAGNETIC NANOSTRUCTURES  
Kloster Irsee, Irsee, Germany • September 17-22

SOLID STATE CHEMISTRY  
Kloster Irsee, Irsee, Germany • September 24-29

STAPHYLOCOCCAL DISEASES  
Kloster Irsee, Irsee, Germany • October 1-6

## GENERAL INFORMATION

No form of promotional activity by any pharmaceutical company is allowed at Ares-Serono Symposia Congresses.

There is no charge for admission to the scientific sessions of the international symposia. The registration fee will entitle the participant to the auxiliary congressional services.

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## The Division of Cancer Etiology

## National Cancer Institute

Announces to the Scientific Community the Availability of the Following  
Resources/Services for Cancer Related Research As Noted Below:

### Biological Resources

■ Cell Culture Identification Service. Using Isozyme Analysis, Immunofluorescence and Karyotypic Analysis (Chromosome Banding).

**Contact:** Dr. Joseph Kaplan  
Children's Hospital of Michigan  
3901 Beaubien Boulevard  
Detroit, MI 48201  
(313) 745-5570

Citing Contract #N01-CP-33063

**Cost:** Reasonable; inquire with specific requests.

■ Goat Antisera Against: Avian, Bovine, Feline, Murine, and Primate Intact Viruses and Viral Proteins; Antibodies to Immunoglobulins for a number of species. Preimmune Sera available for some Virus Antisera.

**Contact:** Kathleen Whitaker, Ph.D.  
BCB Repository  
Quality Biotech, Inc.  
1667 Davis Street  
Camden, NJ 08104  
(609) 966-8000  
(609) 342-8078 FAX

Citing Contract #N01-CP-15665

**Cost:** \$75.00/5 ml. (Antisera)  
25.00/5 ml. (Preimmune Sera)  
65.00/100 ml. (Immunoglobulins)  
(Frozen Material)

■ Viruses: Avian, Feline, Murine, and Primate Viruses Produced in vivo and in vitro.

**Contact:** Kathleen Whitaker, Ph.D.  
BCB Repository  
Quality Biotech, Inc.  
1667 Davis Street  
Camden, NJ 08104  
(609) 966-8000  
(609) 342-8078 FAX

Citing Contract #N01-CP-15665

**Cost:** Reasonable; inquire with specific requests.

■ Monoclonal Antibodies are available with specificities for synthetic peptides representing the amino acid sequences of the left end, right end and active site of the oncogene products of avian and mammalian retroviruses. Blocking peptides are also available, as are a limited number of cell lines producing the monoclonal antibodies.

**Contact:** Kathleen Whitaker, Ph.D.  
BCB Repository  
Quality Biotech, Inc.  
1667 Davis Street  
Camden, NJ 08104  
(609) 966-8000  
(609) 342-8078 FAX

Citing Contract #N01-CP-15665

**Cost:** Peptides — \$25.00/mg.  
Ascites Fluid — 45.00/ml.  
Cell Culture — 100.00/culture.  
(Plus Shipping and Handling)

■ Human sera from donors with various malignancies (including nasopharyngeal carcinoma), non-malignant disorders, and from normal individuals.

**Contact:** Program Director, Research  
Resources, Biological  
Carcinogenesis Branch,  
DCE, NCI, NIH  
Executive Plaza North, Room 540  
Bethesda, MD 20892  
(301) 496-1951  
(301) 496-2025 FAX

**Cost:** Shipping and handling charges only.

■ The Division of Cancer Etiology's Registry of Experimental Cancers announces the availability of 16 different study sets containing histologic slides of rodent tumors. The study sets, with accompanying syllabi, illustrate a variety of spontaneous and induced tumors, chiefly of rats, mice, and mastomys. Each set is available to cancer investigators worldwide, without charge, for up to two months. Requests or inquiries should be addressed to:

**Contact:** Registry of Experimental Cancers  
National Cancer Institute  
Building 41, Room D311  
NIH, Bethesda, MD 20892  
USA

### Environmental Cancer

■ NCI's Chemical Carcinogenesis Research Information System (CCRIS) is available online through the National Library of Medicine's Toxicology Data Network (TOXNET) system. Through an interagency agreement between NCI and NLM, the CCRIS database has been built and will be maintained and updated as one of TOXNET's sponsored databases in the broad areas of chemistry, toxicology, and hazardous waste information. The CCRIS database contains evaluated data and information on carcinogens, mutagens, tumor promoters, cocarcinogens, metabolites of carcinogens, and carcinogen inhibitors derived from published review articles, ongoing current awareness survey of primary literature, NCI/NTP's short- and long-term bioassay studies, the IARC Monographs on the Evaluation of Carcinogenic Risk of Chemicals to Man, and special studies and reports.

**Contact:** Ms. Inge Blackwood  
Division of Cancer Etiology  
National Cancer Institute  
Executive Plaza North, Room 712  
Bethesda, MD 20892  
(301) 496-1625

**Cost:** Inquire

■ The National Cancer Institute, along with the National Institute of Environmental Health Sciences, the Centers for Disease Control, and the Food and Drug Administration, has, for many years, supported a study by the Michigan Department of Public Health dealing with an accidental exposure to polybrominated biphenyls.

The Michigan Long Term PBB Study is a well-maintained longitudinal database on 4,000 participants from rural farms in Michigan. This group was exposed to polybrominated biphenyls through consumption of contaminated farm animals and food products. The cohort was enrolled and characterized in 1975-76, establishing a database containing demographic, health history, medical condition, reproductive history, blood and tissue analyses, and chemical/environmental exposure information. Major life events—birth, death, cancer and major illnesses have been confirmed and updated annually. The project has currently completed a detailed recharacterization of all cohort members and their children. Analysis of the new data is still underway. This longitudinal database is available for collaborative research investigating biological and human health outcomes from halogenated biphenyl exposure.

**Contact:** Dr. Harold E. B. Humphrey  
Michigan Department of  
Public Health  
Division of Health Risk Assessment  
3423 North Logan, P.O. Box 30195  
Lansing, MI 48909  
(517) 335-8350

**Cost:** Free to qualified investigators.

## Epidemiology Resources

■ The Tumor Virus Epidemiology Repository (TVER) contains sera and other biological samples from more than 13,000 patients and controls obtained in 12 countries. The TVER was established primarily to support collaborative research on the role of Epstein-Barr virus (EBV) in Burkitt's lymphoma and related diseases. Sera characterized for human herpes virus 6 (HHV) antibodies are also available. The TVER collection is available for new collaborative studies and some independent research. The most extensive collections are serum samples from patients with Burkitt's lymphoma.

**Contact:** Dr. Paul H. Levine  
Viral Epidemiology Branch  
DCE, NCI, NIH  
Executive Plaza North, Room 434  
Bethesda, MD 20892  
(301) 496-8115

**Cost:** Free to Collaborating Investigators;  
Others: Dependent on Processing Time

■ The National Cancer Institute has available the Animal Morbidity/Mortality Survey of Colleges of Veterinary Medicine in North America (also known as the Veterinary Medical Data Program). This registry of veterinary medical information represents patient data on animals seen at collaborating veterinary teaching facilities; 3 million hospital episodes have been abstracted and computerized in a standardized record format. Disease information is coded using the scheme of the Standard Nomenclature of Veterinary Disease and Operations. The computer tapes will be made available upon request.

**Contact:** Dr. Howard M. Hayes  
Environmental Epidemiology Branch  
EPB, DCE, NCI, NIH  
Executive Plaza North, Room 443  
Bethesda, MD 20892  
(301) 496-1691

**Cost:** Inquire

■ Human fibroblast cultures from individuals at high risk of cancer, selected members of cancer-prone families, and some normal family members are available. The collection is historical with unknown viability and contamination status. Catalog of cell lines unavailable and followup on many individuals is unavailable. Information requests should include potential use of cultures.

**Contact:** Chief, Genetic Epidemiology Branch  
DCE, NCI, NIH  
Executive Plaza North, Room 439  
Bethesda, MD 20892  
(301) 496-4375

**Cost:** Free to collaborating investigators.  
Others: \$70/cell line.

■ The National Institute of Allergy and Infectious Diseases and the National Cancer Institute have developed a repository of biological specimens from homosexual men. The specimens were collected through cooperative agreements with four major U.S. universities for studies of the natural history of acquired immune deficiency syndrome (AIDS). Information about applying for collaborative use of these specimens is available from the NIAID Project Officer or the NCI Co-Project Officer.

**Contact:** Chief, Epidemiology Branch, AIDS  
Program, NIAID  
CDC Bldg., Room 240  
National Institutes of Health  
Rockville, MD 20852

or to Chief  
Extramural Programs Branch, EPB,  
Division of Cancer Etiology, NCI  
Executive Plaza North, Room 535  
Rockville, MD 20852

■ The Epidemiology and Biostatistics Program of the National Cancer Institute and the Industrywide Studies Branch of the National Institute for Occupational Safety and Health have created a Computerized Occupational Referent Population System (CORPS) which contains data from occupational cohort studies conducted in the past by either agency. This new large population of employed persons can be used in place of the general population as the referent group in occupational cohort studies to ameliorate the healthy worker effect. Populations from standardized mortality studies and proportional mortality studies have been assembled. Potential users may request mortality rates in the format required by software commonly used to analyze epidemiologic occupational data (i.e., Monson, NIOSH Life Table, OCMAP, O/E). Rate files may be requested by race, gender, blue/white collar status, minimum employment duration, state, and other characteristics.

**Contact:** Shelia Hoar Zahm, Sc.D.  
Occupational Studies Section  
EEB, EPB, DCE, NCI, NIH  
Executive Plaza North, Room 418  
Bethesda, MD 20892  
Phone: (301) 496-9093  
Fax: (301) 402-1819

**Cost:** Free

■ The Epidemiology and Biostatistics Program of the National Cancer Institute (NCI) has developed an Occupational Mortality Analysis software system which calculates Proportionate Mortality Ratios, Proportionate Cancer Mortality Ratios, or Mortality Odds Ratios using occupational information on the death certificates from 24 states for 1984-1989. The data were assembled through

a collaborative effort involving the National Center for Health Statistics, the National Institute for Occupational Safety and Health and NCI. The program is user friendly and allows analysis of data by (1) occupation, industry, or occupational/industry combinations; (2) age group; (3) states or geographic regions; (4) race groups, (black and white); (5) sex, and (6) underlying causes of death. The program is written in Wylbur Command Procedures and is exportable to most mainframes.

**Contact:** (To obtain the program and relate information):

Mustafa Dosemeci, Ph.D.  
Occupational Studies Section  
EBP, DCE, NCI, NIH  
Executive Plaza North, Room 418  
Bethesda, MD 20892  
Phone: (301) 496-9093  
Fax: (301) 402-1819

(For questions concerning the nature and source of the occupational mortality data):

Jeff Maurer, M.S.  
Mortality Statistics Branch  
Division of Vital Statistics, NCHS  
6525 Belcrest Rd., Room 840  
Hyattsville, MD 20782  
Phone: (301) 436-8884  
Fax: (301) 436-7066

**Cost:** Free

■ The Epidemiology and Biostatistics Program of the National Cancer Institute (NCI) has developed a computer-aided occupational and industrial code searching program (CODESEARCH) which allows the code assigner to select appropriate codes from existing classification systems for job or industrial titles from work histories of the study subjects. The program is user friendly and allows searches from four occupational Classification Systems (1977 Standard Occupational Classification Manual (SOC); 1980 SOC; 1970 Bureau of Census Occupational Classification System [BOCOC]; and 1980 BOCOC, and four industrial classification systems (1972 Standard Industrial Classification System [SIC]; 1987 SIC; 1970 Bureau of Census Industrial Classification System [BOCIC]; and 1980 BOCIC). The program is written using PC-Clipper software and is exportable to most 486 PCs.

**Contact:** Mustafa Dosemeci, Ph.D.  
Occupational Studies Section  
EBP, DCE, NCI, NIH  
Executive Plaza North, Room 418  
Bethesda, MD 20892  
Phone: (301) 496-9093  
Fax: (301) 402-1819

**Cost:** Free

## Chemical Resources

■ Analytical support for the collection, separation, and elucidation of environmental carcinogens including combustion and smoking-related exposures. A contractor with experience in the development of analytical methods for the determination of constituents of cigarette smoke and cigarette smoke condensates, and of specialty instrumentation for inhalation toxicology is available to assist qualified investigators with particular interest in human and animal model exposure to environmental and sidestream smoke. Extensive chemical information on smoke and smoke condensate components is available.

**Contact:** Harold E. Seifried, Ph.D.  
Chemical and Physical  
Carcinogenesis Branch, DCE, NCI  
Executive Plaza North, Room 700  
Bethesda, MD 20892  
(301) 496-5471  
(301) 496-1040 FAX

**Cost:** Inquire

■ Chemical Carcinogen Reference Standard Repository: Reference quantities of over 750 compounds are available. The newest additions are dilute aqueous standards of PAH deoxyguanosine-3'-monophosphates for Randerath <sup>32</sup>P post labelling assays. Other classes of available compounds are: food mutagens, polynuclear aromatic hydrocarbons (PAH), PAH metabolites, radiolabeled PAH metabolites, nitrogen heterocycles, nitrosamines/nitrosamides, aromatic amines, aromatic amine metabolites, azo/azoxy aromatics, inorganics, nitroaromatics, pesticides, pharmaceuticals, natural products, dyes, dioxins and chlorinated aliphatics. A number of radiolabeled PAH adducts, metabolites and nitrosamines are also available. Data Sheets provided with the compounds include chemical and physical properties, analytical data, hazards, storage, and handling information. Catalog available upon request.

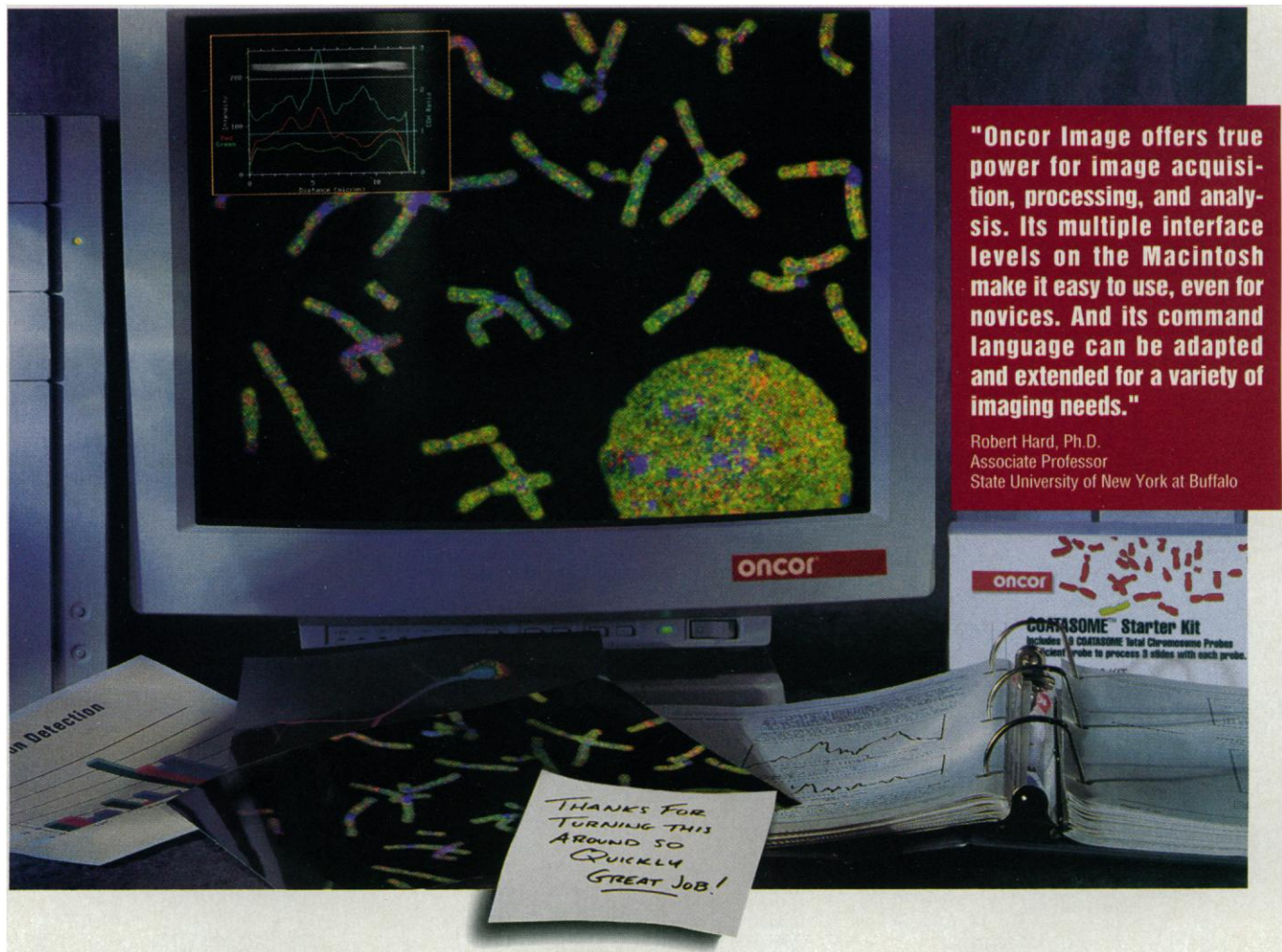
**Contact:** Manager, NCI Chemical  
Carcinogen Repository  
Midwest Research Institute  
425 Volker Boulevard  
Kansas City, MO 64110  
(816) 753-7600, Ext. 523  
(816) 753-3664 FAX

Manager, NCI Radiolabeled  
Chemical Repository  
CHEMSYN Science Laboratories  
13605 W. 96th Terrace  
Lexena, KS 66215  
(913) 541-0525  
(913) 888-3582 FAX

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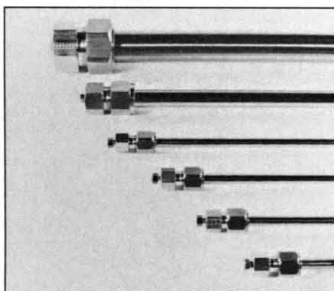
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## Data Acquisition Software

An enhanced version of Viewdac software, an MS DOS-based, integrated data acquisition, analysis, and graphics package for IBM-compatible personal computers is available. The program provides exceptional power, ease of use, and flexibility without the need for conventional language programming or complex data flow diagrams. It is well suited for developing real-time applications that involve concurrent data acquisition, calculation, and display. It supports input and output from a variety of Keithley Metrabyte data acquisition hardware, as well as IEEE-488 and RS-232 instruments. It allows precise timing of multiple independent tasks and can overcome the conventional 640-kilobyte MS DOS memory boundary to support very large data arrays limited only by the amount of storage space available. **Keithley Metrabyte. Circle 140.**

## Monoclonal Antibodies

Several new monoclonal antibodies (mAbs) available include a mAb (CBL 145; clone 44) to CD11b (C3b receptor), a member of a family of leukocyte integrins that is principally distributed on circulating monocytes and granulocytes; a mAb (CBL 206; clone 1.G11B1) to vascular adhesion molecule 1 (CD106), a member of the immunoglobulin family expressed on endothelial cells; a mAb (CBL 212; clone RT97) to intermediate-sized filaments, which are insoluble proteins that impart a three-dimensional internal skeleton to each cell; and a mAb (CBL 140; clone XIX.8) to CD2, a 54 kD adhesion molecule found on the surface of all thymocytes and mature human T cells. The antibodies can be used in indirect immunofluorescence, immunohistological staining, and flow cytometry. **Cymbus Bioscience. Circle 141.**

This mAb, which labels the p53 protein in the nuclei of neoplastic cells, is for study of tumor formation and the role of p53 protein in growth control. The p53 protein is significant in the growth and division of healthy cells, but once mutated, can spur the development of tumors. The mAb can be used on formalin-fixed, paraffin-embedded tissue sections. **Biomeda. Circle 142.**

## Gel Extraction Kit

The Jetsorb gel extraction kit is designed to extract a wide range of DNA fragments (20 bp to 45 kb) from all types of agarose gels. The Jetsorb resin is based on uniform, modified silica gel beads. The kit provides the same binding efficiency for both small and large DNA fragments (>98%), no shearing of larger fragments, excellent recovery of all DNA frag-

ments (85 to 95%) and efficient removal of impurities such as proteins, dyes, and agarose. **AMS Biotechnology. Circle 143.**

## DNA Extraction Kits

The Isolate 1 and Isolate 2 kits are for DNA extraction based on silica. The Isolate 1 Kit is suitable for genomic DNA extractions from whole blood and cell cultures. It provides DNA with an  $A_{260}/A_{280}$  value of 1.80 and obtains large fragment DNA of 30 kb and above. It typically yields 10  $\mu$ g or more from 0.5 ml of blood. It contains no hazardous reagents and does not require use of proteinase K. Total extraction time is less than 2 hours. The Isolate 2 Kit shares many of these qualities but is for larger quantities. It typically yields about 250  $\mu$ g of clean, large fragment genomic DNA from 10 ml of whole blood. **Cruachem. Circle 144.**

## Polymerase Chain Reactor

The SPCR3 MINI-GENE is for scientists who need to perform polymerase chain reaction (PCR) testing but cannot justify the cost and do not need the capacity of a standard PCR instrument. De-



signed to accommodate small numbers of samples, depending on the choice of heating block, it accepts up to 15 0.5-ml tubes, one small microtiter plate (8 by 4 hole format), 4 by 8 strips of 0.2-ml tubes, or 32 0.2-ml tubes.

