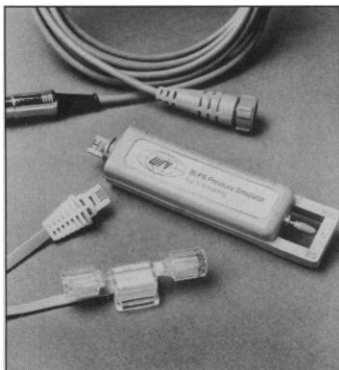


Blood Pressure Transducer

The BLPR can be used for the direct measurement of arterial and venous pressure in animal blood vessels. The slotted transducer



body can be mounted easily to the test animal with a Velcro strap. Supplied non-sterile, BLPR is accurate, linear, and stable with temperature. A continuous, uniform lumen eliminates places for bubbles to form and lodge, and the clear fluid path is easy to inspect. BLPR is equipped with a 12-foot cable and connector compatible with the manufacturer's four-channel signal conditioning unit, TBM-4 Transbridge, and single-channel BP-1 blood pressure monitor. World Precision Instruments. Circle 90.

Scientific Calculator for DOS Computers

Scialc IV is a scientific calculator for DOS computers that contains nearly 300 functions in a menu-driven environment. The functions range from unit conversions and geometric formulas to matrix inversions. Functions such as quadratic formulas and fast Fourier transforms are generalized to handle complex numbers. A full set of trigonometric and hyperbolic trig operations, a number of physics formulas, and other general mathematical routines round out the Scialc IV library. The program runs on MS-DOS and PC-DOS computers and requires DOS 2.0 and up, 384K memory, and an EGA or VGA

graphics adapter. Acro Technology. Circle 91.

Sub-Chromosome Localization Kit

The Sub-Chromosome Localization Kit enables researchers to map a polymorphic human DNA locus to a specific region of a chromosome. The kit consists of sets of DNA derived from three-generation families represented in the CEPH family repository. Localization is carried out by correlating the presence of a specific chromosome subfragment with the presence of a given allele. The kits are available for a variety of assays. BIOS Laboratories. Circle 92.

DNA Ladders

DNA Ladders are for sizing DNA fragments in high and low molecular weight ranges. Hind III digested lambda DNA produces eight sharp bands on agarose gels in the size ranges of 125 and 23,130 bp. For low molecular weight analyses, a mixture of Sau 3A1 and Taq I digests of pUC19 DNA produces 11 sharp bands between 36 and 1444 bp on agarose gels and 17 sharp bands between 8 and 1444 bp on 20% polyacrylamide gels. Integrated Separation Systems. Circle 93.

Scientific Graphics Software

CoPlot 2.1 is an enhanced version of a scientific graphics and statistics program for creating publication-quality graphs, including three-dimensional graphs that can be rotated and viewed from any angle, along with other features. CoPlot 2.1 offers 16 graph types, including XY, con-

tour, polar, triangular, correlation matrix, and various bar charts. The program requires an IBM PC, PS/2, or compatible computer running DOS 2.0 or higher with 640K memory and 900K of disk space. CoHort Software. Circle 94.

Monoclonal Antibodies

CAMFolio is a new line of monoclonal antibodies (MAbs) to human cell adhesion molecules. The first 21 CAMFolio MAbs are Anti-BB-1 (B7), Anti-GMP-140, Anti-gp150,95, Anti-HCAM, Anti-HNK-1, Anti-HPCA-2, Anti-ICAM-1, Anti-Integrin $\alpha 4$, Anti-LECAM-1, Anti-LFA-1 α , Anti-LFA-1 β , Anti-LFA-2, Anti-LFA-3, Anti-Mac-1, Anti-N-CAM, Anti-PECAM-1, Anti-TCR α/β , Anti-TCR γ/σ , CD5, CD22, and CD28. Becton Dickinson. Circle 95.

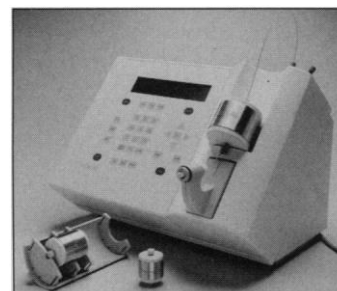
Eleven new monoclonal and polyclonal antibodies against a variety of guinea pig antigens include antibodies to T lymphocytes, T cell subsets, B cells, B cell subsets, macrophages, and MHC antigens. Harlan Bioproducts for Science. Circle 96.

Electronic Animal ID System

This system injects inert glass pellets the size of a grain of rice under an animal's skin to provide permanent identification for each animal. The pellet contains no batteries or active components and will never lose its code. A hand-held reader passed near the animal picks up the identification number even through cage walls and presents it on a liquid crystal display. An optional pocket data logger can collect the signals and download them to a computer. Stoelting. Circle 97.