With its built-in Peltier thermoelectric refrigeration, it operates rapidly, with a peak heating rate of 1.8°C per second and peak cooling rate of 1.2°C per second over a temperature range of 4° to 99°C. It offers 48 linkable programs of 29 segments each, and the illuminated display continuously presents full reaction cycle conditions. **Stuart Scientific. Circle 145.**

## Literature

*Application Guide for chiral column selection* summarizes a large number of chiral separations using Daicel chiral high-performance liquid chromatography columns. **Chiral Technologies. Circle 146.**

*Software for Science* is a 96-page listing of more than 1500 scientific and technical software tools for DOS, Windows, Macintosh, and UNIX workstations, including more than 300 new products. An electronic version is also available. **SciTech International. Circle 147.**

*Purification of DNA from LMP Agarose with Microcon-100 Microconcentrators* describes this protocol. **Amicon. Circle 148.**

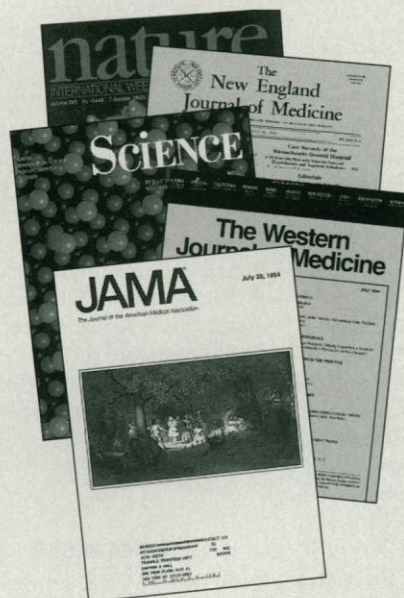
*The BIOPREP Catalogue: Preparation Devices That Put Your Research A Step Ahead* offers products for sample preparation and other applications for life science research. **Millipore. Circle 149.**

*Innovative Products for Life Science Research* is a catalog featuring a fluorescence polarization system that provides real-time macromolecular binding measurements directly in solution with picomolar sensitivity; polymerase chain reaction products, including kits for DNA amplification, RNA amplification, cloning, mutagenesis, mycoplasma detection, and thermal cycle sequencing; purified proteins, enzymes, and nucleic acids; and more. **PanVera. Circle 150.**

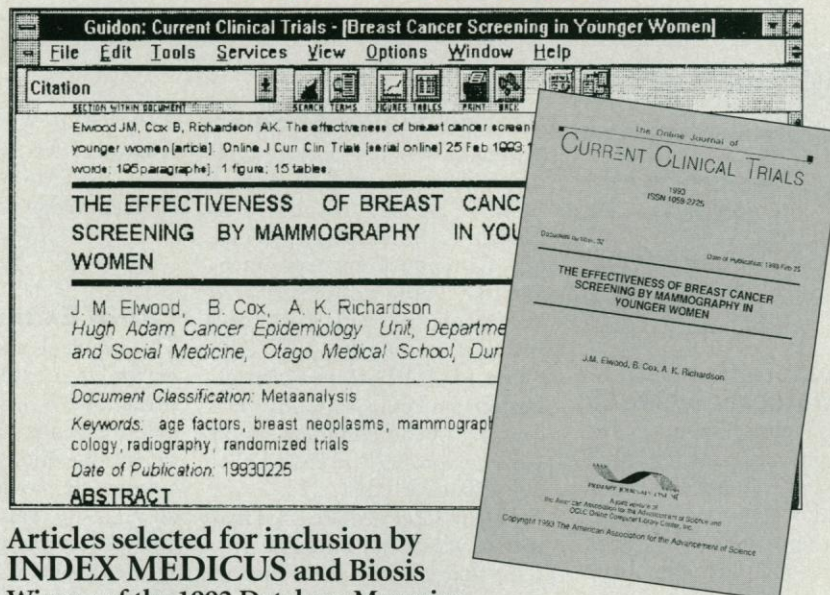
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## POSITIONS OPEN

### CASE WESTERN RESERVE UNIVERSITY MOLECULAR/CELL BIOLOGIST

A newly created section of Gastroenterology Research seeks tenure-track faculty members at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. Positions are targeted for basic investigation in an exciting new program focused on intestinal inflammation. Successful candidates will interact with an established program in mucosal immunity. Special consideration will be given to individuals with interest in apoptosis, cell activation/interaction, and the biology of endothelial or mesenchymal cells. Offer includes ample laboratory space in a brand-new research building, equipment, supplies, and salary negotiable depending on qualifications. Interested individuals should send curriculum vitae and correspondence to: **Dr. Claudio Fiocchi, Head of Research, Division of Gastroenterology, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-4952.** *The University is an Equal Opportunity/Affirmative Action Employer.*

The Department of Microbiology and Molecular Genetics at the University of Texas Houston Medical School invites applications at the **ASSISTANT PROFESSOR** level to fill a tenure-track faculty position. We are especially interested in candidates whose focus of research is directed towards genetic and biochemical approaches to the study of eukaryotic microorganisms, e.g., fungi, algae, protozoans. The regulation of gene expression, sensory transduction pathways, nuclear-cytoplasmic interactions, development and macromolecular structure-function relationships represent some specific areas of interest to the Department. Candidates are expected to have the Ph.D. and/or M.D. degree, and postdoctoral research experience. Emphasis will be placed on the ability of the candidate to develop a strong, highly visible, independent and nationally competitive research program. Successful applicants will be expected to teach medical students and graduate students. Please send curriculum vitae, statement of teaching and research interests, and names of four (4) referees to: **Dr. Samuel Kaplan, Microbiology and Molecular Genetics, The University of Texas Houston Medical School, P.O. Box 20708, Houston, TX 77225.** For full consideration please respond by December 1, 1994.

*The University of Texas Houston Health Science Center is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

The Department of Physiology of the Ponce School of Medicine announces an immediate opening for applicants with an interest in cardiovascular physiology. It is preferred to fill the position at the **INSTRUCTOR/ASSISTANT PROFESSOR** level. A Ph.D. is required. Applicants must also have a strong commitment to assist in the teaching of medical physiology and advanced graduate courses. Curriculum vitae, statement of teaching and research interests, and the names of three references should be sent to: **Dr. Howard Mass, Chairman, Department of Physiology, Ponce School of Medicine, P.O. Box 7004, Ponce, Puerto Rico 00732.** *Ponce School of Medicine is an Equal Opportunity Employer.*

### BIOPHYSICS AND MOLECULAR BIOLOGY UNIVERSITY OF OREGON FACULTY POSITION

The Physics Department at the University of Oregon has an opening at the **ASSISTANT PROFESSOR** level for an individual working in the area of biophysics. The successful candidate will be expected to teach physics and biophysics at the undergraduate and graduate levels and to conduct a vigorous research program. This is a tenure-track appointment with preferred starting date during the 1995-96 academic year. Applications are encouraged from individuals whose research interests will complement existing programs in the Department of Physics, the Institute of Molecular Biology or the Institute of Neuroscience.

Candidates should send a curriculum vitae, a statement of research interests, and the names and addresses of three referees who are familiar with their work. They should arrange for letters of reference to be forwarded directly by the referees. These items and a letter of application should be sent to: **Professor Brian W. Matthews, Chairman, Search Committee, Institute of Molecular Biology, 1229 University of Oregon, Eugene, OR 97403.** To guarantee full consideration applications should be received by December 1, 1994. *The University of Oregon is an Equal Opportunity/Affirmative Action/ADA Institution committed to cultural diversity.*

## POSITIONS OPEN

The Department of Pharmacology at Louisiana State University Medical School in Shreveport invites applications from accomplished researchers for a tenure-track **ASSOCIATE PROFESSOR**. Applicants must have a M.D. or Ph.D. degree and five years of postdoctoral experience. The applicant's research should complement ongoing research in the Department. Areas of interest include neurotoxicology and immunology. The appointee will be expected to establish a strong research program supported by extramural funding, and to participate in the teaching of graduate and medical students. Applications should include a curriculum vitae, a list of publications, selected reprints, a brief summary of current and future research plans, and the names of three referees. Send applications to: **Adrian J. Dunn, Ph.D., Department of Pharmacology, LSUMC, P.O. Box 33932, Shreveport, LA 71130-3932.** *An Equal Opportunity/Affirmative Action Employer.*

### MOLECULAR GENETICIST

The Department of Biology at Occidental College invites applications for a tenure-track **ASSISTANT PROFESSOR** position in Molecular Genetics. Applicants should have a strong commitment to teaching at the undergraduate level and to research. The successful candidate will normally teach courses in genetics and biochemistry and is expected to develop a rigorous research program involving undergraduates. The exact area of research is open. The new faculty member may choose to participate in the interdisciplinary Biochemistry major. Occidental College is a selective and small liberal arts college with excellent research and teaching facilities, located in Los Angeles. Send curriculum vitae, statement of your research and teaching interests, copies of significant publications, and arrange to have three letters of reference sent, by December 1, 1994, to: **Search Committee, Department of Biology, Occidental College, 1600 Campus Road, Los Angeles, CA 90041.** *Occidental College is an Equal Opportunity/Affirmative Action Employer. Women and people of color are encouraged to apply.*

**DEPARTMENT OF CHEMISTRY and BIOCHEMISTRY,** University of Maryland at College Park invites applications for a tenure-track or tenured position in **BIOCHEMISTRY**. Candidates at all levels will be considered, and applications at the **ASSOCIATE** or **FULL PROFESSOR** level are especially encouraged. Research areas of particular interest include, but are not limited to: protein folding and design, structure-function relations pertaining to signal transduction, gene expression, immunochemistry, cell-cell interactions, etc., and protein secretion. Candidates will also have the opportunity to participate in the campus-wide Program in Molecular and Cell Biology. Submit a résumé, a short description of research plans, and arrange for three letters of reference to be sent to: **Prof. Douglas A. Julin, Biochemistry Search Committee, Department of Chemistry and Biochemistry, University of Maryland, College Park, MD 20742-2021.** Evaluations begin on November 1, 1994, but new applications will be considered until the position is filled. *University of Maryland at College Park encourages applications from women and members of minority groups and is an Equal Opportunity/Affirmative Action Employer.*

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY Department of Biology

Applications are sought for a tenure-track faculty position at the level of **ASSISTANT PROFESSOR** in the areas of cellular, molecular and genetic approaches to nervous system function and development.

Applicants should have significant research accomplishments, the ability to establish and maintain a rigorous research program and a commitment to excellence in education at the undergraduate and graduate levels.

Applicants should provide curriculum vitae, a summary of research accomplishments and proposed research, and copies of key publications or preprints. Applicants should arrange that at least three letters of recommendation be sent from scientists who can evaluate their accomplishments and future research and teaching. Applications should be sent to:

**Neurobiology Search Committee  
Massachusetts Institute of Technology  
77 Massachusetts Avenue  
Building 68-132  
Cambridge, MA 02139**

*MIT is an Equal Opportunity/Affirmative Action Employer. Women and minorities are especially encouraged to apply.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR.** The Department of Physiology invites applications for one assistant professor position (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.

### ASSISTANT PROFESSOR/PHYSIOLOGY

St. Norbert College announces the reopening of a **TENURE-TRACK POSITION** to begin January 1995 or August 1995. Ph.D. required. Candidate is expected to teach Animal Physiology, Developmental Biology, specialty courses, and rotate in General Biology. A research program involving undergraduates is expected. We are a comprehensive, Catholic, liberal arts college in the Vatican II tradition and seek faculty supportive of the mission and goals of the College. Send letter of application with teaching philosophy, curriculum vitae, and three letters of reference to: **James R. Hodgson, Ph.D., Chair, Natural Science Division, St. Norbert College, DePere, WI 54115.** Screening will begin November 18, 1994. *Equal Opportunity/Affirmative Action Employer. Women and diversity candidates are encouraged to apply.*

### ASSISTANT/ASSOCIATE PROFESSOR POSITIONS IN BIOCHEMISTRY/MOLECULAR BIOLOGY

The Philadelphia College of Osteopathic Medicine, Department of Biochemistry/Molecular Biology invites applications for two tenure-track positions at the level of **ASSISTANT/ASSOCIATE PROFESSOR.** Applicants must have a Ph.D., D.O. or M.D. degree, postdoctoral experience, demonstrated ability to obtain support for productive research, and a commitment to excellence in teaching medical and graduate students. Background in molecular biology with research interest in connective tissue diseases or nutrition will be given special attention. Applicants should send curriculum vitae, brief statement of current and future research plans, and the names and addresses of three references to:

**Eugene Mochan, Ph.D., D.O., Chairman**  
Department of Biochemistry/Molecular Biology  
Philadelphia College of Osteopathic Medicine  
4170 City Avenue  
Philadelphia, PA 19131-1694  
*Equal Opportunity Employer*

### MICROBIOLOGIST

Pending approval and funding, the Department of Biology at the University of San Francisco invites applications for a tenure-track position in Microbiology at the **ASSISTANT PROFESSOR** level anticipated to begin in the fall of 1995. Teaching responsibilities may include, *inter alia*, general microbiology (for majors or nursing students), advanced courses in microbiology with an emphasis in ecological microbiology, microbial remediation, microbial physiology or related fields, participation in the General Biology course for majors, and participation in the General Education Foundations of Natural Science course for non-science majors. The candidate will be expected to guide Master's-level graduate students and to develop an independent and ongoing research program. Qualifications: University teaching experience, evidence of scholarship, an earned doctorate by fall 1995 and an understanding of and commitment to support the mission of the University are required. Applicants should submit a letter of application, curriculum vitae, transcripts, brief description of research plans, evidence of teaching ability, and three letters of recommendation to: **Microbiology Search Committee, c/o Carol J. Chihara, Professor and Chair, Department of Biology, University of San Francisco, 2130 Fulton Street, San Francisco, CA 94117-1080.** Applications must be received by January 2, 1995, to ensure full consideration. *We particularly encourage minority and women applicants for all positions. The University of San Francisco is an Equal Opportunity and Affirmative Action Employer, and provides reasonable accommodations to individuals with disabilities upon request. The University is a private Catholic and Jesuit institution, and particularly welcomes candidates who desire to work in such an environment.*

## POSITIONS OPEN

**ORGANIC CHEMIST**—The Chemistry Department of Wesleyan University invites applications for a tenure-track position in organic chemistry at the **ASSISTANT PROFESSOR** level, effective September 1995. Although all areas of research will be considered, preference will be given to candidates who best complement the research interests of the faculty. The successful candidate will exhibit the potential and commitment to excellence in both teaching (undergraduate and graduate level) and research in a well-equipped department with an active Ph.D. program (presently 12 full-time faculty), and will be expected to aggressively pursue outside funding. Salary, fringe benefits, and start-up funds will be competitive. Interested applicants should submit a curriculum vitae and a detailed description of research plans, and have three letters of reference sent to the **Chair of the Organic Search Committee, Department of Chemistry, Wesleyan University, Middletown, CT 06549** by December 1, 1994. *Wesleyan University is an Equal Opportunity/Affirmative Action Employer and actively seeks applications from women and minority candidates.*

### MICROBIOLOGY

The Department of Biological Sciences at Western Michigan University seeks applications for a tenure-track **ASSISTANT PROFESSOR** position in microbiology beginning fall of 1995, pending budgetary approval. Ph.D. required as well as postdoctoral experience in microbiology and expertise in bacterial molecular genetics. The development of externally funded research and participation in the department's doctoral program is expected. Preferences will be given to candidates with research interests in signal transduction, microbial pathogenesis, host-microbial interactions or bioremediation. The successful applicant will be expected to teach a graduate-level course in Microbial Genetics and an introductory microbiology course for undergraduate health professionals. Western Michigan University, a Carnegie Classification Doctoral I Institution and equal opportunity employer, has an affirmative action program which encourages applications from underrepresented groups. Send letter of application, curriculum vitae, statement of research plans, and three letters of reference to: **Leonard C. Ginsberg, Chair, Department of Biological Sciences, Western Michigan University, Kalamazoo, MI 49008-3899.** FAX: 616-387-2849; Internet: [leonard.ginsberg@wmich.edu](mailto:leonard.ginsberg@wmich.edu). Review of applications will begin December 1, 1994, and applications will be accepted until the position is filled.

### SCIENCE COORDINATOR American Museum of Natural History

The Department of Exhibition seeks a **SCIENCE COORDINATOR** to assist in the production of a major exhibition on Biodiversity. Work with scientific and exhibition personnel to conduct research for the exhibition, write interpretive text and coordinate content development with research departments of the Museum and with outside advisors. Requirements include training and knowledge in one of the biodiversity sciences (systematics, ecology, conservation biology), a related M.S. degree or equivalent experience, and interest and experience in public education. This is a two year term position. Send résumé with salary requirement to: **Personnel Department, American Museum of Natural History, Central Park West at 79th Street, New York, NY, 10024-5192.** An Equal Opportunity Employer.

### ASSISTANT PROFESSOR MICROBIOLOGY

The Department of Natural Sciences at the University of North Florida invites applications for a tenure-track position beginning in fall 1995. A Ph.D. in microbiology or a related field is required. Applicants must demonstrate a strong commitment to undergraduate teaching and the ability to conduct meaningful research involving undergraduates. Postdoctoral experience and the ability to procure external funding are valued. Responsibilities include teaching microbiology, some combination of immunology, virology and histology, and one course of our introductory biology sequence. Applicants should submit a letter of application, curriculum vitae, concise statements of teaching and research interests, undergraduate and graduate transcripts, up to three representative publications, and have three letters of reference sent to: **Joseph A. Butler, Search Committee, Department of Natural Sciences, University of North Florida, Jacksonville, FL 32224-2645.** Deadline is October 31, 1994. *The University of North Florida is an Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### CORNELL UNIVERSITY SECTION OF NEUROBIOLOGY AND BEHAVIOR MOLECULAR NEUROBIOLOGIST

The Section of Neurobiology and Behavior, Division of Biological Sciences, Cornell University, invites applications for a tenure-track position in molecular neurobiology at the **ASSISTANT PROFESSOR** or beginning **ASSOCIATE PROFESSOR** level, available July 1995.

We seek a neurobiologist using molecular biological techniques to study mechanisms of signal transduction in the nervous system. Possible research interests include molecular mechanisms of transmitter release, structure/function studies of channels and receptors, second messenger pathways, and other functional aspects of synaptic transmission and its modulation.

Applicants should send a curriculum vitae, selected reprints or preprints, and statements of research and teaching interests, and arrange to have three letters of recommendation sent to: **Search Committee, Section of Neurobiology and Behavior, Cornell University, Seeley G. Mudd Hall, Ithaca, NY 14853.** The Search Committee will begin screening applications January 16, 1995.

*Cornell University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are urged to apply.*

### BIOCHEMICAL ENGINEER/FERMENTATION SCIENTIST-REOPENED

Applicants sought: **ASSISTANT PROFESSOR** tenure-track. Conduct research in winemaking/fermentation science, establish basic research program, teach in enology/biochemical engineering. Must have a Ph.D. in Chemical or Biochemical Engineering, outstanding academic record, commitment to high quality graduate/undergraduate education, ability to develop research program of national recognition. Send curriculum vitae, publication list/reprints, teaching/research interest statements, graduate transcripts, name/address of three referees to: **Roger Boulton, Search Committee, Viticulture and Enology, University of California, Davis, CA 95616-8749.** Telephone: 916-752-0900 or 752-1717. Open until filled. Review of applications will begin January 2, 1995. FAX application unacceptable. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

**INORGANIC CHEMISTRY FACULTY POSITION**—University of Virginia. The Department of Chemistry invites applications for a tenure-track position at the rank of **ASSISTANT PROFESSOR** in any area of inorganic chemistry including biochemistry, to start in the fall semester 1995. Candidates at higher levels may also be considered. Applicants should have a strong commitment to teaching and will be expected to develop a vigorous research program. Postdoctoral experience is highly desirable. Applicants should submit a complete résumé, a summary of proposed research, and arrange for three letters of recommendation to be sent to: **Professor Russell N. Grimes, Chairman, Inorganic Search Committee, Department of Chemistry, University of Virginia, Charlottesville, VA 22901.** *The University of Virginia is an Equal Opportunity/Affirmative Action Employer.*

### NEUROBIOLOGY

The Department of Biological Sciences at Western Michigan University seeks application for a tenure-track **ASSISTANT PROFESSOR** position with expertise in cellular or molecular aspects of Neurobiology beginning fall 1995, pending budgetary approval. A Ph.D. in a related field is required as well as postdoctoral training in neurobiology. The development of externally funded research in the department's doctoral program is expected. Preference will be given to candidates with research interests in developmental neurobiology, neurotoxicology or signal transduction, and to those with previous teaching experience. Teaching responsibilities will include an undergraduate course in human anatomy/physiology for non-biology majors and graduate-level courses in area of expertise. Western Michigan University, a Carnegie Classification Doctoral I Institution and equal opportunity employer, has an affirmative action program which encourages applications from underrepresented groups. Send letter of application, curriculum vitae, statement of research plans, and three letters of reference to: **Leonard C. Ginsberg, Chair, Department of Biological Sciences, Western Michigan University, Kalamazoo, MI 49008-3899.** FAX: 616-387-2849; Internet: [leonard.ginsberg@wmich.edu](mailto:leonard.ginsberg@wmich.edu). Review of applications will begin December 1, 1994, and applications will be accepted until the position is filled.



Howard Hughes Medical Institute

# Predoctoral Fellowships in Biological Sciences

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## 1995 Competition

80 Fellowships will be awarded by the Howard Hughes Medical Institute for study toward a Ph.D. or Sc.D. degree in the biological sciences listed below. Awards, based on an international competition, focus on research directed to understanding basic biological processes and disease mechanisms. Fellowships may be held at any academic or research institution with appropriate degree programs.

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## Fellowship Terms

- Full-time study toward the Ph.D. or Sc.D.
- Up to five years of support possible
- \$14,500 annual stipend
- \$14,000 annual cost-of-education allowance

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## Fields of Study

- Eligible fields:

biochemistry	genetics	pharmacology
biophysics	immunology	physiology
biostatistics	mathematical biology	structural biology
cell biology	microbiology	virology
developmental biology	molecular biology	
epidemiology	neuroscience	

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## Eligibility

- Beginning graduate study (prior study toward an M.P.H. or a medical degree does not rule out eligibility)
  - college seniors
  - first year graduate students
  - medical students and physicians (M.D., D.O., D.D.S., or D.V.M.) not past the first year of a Ph.D. or Sc.D. degree program
- Not in a funded M.D./Ph.D. program
- No citizenship requirements: U.S. citizens may study abroad, but others must study in the United States

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## Schedule

Application deadline: November 4, 1994

Awards announced: early April 1995

Fellowships start: June 1995–January 1996

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## 1995 Program Announcements, Eligibility Guidelines, and Applications

Hughes Fellowship Program

The Fellowship Office

National Research Council

2101 Constitution Avenue

Washington, DC 20418, United States of America

Telephone (202) 334-2872

Fax: (202) 334-3419

E-mail: [infofell@nas.edu](mailto:infofell@nas.edu)

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.

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## POSITIONS OPEN

### ASSISTANT PROFESSOR MOLECULAR BIOLOGY AND 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 molecular biology and in teaching are invited to apply by submitting a curriculum vitae, a brief statement of future research plans and three letters of reference by December 1, 1994, to:

**Dr. Randall R. Reed**  
Search Committee

Department of Molecular Biology and Genetics  
The Johns Hopkins University School of Medicine  
800 PCTB, 725 North Wolfe Street  
Baltimore, MD 21205

*The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.*

The Department of Chemistry at the University of Virginia is seeking an outstanding individual for a position in **ORGANIC CHEMISTRY**. This appointment is expected to be made at the (tenure-track) **ASSISTANT PROFESSOR** level. All areas of organic chemistry will be considered. Candidates with a commitment to excellence in research and teaching are encouraged to send curriculum vitae containing a list of publications, a concise outline of research plans, and arrange to have three letters of recommendation sent to: **Chair, Organic Search Committee, Department of Chemistry, University of Virginia, McCormick Road, Charlottesville, VA 22901.**

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

### CELL BIOLOGY ASSISTANT PROFESSOR

Applications are invited for a tenure-track position in the Department of Biological Sciences within the Columbian College and Graduate School of Arts and Sciences, the liberal arts college at The George Washington University, a research-oriented University. Responsibilities will include offering undergraduate courses/graduate courses in cell biology and molecular biology as well as developing an extramurally supported research program to involve graduate and undergraduate students in an area of Cell Biology such as Molecular Interactions, Signal Transduction, or Transport Processes in animal, microbial, or plant systems which could have applications to neurobiology or cell differentiation. Starting date—September 1995. Review of applications will begin on October 28, 1994, and continue until the position is filled. Please send a letter of application which includes a statement of research plans and a description of courses you are prepared to teach, a curriculum vitae, and at least three letters of reference to:

**Robert Donaldson, Ph.D.**  
Chair of the Search Committee  
Department of Biological Sciences  
307 Lisner Hall  
The George Washington University  
Washington, D.C. 20052

*The George Washington University is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minority candidates.*

### PHYSIOLOGICAL ECOLOGIST ASSISTANT PROFESSOR University of Denver

The Department of Biological Sciences, University of Denver invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level to begin September 1, 1995. We are particularly interested in a physiological ecologist involved in the study of physiological processes at different scales. The successful candidate will have a Ph.D. and postdoctoral experience in appropriate fields, will develop a funded research program, will be expected to supervise M.S. and Ph.D. students, and teach undergraduate and graduate courses in areas of specialty. Submit curriculum vitae, two recent publications, three letters of reference, and statement of teaching and research interests to: **Dr. Robert L. Sanford, Jr., Department of Biological Sciences, University of Denver, Denver, CO 80208.** Applications should be received by November 18, 1994. *The University of Denver is committed to enhancing the diversity of its faculty and staff and encourages applications particularly from women, minorities, persons with disabilities and veterans.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR OF CHEMISTRY.** Tenure-track position in Chemistry, available August 15, 1995. Duties include teaching undergraduate/graduate courses in organic chemistry and establishing an externally funded research program. A Ph.D. is required; postdoctoral experience is desired. The applicant should have interests and capabilities in organic chemistry with research efforts that complement ongoing programs in biochemistry, carbohydrate chemistry, environmental chemistry, natural products chemistry, or polymer chemistry. Submit résumé, research plans, and three letters of reference by December 1, 1994, to: **Dr. Robert T. LaLonde, Department of Chemistry, State University of New York-College of Environmental Science and Forestry, Syracuse, NY 13210.** *The State University of New York-College of Environmental Science and Forestry is an Equal Opportunity/Affirmative Action Employer. Women and minorities are especially encouraged to apply.*

### CELL/DEVELOPMENTAL BIOLOGIST UNIVERSITY OF TORONTO

The Department of Zoology, University of Toronto invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level to begin July 1, 1995. We are particularly interested in applicants using molecular and genetic approaches to cell and developmental problems. The Department of Zoology has traditional strengths in Cell/Developmental Biology, Evolution, Ecology, and Animal Physiology, which provide a stimulus for interdisciplinary interactions. The successful applicant is expected to develop an internationally recognized research program and to teach at the undergraduate and graduate level. Applicants with a Ph.D. and postdoctoral experience in a relevant field should send a curriculum vitae and a one-page statement of future research plans, and arrange for three letters of reference to be sent to: **Chair, Cell/Developmental Biology Search Committee, Department of Zoology, University of Toronto, Toronto, Ontario M5S 1A1, Canada.** Applications will be considered beginning December 1, 1994. *In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women or men, members of visible minorities, aboriginal peoples and persons with disabilities.*

### ASSISTANT/ASSOCIATE PROFESSOR VIROLOGY

The University of Michigan Department of Epidemiology invites applications for a tenure-track position at the **ASSISTANT/ASSOCIATE PROFESSOR** level with research expertise in molecular pathogenesis and/or immunology. All areas of virology will be considered. Successful applicants will participate in the teaching of graduate students and develop an outstanding and innovative research program. We will begin review of applications January 1, 1995. Send applications, including curriculum vitae, teaching experience, statement of current and future research plans, and names, addresses and telephone numbers of three references to: **Dr. Carl Marrs, Department of Epidemiology, University of Michigan, 109 Observatory Street, Ann Arbor, MI 48109.** *The University of Michigan actively encourages interest from women and minorities and is an Equal Opportunity/Affirmative Action Employer.*

**MICROBIOLOGY AND MOLECULAR BIOLOGY.** Middlebury College. The Department of Biology invites applications for a tenure-track position, beginning fall 1995, in the area of microbiology and molecular biology. Appointment will be made at the rank of **ASSISTANT PROFESSOR**. Applicants should have a Ph.D. in the area, a broad background in biology, and a commitment to excellence in both teaching and scholarship. The successful applicant will offer a laboratory course in general microbiology, an advanced course in molecular biology or microbiology and a course that will serve the general college community; will share responsibility for a laboratory course in molecular genetics; and will supervise student research in microbiology and molecular biology. Completed application including curriculum vitae, statements of teaching and research interests, undergraduate and graduate transcripts, a sample of scholarly work and at least three current letters of recommendation sent directly by their authors must be received by 7 November 1994. All materials should be sent to: **Christopher Watters, M/MB Search Committee, Department of Biology, Middlebury College, Middlebury, VT 05753.** Telephone: 802-388-3711, x5433; FAX: 802-388-0739. *Middlebury College is an Equal Opportunity Employer, and it encourages applications from women and members of minority groups.*

## POSITIONS OPEN

**BIOLOGICAL SCIENCES: MESA STATE COLLEGE** invites applications for two tenure-track **ASSISTANT PROFESSOR** positions available August 1995. Ph.D. required. Teaching 12 credit hours per semester upper division and introductory courses. Preference will be given to candidates with significant coursework and/or research in (1) invertebrate biology, with interests in plant/animal interactions or quantitative ecology or (2) microbial ecology. Send curriculum vitae, statement of teaching and research interests, all college transcripts, and names of three references to: **Dr. Robert E. Kribel, Dean, School of Natural Sciences and Mathematics, Mesa State College, P.O. Box 2647, Grand Junction, CO 81502.** Deadline January 17, 1995. *Mesa State College is an Affirmative Action/Equal Opportunity Employer. Mesa State College is a drug-free workplace. All employees of the College must agree to abide by our drug-free policy as a condition of employment.*

### ASSISTANT/ASSOCIATE PROFESSOR OF BIOCHEMISTRY

The Basic Sciences Division invites applications for a tenure-track, 12-month faculty position at the **ASSISTANT/ASSOCIATE PROFESSOR** level. Applicants must have a Ph.D. in biochemistry and a commitment to teaching. The candidate is expected to teach medical biochemistry to first- and second-year osteopathic medical students and students enrolled in the physician assistant certificate program. Send curriculum vitae, statement of teaching goals, three letters of reference, and transcripts to: **Lee R. Grunden, Ph.D., Chair, Biochemistry Search Committee, College of Osteopathic Medicine of the Pacific, 309 East Second Street, Pomona, CA 91766-1889.** *The College is an Equal Opportunity/Affirmative Action Employer and actively seeks applications from women and minorities.*

**EMORY UNIVERSITY, MATERIALS CHEMISTRY FACULTY POSITION.** The Department of Chemistry invites applications from materials chemists for an **ASSISTANT PROFESSOR** (entry level to advanced), tenure-track position starting fall 1995. While candidates in all areas of materials chemistry will be considered, preference will be given to applicants whose research interests complement the strengths of the department. The individual selected for this position will be expected to establish outstanding research and teaching programs. A Ph.D. in chemistry is required. Candidates should send a curriculum vitae, a proposed research program, and arrange to have three letters of recommendation sent to: **Chairman, Faculty Recruiting Committee, Department of Chemistry, Emory University, Atlanta, GA 30322.** Applications received by November 1, 1994, will be evaluated first. All applications should be received by January 1, 1995. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

### DEPARTMENT OF MEDICINE UNIVERSITY OF ALABAMA AT BIRMINGHAM

#### FACULTY IN PARASITIC DISEASES

The Division of Geographic Medicine of the Department of Medicine at the University of Alabama at Birmingham (UAB) invites applications for a tenure-track faculty position. While a recruitment at the **ASSISTANT PROFESSOR** level is planned, rank will be commensurate with experience. Candidates should hold a doctoral degree (M.D. or Ph.D.), and have demonstrated research experience in the study of parasitic diseases. Although all applicants will be considered, the Division is particularly interested in the development of protective immunity and immunopathology. Interests of the six current faculty include immunological responses to filariasis and onchocerciasis, biochemistry and vaccine development in onchocerciasis, mitochondrial development and mechanisms of drug resistance in malaria and *Toxoplasma gondii*, ribosomal gene expression and oligosaccharide biosynthesis in malaria, and infectious disease epidemiology (including parasitic diseases, HIV/AIDS, and human papillomavirus). The Division collaborates with the UAB School of Public Health and with key laboratories in the medical center working on protozoal enzymology, trypanosomiasis, microbial pathogenesis, immunology, rheumatology, and HIV/AIDS. By December 16, 1994, interested persons should send a curriculum vitae and a brief statement of research interests to: **Thomas R. Unnasch, Search Committee Chair, Division of Geographic Medicine (BBRB 206), University of Alabama at Birmingham, Birmingham, AL 35294-2170.** *UAB is an Affirmative Action/Equal Opportunity Employer.*



# DIRECTOR

## Human Cancer Genetics Program

COMPREHENSIVE CANCER CENTER  
ARTHUR G. JAMES CANCER HOSPITAL AND RESEARCH INSTITUTE  
THE OHIO STATE UNIVERSITY

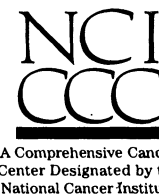
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The Comprehensive Cancer Center-Arthur G. James Cancer Hospital and Research Institute at The Ohio State University seeks a cancer genetics researcher of international stature to direct a new program in human cancer genetics. The successful candidate will have responsibility for developing a comprehensive research program involving both basic and clinical scientists. Resources will be made available to recruit five additional senior level investigators as well as for continuing director's discretionary funds, space, equipment acquisition, and support for pre- and post-doctoral students and research assistants. Please forward letter of nomination or application, including a curriculum vitae, to:

*David E. Schuller, M.D., Chair*  
*Human Cancer Genetics Search Committee*  
Comprehensive Cancer Center  
Arthur G. James Cancer Hospital and Research Institute  
300 West Tenth Avenue, Suite 519  
Columbus, Ohio 43210



*The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam-era veterans, disabled veterans and individuals with disabilities are encouraged to apply.*



## POSITIONS OPEN

### ASSISTANT PROFESSOR DEPARTMENTS OF BIOCHEMISTRY AND PHARMACOLOGY UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE

Candidates for ASSISTANT PROFESSOR (tenure-track) must hold a Ph.D. or equivalent degree, have at least two years of postdoctoral training, and be highly capable in research and teaching. Individuals working in the areas of polymorphisms in drug-metabolizing or detoxifying enzymes, in DNA repair capacity, in genetic predisposition to specific environmentally related diseases, or alterations of oncogenes and/or tumor suppressor genes are especially encouraged to apply. The position is associated with a NIEHS-supported Center for Environmental Health Sciences. The School of Medicine has core facilities for the synthesis and sequencing of peptides, flow cytometry, and mass spectrometry. The successful applicant will be expected to develop and maintain an independently funded research program and to participate in the training of medical, dental, and graduate students. Interested individuals should submit a curriculum vitae, list of four persons familiar with the candidate's qualifications, and a brief of statement of research interests to: **Search Committee, Department of Biochemistry, University of Louisville School of Medicine, Health Sciences Center, Louisville, KY 40292.** Applications will be accepted up to November 1, 1994, or until a suitable candidate is identified. *The University of Louisville is an Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT PROFESSOR SOIL SCIENCE AND RESIDUE MANAGEMENT**, tenure-track position, Northwest Experiment Station, University of Minnesota, Crookston, Minnesota. Research (80%), outreach (20%), on residue management for small grains production. Minimum requirements: Ph.D. in soil science, agronomy or plant science with a soil science emphasis required by date of appointment; research experience in soil management and production agriculture, effective oral and written communication skills and a demonstrated ability to effectively cooperate with co-workers. For more information: **Dr. R. R. Allmaras, Chair, 439 Borlaug Hall, 1991 Upper Buford Circle, St. Paul, MN 55108.** Telephone: 612-625-1742; FAX: 612-625-2208. Deadline for applications: December 1, 1994. *The University of Minnesota is an Equal Opportunity Educator and Employer.*

### MOLECULAR CELL BIOLOGIST WEST VIRGINIA UNIVERSITY

The Department of Biology at West Virginia University invites applications for a tenure-track position at the beginning ASSISTANT PROFESSOR level, available 16 August 1995. A Ph.D., teaching experience, and a minimum of two years of postdoctoral training are required. We are interested in teacher-scholars studying contemporary problems in Cellular and Molecular Biology, with special emphasis on simple eukaryotic developmental biology model systems. The successful applicant will be expected to teach both undergraduate and graduate students, and to establish a strong externally funded research program. Please submit curriculum vitae, a brief description of current and future research agenda, and the names and telephone numbers of four individuals who are willing to provide letters of evaluation to: **Biology Search Committee, P.O. Box 6057, Biology Department, West Virginia University, Morgantown, WV 26506.** Review of applications will begin December 1, 1994. The Department of Biology is the recipient of a Howard Hughes Medical Institute grant to enhance undergraduate education in cellular and molecular biology. *West Virginia University is an Equal Opportunity Employer. Women and minorities are strongly encouraged to apply.*

The Microbiology Department of The University of Texas at Austin has an opening for an ASSISTANT PROFESSOR in the area of immunology. Appointment at a higher rank will be considered for highly qualified individuals. Excellent communications skills are a requirement. This is an outstanding opportunity to join an excellent department during a period of expansion. Please submit curriculum vitae, including names and addresses of three references and a summary of research interests, to: **Dr. Paul Gottlieb, Search Committee Chairman, Microbiology Department, The University of Texas at Austin, Austin, TX 78712-1095.** *The University of Texas is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**BIOLOGY, ASSISTANT PROFESSOR.** The Department of Biology at Shippensburg University invites applications for a tenure-track position starting August 1995. The successful candidate will be expected to have completed an earned doctorate at the time of appointment. Primary teaching responsibilities will include immunology, hematology, introductory biology for non-majors and occasionally microbiology. College-level teaching experience is required. Scholarly activity will be required in the area of the candidate's specialty. Applicants should send curriculum vitae, copies of transcripts (both graduate and undergraduate), a statement of teaching philosophy and research interests, plus the names, addresses and telephone numbers of three references to: **Dr. David S. Long, Chair of the Search Committee, Department of Biology, Shippensburg University, 1871 Old Main Drive, Shippensburg, PA 17257-2299.** Receipt deadline for application materials is: November 1, 1994. *Shippensburg University is an Equal Opportunity/Affirmative Action Employer. Women and racial minorities are encouraged to apply.*

### ADMINISTRATOR CENTER FOR ADVANCED STUDIES IN THE SPACE LIFE SCIENCES MARINE BIOLOGICAL LABORATORY

A life science planning and study center is being established under sponsorship of the National Aeronautics and Space Administration (NASA). The Center will review and provide studies on a variety of life science areas, with special attention on how gravity and its control impact on biological processes, and how to use variations in gravity as a probe to better understand biology.

The ADMINISTRATOR and Center staff will coordinate activities working with the Director/CEO of the Marine Biological Laboratory and in cooperation with NASA. The Administrator will organize and coordinate meetings, oversee production of the Center's newsletter, electronic and other publications, and establish linkages to the life sciences community.

Requires a Ph.D., M.D., or equivalent experience in the life sciences, including research in biology or medicine. Administrative experience a plus. Review of candidates will begin November 1, 1994. Please send applications or nominations, including curriculum vitae and names of at least three references to:

**Chair, Advanced Studies Search Committee  
Human Resources**

**Marine Biological Laboratory  
Woods Hole, MA 02543 (Email: resume@mbi.edu)**  
*An Equal Opportunity/Affirmative Action/Non-smoking workplace.*

**PROGRAM ADMINISTRATOR** for scientific society in Philadelphia, Pennsylvania. Position entails implementation of programs, services to members, and committee support. Seven to ten years of relevant work experience required. Biomedical research and/or association management experience preferred. Position requires excellent writing skills, versatility, and computer literacy. Graduate degree desired. Send covering letter, résumé, writing sample, and desired salary to: **P.O. Box 40138, Philadelphia, PA 19106.**

### PROFESSOR Duke University Medical Center

The Department of Molecular Cancer Biology, Duke Comprehensive Cancer Center, invites applications for a position at the rank of PROFESSOR. Research within the Department is focused on the genes and biochemical pathways that regulate cell growth and the molecular analysis of the disruption of such controls in cancer cells. Investigators working at the molecular level on signal transduction, oncogenes/anti-oncogenes, angiogenesis, metastasis and apoptosis are especially encouraged to apply. Applicant must have a highly distinguished record of accomplishment and be internationally recognized as a leader and innovator in cancer research. Applicant should send a letter expressing interest, curriculum vitae, grant support and list of publications. A brief description of present and proposed research would also be helpful. All inquiries will be held in confidence. Forward these to: **Dr. Robert M. Bell, Chairman, Department of Molecular Cancer Biology, Duke Comprehensive Cancer Center, Duke University Medical Center, Box 3686, Durham, NC 21170.** To be assured of full consideration, the application must be received by December 15, 1994. *Duke University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR OPENING IN BIOCHEMISTRY/MOLECULAR BIOLOGY UNIVERSITY OF ILLINOIS URBANA/CHAMPAIGN

The Department of Biochemistry at the University of Illinois is seeking applicants for an ASSISTANT PROFESSOR position. The position, which carries a full-time, tenure-track appointment, will be available starting August 1995. Outstanding applicants in any research area related to dynamic and emerging areas of biochemistry and molecular or cellular biology will receive full consideration. Examples of research areas of interest are gene regulation, nucleic acid biology, signal transduction and molecular immunology. The successful applicant must have demonstrated excellence in research, and must be prepared to participate effectively in the teaching program of the Department. A doctoral degree and postdoctoral experience in a relevant area are required. Applicants should submit a curriculum vitae and a brief description of future research plans, and should have letters of recommendation from three qualified scientists sent to the Search Committee. Completed applications should be received by December 15, 1994, to assure full consideration. Applications and requests for further information should be directed to: **The Biochemistry Search Committee, Department of Biochemistry, University of Illinois, 600 South Mathews Avenue, Urbana, Illinois 61801.** For inquiries call: 217-333-2013.

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

**RESEARCH DIRECTOR/RESEARCH ASSOCIATES**—The American Council on Science and Health (ACSH) invites applicants with a M.S. or Ph.D. in public health, epidemiology, nutrition, food science, environmental science or toxicology for administrative and research positions. ACSH is committed to providing the media and consumers with balanced, scientifically based evaluations of public health risk. Excellent writing and communication skills a must. Send résumé to: **ACSH, 1995 Broadway, 2nd Floor, New York, NY 10023.** FAX: 212-362-4919.

**CHIEF OF RHEUMATOLOGY**—The Department of Medicine, University of California, San Francisco (UCSF) seeks applicants for the position of Chief, Division of Rheumatology, at the San Francisco General Hospital. Appointment will be as Associate Professor or Professor of Medicine, UCSF. The Chief of Rheumatology is also Director of the Arthritis Research Laboratories at San Francisco General Hospital. The position requires exceptional accomplishment and promise in basic or clinical research relevant to rheumatology, and expertise as a clinician and teacher in rheumatology. Send curriculum vitae to: **Joel D. Ernst, M.D., Chair, Search Committee, UCSF Box 0868, San Francisco, CA 94143-0868.** *UCSF is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### NEUROSCIENCE CENTER DIRECTOR THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER AT DALLAS

The University of Texas Southwestern Medical Center invites applications and nominations for the position of DIRECTOR of the Neuroscience Center. Applicants should have an outstanding record of research accomplishment in neuroscience and academic leadership. The Director will have the opportunity to expand the Center from its current size of seven core faculty members to about twice this number, and 18,500 square feet of new space will be available for such expansion. The Director will be responsible for providing intellectual leadership and guidance both to the Center and within the larger neuroscience community on the campus, including the Neuroscience Graduate Program. Institutional support for the Center is composed of both state-funded faculty salaries and substantial endowment funds. Applications should be submitted before November 18, 1994, although the search will continue until the position is filled. Send curriculum vitae to: **Dr. Elliott M. Ross, Department of Pharmacology, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-9041.** *The University of Texas Southwestern Medical Center is an Equal Opportunity/Affirmative Action Employer.*

# UNIVERSITY OF WARWICK RESEARCH FELLOWSHIPS

Applications are invited for up to 50 Warwick Research Fellowships. These Fellowships will support outstanding individuals for six years.