LC System for Biomolecule Separation

The ConSep LC 100 System is designed for ion-exchange chromatography, affinity chromatography, hydrophobic interaction, desalting, concentration, and other chromatographic procedures used in the purification of proteins, DNA, peptides, and other biomolecules. The self-contained instrument incorporates a pump, injector, multiple wavelength detector, controller, computer, and display. The system is compatible with the Millipore line of MemSep Chromatography Cartridges and is optimized for membrane-convective liquid chro-



matography, which features high flow rates (50 ml/min) with accurate gradients. The system can also run soft gels and smaller preparative columns and provides "Auto-blend" capability, a unique four-buffer blending that is useful in ion-exchange work and methods development. Millipore. Circle 98.

Literature

Consumables for CHN/O/S Elemental Analyzers is a catalog featuring more than 400 products for the full range of instruments manufactured by Leco, Carlo Erba, Perkin-Elmer, Heraeus, and CEC. Elemental Microanalysis Ltd. Circle 99.

PLSA Pulsed Laser Spectrum Analyzer is a brochure that describes an instrument for quick, real-time spectral analysis of lasers. It measures bandwidth, wavelength, and mode structure of a single pulse or the average of multiple pulses. Burleigh Instruments. Circle 100.

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

Science

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POSITIONS OPEN

ASSISTANT PROFESSOR AGRICULTURAL ENGINEERING DEPARTMENT, The University of Maryland (revised June 1, 1992). A tenure-track 10-month faculty position with 100% teaching in the area of ecological and biological systems engineering including water quality/water chemistry and wetlands is available at the University of Maryland. Appointee is expected to teach undergraduate and graduate courses in Agricultural Engineering and Natural Resources Management Curricula and develop research projects in the areas of ecological wetlands and biological systems. A Ph.D. in Biological Engineering, Ecology, or closely related fields with background on ecological and biological systems emphasizing wetlands and water quality/water chemistry is required. Application deadline is August 15, 1992. Applicants should send a letter of application, résumé, academic transcripts, and at least three letters of reference to: **Dr. Adel Shirmohammadi (chair of the search committee), Agricultural Engineering Department, The University of Maryland, College Park, MD 20742.** *The University of Maryland is an Equal Employment Opportunity/Affirmative Action Employer.*

BIOLOGY: Anticipated vacancy; Fall 1992; contingent upon funding; **ASSISTANT PROFESSOR** level; temporary, two year position, but may be offered as a tenure-track position depending on the qualifications of the successful candidate. Successful candidate will teach introductory biology, anatomy and physiology, and selected upper level coursework. A Ph.D. is strongly desired; however, persons at A.B.D. will meet the minimum requirement. Salary will be dependent upon qualifications and experience; excellent fringe benefits. *Women and members of minority groups are strongly urged to apply.* Review of application materials will begin immediately. Send letter of application, résumé, the names and telephone numbers of three references, and transcript for most recent degree to: **MR. TIMOTHY C. MURPHY, DIRECTOR OF HUMAN RESOURCES, PERSONNEL OFFICE, WESTFIELD STATE COLLEGE, WESTFIELD, MA 01086.** *An Affirmative Action/Equal Opportunity Employer.*

ORGANIC BIOGEOCHEMISTRY

ASSISTANT PROFESSOR, TENURE-TRACK. Expertise sought in the ecology of microorganisms with emphasis on chemical mechanisms regulating the use and dynamics of natural dissolved organic compounds, energy flow, and nutrient cycling in fresh waters. Candidates must have a Ph.D., demonstrated scholarly accomplishment, and a strong commitment to a growing research and graduate program in freshwater ecology. Teaching duties include interdisciplinary courses in specialty. Submit curriculum vitae and three letters of reference to: **Dr. Robert G. Wetzel, Search Committee Chair, Department of Biological Sciences, The University of Alabama (UA), Box 870344, Tuscaloosa, AL 35487-0344** by 30 September 1992. *The UA is an Equal Opportunity/Affirmative Action Employer and welcomes applications from qualified women, minority, and multicultural candidates.*

FACULTY POSITION IN PHARMACOLOGY/TOXICOLOGY DARTMOUTH MEDICAL SCHOOL

The Department of Pharmacology and Toxicology is seeking applications for a position at the **ASSISTANT PROFESSOR** level. Candidates should hold a Ph.D. and/or M.D. degree and have several years of postdoctoral experience. Preference will be given to individuals with an exciting research program in molecular therapeutics (including gene therapy) or in other areas in which modern techniques of molecular or structural biology are used. In addition to developing a funded research program, the candidate will help the Department fulfill its academic responsibilities in medical and graduate education. The Department consists of approximately 11 faculty with research expertise in cellular and molecular pharmacology and toxicology. The Department has strong ties to the Norris Cotton Cancer Center, a NCI-funded comprehensive cancer center.