It is expected that Fellows will be offered permanent academic appointments at the University at the end of their Fellowship period, at the level of Lecturer, Senior Lecturer, Reader or Professor.

The primary emphasis will be on research and each Fellow will be expected to establish an international reputation.

To equip themselves for the longer-term, Fellows will also be required to undertake a strictly limited amount of teaching.

To qualify for a Fellowship, candidates will have begun to establish their academic careers, having completed a doctorate and probably having several years of further research experience. They may already hold an academic appointment. The essential requirement will be to demonstrate a level of achievement in research/scholarship that is outstanding.

The salary offered will be on the Lecturer Scale, depending on age and experience.

Fellowships will be available in the departments listed. Subject areas of particular interest are indicated, but outstanding candidates in other areas are also encouraged to apply:

## SCIENCES & ENGINEERING

- **Biological Sciences** – Cell & Molecular Biology, *including protein structure*; Molecular Medicine; Biomathematics
- **Chemistry**
- **Computer Science** – Systems; Software; Theory

## • Engineering

- **Mathematics** – Pure & Applied
- **Physics** – Theoretical & Experimental Condensed Matter Physics; Materials Science
- **Psychology** – Cognitive Science; Developmental Psychology

Application forms and further particulars are available from:

**Dawn Duddridge, Assistant Registrar (Personnel), University of Warwick, Coventry, CV4 7AL.**  
**Tel: (01203) 524673 (24 hours). Fax: (01203) 524572**

**e-mail: [praded@admin.warwick.ac.uk](mailto:praded@admin.warwick.ac.uk)**

Further details and application forms will also be available on the Internet.

**The World Wide Web URL is: <http://crocus.csv.warwick.ac.uk/WWW/wrf.html>**  
**For Gopher use the command: Gopher -p 1/univ-info/wrf gopher.csv.warwick.ac.uk**





## POSITIONS OPEN

### GROUP RESEARCH AND DEVELOPMENT DIRECTOR

Candidate should be an accomplished **SCIENTIST** with a D.V.M. or Ph.D. in one of the sciences related to pig breeding. Innovation, integrity, communication and leadership skills are very important requirements for this position. The successful applicant will be based in England and report to the Chief Executive. The Group R&D Director is a member of the board of Pig Improvement Company and, as such, will contribute to the overall strategy of the company. If interested, submit a résumé to: **Phillip J. David, Ph.D., Chief Executive, Pig Improvement Company, Fyfield Wick, Kingston Bagpuize, Abingdon, Oxfordshire OX13 5NA England.**

### THE U.S. DEPARTMENT OF THE INTERIOR NATIONAL BIOLOGICAL SURVEY

The National Biological Survey (NBS) is a newly established bureau at the Department of the Interior. The mission of the NBS is to provide leadership in gathering, analyzing, and disseminating biological information in support of sound management of the Nation's natural resources.

NBS anticipates openings within the next few months for **RESEARCH CENTER DIRECTORS** in several states including Wisconsin, Michigan, Missouri, Hawaii, California, and Washington. Candidates should possess scientific research and managerial experience. Research Center Directors' duties include managing a budget of several million dollars, a substantial scientific workforce, and remote field stations. Salary ranges from the GS-14 level (\$59,022 to \$76,733) to the GS-15 level (\$69,427 to \$90,252).

Individuals desiring to be informed of these openings when advertised should contact **Pearl Inge** at 703-358-1743.

*The National Biological Survey is an Equal Opportunity Employer.*

**SABA UNIVERSITY SCHOOL OF MEDICINE**  
Immediate openings for **PH.D. TEACHING FACULTY** in: Gross Anatomy, Biochemistry, Histology, Neurosciences, Microbiology, Pathology, Pharmacology. Scholarships are also available for Ph.D.'s who wish to complete their M.D. SABA University is a Dutch medical school located in the Caribbean near St. Maarten. Call or send curriculum vitae to: **Dr. David Fredrick, 2421 West Pratt Boulevard, Suite 444, Chicago, IL 60645. Telephone: 800-825-7754.**

### FACULTY POSITIONS DEPARTMENT OF NEUROSCIENCE THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

Applications are invited for full-time, tenure-track faculty positions. Preference will be given to applicants with broad interests in cellular, molecular, and developmental neuroscience. Applicants should have a Ph.D. or M.D. and appropriate postdoctoral training. Faculty members are expected to establish active independent research programs and participate in teaching graduate and medical students.

Please send curriculum vitae, a brief description of current and future research interests, and arrange to have three letters of recommendation sent to: **Solomon H. Snyder, M.D., Search Committee, Department of Neuroscience, The Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205.**

*An Equal Opportunity/Affirmative Action Employer.*

**DEPARTMENT OF CHEMISTRY, NORTHERN ARIZONA UNIVERSITY.** Three openings in organic chemistry—all ranks considered. Seek individuals holding a Ph.D., capable of making significant contributions to Departmental and University interdisciplinary initiatives in bio-organic, environmental and chemical physics. Completed applications will include a curriculum vitae, brief statement of teaching interests/philosophy, concise research plan and three recommendation letters. The Search Committee will begin reviewing applications on November 7, 1994. Reply to: **Organic Search, Department of Chemistry, Northern Arizona University, P.O. Box 5698, Flagstaff, AZ 86011-5698. Northern Arizona University is an Equal Opportunity/Affirmative Action Institution. Minorities, women, persons with disabilities and veterans are encouraged to apply.**

## POSITIONS OPEN

### NUTRITIONAL SCIENCES FACULTY POSITION UNIVERSITY OF WISCONSIN-MADISON

The Department of Nutritional Sciences at the University of Wisconsin-Madison invites applications for a tenure-track position at the **ASSOCIATE** or **FULL PROFESSOR** level. Although all areas of nutrition will be considered, we are particularly interested in applications from individuals whose research applies biochemical and molecular techniques to nutritional problems, or deals with the basic or clinical associations between nutrients and health. The successful candidate is expected to maintain a vigorous independent research program, provide leadership for departmental activities, and participate in the teaching of general and specialized nutrition courses at the undergraduate and graduate levels. Applications, including curriculum vitae, list of publications, summary of past work and accomplishments, and a statement of plans for future research should be sent to: **Professor J. W. Suttie, Chair, Department of Nutritional Sciences, University of Wisconsin-Madison, 1415 Linden Drive, Madison, WI 53706, USA.** In addition, applicants should arrange for at least three letters of reference to be mailed to the same address. For full consideration, application materials should be received by December 15, 1994. Names, titles and/or occupations, and addresses of applicants and nominees cannot be kept confidential. *The University of Wisconsin-Madison is an Affirmative Action, Equal Opportunity Employer and encourages applications from women and minorities.*

### DEPARTMENT HEAD AND FACULTY POSITION

Due to retirements, the Department of Zoology seeks a **DEPARTMENT HEAD** and anticipates having the following **TENURE-TRACK FACULTY POSITIONS** available in August 1995: 1) Aquatic Toxicologist/Limnologist; 2) Physiologist/Physiological Ecologist; 3) Conservation Geneticist; and 4) Ecologist. The department emphasizes fisheries and wildlife ecology and environmental toxicology. Faculty would be expected to teach and develop an extramurally funded research program. For further information, contact: **Dr. Jerry Wilhm, Department of Zoology, Oklahoma State University, Stillwater, OK 74078. Email: ANIMAL@OKWAY.OKSTATE.EDU. An Equal Opportunity/Affirmative Action Employer.**

### PROFESSOR OF ANATOMY Department of Neurobiology and Anatomy University of Utah School of Medicine

Applicants must have a Ph.D., M.D., or equivalent degree, at least fifteen years of experience and demonstrated excellence in teaching human anatomy, and a national reputation for scholarly activity in the area of human anatomy. The successful candidate will direct the Division of Human Anatomy, whose responsibilities include the teaching of courses in Gross Anatomy, Oral Histology and Dental Neuroanatomy. Position will be available fall 1995. Send a curriculum vitae and names and addresses of three references to:

**Dr. T. N. Parks, Chair, Department of Neurobiology and Anatomy, University of Utah School of Medicine, Salt Lake City, UT 84132. Deadline is November 10, 1994. Equal Opportunity/Affirmative Action Employer. We encourage applications from women and minorities.**

### FACULTY POSITION IN PROTEIN STRUCTURE

The Department of Pathology of Case Western Reserve University (CWRU) and the newly established Center for Structural Biology shared by CWRU and the Cleveland Clinic Foundation are jointly recruiting for a tenure-track position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level to carry out research on the structure of amyloidogenic proteins relevant to diseases of the nervous system such as Alzheimer's and Prion diseases.

Candidates with strong credentials in the study of protein structure with FTIR, DC or NMR spectroscopic techniques are encouraged to apply.

Terms are highly competitive. The successful candidate will have an academic appointment at CWRU, and space in the Department of Pathology.

Submit curriculum vitae, brief statement of interest and proposed research and names of four references to: **Dr. Pierluigi Gambetti, Department of Pathology, Case Western Reserve University, 2085 Adelbert Road, Cleveland, OH 44106-4970. Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### FACULTY POSITION IN PHYSIOLOGY

The Department of Physiology at Loyola University Chicago, Stritch School of Medicine, is seeking applicants for a tenure-track position at the **ASSISTANT, ASSOCIATE, or FULL PROFESSOR** level. Applicants must have a Ph.D., M.D. or equivalent and are expected to have the ability to establish a strong research program. Senior applicants should have a strong record of research productivity and extramural support. The Department has a growing strength in molecular, biophysical and cellular studies of ion channels/membrane transport and also E-C coupling in smooth and cardiac muscle. Applications are especially encouraged from individuals with research interests in related areas. Send letter, curriculum vitae including research plans and names of three references to: **Donald M. Bers, Ph.D., Chairman, Department of Physiology, Loyola University Chicago, 2160 South First Avenue, Maywood, IL 60153. Loyola is an Equal Opportunity/Affirmative Action Employer.**

### ANATOMY AND CELL BIOLOGY FACULTY POSITION IN DEVELOPMENTAL BIOLOGY

The Department of Anatomy and Cell Biology invites applications for a tenured or tenure-track position beginning July 1, 1995. Candidates should have a Ph.D., M.D. or equivalent degree, and have demonstrated ability to conduct independent research and attract extramural funding. The department is seeking a Developmental Biologist with a strong record of achievement in molecular and/or cellular biology. Major research programs in the department are related to neurobiology. Teaching duties will include human embryology in the gross anatomy course for first year Medical Students and participation in the Department's graduate program. Rank and salary will be commensurate with qualifications. Applicants should submit a curriculum vitae, a brief statement of research interests, representative reprints, and names of three references to: **Dr. George D. Pappas, Search Committee, Department of Anatomy and Cell Biology, University of Illinois, College of Medicine at Chicago, 808 South Wood Street (M/C 512), Chicago, IL 60612-7308.**

*The University of Illinois is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.*

**ENVIRONMENTAL STUDIES/BOTANY** joint appointment: individual with background in Sustainable Agriculture or Wetlands. Ph.D. required. Ability to teach introductory and upper-level Botany, Plant Taxonomy, Introduction to Environmental Studies, and Soil Science; other courses in area of expertise; supervise undergraduate research projects. Review begins November 15, 1994. Submit cover letter, curriculum vitae, transcripts, three letters of reference to: **Dr. McKinley, Vice President for Academic Affairs, Warren Wilson College, P.O. Box 9000, Asheville, NC 28815-9000. Equal Opportunity/Affirmative Action Employer.**

**ENVIRONMENTAL POLICY/POLITICAL SCIENCE INTERDISCIPLINARY POSITION:** Ph.D. in one discipline, strong preparation in the other. Teach courses in environmental policy (e.g., global environmental policy and diplomacy, land use planning, or environmental law) and political science (introduction to political science and one or more of the following: public policy and administration, international relations, comparative government, or law and the judicial process). Review begins December 1, 1994. Submit cover letter, curriculum vitae, transcripts, three letters of reference to: **Dr. McKinley, Vice President for Academic Affairs, Warren Wilson College, P.O. Box 9000, Asheville, NC 28815-9000. Equal Opportunity/Affirmative Action Employer.**

### PLANT GENETICS FACULTY POSITION

**CENTRAL COLLEGE:** Tenure-track faculty position in plant genetics beginning September 1, 1995. Responsibilities include teaching undergraduate courses in introductory biology, introductory/population genetics, plant physiology and evolution; assisting seniors with research projects and participation in departmental seminars. Ph.D. preferred; A.B.D. considered. Send curriculum vitae, transcripts, and three letters of recommendation to: **Dr. Virginia Coombs, Dean of the College, Central College, Pella, IA 50219. Internet Email (requests for position description ONLY): COOMBSV@CENTRAL.EDU. Review of applications will begin November 7, 1994. Affirmative Action/Equal Opportunity Employer. We actively seek and encourage applications from women and minorities.**

## ASSISTANT PROFESSOR

### Department of Molecular Genetics and Cell Biology

The Department of Molecular Genetics and Cell Biology at the University of Chicago invites applications for a tenure track position at the Assistant Professor level in the areas of Molecular Genetics and Cell Biology. We will consider outstanding applicants who have a strong potential for imaginative research in the broad areas encompassing the Department's interests. Successful candidates will receive newly renovated laboratory space, ample start-up funds and join an interactive Department with an active program of graduate education.

By November 15, applicants should send curriculum vitae, reprints, statement of research experience and proposed program, and names of three references to:  
**Dr. Anthony P. Mahowald, Chair, Department of Molecular Genetics and Cell Biology, 920 E. 58th Street, Chicago, IL 60637.**



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## Tenure-Track Faculty Positions in Developmental Biology

The Department of Cell & Developmental Biology at the University of Pennsylvania School of Medicine is embarking on a major expansion in the analysis of vertebrate and invertebrate development. In the initial phase of this expansion we are particularly interested in recruiting investigators who use experimental approaches to study problems such as morphogenesis, pattern formation, differentiation and determination in the early embryo. Highly qualified individuals in related areas are also encouraged to apply. Most of the positions will be filled at the rank of assistant professor, but more senior appointments will be considered in exceptional cases.

We expect to begin interviewing candidates by December 1, 1994. Send curriculum vitae, research plan, and three letters of recommendation to:



**Search Committee,  
c/o Charles P. Emerson, Jr.  
Chair, Department of Cell  
and Developmental Biology  
University of Pennsylvania  
Philadelphia, PA 19104-6058**

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

National Institute on Alcohol Abuse and Alcoholism  
National Institutes of Health  
Public Health Service  
Department of Health and Human Services

## DEPUTY DIRECTOR

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) invites applications for the position of Deputy Director. This is a Senior Executive Service (SES), position with a salary ranging from \$92,900 to \$115,700 + 4.23% locality allowance. Physicians may be eligible for a Physician's Comparability Allowance of up to \$20,000 per annum. A one year probationary period must be served by the individual selected if not currently in the career Senior Executive Service.

The NIAAA provides national leadership and direction in the development of goals, priorities, policies, and program activities designed to increase the knowledge base for developing effective strategies to deal with the health problems and issues associated with alcohol abuse and alcoholism. The Institute's program includes basic and clinical extramural and intramural alcohol research and training programs for scientists interested in research careers in the biomedical and behavioral sciences with a special interest in alcoholism and alcohol abuse. The Deputy Director helps to manage a staff of approximately 400 and a budget of \$191 million. The Deputy Director is also the chief advisor to the Director, NIAAA.

Applicants must possess a strong background and accomplishments in the development, management, and direction of alcohol abuse or alcohol related research programs.

Applicants are required to submit an Application for Federal Employment (SF-171), available at all Federal Job Information Centers and Federal Personnel Offices. Resumes are not acceptable applications. Additionally, applicants may send a curriculum vitae and a bibliography. The vacancy announcement with mandatory/desirable qualifications requirements can be obtained by calling (301) 443-4031. Application material must be sent to the following address:

**National Institutes of Health  
National Institute on Alcohol Abuse  
and Alcoholism  
Personnel Management Branch  
Attn: Frank A. Shevock  
Willco Building, Room 406  
6000 Executive Blvd MSC 7003  
Bethesda, MD 20892-7003**



**Complete Applications Must Be Received  
No Later Than December 9, 1994.**

NIAAA is an Equal Opportunity Employer



## POSITIONS OPEN

### FACULTY POSITION Mass Spectrometry

The Department of Medicinal Chemistry and Pharmacognosy at Purdue University is recruiting a full-time tenure-track faculty member in the general area of mass spectrometry. The initial goal is to identify candidates at the **ASSISTANT/ASSOCIATE PROFESSOR** level; however, outstanding candidates at all levels will be considered. A Ph.D. or equivalent degree is required along with postgraduate experience and a productive record of quality scientific research. Applicants are expected to develop an independent research program with extramural funding using mass spectrometry in the broad context of biochemical and/or pharmaceutical analysis. Excellent collaborative research opportunities are available through interdisciplinary programs within the university including the departments of Chemistry, Biochemistry, and Biological Sciences. In addition, the applicant is expected to contribute to graduate/undergraduate education programs, and to help coordinate service efforts in the campus-wide mass spectrometry facility housed within the School of Pharmacy. The applicant should send curriculum vitae, brief research prospectus, and arrange to have three letters of recommendation sent to: **Chairperson, Mass Spectrometry Search Committee, Department of Medicinal Chemistry and Pharmacognosy, 1333 Robert E. Heine Pharmacy Building, Purdue University, West Lafayette, IN 47907-1333**. All complete applications will be reviewed starting November 1, 1994, and the search will remain open until an appropriate candidate is selected. *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

### TULANE UNIVERSITY MEDICAL CENTER TULANE REGIONAL PRIMATE RESEARCH CENTER DEPARTMENT OF PARASITOLOGY

**POSTDOCTORAL ASSOCIATE** is sought to join a multidisciplinary group working on the development of vaccines against Lyme disease. The task is the assessment of the immune response elicited both in mice and in monkeys by recombinant antigens of *Borrelia burgdorferi*. A background in cellular immunology would be advantageous. Please send curriculum vitae and names of three references by November 15, 1994, 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.*

### ASSOCIATE POSTDOCTORAL POSITION

Applications are invited for a **POSTDOCTORAL POSITION** as an Associate to work in the laboratory of **Dr. Grabowski** whose current research is aimed at understanding the biochemistry of premessenger RNA splicing. Questions related to the mechanism and expression of splicing components in neurons will be studied at single cell resolution. Qualified candidates should possess either an M.D. or Ph.D. in Molecular, Cell or Neurobiology.

Please forward your curriculum vitae and three letters of recommendation to: **Dr. Paula Grabowski, University of Pittsburgh, Department of Biological Sciences, A507 Langley Hall, Fifth Avenue and Ruskin Street, Pittsburgh, PA 15260**. *Equal Opportunity Employer.*

### POSTDOCTORAL POSITION DEVELOPMENTAL BIOLOGY/ BIRTH DEFECTS

**FUNDED POSTDOCTORAL POSITION** available immediately at Thomas Jefferson University in developmental biology/birth defects of the gastrointestinal smooth muscle. Nationally funded project with competitive salary. Molecular biology experience preferred. Projects include: 1) studies involving the *in vitro* and *in vivo* molecular analysis of the normal and abnormal development of the gastrointestinal tract with primary focus on gastrointestinal smooth muscle myogenesis, 2) the molecular and/or genetic analysis of several mutant mouse models of gastrointestinal/smooth muscle development, or 3) the molecular and/or genetic analysis of smooth muscle neoplasms. Send curriculum vitae, summary of research interests and three references to: **Dr. Kirk M. McHugh, Department of Anatomy, Pathology and Cell Biology, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107**. *Smoke-free environment. Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION** in Microbial Invasion—To investigate the strategies utilized by the intracellular protozoan parasite, *Leishmania* spp., to invade and replicate in host macrophages. The molecular cloning of genes encoding the parasite-derived ligands involved in cell adhesion will be the focus of this postdoctoral project. Microbial adhesion to macrophages and to recombinant leukocyte receptors expressed in non-macrophage cell lines will be investigated. Preference will be given to candidates eligible for NIH training grant funds. Send curriculum vitae and the names of three references to: **David M. Mosser, Ph.D., Department of Microbiology and Immunology, Temple University School of Medicine, 3400 North Broad Street, Philadelphia, PA 19140**. Telephone: 215-707-3583; FAX: 215-707-7788; **DMMosser@astro.ocis.temple.edu**. *An Equal Opportunity/Affirmative Action Employer. Applications from women and minorities are encouraged.*

### POSTDOCTORAL RESEARCH ASSOCIATE IN MOLECULAR BIOLOGY

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), is accepting applications for a two-year **POSTDOCTORAL POSITION**. The incumbent will participate in an ongoing research project to identify Marek's disease virus genes that confer oncogenicity. Research will focus on generating recombinant viruses through insertional mutagenesis and marker rescue. Position has a beginning salary of \$34,662 with benefits available. Please send curriculum vitae and names of three references to: **Dr. Robert F. Silva, USDA-ARS, Avian Disease and Oncology Laboratory, 3606 East Mount Road, East Lansing, MI 48823**, or call 517-337-6828. Email: **silvar@pilot.msu.edu**. Applications should be marked "Announcement Number 4N034." *USDA/ARS is an Equal Opportunity Employer.*

**POSTDOCTORAL POSITION**. Research involves enzyme mechanism and enzyme structure-function studies and requires experience in protein purification and characterization and recombinant DNA techniques. Send curriculum vitae, statement of research interests and experience, and the names and telephone numbers of three references to: **Dr. C. A. Caperelli, Division of Pharmacology and Medicinal Chemistry, College of Pharmacy, University of Cincinnati Medical Center, 3223 Eden Avenue, Cincinnati, OH 45267-0004**.