Candidates should submit curriculum vitae, a statement of research interests and accomplishments, a record of grant funds (if available), and a list of at least three references. Applications should be sent to: **Dr. Edward Bresnick, Professor and Chair, Department of Pharmacology and Toxicology, Dartmouth Medical School, HB 7650, Hanover, NH 03755-3835.** *Equal Opportunity Employer/Affirmative Action.*

POSITIONS OPEN

ENVIRONMENTAL TOXICOLOGIST

Tulane School of Public Health and Tropical Medicine Department of Environmental Health Sciences is seeking an environmental toxicologist with demonstrated abilities in quantitative risk assessment and regulatory toxicology for a tenure-track **ASSISTANT PROFESSOR** position. Responsibilities include teaching in the graduate toxicology/risk assessment program, and establishing a funded research program. Send curriculum vitae by 1 September 1992 to: **Dr. LuAnn E. White, Department of Environmental Health Sciences, Tulane School of Public Health and Tropical Medicine, 1430 Tulane Avenue, New Orleans, LA 70112.** *Tulane University is an Affirmative Action/Equal Opportunity Employer.*

LANDSCAPE PLANT SCIENCE & MANAGEMENT. The Center for Urban Horticulture, College of Forest Resources, University of Washington seeks applicants for a 12-month, tenure-track **ASSISTANT PROFESSORSHIP** in Landscape Plant Science and Management to participate in research, teaching, and public service programs. Requirements include Ph.D. in horticulture, urban forestry, botany, ecology, or related field, including significant training in whole-plant physiology. Consideration will be given to candidates with extraordinary credentials at the Associate Professor rank. Send letter of application, statement of research interests (including an assessment of critical issues in the field), curriculum vitae, copies of transcripts, and four letters of reference to: **Dr. Gordon Bradley, Center for Urban Horticulture, GF-15, University of Washington, Seattle, WA 98195 (telephone: 206-685-0881).** Closing date: 1 September 1992. *Affirmative Action/Equal Opportunity Employer.*

GENETICIST

Tenure track position at the **ASSISTANT PROFESSOR** rank available beginning January 1993 or August 1993 for a Geneticist. Responsibilities include teaching genetics for major and non-major service courses, and establishing a research program involving undergraduates. Ph.D. in genetics or Ph.D. in biological field with specialization in genetics required. Candidates must provide evidence of teaching and research effectiveness. *Minorities and women are especially encouraged to apply.* Send letter of application, curriculum vitae, transcripts, statement of long-term goals, and three (3) letters of recommendation to: **Dr. Simon Beeching, Search Committee Chairperson, Biology Department, Slippery Rock University, Slippery Rock, PA 16057.** The deadline for receipt of application is 15 September 1992.

Slippery Rock University is an Affirmative Action/Equal Opportunity Employer.

The Division of Endocrinology and Metabolism at the **UNIVERSITY OF CALIFORNIA, IRVINE (UCI)**, invites applications and nominations for a tenure-track **FACULTY POSITION** at the **ASSISTANT PROFESSOR** level. Candidates should have expertise in molecular and cellular approaches to study aspects related to the endocrine system. Applicants must have an M.D. or M.D./Ph.D. degree and have a strong record of research accomplishments, with the potential to develop an independent research program. The division is committed to excellence in endocrinology while providing a fertile environment for interactive research at UCI and affiliated institutions.

Interested applicants should send their curriculum vitae, a statement of research interest, and names and addresses of at least three references to: **Dr. Murray Korc, Chief, Division of Endocrinology and Metabolism, Department of Medicine, UCI Medical Center, P.O. Box 14091, Orange, CA 92613-1491.** *UCI is an Affirmative Action/Equal Opportunity Employer.*

RESEARCH ASSISTANT PROFESSOR/ POSTDOCTORAL FELLOW IN VISUAL NEUROSCIENCE

Available 1 July 1992, in Department of Anatomy, Louisiana State University Medical Center (LSUMC), New Orleans. Applicants should have an interest in neurotransmitters in the visual system. Training in electrophysiology and/or immunocytochemistry is highly desirable. Salary will be competitive and commensurate with experience. Send curriculum vitae and three names of references to: **Dr. R. Ranney Mize, Anatomy Department, LSUMC, 1901 Perdido Street, New Orleans, LA 70112-1393.** *An Equal Opportunity/Affirmative Action Employer.*

DIRECTOR

General Clinical Research Centers Program
National Center for Research Resources
National Institutes of Health

The National Center for Research Resources (NCRR) is seeking applicants for the position of Director, General Clinical Research Centers (GCRC) Program. This position is located in Bethesda, Maryland, and is a permanent full-time position with a salary range of \$90,000 to \$112,100 per annum commensurate with qualifications. Physicians may be eligible for Physician Comparability Allowance ranging from \$5,000 to \$20,000 per year.