**POSTDOCTORAL POSITION**, Harvard Medical School. Available immediately. **BIOLOGIST/RADIOBIOLOGIST** preferably with experience in cell culture, animal models, and/or molecular biology. Candidate to work within a multidisciplinary group examining the subcellular effects and therapeutic efficacy of radionuclides. Salary based on experience (NRSA Guidelines). Must be a U.S. citizen or permanent resident. Please contact: **Dr. A.I. Kassis, SWRL, 50 Binney Street, Boston, MA 02115**. Telephone: 617-432-3999. *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available January 1, 1995, to study the molecular properties and physiological role of novel, eukaryote-like protein phosphatases in prokaryotic organisms. Experience in one of the following areas required: cloning/molecular biology, protein chemistry, enzymology. Experience in two or more of these areas desirable. To apply, send curriculum vitae and the names and telephone numbers of three references to: **Dr. Peter J. Kennelly, Department of Biochemistry and Anaerobic Microbiology, 123 Engel Hall, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061-0308**. *Virginia Tech is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** in Environmental Biotechnology requires Ph.D. in Microbiology or a related field to use molecular techniques for evaluating N-cycle organisms/processes in terrestrial ecosystems. Probes/primers for ammonia monooxygenase (*amo*) and nitrogenase (*nif*) will be developed and tested against soil isolates. Nucleic acids will be extracted from soils exposed to varying climates and probed with *amo* and *nif*. Concurrent experiments will provide process-level measures of nitrification and dinitrogen fixation. Experience in general molecular techniques including PCR, DNA sequencing, and hybridization necessary. Experience isolating DNA/RNA from soil/sediments desired. Send résumé to: **Dr. Harvey Bolton, Pacific Northwest Laboratory, 900 Battelle Boulevard, Richland, WA 99352**. FAX: 509-375-6666, Email: **h\_bolton@pnl.gov**.

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH ASSOCIATES

**POSTDOCTORAL POSITIONS** (two) in tuberculosis research. Experience in molecular biology is required. Research involves DNA fingerprinting of *Mycobacterium tuberculosis* isolates and the development of new methods for identifying epidemiologically related strains and/or the development of molecular based rapid assays for distinguishing between latent and active disease. FAX or mail curriculum vitae and names of three references to: **Kathleen D. Eisenach, Ph.D., Medical Research, J. L. McClellan Veterans Hospital, 4300 West 7th Street, Little Rock, AR 72205**. FAX: 501-671-2510.

### PLANT POPULATION ECOLOGY

**POSTDOCTORAL RESEARCH ASSOCIATE** position to study mechanisms regulating plant populations and communities in relationship to land-use history in north-central Massachusetts. The researcher will work within an interdisciplinary framework to design projects that explain well-documented patterns of plant distribution in this anthropogenically altered landscape. The researcher should complement our strengths in palynology, community ecology, soils science, and plant autoecology. Experience with work on seed dispersal and establishment, life history strategies, or plant-vertebrate interactions is desired. Please send curriculum vitae, description of research interests, and three letters of recommendation to: **Dr. David R. Foster, Harvard Forest, P.O. Box 68, Petersham, MA 01366** by November 15, 1994.

*Harvard University is an Equal Opportunity Employer and applications from women and minorities are strongly encouraged.*

### POSTDOCTORAL POSITIONS NEUROSCIENCE MEHARRY MEDICAL COLLEGE

**POSTDOCTORAL FELLOWSHIPS** are available immediately in an NIMH-supported "Training Program in Neuroscience." Projects include the electrophysiology of cellular calcium homeostasis, behavioral neuro-endocrinology, aging and hypertension, regulation of synaptic transmission, cholinergic synaptic neurochemistry, electrical properties of nucleus basalis neurons, opioid modulation of trigeminal pain mechanisms, plasticity of sensory processing in neocortex, and brain-gut peptides and pituitary-adrenal function. Applicants should send a letter of interest, curriculum vitae, plus the names and addresses of three references to: **Dr. James G. Townsel, Department of Physiology, Meharry Medical College, Nashville, TN 37208**. Funding is restricted to U.S. citizens and permanent residents. *Women and members of underrepresented minority groups are especially encouraged to apply.*

### HARVARD MEDICAL SCHOOL MASSACHUSETTS GENERAL HOSPITAL

**POSTDOCTORAL POSITIONS** available using adenoviral gene transfer to study molecular mechanisms of vascular diseases such as atherosclerosis. Experience in molecular biology or biochemistry is essential. Please send curriculum vitae, brief description of research experience, and names of three references to: **Dr. Anthony Rosenzweig, MGH Cardiovascular Research Center, Mail Code: 1494201, 149 13th Street, Charlestown, MA 02129-2060**. *Massachusetts General Hospital actively seeks to increase the diversity of its workforce. Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** in neuropharmacology to examine regulation of second messenger systems in brain. Experience in studying receptor-mediated cAMP production and in characterizing components of the cAMP generating system in brain slices and cell lines is desired. Send curriculum vitae and list of references to: **S. J. Enna, Ph.D., Department of Pharmacology, University of Kansas Medical School, 3901 Rainbow Boulevard, Kansas City, KS 66160-7417**. *An Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available immediately. Investigation of cytoplasmic/nuclear signalling and regulation of gene transcription during hepatic fibrogenesis. Model uses hepatic mesenchymal cells (Ito cells) and centers on regulators of mitogenesis and collagen gene expression. Molecular biology experience needed. Mail/FAX curriculum vitae and the names of three references to: **Dr. Bernard Davis, Department of Medicine, The University of Chicago, MC 4076, 5841 South Maryland Avenue, Chicago, IL 60637**. FAX: 312-702-1467. *Affirmative Action/Equal Opportunity Employer.*

## MOLECULAR IMMUNOLOGISTS/ CELL BIOLOGISTS

**Gwen Knapp Center for Lupus and  
Immunology Research  
The University of Chicago**

The Gwen Knapp Center for Lupus and Immunology Research of the University of Chicago is seeking applicants at the Assistant, Associate and Full Professor levels to join the newly formed Center. The Center is committed to developing a strong program in molecular immunology. We are seeking outstanding individuals who are using the approaches of molecular biology and cell physiology to examine basic immune mechanisms and/or disorders such as signal transduction, gene regulation, and antigen processing. Existing immunology programs at the University of Chicago include: lymphocyte development, B and T cell activation, antigen presentation, tumor immunology, transplantation, and autoimmunity. Candidates should have sufficient research experience to demonstrate both significant accomplishment and outstanding promise. Faculty appointments will be tenure-track in the most appropriate academic department where the candidate will be expected to exercise full membership. New state-of-the-art laboratory space will be located within the Institute for Molecular Medicine which is now being formed. This Institute will also house programs in molecular oncology, vascular biology, human genetics, and neurobiology. Letters of application including curriculum vitae, bibliography, a brief statement indicating research interest, and the names of 3 references should be sent to: **Dr. Craig B. Thompson, Director, Gwen Knapp Center for Lupus and Immunology Research, 924 E. 57th Street, Room R410, Chicago, IL 60637-5420.**



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*The University of Chicago is an Affirmative Action Equal Opportunity Employer*

## FACULTY POSITIONS

### Molecular Immunology and Virology of Retroviruses

The newly reorganized Department of Microbiology and Immunology at Vanderbilt University is continuing to expand its research base in molecular biology of the immune system with a special emphasis on retroviruses. Tenure-track positions at the assistant professor level are available. In exceptional cases faculty positions at the associate professor and professor levels will be considered. The candidates should have experience in applying molecular biology approaches to the problems within the area specified above. Start-up funds and newly renovated space are available. Faculty members holding PhD and/or MD degrees will have academic appointments in the School of Medicine and in the Graduate School of Vanderbilt University. Send applications with curriculum vitae, present and future research plans, and at least three names of references to:

**Jack J. Hawiger, Professor and Chairman  
Department of Microbiology and Immunology  
Vanderbilt University School of Medicine  
A-5321 Medical Center North  
Nashville, TN 37232-2363**

*Women and minorities are encouraged to apply. Vanderbilt University is an Equal Opportunity Employer. Review of applications will begin immediately and continue until positions are filled.*



## DEPARTMENT OF THE ARMY OPPORTUNITIES

Become a member of the Army's research and development community involved in basic and applied scientific research and advanced technological development.

*Listed below are career opportunities at various Army laboratories and research, development and engineering centers for senior research scientists and engineers.*

- Senior Research Scientist (Environmental), Vicksburg, Mississippi (DA-ST-01-94)
- Senior Research Scientist (Burn Infections), San Antonio, Texas (DA-ST-02-94)
- Senior Research Scientist (Medical Chemical Defense), Aberdeen, Maryland (DA-ST-03-94)
- Senior Research Scientist (Biotechnology), Natick, Massachusetts (DA-ST-04-94)
- Senior Research Scientist (Low Observable Technology), Warren, Michigan (DA-ST-05-94)
- Senior Research Scientist (Theoretical Physics), Research Triangle Park, North Carolina (DA-ST-06-94)
- Senior Research Engineer (Aeromechanics), Moffett Field, California (DA-ST-07-94)
- Senior Research Scientist (Sensors), Adelphi, Maryland (DA-ST-08-94)
- Senior Research Engineer (Information Science & Technology), Adelphi, Maryland (DA-ST-09-94)
- Senior Research Engineer (Ceramic Materials), Watertown, Massachusetts (DA-ST-10-94)
- Senior Research Scientist (Electromagnetics), Fort Monmouth, New Jersey (DA-ST-11-94)
- Senior Research Scientist (Soldier Performance), Aberdeen, Maryland (DA-ST-12-94)

### Apply To:

**U.S. Army Materiel Command  
5001 Eisenhower Avenue  
ATTN: AMCPE-CS  
Alexandria, VA 22333-0001  
(703) 274-9415**

*Applicants should be recognized as national/international authorities in their research specialties. Salaries range from \$79,931 to \$115,700 (plus locality pay) per year. Interested individuals should call (703) 274-9415 for application materials. Applications must be postmarked by October 28, 1994.*

*The Department of Army is an Equal Opportunity Employer—U.S. Citizenship Required*



## POSITIONS OPEN

### POSTDOCTORAL RESEARCH ASSOCIATE

The Eastern Regional Research Center (ERRC), Agricultural Research Service (ARS), USDA, has an opening for a **RESEARCH CHEMIST/BIOCHEMIST** to develop means of increasing the activity of enzymes in non-aqueous solvents and expanding their substrate ranges. The Center is located on an attractive 27-acre campus just outside of Philadelphia, in Wyndmoor, Montgomery County, Pennsylvania. It has over 250 scientists, engineers, and support staff working in diverse areas of agricultural research. Employees enjoy a flexible work schedule and have access to state-of-the-art instrumentation, computer center, and library. Candidate must have a Ph.D. and experience in protein biochemistry or enzymology. Appointment is for two years. Salary commensurate with experience (\$35,291 to \$42,297). Send curriculum vitae and three references to: **Dr. Michael J. Haas, USDA, ARS, ERRC, 600 East Mermaid Lane, Philadelphia, PA 19118**. For information regarding the research project call **Dr. Haas at 215-233-6459**. Applications in response to this advertisement must be marked 4N021.

*USDA/ARS is an Equal Opportunity Employer.*

**MOLECULAR-CELLULAR BIOLOGIST**—Phoenix, Arizona. A **POSTDOCTORAL POSITION** is available for a Molecular-Cellular Biologist in the laboratory of Dr. Michal K. Stachowiak at the Barrow Neurological Institute of St. Joseph's Hospital and Medical Center. Successful candidate will study functions and molecular biology of intercellular FGF receptors in human astrocytes and the mechanisms by which bFGF controls cell cycle, apoptosis and neural development. Studies in this laboratory are supported by NIH, NSF and private grants. Send curriculum vitae, a summary of research interests/experience and names of three references to: **Dr. Michal K. Stachowiak, Laboratory of Molecular Neurobiology, Division of Neurobiology, Barrow Neurological Institute, St. Joseph's Hospital and Medical Center, 350 West Thomas Road, Phoenix, AZ 85013**. *Equal Opportunity Employer.*

### POSTDOCTORAL RESEARCH ASSOCIATE IN PROTEIN CRYSTALLOGRAPHY

Applicants are invited to join a dynamic research group with a primary focus on redox proteins and their complexes with electron carrier proteins. Current projects include several complex flavoenzymes, a variety of quinoproteins and a number of novel heme proteins. Candidates with experience in macromolecular or small molecule crystallography, preferably with some background in biochemistry, will have the opportunity to participate in diverse projects with a variety of techniques and programs. The laboratory is well-equipped with two types of area detector, extensive SGI computing and graphic workstations, a crystallization lab and excellent laboratory support. A curriculum vitae together with the names of three references should be sent to: **Dr. F. Scott Mathews, Department of Biochemistry and Molecular Biophysics, Washington University Medical School, Box 8231, 660 South Euclid, St. Louis, MO 63110**. *Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available December 1, 1994, to study the mechanisms and consequences of radiation-induced gene expression. These studies will focus on the CNS and the influence of cell differentiation. Candidates should have Ph.D. and experience in molecular biology. Please send curriculum vitae and names of three references to: **Dr. Philip J. Tofilon, Department of Experimental Radiotherapy-66, The University of Texas M.D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030**. FAX: 713-794-5369. *The University of Texas M. D. Anderson Cancer Center is an Equal Opportunity Employer, smoke-free environment.*

### POSTDOCTORAL RESEARCH POSITION in p53-Dependent Stem Cell Regulation

**POSITION** available immediately for recent graduates trained in biochemistry, cellular and molecular biology. Utilization of novel p53-inducible cell lines to investigate the regulation of stem cell division by the antioncogene via a guanine nucleotide-dependent mechanism. Interested graduates should forward curriculum vitae and three letters of references to: **James L. Sherley, M.D., Ph.D., c/o Human Resources Department—MAS, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111**. *Equal Opportunity Employer.*

## POSITIONS OPEN

### POSTDOCTORAL POSITION ALBERT EINSTEIN COLLEGE OF MEDICINE

A **POSTDOCTORAL RESEARCH POSITION** is available in molecular virology. The project involves the study of human immunodeficiency virus reverse transcriptase (RT) with emphasis on genetic and biochemical approaches to dissect structure-function of RT, the mechanism of drug-resistance in HIV and the molecular biology of HIV DNA synthesis. Applicant must hold a Ph.D. degree in biochemistry, molecular biology, molecular virology or a related field. Minimal requirements are an expertise in molecular biology and a serious interest in AIDS research. Applicants should send curriculum vitae and names and addresses of three references to: **Dr. Vinayaka R. Prasad, Department of Microbiology and Immunology, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461**.

### POSTDOCTORAL/RESEARCH ASSOCIATES

Two positions immediately available in federally funded center for studies related to the Persian Gulf Syndrome. The first position is for a neuroendocrinologist or neuroscientist to study the neuroendocrine/behavioral effects of chronic stress and exposure to environmental toxins in animals. Experience in adrenocortical axis regulation and biological rhythms preferred. The second position available is for a psychophysicologist with experience in human stress reactivity research. Send or FAX curriculum vitae to: **Dr. John Ottenweller, Neurobehavioral Unit (127A), Department of Veterans Affairs Medical Center, 385 Tremont Avenue, East Orange, NJ 07018-1095**. FAX: 201-676-4661. *The East Orange VA Medical Center is an Equal Opportunity Employer.*

**HUMAN GENOME POSTDOCTORAL FELLOWSHIPS** available to conduct research related to the U.S. Department of Energy's Human Genome Program. Research areas include biology, chemistry, physics, mathematics, engineering, and computer and information science. Stipend is \$37,500. A doctoral degree received after April 30, 1992, is required as is U.S. citizenship or PRA status. Deadline is February 1, 1995. Contact: **Human Genome Postdoctoral Fellowships, Science/Engineering Educational Division, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831-0117**. Telephone: 615-576-9975.

### POSTDOCTORAL POSITIONS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

Positions are available immediately to study the mechanism of action of specific deoxynucleotide-metabolizing enzymes involved in cancer research and their expression in eukaryotes and prokaryotes. Gene isolation and amplification of their protein products will be required. Once obtained, substrate and regulatory sites on the protein products will be determined by functional group-specific reagents and affinity labels. In addition, site-specific mutagenesis will be employed to establish the relation of structure to function in these enzymes. Cloning and sequencing experience desirable. The research will be conducted in a well-equipped core facility. Compensation from Health Research Inc. dependent upon experience. Send résumé and three references to: **Dr. Frank Maley, Wadsworth Center for Laboratories and Research, Empire State Plaza, Box 509, Albany, NY 12201**. *An Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITIONS

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

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available immediately in a collaborative project in the laboratories of **R. R. Freedman** (Psychiatry), **J. L. Ram** (Physiology), and **J. R. Sowers** (Endocrinology and Hypertension) to study cellular and hormonal mechanisms mediating gender differences in cardiovascular function. Research utilizes isolated vascular preparations, cell culture, patch clamping, and mRNA measurements. Candidates experienced in several of these techniques are encouraged to apply. Send curriculum vitae and names of three references to: **Dr. R. R. Freedman, Department of Psychiatry, Wayne State University, 275 East Hancock, Detroit, MI 48201**. *Wayne State University is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION IN DNA REPAIR

A **POSTDOCTORAL POSITION** is immediately available to conduct biochemical and molecular studies in the area of non-mammalian and mammalian DNA repair. Applicants must have a strong background in either biochemical purification and analysis or molecular biology techniques. Please send curriculum vitae, a brief statement of research experience and the names, addresses and telephone numbers of three references to: **Dr. Mark R. Kelley, Department of Pediatrics, Room 5984, Indiana University Medical School, 702 Barnhill Drive, Indianapolis, IN 46202-5225**. Telephone: 317-274-2755. FAX: 317-274-8679.

*Indiana University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available to participate in the development of coagulation diagnostic reagents in an industrial setting. Candidate should have a protein biochemistry background in the field of coagulation. Prefer some molecular cloning, expression and downstream purification experience. Competitive salary and benefits program. Applicants must be U.S. citizens or permanent residents. Submit curriculum vitae and three references to: **Dr. Gary L. Milburn, Pel-Freez Biologicals, P.O. Box 68, Rogers, AR 72756**. Pel-Freez Biologicals is a growing fast-paced smoke-free biotechnology company located in the heart of the Ozarks, which manufactures a variety of reagents for medical diagnostic products worldwide.

*Pel-Freez Biologicals is an Affirmative Action/Equal Opportunity Employer.*

### POSTDOCTORAL SCIENTIST

Quest International has an opening for an industrial **POSTDOCTORAL SCIENTIST** position in Hydrolyzed Proteins research program. This position involves the study of enzyme kinetics and use of protein hydrolysates as cost effective media ingredients in microbial fermentations/animal/insect cell culture. Requires Ph.D. in Microbiology/Biochemistry, Cell Biology or a related field. Experience with computers and leadership qualities are desirable. Please send curriculum vitae with brief summary of research experience, copies of select publications to: **Vijai K. Pasupuleti, Ph.D., Product Development Manager, Quest International, P.O. Box 630, Norwalk, CT 06856**.

Two **POSTDOCTORAL POSITIONS** available for Ph.D.'s with a strong background in molecular and cell biology techniques, biochemistry or protein chemistry. Research projects under investigation include: gene regulation and expression of heme oxygenase isozymes and biliverdin reductase in cell culture and transgenic mice; purification and characterization of nuclear factors.

Applicants should send their curriculum vitae and names and addresses of three references to:

**Mahin D. Maines, Ph.D., Biophysics Department  
University of Rochester Medical Center  
601 Elmwood Avenue Rochester, NY 14642**

**POSTDOCTORAL RESEARCH ASSOCIATE** in tumor biochemistry to study biochemical alterations in cellular membranes and metabolite pathways associated with tumor progression and metastatic potential. Studies of actively metabolizing tissue and cancer cell preparations will use  $^{31}\text{P}$ -,  $^{13}\text{C}$ -, and  $^1\text{H}$ -NMR spectroscopy. Experience in HPLC methodology, biochemical analysis and NMR methodology preferred. Please send curriculum vitae and names of three references to: **Samuel Singer, M.D., Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115**. FAX: 617-739-1728. Telephone: 617-732-6980. *Equal Opportunity Employer.*

## DIRECTOR Center for Molecular and Cellular Neurobiology

The Division of the Biological Sciences of the University of Chicago is soliciting nominations and applications for the position of Director for the **Brain Research Foundation Center for Molecular and Cellular Neurobiology**, one of five biomedical research centers to be located in the Institute for Molecular Medicine, housed within the new Jules F. Knapp Research Building. The other research centers will be devoted to the study of human genetics, molecular cardiology, immunology and molecular oncology. The Center is committed to molecular and cellular biological research with the ultimate goal of understanding fundamental biology of the nervous system and neurological diseases. The Center will have 10,000 net square feet of newly constructed research space which has been planned to house six investigators. The Director will be responsible for the development of this program and for recruiting the five additional Center faculty members who will have primary academic appointments in an appropriate department. Funding is available for the establishment and initial support of this major new research program. The activities of the Center will complement ongoing programs in neurobiology at the University of Chicago. Please send (by January 1, 1995) nominations or applications, accompanied by a current curriculum vitae, to: **Dr. Jeffrey A. Bluestone, Special Advisor for Basic Sciences and Chair, Neurobiology Center Director Search Committee, c/o N. Roth, 5841 S. Maryland Ave.—MC 1000, Chicago, IL 60637-1470.**



THE UNIVERSITY  
OF CHICAGO

*The University of Chicago is an Affirmative Action Equal Opportunity Employer*

## HEAD OF ASSAY DEVELOPMENT

Affymetrix is developing innovative nucleic acid assays based on its novel DNA-chip technology. Affymetrix intends to commercialize this technology in the research, clinical diagnostic and emerging genetic analysis markets.