The Director, GCRC Program, is responsible for planning, developing, managing and evaluating a multimillion dollar program of grants and contracts which supports high quality clinical research throughout the Nation. The GCRC Program currently supports 74 General Clinical Research Centers with a 600 research bed capacity and an annual budget of approximately \$118 million. Applicants for this Senior Executive Service position must have a Doctor of Medicine degree or equivalent. Send applications to:

Ms. Pathenia Wiggins
NCRR
Building 31, Room 3B50
9000 Rockville Pike
Bethesda, MD 20892



For application forms and a copy of the requirements, contact Ms. Wiggins at NCRR on (301) 496-1524. **Deadline for applications is July 22, 1992.**

Public Health Service Commissioned Officers interested in performing the duties of the position within the Commissioned Corps may submit a resume to the above address.

NIH is an Equal Opportunity Employer

THIRD ANNUAL CONFERENCE on A Psychodynamics-Cognitive Science Interface

Monday and Tuesday, August 24-25, 1992

at the

University of California, San Francisco

The Program on Conscious and Unconscious Mental Processes of the John D. and Catherine T. MacArthur Foundation hosts two-day conferences during the last weeks of August. Topics aim at convergence at the psychodynamics-cognitive science interface. The invited audience are academic psychologists, anthropologists, neuroscientists, linguists, computer scientists, psychiatrists and mental health clinicians involved in the scholarship of how emotional conflict affects the processing and transmission of information about topics of importance to patients. Ample time for discussion (of formal presentations and videotapes of relevant clinical phenomena) insures a chance for useful communication beyond the usual walls of a specific scholarly discipline.

This year's conference will highlight work of a group of scientists collaborating within the Program on Conscious and Unconscious Mental Processes. The title of the conference is: **"Control of the Processing and Expression of Emotional Topics."** Research will be presented on how topics such as those during a mourning process are consciously represented, expressed during frank disclosure, or warded off to avoid being flooded with emotion. The presentations will range from macro to microanalytic studies using the same case material as illustration. The presentations will follow this plan:

Part I The Whole Case

Part II Focusing Down on Shorter Time Periods

- A. The First Five Hours of Psychotherapy
- B. A Middle Hour of Psychotherapy
- C. Microanalysis of Five Minute Segments

Part III Implications for Converging Psychodynamic & Cognitive Theories

All conference costs including on-site refreshments are covered by the MacArthur Foundation. Each invited scientist will cover his or her own arrangements and expenses for travel, lodgings, and meals. Postdoctoral fellows on full-time stipends may apply for travel expenses grants. Lodging advice will be provided.

In applying for an invitation, please indicate your academic appointment and scholarly activities. CV and one reprint would be greatly appreciated. **Write or FAX:** Julio L. Ruffini, Ph.D., PCUMP Program Manager, Langley Porter Psychiatric Institute, Box CSN-0984, University of California, San Francisco, CA 94143. fax 415-476-7023.

The Program on Conscious and Unconscious Mental Processes of the John D. and Catherine T. MacArthur Foundation has its research center at the Langley Porter Psychiatric Institute. It has intra- and extramural task forces for collaborative and convergent studies on person schemas, defenses, and topics of thought and communication. The director of the program is Mardi J. Horowitz, M.D., Professor of Psychiatry at UCSF.

International Conference on Nucleic Acid Medical Applications



January 26-30, 1993
Hyatt Regency, Cancun, Mexico

The International Conference on Nucleic Acid Medical Applications is designed to address all of the major subjects and recent advances in nucleic acid medical applications with emphasis on basic scientific principles and solutions to common problems.

- There will be special emphasis on exchange and interaction among universities, industry, and government through poster presentations and round table discussions.

- Over 44 world renowned scientists from academia, public health, and industry will share their findings on nucleic acid chemistry.

- Opening and Closing presentations by Nobel Laureats:

Thomas Cech, Ph.D., University of Colorado

Joshua Lederberg, Ph.D., Rockefeller University

Topics:

Organic chemistry
Physical chemistry
Triplex
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SmithKline Beecham Is a \$9.2 billion global health care company. Our world famous products and reputation mean unsurpassed opportunities for individuals to combine their scientific and marketing experience as a Regional Medical Associate.