The successful candidate will be responsible for the overall management of the efforts to commercialize technology developed by the research groups, including: optimization and characterization of procedures for nucleic acid extraction, amplification, labeling, fragmentation and hybridization required to assure assay performance; the development and characterization of supplemental reagents; and the characterization of final assay performance with respect to precision and reproducibility, as well as stability and procedural limitations.

Requires a Ph.D. in Molecular Biology or a related discipline and a minimum 10 years post doctoral experience with expertise in the development of in vitro diagnostic products utilizing nucleic acid amplification and/or hybridization techniques.

If you would like to join our dynamic, fast-growing organization, please send your resume to: **Affymetrix, Human Resources Department—Job Code PK280, 3410 Central Expressway, Santa Clara, CA 95051. EOE.**



## National Institute of Neurological Disorders and Stroke National Institutes of Health Public Health Service Department of Health and Human Services

**Position: Deputy Director, NINDS**  
**Location: Bethesda, Maryland**

The National Institute of Neurological Disorders and Stroke (NINDS) invites nominations and applications for the position of Deputy Director, NINDS. This is a Civil Service Position in the Senior Executive Service with a salary range of \$96,830 to \$111,839 per year. Physicians may be eligible for a Physicians Comparability Allowance up to \$20,000 per year. A one-year probationary period must be served by the individual selected if not currently in the Senior Executive Service.

The Deputy Director, NINDS serves as a full Deputy to the Institute Director in the coordination and management of all activities related to the mission and functions of the NINDS, in the execution of the policies of the Director, and in the allocation of resources to carry out these policies.

For more information on the position, contact Dr. Jonas Ellenberg at (301) 496-4106. For information regarding qualifications requirements, contact Ms. Christine Steyer at (301) 496-6334. The following forms are required: Application for Federal Employment (SF-171) accompanied by a current curriculum vitae and bibliography. These must be submitted to: Ms. Christine Steyer, National Institutes of Health, NINDS Personnel Office, Building 31, Room 8A23, 31 Center Dr., MSC 2540, Bethesda, Maryland 20892-2540.

Applications must be submitted by October 24, 1994.

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

*NIH IS AN EQUAL OPPORTUNITY EMPLOYER*



## POSITIONS OPEN

### POSTDOCTORAL FELLOWS

**POSTDOCTORAL POSITIONS** available immediately in recently renewed NIH-funded programs to study (1) molecular mechanisms of epithelial cell proliferation and differentiation, or (2) mammalian organogenesis. Candidates should have a strong background in gene regulation, cell signaling and/or developmental biology. FAX or send curriculum vitae, experience and references to: **Prof. David Warburton, (MS83), Childrens Hospital Los Angeles Research Institute/USC School of Medicine, 4650 Sunset Boulevard, Los Angeles, CA 90027. FAX: 213-664-9758; Telephone: 213-669-2101. Equal Opportunity Employer.**

### POSTDOCTORAL POSITION

Available immediately to study role of integrins in the regulation of transmembrane signaling via GPI-anchored receptors involved in the inflammatory response of human leukocytes and tumor cell invasion. Background in cell and molecular biology required. U.S. citizenship is necessary. Send curriculum vitae, a statement of research interest, and the names of three references to: **Robert F. Todd III, M.D., Ph.D., University of Michigan Medical Center, 1500 East Medical Center Drive, 3119 Taubman Center, Ann Arbor, MI 48109-0374. An Equal Opportunity Employer.**

The Division of Endocrinology of the University of Mississippi Medical Center invites applications for faculty positions for **CLINICIAN/RESEARCHERS** at the levels of **ASSISTANT or ASSOCIATE PROFESSOR**. Applicants holding an M.D. degree who are Board-Certified/Eligible in Endocrinology are preferred. Opportunities exist to perform basic or clinical research at a dynamic and growing state-supported academic Medical Center as well as to participate in the development of a diabetes clinical program and in student and housestaff teaching. Send curriculum vitae to: **Don McClain, M.D., Ph.D., Director, Division of Endocrinology, Department of Medicine, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216. Equal Opportunity Employer, Male/Female/Disabled/Veterans.**

**RESEARCH ASSOCIATE**, Department of Botany, University of Washington. A three-year temporary appointment is intended in the area of fungal ecology. Relevant Ph.D. and postdoctoral experience required. Must be familiar with vegetation and macrofungi of the Pacific Northwestern United States. Prefer experience with polymerase chain reaction and knowledge of mycorrhizal morphology. Applications, including a curriculum vitae and three letters of recommendation should be sent to: **Dr. J. Ammirati, Department of Botany, KB-15, University of Washington, Seattle, WA 98195. Priority will be given to applications received before November 1, 1994. The University of Washington is an Equal Opportunity/Affirmative Action Employer.**

**MATERIALS SCIENTIST** in Ceramic Engineering: Will conduct advanced research in ceramic material synthesis by sol-gel route. Will perform and must have demonstrated expertise in performing research in the following areas: a) Sol-gel derived mullite composite with SiC whiskers inclusions; b) Sol-gel derived particulate Si<sub>3</sub>N<sub>4</sub> and ZrO<sub>2</sub> reinforced mullite composite; c) Supercritical drying of mullite gel; d) Sintering of powder compacts with SiC whisker inclusions. Ph.D. in ceramic engineering required plus ability to operate and interpret data from XRD, SEM and TEM machinery and to operate characterization equipment including TGA, DTA, TMA, rheometer, BET, ICP-AES and FTIR. \$59,100 per year. Job site/interview: Camarillo, California. Send ad and résumé to: **Job No. TG A42304, P.O. Box 269065, Sacramento, CA 95826-9065.**

### CEDARS-SINAI MEDICAL CENTER MOLECULAR HEMATOLOGY LABORATORY SUPERVISOR

Must possess a B.S., M.S., or Ph.D. in Biological Sciences or Medical Technology with a minimum of six years of experience in DNA technology and molecular biology. Supervisory experience is also required.

For consideration, please forward résumé to: **Job No. 1940570, Cedars-Sinai Medical Center, 8723 Alden Drive, Spielberg Building, Los Angeles, CA 90048. Affirmative Action/Equal Opportunity Employer.**

## POSITIONS OPEN

### MOLECULAR AND CELLULAR ENDOCRINOLOGY

A **RESEARCH ASSISTANT PROFESSORSHIP** and a **POSTDOCTORAL FELLOWSHIP** are available to study the mechanisms governing pituitary hormone secretion as they relate to the differentiation and transdifferentiation of growth hormone and prolactin producing cells and the role of the hypophyseal neurointermediate lobe in regulating anterior pituitary hormone release. Both rodent and bovine model systems are utilized. We study these processes at the single, living cell level by employing a broad spectrum of molecular and cellular strategies which include (but are not limited to) combinations of the following techniques: reverse hemolytic plaque assays for quantifying hormone secretion, video imaging of cells transfected with luciferase-promoter constructs for assessing gene expression in real time, and microinjection (cytoplasmic and nuclear) for selectively introducing modulators of gene expression and hormone secretion. Postdoctoral experience and an extensive background in molecular biology are required for the more senior position which affords the opportunity to establish an independent research program. Send curriculum vitae and names and telephone numbers of three references to: **Dr. L. Stephen Frawley, Department of Cell Biology and Anatomy, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425-2204. Telephone: 803-792-3526; FAX: 803-792-0664.**

*Women and minorities are encouraged to apply. An Equal Opportunity/Affirmative Action Employer.*

**RESEARCH SCIENTIST—PHYSIOLOGICAL IMAGING:** Pursue physiological research using optical imaging and photometric techniques to study neurophysiological activity in humans and animal models; utilize computational algorithms, image analysis, and neurophysiology for understanding brain function and developing commercial applications; develop novel methods and technologies for imaging, studying, and diagnosing cancer; direct engineering team on scientific issues; communicate scientific knowledge on behalf of company. Requires: B.S. scientific or mathematical field; five years of physiological research in application of optical imaging and photometric techniques applied to biological systems including at least three years of such work applied to human physiology; five years of C programming designing and implementing imaging algorithms. Experience may be gained concurrently. Publication in refereed journals and/or patent experience with optical imaging applied to biological systems. Résumé/cover letter must reflect all requirements. Two positions available. Salary: \$42,500 per year; 40 hours per week in Seattle, WA. Send résumé by November 15, 1994, to: **Job Order No. 448813, Employment Security Department, E & T Division, P.O. Box 9046, Olympia, WA 98507-9046.**

### RESEARCH SCIENTIST

The Department of Surgery is seeking candidates to direct a vascular biology research program studying the etiology of atherosclerosis and vein graft intimal hyperplasia. Specifically, the candidate should have knowledge of the role of leukocytes and their cytokines/receptors, as well as the functions of mural smooth muscle and endothelial cells. Knowledge in hemodynamics will also be valuable.

The qualified individual should have a Ph.D. or equivalent, at least two to four years of postdoctoral training, and an excellent publication record. Individual must be interested in working with M.D.'s in the development of clinically relevant investigatory approaches.

This position is limited to three years, with extension contingent on extramural funding. Send curriculum vitae, description of research goals, and the names, addresses, and telephone numbers of three references to: **Dr. John Hoch, Department of Surgery, University of Wisconsin, Clinical Science Center H4/730, 600 Highland Avenue, Madison, WI 53792-7375.**

### TUFTS/NEW ENGLAND MEDICAL CENTER RESEARCH ASSOCIATE RHEUMATOLOGY/IMMUNOLOGY

Position available for T cell epitope mapping studies of Lyme disease. Extensive experience with tissue culture and supervisory skills required; experience with T cells desirable. Send curriculum vitae to: **Allen C. Steere, Division of Rheumatology/Immunology, 750 Washington Street, Box 406, Boston MA 02111. FAX: 617-956-4252. New England Medical Center is an Equal Opportunity Employer.**

## POSITIONS OPEN

Private university in northeast Ohio is seeking a senior **RESEARCH ASSOCIATE** to investigate the structural requirements of nucleotide and other bio-organic molecules that enable them to produce biological movement in muscle and non-muscle motile cells. The work involves: (a) the synthesis of a series of nucleotide and non-nucleotide bio-organic triphosphates with specific structural restrictions relating to the geometric dispositions of the different chemical moieties; (b) their chemical characterization by spectral methods including nuclear magnetic resonance, infrared and ultraviolet spectroscopy; (c) examination of these compounds to support biological movement.

Position requires Ph.D. in Organic Chemistry or Biochemistry. Applicants will qualify with three years of postdoctoral experience in job described above or with three years of postdoctoral experience in: (i) the synthesis of bio-organic molecules such as nucleoside and nucleotide analogues or related drugs such as tyrosine kinase inhibitors; (ii) the use of spectral techniques such as nuclear magnetic resonance (NMR) spectroscopy, infrared (IR) spectroscopy, ultraviolet spectroscopy (UV) and mass spectroscopy (MS) in characterizing bio-organic molecules; and (iii) the separation of isomeric forms of bio-organic molecules.

The salary for the position is \$31,305 per year, 8:30 a.m.-5:00 p.m., Monday to Friday (37-1/2 hours per week). Must have proof of legal authority to work indefinitely in the United States. Send curriculum vitae with list of publications, names and addresses of three recent academic or professional references in duplicate (no calls) to: **K. Shockey, J.O. No. 00531, Ohio Bureau of Employment Service, P.O. Box 1618, Columbus, OH 43216. An Equal Opportunity/Affirmative Action Employer.**

### SWISS TROPICAL INSTITUTE Senior Research Scientist

Applications are invited for the position of a project leader at the Department of Medical Parasitology. The successful applicant (Ph.D. level) will have at least five years of postdoctoral research experience, advanced skills in molecular biology and immunology and significant research experience with laboratory models (malaria or others). Preference will be given to individuals who are familiar with modern molecular approaches to understand disease processes and to candidates with the potential to develop an independently funded research programme within this research focus. As a small institution we like to strengthen interdisciplinary research projects between our three disciplines (Medical Parasitology, Tropical Medicine and Epidemiology/Public Health). We offer a five year "starter" contract which for successful candidates can lead to a tenure position with integration in our teaching programme at the University of Basel. Interested applicants should send their full curriculum vitae, list of publications, a summary of research and teaching interests and names of three referees to: **Prof. Niklaus Weiss, Swiss Tropical Institute, P.O. Box, CH 4002 Basel, Switzerland. FAX: +4161-2718654. Closing date: 1 November 1994.**

**RESEARCH SCIENTIST.** Position available for molecular or structural biologist to study salivary proteins. Two to three years of postdoctoral experience in molecular and structural biology required. Salary range \$30,000 to \$40,000 depending upon experience. Also desirable is experience in NMR or crystallography of proteins. Send curriculum vitae and three letters of reference to: **Project Director, Department of Oral Biology, 109 Foster Hall, State University of New York, Buffalo, NY 14214-3092.**

*The Research Foundation of SUNY/Buffalo is an Affirmative Action/Equal Opportunity Employer.*

**MOLECULAR GENETICIST/PLANT SYSTEMATIST.** The Research Program at Rancho Santa Ana Botanic Garden, Claremont, California invites applications from established molecular geneticist/plant systematists with expertise in evolutionary, developmental and conservation genetics and related disciplines.

Graduate-level teaching is expected. Applicants who conduct research on plants native to California are especially welcomed.

Send curriculum vitae, statement of research interests and three references to: **Director's Office, RSABG, 1500 North College Avenue, Claremont, CA 91711. An Equal Opportunity/Affirmative Action Employer.**

## PROGRAM DIRECTOR BIOMEDICAL ENGINEERING PROGRAMS

The Whitaker Foundation, a private foundation dedicated to enhancing the field of biomedical engineering, is seeking a Program Director for its Biomedical Engineering Research Grants program. This program supports the research of approximately 300 investigators early in their careers. The Director will manage this program and may also be asked to assume administrative responsibility for additional biomedical engineering activities. Salary will be commensurate with experience.

Candidates should have a Doctorate in Biomedical Engineering or a closely related field. Further experience in biomedical engineering research and education is highly desirable. Demonstrated administrative capability is essential.

For further information, request a complete job description and a copy of the 1993 Annual Report of the Foundation from:

**The Whitaker Foundation**  
901 15th Street NW, Suite 1000  
Washington, DC 20005  
Tel: (202) 408-1505, Fax: (202) 408-1506

Qualified candidates should apply by sending a cover letter and a complete curriculum vitae to Dr. Peter Katona at the above address. References will be requested after establishing a close match of interests. Applications will be accepted until the position is filled.

**The WHITAKER  
Foundation**

Synaptic Pharmaceutical Corporation has a staff position open in our Molecular and Cell Biology Department. The successful candidate will join a multi-disciplinary team focused on the discovery of novel G protein-coupled receptors expressed in the central nervous system.

Applicants should have a Ph.D. degree with experience in molecular biology and demonstrated expertise in at least two of the following areas: cDNA library construction, expression cloning, second messenger systems and mammalian cell culture. The ideal candidate will be a highly motivated individual with primary interest in the molecular biology and pharmacology of neuropeptide receptors.

Synaptic Pharmaceutical Corporation offers excellent compensation and benefits which include a 401(k) plan and equity participation programs.

**Synaptic**  
Pharmaceutical Corporation

For consideration, send resume in confidence to:  
Human Resources Manager, Dept. 159  
Synaptic Pharmaceutical Corporation  
215 College Rd., Paramus, New Jersey 07652

**Molecular Biology of  
G Protein-Coupled Receptors**

## The Global Environment: Invitation for RITE's Research Proposals

The Research Institute of Innovative Technology for the Earth (RITE) is inviting basic research proposals concerned with environmental problems. Also, research proposals which are deemed to contribute significantly to the resolution of global environmental problems will be supported by RITE in the form of commissions.

### 1. Invited Research Category

Basic Research aimed at the development of innovative technologies which will contribute to the solution of global environmental problems.

### 2. Invited Research Themes

[A] Research concerning greenhouse gases, such as carbon dioxide and methane gas which are considered among the main causes of global warming, on the following themes:

- 1) Efficient separation, recovery, disposal, re-use and so on of the greenhouse gases.
- 2) Innovative process technologies which limit greenhouse gas generation.
- 3) Research concerning enhancement of CO<sub>2</sub> sinks (e.g. ocean sinks, underground storage and reforestation through biotechnology).

[B] Research for other technologies concerning environmental problems on the following themes:

- 1) Control of generation and widespread release of chemical substances, apart from the greenhouse gases mentioned in [A] above, which are seriously detrimental to the environment, or prevention of the generation of those substances.
- 2) Substitutes for the chemical substances mentioned above.
- 3) Recycling and effective utilization of materials.

### 3. Number of Proposals to be Accepted

The number of proposals to be accepted will be determined after the governmental budget for FY 1995 has been confirmed. For FY 1994 12 proposals were newly accepted.

### 4. Allowance for Commissioned Research

Up to 10 million Japanese Yen will be allocated for each proposal; the entire cost of a project may not be covered by RITE. The allowances distributed for proposals accepted in FY 1994 ranged from 3.0 million to 7.5 million Japanese Yen per project, with the average being 6.45 million Japanese Yen.

### 5. Closing Date for the Submission of Proposals

Proposals must be received by RITE no later than December 15, 1994.

### 6. Period of the Commissioned Research

Accepted proposals will be for projects lasting a single year during the period approximately from August, 1995 to March, 1996. However, when continuation is deemed necessary, RITE may commission further research.

### 7. Qualified Research Participants

Individuals or groups engaged in research activities at research institutions etc are eligible. The applicants' citizenship or proposed site for the research will not be considered as determinants in selection.

### 8. Application Procedure

Applicants must contact the Secretariat at RITE (as below) for literature detailing documents to be submitted and designated formats thereof. Facsimile transmission is preferred for speed of communication. Please include relevant Tel. and Fax. Nos. with requests.

**Secretariat,**  
**Ms. Kaneko, Mr. Ishizu or Mr. Hirano**  
**Research Proposal Reception Section**  
**Research Planning Department**  
**RITE**  
**9-2 Kizugawadai Kizu-cho Soraku-gun,**  
**KYOTO, 619-02 JAPAN**  
**TEL: 81-7747-5-2302**  
**FAX: 81-7747-5-2314**

*This program will be carried out on commission by the New Energy and Industrial Technology Development Organization (NEDO).*

**RITE**

**Research Institute of Innovative  
Technology for the Earth**

## POSITIONS OPEN

### 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 \$30,000, 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, 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.

### HEALTH SCIENCE MANAGER

A leading scientific and regulatory affairs consulting firm, ENVIRON provides a broad range of risk assessment services to clients addressing the multifaceted issues associated with human exposure to hazardous substances. Our clients include some of the nation's leading law firms, Fortune 100 companies, national trade associations, insurance professionals, and public sector agencies concerned with health risk assessment and environmental issues.

We are seeking a **HEALTH SCIENTIST** with at least eight years of experience, who holds an M.S. or Ph.D. in toxicology, pharmacology, public health, or a related discipline. We require prior consulting and risk assessment experience, as well as strong analytical ability and excellent writing skills.

ENVIRON offers competitive salaries and benefits, as well as career development and advancement opportunities. Please submit your résumé to: **ENVIRON Corporation, Department SM894, 214 Carnegie Center, Princeton, NJ 08540-6284.** ENVIRON is an Equal Opportunity Employer.

The position of **WATER RESOURCE ENGINEER/RESEARCH HYDROLOGIST** at Everglades National Park, South Florida Natural Resources Center will be advertised in the near future. This is a permanent position, GS-13, salary range \$47,920 to \$62,293. Non-federal government employees may apply. This position involves being team leader of the Water Delivery Studies project at the center, conducting field and office investigations to evaluate the effects of South Florida Water Management practices and refine the operational criteria and Water Delivery formulas to maximize the ecological benefits for the park and adjacent natural areas.

For information on applying, call **Ruth Franklin**, Administrative Assistant, South Florida Natural Resources Center at 305-242-7802.

**RESEARCH SPECIALIST III** (ref. no. 9404017NS), available immediately, to study ecology and dynamics of Lyme disease. Requires strong mathematical background. Three year appointment. Send curriculum vitae and references to: **Dr. G. Smith, University of Pennsylvania, New Bolton Center, 382 West Street Road, Kennett Square, PA 19348.** FAX: 610-444-0126. Affirmative Action/Equal Opportunity Employer.

### SCIENTIST—RUSH CANCER INSTITUTE RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER

The Rush Cancer Institute currently has available **POSTDOCTORAL POSITIONS** for a two-year study on molecular biology of human hemopoiesis. The study would involve preparation of recombinant vectors and extensive manipulation of human genes to stably transfect various bone marrow cells. Experience in molecular biology is essential. Salary commensurate with experience. Direct curriculum vitae and three references to: **Julie Kittridge, 729 South Paulina Street, Chicago, IL 60612.** FAX: 312-942-3212. No telephone calls please. Equal Opportunity Employer.

## POSITIONS OPEN

### PRECLINICAL DEVELOPMENT

A growing pharmaceutical research center of a leading international petrochemical company has several openings in its preclinical development program for the following positions:

**Group Leader for Pharmacokinetics:** A candidate will have a Ph.D. degree in pharmaceutical chemistry/biochemistry with a minimum of seven years of industrial research experience in ADME study, metabolism and analytical method development. (Position No. P94-10)

**Bioanalytical Chemist:** A candidate will have a M.S./B.S. degree in organic/analytical chemistry/biochemistry with a minimum of two years of industrial experience. Experiences with HPLC, SFC, LC/MS, GC/MS and other analytical instruments a plus. (Position No. P94-20)

**Pharmacologist:** A candidate will have a M.S./B.S. degree in pharmacology with a minimum of two years of industrial experience. Experience in CNS pharmacology a plus. (Position No. P94-30)

**Molecular Modeling Scientist:** A candidate will have a Ph.D. degree in physical/organic chemistry or a M.S. degree with a minimum of three years of industrial experience. (Position No. P94-40)

All positions require excellent communication skills. If interested, send résumé, with cover letter indicating job position number, in confidence to: **Yukong Limited, P.O. Box 10271, Fairfield, NJ 07004.**

**RESEARCH NEWS WRITER**—full time. The Journal of NIH Research has a challenging opportunity for a dynamic biomedical science writer to join its respected staff in Washington, D.C. Candidate must have a graduate degree in biological science, Ph.D. preferred, and some writing experience. Lively writing style and a sense for news is essential. Send résumé, three writing samples that illustrate versatility of style, five to ten ideas for news stories, and names of three references to: **The Managing Editor, The Journal of NIH Research, 1444 I Street N.W., Suite 1000, Washington, D.C. 20005.** An Equal Opportunity Employer. Male/Female/Disabled/Veterans.

### ENDOWED CHAIR IN ICHTHYOLOGY

The Rosenstiel School of Marine and Atmospheric Science (RSMAS), University of Miami, seeks an ichthyologist to fill the **MAYTAG CHAIR**. The Maytag Chair, established in 1957, is a fully endowed position in the broad field of ichthyology. Candidates must have an established reputation in research and an excellent record of publications so as to meet the standard for appointment at full professorial rank. Candidates from all areas of specialization will be considered. Responsibilities include establishing a strong externally funded research program, directing graduate students, and teaching graduate courses. Southern Florida is a center of recreational fishing and it is desirable that the interaction of the Chair with this community will continue.

Applicants should forward curriculum vitae, a statement of research and teaching interests, and the names of references to: **M. E. Clarke, Maytag Search Committee Chair, Division of Marine Biology and Fisheries, RSMAS, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149-1098,** by 1 November 1994.

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

**VERSAR, INC.**, a leader in the environmental consulting industry, offers exciting employment opportunities at our Columbia, Maryland facility. Our Ecological Sciences and Analysis Division has an immediate opening for a **SENIOR QUANTITATIVE ECOLOGIST**, preferably with freshwater fisheries and/or community analysis/modeling experience, to lead and contribute to impact assessment and ecosystem monitoring projects. Consulting experience, including ecological risk assessment and/or NEPA experience and success at business development, is very desirable. The successful candidate will work with a group of 30 biologists, ecologists and computer support personnel in supporting clients such as EPA, state agencies, FERC and commercial clients.

Versar offers a competitive salary and full benefits package. Please send résumé and salary requirements in confidence to:

**Glynda Squiggins  
Human Resources  
Versar, Inc., ESM Operations  
9200 Runsey Road  
Columbia, MD 21045  
FAX: 410-964-5156**

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## POSITIONS OPEN

### MECHANISMS OF ANIMAL BEHAVIOR Department of Integrative Biology University of California at Berkeley

Applications are invited for a tenure-track position as **ASSISTANT PROFESSOR** starting July 1, 1995. Candidates should have demonstrated excellence, originality and productivity in research focusing on mechanisms underpinning animal behavior, and should have a strong interest in undergraduate and graduate teaching. We are particularly interested in candidates focusing their research on the neurobiological and/or developmental substrates of animal behavior. The appointee will join a department with a strong evolutionary focus and will occupy a laboratory in the new Valley Life Sciences building. Teaching responsibilities will include participation in an upper-division course in animal behavior and in a core course in form and function, as well as offering advanced courses in the area of specialization.

Applications, including a curriculum vitae, a list of publications, reprints of the three most significant publications, a brief (two page maximum) statement of research and teaching objectives, and three letters of reference should be sent to: **Chair, Behavior Search Committee, Department of Integrative Biology, University of California at Berkeley, Berkeley, CA 94720-3140.**

Applications should be postmarked no later than November 18, 1994. Early applications are encouraged.

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

### UNIVERSITY AT STONY BROOK CELLULAR AND MOLECULAR PHARMACOLOGY

Applications are invited for the position of **ASSISTANT PROFESSOR** (Tenure-Track) in the School of Medicine. Applicants with appropriate experience may be considered for appointment at the **ASSOCIATE PROFESSOR** level. Research interests in our multidisciplinary program in Cellular and Molecular Pharmacology encompass neuropharmacology, membrane receptors and signal transduction, cell differentiation, molecular genetics, metabolic regulation, molecular toxicology, and pharmacological chemistry. We seek to recruit scientists that complement or build on these strengths. The successful candidate will receive institutional support to establish a productive, independently funded research program and will be expected to participate in Departmental teaching programs for graduate, undergraduate, medical, and allied health students. A complete curriculum vitae, statement of research interests and future plans, and names of three referees should be sent to the **Search Committee Chairman, Department of Pharmacological Sciences, The University at Stony Brook, Stony Brook, NY 11794-8651.**

The University at Stony Brook is an Equal Opportunity/Affirmative Action Employer.

## COURSES AND TRAINING

### HOW TO MAKE MICROCAPSULES— A HANDS-ON COURSE

A laboratory course designed to teach the art and science of microcapsule making. Suitable for biologists, pharmacists, chemists, life scientists and engineers. Enrollment limited to 12. Lectures and laboratory sessions by **Dr. Curt Thies**, Professor of Chemical Engineering at Washington University in St. Louis. Spring Sessions: January 22, 23, 24, and 25; February 26, 27, 28 and March 1; and April 23, 24, 25 and 26, 1995. For information call 314-935-6082.

## SYMPOSIUM

**SYMPOSIUM: Stem Cells: Prospects for the Clinic**—February 6 and 7, 1995; Hyatt Rickcys, Palo Alto, CA. **SPEAKERS:** I. Weissman, Stanford; G. Spangrude, Utah; D. Emery, MGH; R. Hoffman, SyStemix; S. Heimfeld, Cell-Pro; R. Tushinski, SyStemix; M. Moore, Sloan Kettering; R. Mertelsmann, Germany; J. E. Wagner, Minn; R. O'Reilly, Sloan Kettering; R. Mulligan, MIT; E. Gilboa, Duke; J. Lebkowski, AIS; S. Chatterjee, City of Hope; D. Bodine, NIDH; D. Kohn, UCLA; A. Deisseroth, M. D. Anderson; D. Valerio, IntroGene; C. Bordignon, Italy; D. DiGiusto, Progenesys; A. Galy, SyStemix; F. Gage, UCSF; S. Weiss, Calgary; J. Rhim, Penn; D. Sasaki, SyStemix; R. Knazek, Cellico; G. Reyes, Ingenex; D. Harris, Arizona. Abstracts due January 28, 1995. Organizers: J. Larrick<sup>1</sup> and J. Mulé.

Sponsor: 1. Palo Alto Institute of Molecular Medicine, 2462 Wyandotte Street, Mt. View, CA 94043. FAX: 415-694-7717; Telephone: 415-694-1420; Email: PAIMM@AOL.com



**BIOMEDICAL PRIMATE  
RESEARCH CENTRE  
of The Netherlands**

**invites applications for the position of**

**GENERAL AND SCIENTIFIC  
DIRECTOR**

The Biomedical Primate Research Centre (BPRC) of The Netherlands is an independent organisation undertaking a number of activities previously carried out by TNO, the Netherlands organisation for applied scientific research. BPRC is a partner in the European network of primate centres (EUPREN).

The common denominator linking these activities is non-human primates: about 1000 rhesus monkeys and 120 chimpanzees. These laboratory animals are housed in a large centre, where each stage in the laboratory animal cycle is overseen, including breeding, research under strict supervision and all other aspects of colony management.

BPRC's internationally respected staff conducts research into diseases affecting the immune system and infectious diseases (including AIDS, malaria and MS), using non-human primates, both on a commercial and an academic basis.

The total number of employees is 75. The turnover of BPRC is approximately NLG 13.5 million. Around 65% of the operating costs are covered by various European Union and Dutch government subsidies. 35% of the operating costs will need to be covered by revenue from contract research.

The General and Scientific Director is the chairman of the management team. Other members of the management team are the Commercial Director, the head of the Biotechnology Department and the head of the Facilitating Department.

As General and Scientific Director you will need to be able to combine scientific and managerial skills. You should have a proven scientific reputation in the field of biology, medicine or pharmacy. Demonstrable experience in enterprise and leadership at a senior level is essential. A well-developed personal network will be an advantage. Personal qualities required are powerful, visionary leadership and entrepreneurial skills. You will have an inspiring, stimulating, charismatic personality; be a team worker rather than an individualist and have fund-raising capabilities.

Further particulars about this position can be obtained from Mr J. Nolten, Interim Manager, on phone nr. +31 15 84 30 13. Applications should be sent to Wilmar & Noorhoff, for the attention of Mr B.M. Wilmar, Vondellaan 23, 5611 NX Eindhoven, The Netherlands, phone +31 40 11 05 75.



# We need a Pharmacologist who enjoys working with people.

Molecular Devices is a California-based company that manufactures advanced bioanalytical systems for the pharmaceutical and research industries. We have a position available as a Technical Training and Support Specialist for our newest product, the Cytosensor Microphysiometer System which can monitor receptor-mediated responses of living cells.

You will give technical seminars and on-site demonstrations, conduct experiments to evaluate specific cells and effector agents, prepare technical application notes/support materials and provide customer technical training and support.

An MS in pharmacology, cell biology or a related field with 3+ years' experience or a PhD with 1+ years' experience in the pharmaceutical or research environment required in one or more of the following areas: pharmacology, signal transduction processes or molecular biology (receptor transfections and binding studies). Cell culture experience, excellent written/verbal skills and a desire to work with people are a must.

Molecular Devices offers a competitive compensation and benefits package. Please address inquiries plus resume to: Professional Staffing, Molecular Devices Corp., 1311 Orleans Drive, Sunnyvale, California, 94089, FAX (408) 747-3601. EOE.



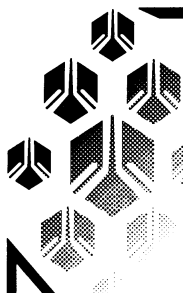
## HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF BIOLOGY

### Faculty Positions

The Hong Kong University of Science and Technology is a publicly funded research university with strong graduate programmes. Applications are invited for faculty positions at all ranks in the Department of Biology. Applicants must have a Ph.D. degree, postdoctoral experience, and the ability to establish an independent research programme. The successful candidate will join active research efforts in the areas of molecular and cellular biology, neurobiology, developmental biology, tumor biology, plant biology, marine biology and environmental science. The Biology Department currently has 21 faculty members, but will grow to 30 in a few years. The department is well-equipped with modern facilities. Start-up funds are available.

Generous fringe benefits including medical and dental benefits, annual leave and children's education allowances are provided. Housing benefit and air passages where applicable are also provided; initial appointments will be on a 3-year contract; a gratuity of 25% of the total basic salary drawn will be payable upon successful completion of contract; reappointment after the initial contract will be subject to mutual agreement.

Applicants should send curriculum vitae, a short statement of research interests, and the names of 3 references to: The Recruitment Committee, Department of Biology, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong. FAX: (852) 358-1559.



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**BIOCHEM THERAPEUTIC**

## Group Leader, Biology of Cancer

You will recruit, coordinate and direct the scientific activities of an integrated research group of professional scientists, and contribute to the planning and implementation of new biological research strategies, in the search for new anticancer drugs.

As a senior scientist, you will draw on your extensive scientific management experience to develop and maintain the values of the Company through leadership and example.

We are looking for a scientist with a PhD in either Biochemistry, Cellular Biology or Molecular Immunology, coupled with several years of specialization in membrane receptors, signal transduction mechanisms, or cyclin-dependent kinases with respect to cancer biology.

In addition to hands-on experience with standard molecular biology tools, experience with functional cellular models of angiogenesis and/or metastasis will be considered an asset.

## Research Scientist, Molecular or Cellular Biology of Cancer

We are highly interested in a scientist with a PhD and postdoctoral specialization in membrane growth factor receptors, signal transduction, tyrosine kinase and/or phosphatases, or apoptosis mechanisms.

Comfortable working with others, you will work on the mechanism and testing of new drugs involved in modulating signal transduction in normal and transformed cells.

You should possess skills in standard molecular biology, including cloning sequencing and PCR; DNA library construction; and mammalian cell culture. A background in protein chemistry and biochemistry is desirable.

If you share our commitment to excellence and demonstrate a capacity for teamwork, kindly send your resume, quoting the position title you are interested in, to **Human Resources Department, BioChem Therapeutic inc., 275 Armand-Frappier Blvd., Laval, Quebec H7V 4A7.**

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## Faculty Positions in Quantitative Genetics and Genetic Epidemiology Department of Genetics and Molecular Medicine Emory University School of Medicine

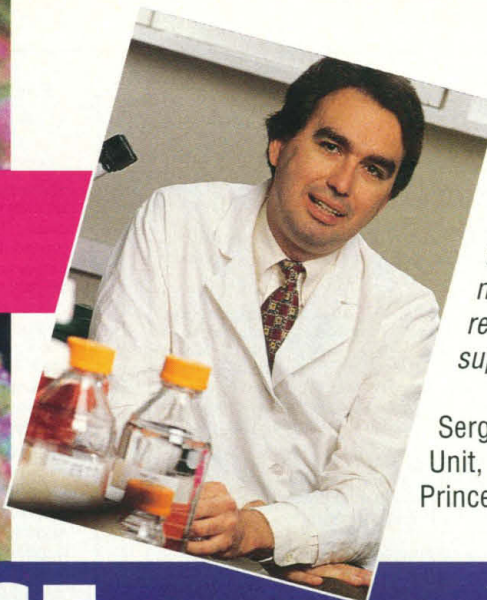
The Department of Genetics and Molecular Medicine is seeking faculty in the fields of quantitative genetics and genetic epidemiology. The department has special interest in individuals with experience in human population genetics, the quantitative relationships between genetic and environmental factors in human disease, and/or the development and application of statistical tools in human genetics. The current department faculty interests in related areas include gene mapping through linkage analysis, delineation of genetic mechanisms of complex disorders including non-Mendelian inheritance, studies of inborn errors of metabolism, mechanisms of chromosomal abnormalities, the population genetics and evolution of the mitochondrial genome, and studies of developmental genetics using mouse models. In addition to developing an active and competitive research program, the successful candidate will be expected to participate in the teaching of medical and graduate students. Newly renovated office and laboratory space within the department is available as part of the expanding biomedical research programs on campus. Interactions with the School of Public Health at Emory and the Centers for Disease Control and Prevention provide exciting research opportunities.

Candidates should send their curriculum vitae, their research goals and names of three references to:

Stephanie L. Sherman, Ph.D. and  
Douglas C. Wallace, Ph.D.  
Department of Genetics and Molecular Medicine  
1462 Clifton Road, N.E.  
Emory School of Medicine  
Atlanta, GA 30322

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*"In my lab, we are working towards developing models for human diseases using the modern tools of genetics. The research environment and the support we enjoy are superb..."*

Sergio Lira, Head of the Transgenic Unit, Bristol-Myers Squibb, Princeton.

*"We find the creative application of biophysical techniques to development of biotherapeutics very exciting..."*

Bioprocess Research Department, Seattle: Carole Spangler, Research Investigator; Chris Phillips, Associate Research Scientist; Terrence Gallman, Lab Technician



## Microinjection Specialist Transgenic Mouse Unit Princeton, NJ

Currently, we have an opportunity available for an individual with extensive experience in generating knock-out and transgenic mice via microinjection. In addition to microinjection work, you will be expected to participate in a research program focusing on the development of animal models for human diseases.

Qualified candidates will have a B.S./M.S. in Molecular Biology, Immunology or related life sciences, and a minimum of two years experience in the generation of knock-out and transgenic mice via microinjection. In addition, previous experience in embryonic stem cell culture, routing techniques in molecular biology and/or immunology will be considered an asset. Successful candidates will be highly dedicated with strong organizational skills.

Please fax/forward resume to: Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources, Dept. BM-888, P.O. Box 4000, Princeton, NJ 08543-4000.

## Group Leader Bioprocess Research Seattle, WA

This is an exceptional opportunity to lead a diverse group of scientists (B.S.-Ph.D. levels) in the development of analytical techniques and assays. Your background should demonstrate considerable experience in the development of a variety of assays (e.g., ELISAs, HPLC, PAE, IEF, FACE®, bioassays, etc.) to quantitate and characterize recombinant proteins in a process research environment. The ability to discover, evaluate and implement new technologies for the evaluation/characterization of recombinant proteins is necessary. Familiarity with laboratory automation and physical biochemical techniques would be a plus. Candidates should have 5-10 years post-doctoral experience in an industrial setting. An M.S. or Ph.D. in an appropriate scientific discipline (i.e., Biochemistry, Biology, etc.) is a prerequisite.

Please forward your resume to: Bristol-Myers Squibb, Human Resources, Dept. 94-0286, 3005 First Avenue, Seattle, WA 98121.



# Bristol-Myers Squibb

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# IRRI

INTERNATIONAL RICE RESEARCH INSTITUTE

## Position announcement for Insect Ecologist

The International Rice Research Institute (IRRI) is seeking a highly motivated, dynamic, and creative entomologist to join its multidisciplinary research team.

Based at the Institute's headquarters in Los Banos, Laguna, Philippines, the entomologist will initiate innovative research on improving the capacity of rice-based ecosystems to naturally regulate insect pest populations. Major responsibilities will be to develop and evaluate ecological management options that sustain low pest populations, develop tools to improve understanding of the role of biodiversity in insect pest management, and collaborate with and train scientists in national agricultural research systems.

Candidates should have a PhD in entomology and a proven record of field-based ecological research, including at least 3 years of postdoctoral research on insect community ecology. Experience in tropical entomology, preferably in rice, is desirable. Fluency in English is essential.

IRRI is known worldwide as a center of research excellence dedicated to generating and disseminating rice-related knowledge and technologies that are environmentally, socially, and economically sound and that benefit present and future generations of rice farmers and consumers, particularly those with low incomes. Founded in 1960, the Institute is one of 18 autonomous, nonprofit international agricultural research centers supported by the Consultative Group on International Agricultural Research (CGIAR).

Salary and perquisites are internationally competitive. The appointment is on a fixed-term basis; renewal is contingent upon performance.

Send curriculum vitae, date of availability, and names and fax numbers of three references by 31 October 1994 to

Dr. Klaus Lampe, Director General  
International Rice Research Institute  
P.O. Box 933, Manila 1099, Philippines  
Tel: 63-2-818-1926; Fax: 63-2-818-2087  
Telex: 40890 RICE PM

IRRI provides a gender-sensitive work environment and encourages women to apply.

Please refer to Code IR-IE-006.

## SULTAN QABOOS UNIVERSITY—SULTANATE OF OMAN

Sultan Qaboos University, the National University of the Sultanate of Oman, invites applications for Head of Department of Soil and Water Sciences, College of Agriculture.

The incumbent will provide leadership for the overall organization and administration of teaching, research and service activities of the Department. The successful candidate is expected to develop, improve, promote, and stimulate quality and relevant academic programs in the Department, and to provide leadership and inspiration to the staff and students to pursue high standards of learning and scholarship. The incumbent is also responsible for the selection, training, assignment and evaluation of personnel; planning and budgeting for facilities and equipment; recommending the hiring, promotion, termination or discipline of staff; liaison with relevant departments in the University and government agencies and private sectors; exploiting extramural support and collaborative research; and implementing research projects and disseminating research findings.

Applicants should possess a Ph.D. degree in soil sciences, water resources, or related fields from a reputable university, with professional credentials of a high order, sufficient to meet the criteria for full professorship. Candidates with at least 10 years of experience in a full-time appointment on the academic staff of a recognized and reputable academic institution, who have demonstrated the professional growth and potential for leadership, are desirable.

Salaries are paid free of tax in the Sultanate of Oman. The University provides free furnished accommodation, an allowance to cover electricity, water and gas, and free medical treatment. There is a contribution to school fees for up to two children. First class air fare is paid annually for leaves of incumbent, spouse and up to three children under 18 years old to the international airport closest to the place of recruitment. The leave is 60 days per year. Renewable contracts are offered every two years and end of contract gratuity is paid.

Interested candidate should provide complete resume, quoting our Ref: ADV/AGRI/04/94, to:

The Director, Personnel Affairs  
Sultan Qaboos University  
P.O. Box 50, Al-Khod 123  
Sultanate of Oman  
Phone: [968] 515007  
Fax: [968] 513255

Closing date for applications is January 31, 1995 or until a suitable candidate is identified.

# POSTDOCTORAL FELLOW

Program Resources, Inc. (PRI), a DynCorp subsidiary, has a challenging opportunity for a Molecular Biologist in the Structural Biochemistry Program (SBP) at the NCI's Frederick Cancer Research & Development Center located in Frederick, Maryland.

The SBP is a multidisciplinary research program that is focused on basic research problems related to structure-based drug design. Experimentalists in the fields of synthetic chemistry, protein crystallography, molecular biology, biochemistry and biophysics work together with theoreticians in quantum, physical and computational chemistry as well as computational biologists to attack a variety of challenging problems ranging from the design and synthesis of drugs against macromolecular targets of relevance to AIDS, cancer and other human diseases, to understanding the structural basis of drug binding affinity and drug resistance.

The successful candidate will prepare recombinant proteins for crystallographic, biochemical and biophysical analysis by the Structural Biochemistry Laboratory, collaborate with other scientists in the program, and play a key role in ongoing

structure-function studies related to questions of drug binding affinity, drug resistance, and enzyme kinetics and catalysis.

Prospective candidates should have a Ph.D. with expertise in modern cloning and mutagenesis techniques, experience with developing and using expression systems suitable for structural biology research, and be capable of working independently. Postdoctoral appointments generally run two-to-three years with the possibility of renewal and the potential for conversion to a staff position for highly productive and outstanding candidates.

PRI offers an attractive salary and benefits package, including insurances, 401(k) savings plan, relocation assistance, and more. For consideration, forward CV with references to Barbara J. Norton-Gill, Technical Recruiter.

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RESOURCES, INC.  
a DynCorp subsidiary  
NCI-FCRDC  
P.O. Box B  
Frederick, MD 21702  
EOE, M/F



## BIOLOGY FACULTY

William Rainey Harper College is a comprehensive two-year community college located in Chicago's northwest suburbs which services more than 27,000 students of all ages. The College supports and encourages the development of multicultural perspectives, the celebration of diversity and the recognition of different learning styles. A full time tenure track Biology faculty position is available for the Fall 1995 semester.