Our Regional Medical

Associates establish relationships within major medical institutions for the purpose of acting as scientific liaison and providing in-depth information regarding SmithKline Beecham products. This includes the training of representatives and medical professionals. Travel 50%.

To qualify, you must have a Ph.D. in Pharmacology, Toxicology, Microbiology or related life sciences. Strong Marketing and communications skills and a high degree of initiative are also required. An opportunity currently exists in the Western States, based in Denver with a territory including Utah, Colorado, Nevada, Montana, Idaho, Wyoming, and Nebraska.

We offer one of the best compensation packages - including a car - in the industry. If you'd like to be a part of our success, send your resume with salary history to: Box 20, Science Classified Advertising, Rm 814, 1333 H Street NW, Washington DC 20005. We are an equal opportunity employer, M/F/H/V.



SmithKline Beecham

European Opportunities for Ph.D. Life Scientists and Environmental Scientists

THE OPENINGS

Procter & Gamble has several entry-level openings for life scientists and environmental scientists with Ph.D. or postdoctoral training in the following disciplines:

| | | | |
|---------------------------|-----------------------------|----------------------------|---------------|
| Biochemistry | Toxicology | Physiology | Virology |
| Food Sciences | Microbiology | Pharmacy | Pharmacology |
| Immunology | Biology | Ecotoxicology | Soil Sciences |
| Solid Waste Management | Agricultural Engineering | Environmental Chemistry | |

THE POSITIONS

The openings for these disciplines are in toxicology, environmental sciences, and regulatory affairs. Job responsibilities include the development and coordination of human and/or environmental safety programs for consumer products, and managing external issues that relate to the safety of consumer products. These positions are in one of the following Research and Development locations of Procter & Gamble in Europe: Brussels (Belgium), Schwalbach (near Frankfurt/Main-Germany), and possibly various locations in Eastern Europe at a later point in time after appropriate training.

Note: Not all openings are available in all locations.

THE CANDIDATES

The candidates will have excellent academic records, good communication skills, a high level of initiative and commitment, and must have a good command of English. In addition, fluency in at least one other European language is desirable. The candidates should be free of military service obligations and should be citizens or permanent residents of a European country.

THE COMPANY

Procter & Gamble is a research and development based international corporation with more than \$27 billion in worldwide sales in household consumer products and an R&D budget of \$800 million. In Europe, the Middle East and North Africa, Procter & Gamble is engaged in the research and development, manufacture and sale of a wide range of household consumer products including detergents, fabric care products, toilet soaps, beauty and health care products, disposable personal hygiene products, household care products and beverages.

THE OFFER

We offer starting positions for a research and development career in a successful, strong and growing company and in an environment which will stimulate personal and professional growth. We have a policy of 'promotion from within' based on contribution and potential. Salaries are highly competitive and coupled with an excellent benefits package which provides for pensions, health care and paid relocation.

APPLICATIONS To apply, please send your resume and publication list to:

Dr. N.G. Howell, Manager
Ph.D. Recruiting
European Life and Environmental Scientists
The Procter & Gamble Company
Miami Valley Laboratories, Dept. S
P.O. Box 398707
Cincinnati, Ohio 45239-8707

Allow 6-8 weeks for response. No agency referrals, please.

Procter & Gamble

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR—Conduct theoretical studies in plasma physics, including plasma processes in the Earth's magnetosphere, utilizing research experience in magnetospheric magnetohydrodynamics (MHD), wave-particle interactions in the ion cyclotron/hydrodynamic frequency ranges, ring current ion transport and loss, nonlinear phenomena in plasmas (including gyro-averaged Hamiltonian systems, Lie perturbation methods and evolution of instabilities), magnetospheric particle transport and acceleration (including radiation belt sources, loss processes and acceleration mechanisms), and techniques such as TFTR measurements, 2D hydrodynamic codes and computer modelling (including Cray-1 and VMS VAX). **REQUIREMENTS:** Ph.D. in Astrophysical Sciences; 2 years of experience in job offered or as Research Assistant performing duties described above under supervision of senior researcher and with experience described above. Salary: \$37,500 per year; 40 hours per week. Job in Hanover, New Hampshire. Send two copies of résumé to: **Job Order #92-76, P.O. Box 989, Concord, NH 03302-0989.** Proof of legal right to work in the United States required.

RESEARCH IMMUNOLOGIST. The Immunology Division of the Department of Pathology and Laboratory Medicine seeks an immunologist for the position of **RESEARCH ASSISTANT PROFESSOR.** Candidates should possess a Ph.D. and/or M.D. degree, and have demonstrated strong research potential in modern immunology. The successful candidate will be expected to generate a vigorous research program, with emphasis on transgenic approaches. A strong background and experience in transgenic technologies are essential. Interested individuals should send their curriculum vitae, a summary of research interests, and the names and addresses of three references to: **Mark I. Greene, M.D., Ph.D., F.R.C.P., Department of Pathology, University of Pennsylvania School of Medicine, 252 John Morgan Building, 37th & Hamilton Walk, Philadelphia, PA 19104-6082.** University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF), ADJUNCT ASSISTANT OR ASSOCIATE PROFESSOR, OR RESEARCH SERIES. The Gallo Center seeks exceptional candidates eligible for a staff scientist position and an adjunct faculty appointment at UCSF. The major research interests of the Center are in signal transduction and gene expression with an emphasis on relevance to alcoholism. This is a securely-funded position to assist the Director in supervising a research group in cellular and molecular biology. Excellent laboratory facilities and substantial research support are available. Successful applicants will have well-documented research experience and accomplishment. Send curriculum vitae and bibliography, a summary of research accomplishments, copies of relevant publications and arrange to send three to five letters of recommendation to:

Ivan Diamond, M.D., Ph.D.
Director, Gallo Center
University of California
Building 1, Room 101
1001 Potrero Avenue
San Francisco, CA 94110

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

ASSISTANT/ASSOCIATE PROFESSOR. The Department of Microbiology and Immunology of the Texas College of Osteopathic Medicine (TCOM) is seeking applicants for a faculty position at the level of Assistant or Associate Professor. TCOM is a state supported medical school housed in new, well equipped facilities, and is affiliated with the University of North Texas. Teaching duties include instruction of medical and graduate students. First priority will be given to applications in the area of molecular immunology. However, applications in molecular microbiology, molecular biochemistry, and molecular virology will also be considered. Send curriculum vitae, a summary of research interests and goals, and three references by 1 October 1992, to: **Dr. Rafael Alvarez-Gonzalez, Search Committee Chairman, Department of Microbiology and Immunology, Texas College of Osteopathic Medicine, 3500 Camp Bowie Boulevard, Ft. Worth, TX 76107-2699.** TCOM is an Equal Opportunity/Affirmative Action Employer & Educator.

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR POSITIONS available to study molecular and biochemical mechanisms of mammalian cell cycle control and tumor suppression. Please send curriculum vitae and names of three references to: **Hal E. Broxmeyer, Ph.D., Scientific Director, Walther Oncology Center, Indiana University School of Medicine, Room 501-975 West Walnut Street, Indianapolis, IN 46202-5121.** Walther Oncology Center is an Equal Opportunity Employer.

MOLECULAR NEUROBIOLOGIST—The Institute of Psychiatric Research, Department of Psychiatry, Indiana University School of Medicine, seeks a candidate for a tenure-track appointment as an **ASSISTANT** or **ASSOCIATE PROFESSOR** of neurobiology. New laboratory and start-up funding available. Send curriculum vitae to: **Hugh C. Hendrie, M.B., Ch.B., Albert E. Sterne Professor and Chairman, Department of Psychiatry, IUMC/CG110, 634 Clinical Drive, Indianapolis, IN 46202-5110, telephone: 317-274-4012.** Equal Employment Opportunity/Affirmative Action, M/F.

FACULTY POSITION—CANCER RESEARCH NEW YORK UNIVERSITY (NYU) SCHOOL OF MEDICINE

The **DEPARTMENT OF PEDIATRICS** invites applications (M.D. or Ph.D.) for a position at either the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. Appointee would be expected to carry out independent laboratory research in the field of Oncology. Applicants should have several years of postdoctoral experience including experience in molecular biology. Candidates will be expected to interact with members of a broadly based Cancer Research Program at the new Skirball Biomolecular Institute.

Please send curriculum vitae and statement of research goals to: **Margaret Karparkin, M.D., Department of Pediatrics, NYU Medical Center, New York, NY 10016.** An Affirmative Action/Equal Opportunity Employer.

PROFESSOR AND CHAIR, DEPARTMENT OF BIOLOGICAL CHEMISTRY. The University of California, Irvine (UCI), College of Medicine, seeks outstanding scientist in molecular biology or biochemistry, including, but not limited to, disciplines such as developmental biology, neurobiology, and human genetics. The candidate must be of great distinction, and lead an active research program. Send nominations or applications to: **Professor Francisco J. Ayala, Chair of Search Committee, c/o Janet Nash, Room 246 Irvine Hall, College of Medicine, University of California, Irvine, CA 92717.** Nominations and applications will be accepted through October 1992. UCI is an Affirmative Action/Equal Opportunity Employer. Nominations of and applications from women and minorities are encouraged.