The position requires a minimum qualification of a Master's degree in Biology and demonstrated teaching competency in general education and Biology major courses as well as Anatomy, Physiology and Microbiology which support the health career education programs.

The College seeks candidates who have had multicultural experience and who can demonstrate a commitment to diversity and multiculturalism. Please submit a letter of interest and resume to: Director of Personnel, William Rainey Harper College, 1200 W. Algonquin Rd., Palatine, IL 60067. Applications will continue to be accepted until the position is filled. Harper College is an Equal Opportunity, Affirmative Action Employer which encourages applications from women, minority group members and persons with disabilities.



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## SENIOR SCIENTISTS

Positions are available for established scientists who can assume responsibility for the management and completion of high profile projects. Qualified candidates will possess a Ph.D. or M.D. and have a strong record in human molecular genetics and related areas of research. A minimum of four years of supervisory experience following a Post Doctorate is required.

(JOB# S-1007-SS)

## SCIENTISTS

Positions are available for scientists with a Ph.D. and Post Doctoral experience in human molecular genetics, molecular biology, cell biology or related research. Mercator has established a dynamic group of scientists and is looking for creative individuals to make significant contributions to our team.

(JOB# S-1007-S)

Positions are also available for Post Doctorates with molecular biology, cell biology, human genetics or related experience.

(JOB # S-1007-PD)

## RESEARCH ASSOCIATES

Positions are available for experienced research personnel. Backgrounds should include BS/MS in Human Genetics, Molecular Biology, Cell Biology or related fields. Qualified candidates will have at least two years lab experience and should be well versed in several of the following disciplines: cloning, library construction and screening, Southern hybridization, tissue culture, PCR, and DNA sequencing. Specific experience with automated sequencers and UNIX highly desirable.

(JOB # S-1007-RA)

## BIOINFORMATICS

*Scientist/Mathematician*  
A position exists for an experienced scientist/mathematician with a Ph.D. in mathematics to provide computational solutions associated with human genetic analysis. You will develop algorithms for DNA sequence analysis, gene prediction and statistical disequilibrium calculations. Experience with UNIX, human genetic analysis and demonstrated programming skills required.

(JOB# S-1007-BS)

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M E R C A T O R G E N E T I C S , i n c .

# Program Officer

The Board on Assessment of the National Institute of Standards and Technology (NIST) Programs is seeking a qualified individual for a Program Officer position. Qualifications include a Ph.D. or equivalent in Engineering, Physical Sciences, or Mathematics, with a broad and/or interdisciplinary background; and at least one year of relevant experience beyond the doctorate. Duties include assisting the Director in identifying and appointing members for the Board and its major Panels, organizing and conducting meetings, assisting Board and Panels in gathering data for and preparing assessment reports, managing reports through to publication, acting as liaison between Board and Panels and NIST management, overseeing special analysis, and assisting the Board Chair in congressional testimony and other presentations. The successful candidate must be able to interact professionally with scientific and engineering professionals from a variety of disciplines and backgrounds, possess exceptional written and oral communication skills, have the self-confidence and poise necessary to interact with leading scientists and engineers, as well as government officials and policy makers, be strongly self-motivated and dependable, and comfortable in a computerized office environment. Industrial experience or significant industrial contact, or experience/demonstrated interest in technology policy desirable. Please send resume in confidence to: **NRC/CPSMA, NIST-HA 550 (DZ), 2101 Constitution Avenue, NW, Washington, DC 20418. EOE**



## Innovative Technology

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Our unique niche has resulted in our rapid growth and impressive success. Well capitalized and poised for growth into new areas of biopharmaceuticals, we are seeking to add to our talented scientific staff. Currently 80% of our personnel are dedicated to research and development.

Our scientists and technical professionals enjoy a highly competitive salary, excellent benefits, stock options and a dynamic environment that fosters achievement. Our brand new 20,000-square-foot research facility is located in a beautiful suburban location with a low cost of living, excellent school system and an exceptional quality of life just outside the cosmopolitan city of Atlanta, home of the 1996 Olympics.

## PROJECT DIRECTOR

We seek an experienced, hands-on pharmaceutical development professional to oversee project management for oncology, infectious diseases and topicals. Our candidate will have an appropriate advanced degree and 5-7 years' experience that reflects proven success in establishing, implementing and managing pharmaceutical development projects. Your background should include a minimum of 5 years' experience in product development for new business applications. Must have a solid understanding of FDA regulations, including IND/NDA processing.

Please send resume/CV to: **CytRx Corporation, Human Resources, 154 Technology Parkway, Norcross, GA 30092.** An Equal Opportunity Employer.

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  - University of Puerto Rico-Recinto de Ciencias
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**ASSISTANT PROFESSOR  
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The Department of Cell Biology invites applications for a tenure track Assistant Professor. We are seeking individuals with strong research accomplishments and outstanding promise. Applicants should have proven expertise in applying modern approaches to problems in cell or developmental biology. Successful candidates will be expected to maintain a vigorous, externally funded research program and to participate in the teaching of medical and graduate students. Harvard University is committed to increasing the number of women and minorities among its faculty, so applications from such candidates are especially encouraged.

Applicants should submit a curriculum vitae and a brief statement of research accomplishments and future objectives, and arrange to have three references sent by December 1, 1994:



Dr. Marc Kirschner  
Chair  
Dept. of Cell Biology  
Harvard Medical School  
25 Shattuck Street  
Boston, MA 02115

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Opportunity/Affirmative Action Employer*

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Molecular Medicine**

**Emory University School of Medicine**

The Department of Genetics and Molecular Medicine is seeking M.D. or Ph.D. faculty interested in the molecular basis and treatment of human disease. Areas of special interests include novel genetic mechanisms of disease such as multifactorial inheritance, imprinting, genomic instability and in new approaches to treatment including gene therapy. Current department faculty interests include inborn errors of metabolism, quantitative and population genetics, origins and mechanisms for chromosomal abnormalities, mitochondrial genetics, mammalian germ cell development, development of mouse models of disease, and gene therapy. Most appointments will be at the Assistant Professor level, although more senior individuals will also be considered at their appropriate rank. In addition to developing an active and competitive research program, the successful candidate will be expected to participate in teaching of medical and graduate students. Newly renovated office and laboratory space within the department is available as part of the expanding biomedical research programs on campus.

Candidates should send their curriculum vitae, their research goals, and the names of three references to:  
Dean J. Danner, Ph.D. and  
Douglas C. Wallace, Ph.D.

Department of Genetics and Molecular Medicine  
1462 Clifton Road, N.E. Room 429C  
Emory University School of Medicine  
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The Spectroscopy and Biochemistry Group of the Chemical Science and Technology division currently has the following openings:

## Staff Members

- Candidate will conduct research in the area of structural biochemistry with an emphasis on x-ray and neutron solution scattering methods used in conjunction with isotope labeling and complimentary spectroscopic techniques. Primary responsibilities will be to carry out independent research, plan new initiatives consistent with the Group, division and Laboratory missions, develop funding for new initiatives, and direct personnel working on them. A major focus of the group is the study of biomolecular structure and mechanisms using spectroscopy, scattering and isotope labeling techniques.

The successful applicant should have a PhD in Chemistry, Biochemistry, Biophysics, Physics, or a related field, a minimum of 3 years post doctoral experience, an established record of technical expertise in scattering and isotope labeling techniques applied to biomolecular structure determination and in the development of computational tools for structural data analysis and interpretation, as well as experience in using spectroscopic techniques and complement scattering experiments. This expertise should be evident in a body of significant publications in the refereed literature.

**102460-94048 must be referenced when applying for this position.**

- Candidate will develop new imaging technology based on mechanical detection of magnetic resonance signals. Primary responsibilities will be the development of technology necessary for implementation of an NMR force microscope, carry out independent research using the instrument with emphasis on structure/function studies in biology, plan new initiatives consistent with Group, Division and Laboratory missions, develop funding for new initiatives and direct personnel working on them.

The successful applicant will have a PhD in Physics, Chemistry, Biophysics or related field or equivalent combination of education and experience. Must have expertise in the development and application of novel NMR techniques to studies of biological or solid state systems. Knowledge of imaging techniques, NMR pulse sequence development and force microscopy techniques employing micromechanical structures and fiber optoclaser interferometry also required.

**102058-94048 must be referenced when applying for this position.**

To formally apply for these positions, interested candidates should forward a resume to Marcia Lujan (MS P207), Human Resources Division, Los Alamos National Laboratory, Los Alamos, NM 87545. Affirmative Action/Equal Opportunity Employer. Individuals with disabilities needing reasonable accommodation should call (505) 667-8622. A Teletype Device for the Deaf (TDD) is available by calling (505) 665-5357. Los Alamos National Laboratory is operated by the University of California for the U.S. Department of Energy.

**Los Alamos**  
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Faculty Positions in  
ENVIRONMENTAL MICROBIOLOGY/MICROBIAL  
ECOLOGY AND ENVIRONMENTAL CHEMISTRY  
Department of Civil and Environmental Engineering  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

The department is extending the deadlines, and broadening the scope of its ongoing searches in these disciplinary areas. Applicants who have responded to previous advertisements in these areas will receive full consideration. Both positions are tenure track faculty appointments in the Ralph M. Parsons Laboratory.

**Environmental Microbiology/Microbial Ecology:** The candidate must have a strong background in microbiology, with an emphasis on microbes in the natural (including man-made) environment. We will entertain applications of candidates from diverse fields of interest such as microbial population dynamics, biogeochemistry of soils, freshwater marine systems, contaminant biodegradation and environmental biotechnology. Experience using the tools of molecular biology is essential.

**Environmental Chemistry:** The candidate should have a strong background in the inorganic chemistry of natural waters. Expertise in areas such as the following would be attractive: biogeochemistry, nutrient cycling, metal/humic interactions, photochemistry, surface chemistry etc. Candidates from diverse professional areas such as environmental engineering, geochemistry, limnology, and oceanography are encouraged to apply.

The candidates for both positions should have an interest in interdisciplinary work and in interacting with other faculty members at MIT working on problems in fluid flow and transport, oceanography, limnology, environmental remediation, ecology, and toxicology. The candidate will be expected to develop a strong sponsored research program, and teach basic and advanced subjects in her/his area of expertise. Applicants should send curriculum vitae, description of teaching and research interests, and a list of referees to: Prof. Harold Hemond, Director, Ralph M. Parsons Laboratory, Department of Civil and Environmental Engineering, 48-311 MIT, Cambridge, MA 02139. Closing date for applications: Dec. 15, 1994. MIT is an Equal opportunity/Affirmative Action Employer.

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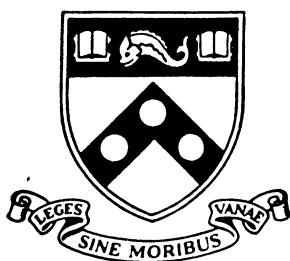
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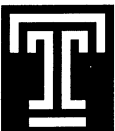
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Institute for Human Gene Therapy**

We invite applications for Assistant Professor level tenure-track faculty positions at the University of Pennsylvania School of Medicine. The successful applicant will be a member of the newly created Institute for Human Gene Therapy which emphasizes several primary research areas such as immunology, stem cell biology and ion transport. This individual will be appointed to a faculty position in either a basic science or clinical department, and should have the ability to develop an independent research initiative within our immunology program, a major basic science focus of the institute. Areas of particular interest include lymphoid development and activation, tolerance induction, programmed cell death, and cytokine gene regulation. We also seek an individual with a background in hematopoiesis and/or stem cell biology.

Applicants must have either a Ph.D. or M.D. degree and show exceptional promise of establishing a vigorous, independent research program in an academic setting. A letter, C.V. and a statement of research interests should be addressed to:

**James M. Wilson, MD, PhD  
Director, Institute for Human Gene Therapy  
University of Pennsylvania Medical Center  
3400 Spruce St (Maloney-601)  
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**Temple University  
School of Medicine**

**Asst./Associate Professor  
Experimental Pathology**

The Department of Pathology and Laboratory Medicine at Temple University School of Medicine is currently seeking applicants for research positions at the Assistant/Associate Professor level. These positions will be in the division of Experimental Pathology. In particular, qualified candidates are sought in the areas of (1) Hormonal carcinogenesis, (2) Environmental carcinogenesis, (3) Gene targeting/immunotherapy of cancer, and (4) Resistance to cancer chemotherapy. These investigators will hold appointments in the Fels Institute for Cancer Research, will be associated with the Ph.D. program in the department and should have a track record of independent research and research funding. These positions will augment the section of molecular pharmacology in the Temple University Comprehensive Cancer Center. Interested candidates are requested to submit a C.V. and the names of three references to: **Henry Simpkins, M.D., Ph.D., Chairman, Department of Pathology and Laboratory Medicine, Temple University School of Medicine, 3401 N. Broad St., Phila., PA 19140.** Temple University is an EOE/AA employer and strongly encourages applications from women and minorities.

## Assistant Professor

The Division of Human Retrovirology at the Dana-Farber Cancer Institute and the Department of Pathology, Harvard Medical School seek applicants for a tenure-track faculty position at the Assistant Professor level. The applicant must have a Ph.D. or M.D. with postdoctoral experience and a strong record of accomplishment in research. The individual will be expected to develop a competitive independent research program in basic aspects of primate or human immunodeficiency virus replication or pathogenesis, and to participate in teaching activities within the graduate and medical school programs.

**Applicants should send curriculum vitae, three letters of recommendation and a brief statement of research interests to:**

**Joseph Sodroski, M.D.  
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## Junior and Senior Faculty Positions Available

Center for Molecular Medicine  
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Department of Cellular and Structural Biology  
The University of Texas Health Science Center at San Antonio

The new Center for Molecular Medicine at the University of Texas Health Science Center at San Antonio invites applications for tenure track/tenured faculty positions, one at the junior level (Assistant Professor) and one at the senior level (Associate or Full Professor). Outstanding researchers in all areas of eukaryotic molecular and cellular biology will be considered. Applicants at the junior level should have a Ph.D. or M.D. degree with at least two but preferably three to four years of post-doctoral experience. Applicants at the senior level should have a Ph.D. or M.D. degree, and a well established program of independent research. The positions provide exceptionally competitive salaries, generous start-up funds and laboratory space in the attractive, highly interactive and modern research environment provided by the Center, which is housed in the recently constructed Institute of Biotechnology (see Nature, Vol. 357, No. 6380).

Interested individuals should submit a curriculum vitae, a statement of research accomplishments and objectives, reprints of recent articles, and the names and addresses of three references.

Application materials for the junior faculty position should be sent to:

Dr. Alan Tomkinson  
Junior Faculty Search Committee  
Center for Molecular Medicine/Institute of Biotechnology  
The University of Texas Health Science Center at San Antonio  
15355 Lambda Drive  
San Antonio, TX 78245-3207

Application materials for the senior faculty position should be sent to:

Dr. Eileen M. Lafer  
Senior Faculty Search Committee  
Center for Molecular Medicine/Institute of Biotechnology  
The University of Texas Health Science Center at San Antonio  
15355 Lambda Drive  
San Antonio, TX 78245-3207  
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## Technische Universität München, Fakultät für Medizin (Klinikum rechts der Isar)

### Chair for Experimental Surgery (C4-Professor)

The medical school of the Technische Universität München is seeking an outstanding candidate to direct the Department of Experimental Surgery. The research program should be directed towards oncology with emphasis on tumor biology and experimental validation of new therapies.

The candidate should have demonstrated excellence in research and teaching. Preference will be given to applicants committed to the exploration of cancer using molecular biology techniques. The successful applicant will be expected to coordinate and supervise interdisciplinary research projects within the department and to participate in teaching of medical students and postgraduates.

The Technische Universität München is seeking a higher quota of women in Research and Teaching and therefore expects qualified female scientists to apply. International candidates are encouraged to apply.

Candidates should submit curriculum vitae with affixed photograph, list of publications including reprints of the most important ones, diplomas, certificates, references and an outline of current and future research interests until 20 November 1994 to:

Dekan der Medizinischen Fakultät  
der Technischen Universität München  
Ismaninger Str. 22  
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EDUCATION/EXPERIENCE: MS degree or equivalent in molecular biology, biochemistry, or related field plus 2 years of relevant research experience is also required. Applicants should have experience in nucleic acid analysis (Southern, PCR, RNA analysis), preferably in transgenic plants, along with experience with computers and statistical analysis. Strong communication skills are essential, and supervisory experience is preferred.

Applications received by October 28, 1994 will be assured of consideration. However, applications will be considered until the position is filled.

Pioneer Hi-Bred International, Inc. is an Equal Opportunity employer. Please send TWO complete sets of resume/application information. Be sure to indicate in your correspondence the JOB #, along with the names, addresses and telephone numbers of three references to:

PIONEER HI-BRED INTERNATIONAL, INC.,  
Analytical Biochemistry Department  
ATTN: Dawn M. Meyer, Job #1386-J  
P.O. Box 1004, 7300 NW 62nd Avenue  
Johnston, IA 50131-1004

### ANALYTICAL CARBOHYDRATE CHEMIST (JOB #1621-A)

Pioneer Hi-Bred International, Inc., a Fortune 500 company and a recognized world leader in the genetic modification of agronomic crops, has an immediate opening for an Analytical Chemist specializing in carbohydrates.

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EDUCATION/EXPERIENCE: A Ph.D. in Biochemistry or equivalent experience is required. The ideal candidate will have at least two years experience in carbohydrate analysis research and laboratory management. Extensive experience with various types of spectroscopy (including NIR and NMR), chromatography and cereal chemistry, plus good communication and teamwork skills are important.

Pioneer is an equal opportunity employer providing a competitive salary, relocation assistance, excellent benefits, plus cooperative work environment. Applications received by November 4, 1994 will be assured of consideration. Please send TWO complete sets of resume/application information. Be sure to indicate in your correspondence the JOB #, along with the names, addresses and telephone numbers of three references to:

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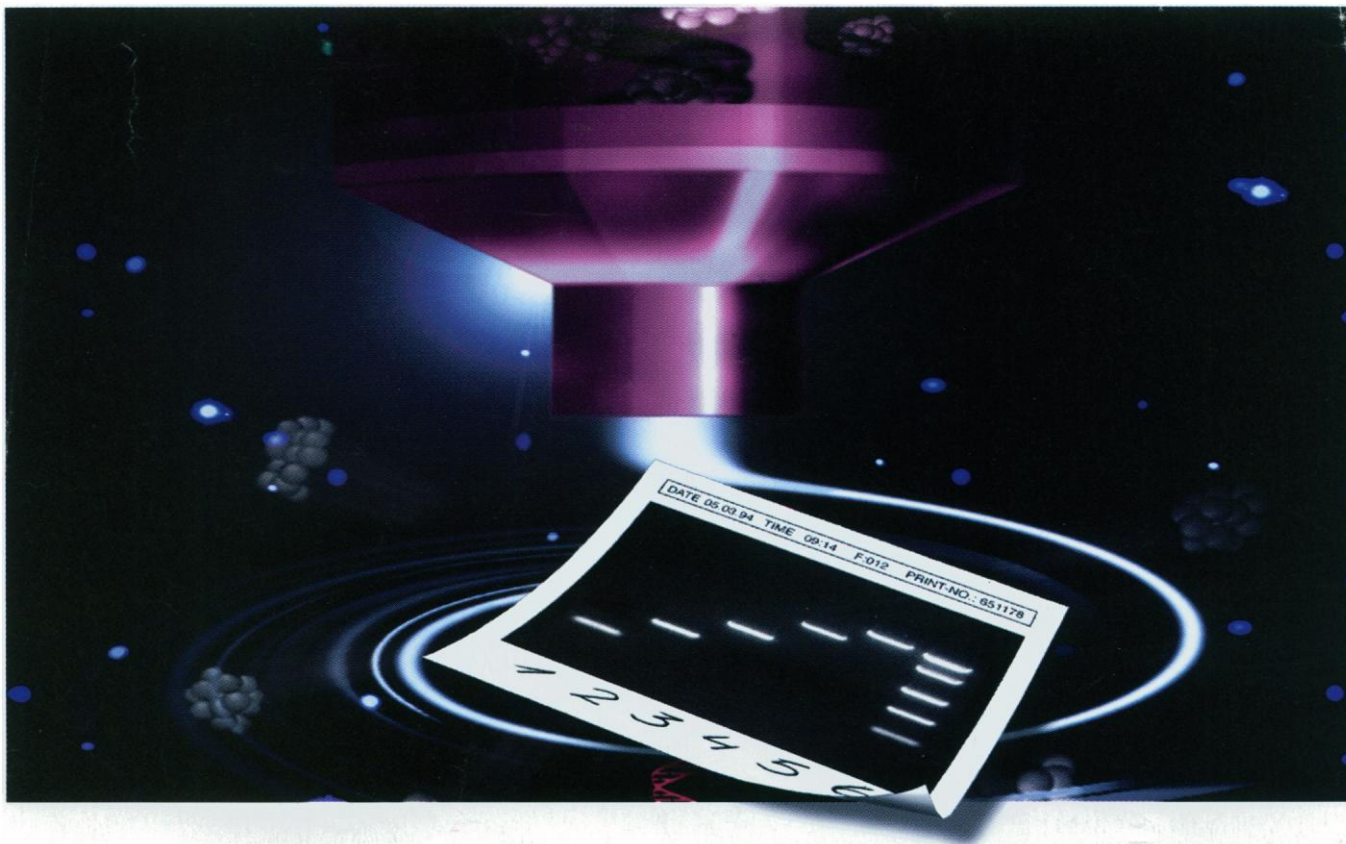
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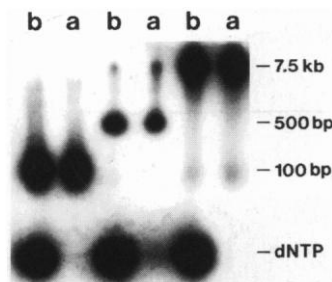
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