RESEARCH MANAGER IN WETLANDS ECOLOGY

The University of Georgia's Savannah River Ecology Laboratory (SREL) has an immediate opening of a full-time science administration position in the Division of Wetlands Ecology. The Research Manager will be responsible for the daily management of a large multidisciplinary research program, including project coordination and budget allocation, and will participate in report and proposal preparation. The individual will have frequent interaction with SREL and University of Georgia research faculty and administrators and with state and federal personnel. *Candidates must be U.S. citizens.* A Ph.D. degree and training in wetlands ecology or environmental science is required. Knowledge of federal environmental regulations and experience in research project management are desirable. Supervisory and communication skills will be weighed heavily in evaluating candidates. Salary is negotiable, depending on the professional record of the applicant. Applicants should send résumés, three to four selected reprints, and the names, addresses and telephone numbers of four references to:

**Dr. Rebecca R. Sharitz, Head
Division of Wetlands Ecology
Savannah River Ecology Laboratory
Drawer E
Aiken, SC 29802**

Applications will be accepted until 15 July 1992. The University of Georgia is an Equal Opportunity/Affirmative Action Institution.

POSITIONS OPEN

ADMINISTRATOR for scientific society in Philadelphia to assist with the implementation of Board and committee initiatives. Requires dedicated, detail-oriented person with Bachelor's degree (graduate degree preferred), excellent writing skills, ability to handle multiple projects, and experience using computers. Science background valuable. Send résumé, cover letter, salary history, and writing sample to: **AJ, P.O. Box 54335, Philadelphia, PA 19105.**

CHIEF OF PET RADIOCHEMISTRY

The Department of Radiology at the University of Pennsylvania School of Medicine is seeking a faculty member to serve as chief of PET radiochemistry in the Center for Functional and Metabolic Imaging, responsible for the supervision of the Radiochemistry Laboratory including radiopharmaceutical development and synthesis of radiopharmaceuticals for the PET program. The successful candidate will have a Ph.D. in chemistry, proven experience in PET radiochemistry and recognized excellence in radiopharmaceutical research. Salary and benefits are competitive. The faculty position will be commensurate with qualifications and previous experience.

TRACER KINETIC MODELER

The PET program in the Radiology Department at the University of Pennsylvania School of Medicine is seeking a faculty member with research interests in tracer kinetic modeling. Responsibilities of this faculty member will include drug metabolism and mathematical modeling of receptor binding radiopharmaceuticals, blood flow tracers, and a variety of metabolic tracers. The successful candidate should have a Ph.D. degree in mathematics, physics, pharmacokinetics or related disciplines and have experience and expertise in tracer modeling, particularly of positron-labeled receptor ligands. Salary and benefits are competitive. The faculty position offered will depend on qualifications and previous experience.

Address inquiries to:

**Dr. Robert Kessler, Director
Center for Functional and Metabolic Imaging
Department of Radiology
HUP/Radiology Administration
3400 Spruce Street
Philadelphia, PA 19104**

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

DIRECTOR OF DIAGNOSTIC IMMUNOLOGY

The Department of Pathology and Laboratory Medicine is seeking a Director of The Diagnostic Immunology Laboratory at Emory University. This is a full service laboratory which conducts assays in protein chemistry, auto-immune and infectious disease serology, tumor markers and lymphocyte sub-set analysis. This person will be expected to work with the medical staff to develop new assays and diagnostic programs to serve a developing and sophisticated patient care environment. In addition, he/she will participate in the teaching of pathology residents, fellows and students. Finally, the successful candidate will be expected to participate in ongoing research projects and to develop an independent scholarly program in the area of diagnostic immunology. The minimum requirements are a Ph.D. degree and experience in diagnostic immunology. Supervisory experience in a diagnostic immunology facility is highly desirable. Please send your curriculum vitae plus names of four professional references to: **Kenneth W. Sell, M.D., Ph.D., Professor and Chairman, Department of Pathology, Room 703 Woodruff Memorial Building, Emory University, Atlanta, GA 30322.** Emory University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

RESEARCH DIRECTOR

St. Luke's Hospital seeks a candidate with advanced degree and demonstrated competence and experience in the design, execution and analysis of clinical research. The candidate will develop and direct an Education and Research Institute which assists physicians in the design, conduct, and publication or presentation of clinical research. An ability to communicate with, assist and encourage physicians with limited research experience is required. Please send curriculum vitae and bibliography to: **Dr. Ed Jones, Medical Affairs, St. Luke's Hospital, 801 Ostrum Street, Bethlehem, PA 18015.** Telephone: 215-954-4672.



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Post Doctoral Fellows

We are seeking qualified candidates for Post Doctoral Fellow positions in Pharmacology and Experimental Therapy. Burroughs Wellcome Fellows are initially appointed for up to one year with a renewal for a second year upon the mutual agreement of the employee and Burroughs Wellcome Co.

Pharmacology (Pos. #63978-20)—The Cellular and Molecular Pharmacology Section of the Division of Pharmacology is seeking a Post Doctoral Fellow to study the mechanisms of amyloidogenesis in relation to Alzheimer's Disease. The research will examine the enzyme(s) involved in the aberrant pathway for senile plaque formation and amyloid neurotoxicity. The position requires a Ph.D. or M.D. with strong training and/or experience in molecular biology and biochemistry. Relevance of experience to current research program will be an important consideration.

Experimental Therapy (Pos. #63979-20)—The successful candidate will join a multi-disciplinary group developing therapeutics based upon an understanding of the biological roles of nitric oxide. Research activities will include isolation and characterization of the cDNAs for human cytokine-induced nitric oxide synthases. The position requires a Ph.D. in molecular biology, biochemistry or related discipline and experience with cDNA libraries, eukaryotic expression systems and related techniques. Additional expertise in gene regulation, cell biology of cytokines, protein purification and enzymology is desired.

Burroughs Wellcome Co. offers competitive salaries and comprehensive benefits. We also offer the advantage of working in North Carolina's celebrated Research Triangle Park, one of the country's leading areas for scientific research, with the cultural and recreational opportunities of the Raleigh/Durham/Research Triangle area nearby. To apply, please send your resume, indicating position number in your cover letter, by **August 17, 1992**, to: **Burroughs Wellcome Co., Recruiting and Staffing, 3030 Cornwallis Road, Research Triangle Park, NC 27709.**

For information on other opportunities at Burroughs Wellcome Co., call our Job Information Line at (919) 248-8347.



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PRINCETON, NJ OPENINGS

Research Investigator & Postdoctoral Fellow NMR Spectroscopy

Two positions are available for a Research Investigator and a Postdoctoral Fellow to conduct research in NMR spectroscopy. Specific areas of interest include:

- Characterization or elucidation of structures of biological macromolecules (proteins, DNAs or RNAs) in solution using NMR spectroscopy and tools of computational chemistry.
- Elucidation of conformations of ligands bound to biological macromolecules by NMR techniques.

Candidates should have a Ph.D. in Chemistry, Biochemistry or Physics. Previous experience with a UNIX-run workstation and knowledge of C programming would be an asset. Candidates for Research Investigator should have post-doctoral NMR experience which includes a demonstrated record of scientific accomplishment. An in-depth understanding of spin physics and strong motivation in applying NMR spectroscopy to solve problems in pharmaceutical research are necessary.

If interested in Princeton openings, please forward your resume to: **Bristol-Myers Squibb Pharmaceutical Research Institute, Dept. 330-BM, P.O. Box 4000, Princeton, NJ 08543.**

WALLINGFORD, CT OPENINGS

Molecular Pharmacologist CNS Molecular Neuropharmacology

Research Investigator will be responsible for the cloning and characterization of novel G-protein coupled receptors and/or ion channels. The successful applicant will be part of an expanding group involved in basic and applied research on signal transducing proteins.

A position is available for a qualified candidate who will have a Ph.D. plus 3 years of postdoctoral experience, demonstrated experience in all modern areas of molecular biology, and a proven track record of accomplishments. Strong theoretical training in the pharmacology of neurotransmitter receptors and/or ion channels is highly desirable. Collaboration and publication of novel findings are encouraged.

If interested in Wallingford openings, please forward your resume to: **Bristol-Myers Squibb Pharmaceutical Research Institute, Department 803LB-0420, P.O. Box 5101, Wallingford, CT 06492-7661.**

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**FACULTY OF PURE AND APPLIED SCIENCE
DEPARTMENT OF BIOLOGY
YORK UNIVERSITY, TORONTO, ONTARIO CANADA**

invites applications for

Three positions at the Assistant Professor level to begin 1 July 1993

Applied Ecology: a tenure stream position (subject to budgetary approval) intended to complement present faculty in ecology and population biology. The successful applicant will be expected to establish an independent research programme and to contribute to graduate and undergraduate teaching in applied ecology. Correspondence should be directed to Professor B. G. Loughton, Chair, Applied Ecology Search Committee.

Molecular Biology: a tenure stream position (subject to budgetary approval) intended to complement present faculty in areas such as biochemistry, cell biology, genetics, animal biology, plant biology and evolutionary biology. The successful applicant will be expected to establish an independent research programme and to contribute to graduate and undergraduate teaching in molecular biology. Modern laboratory space, up-to-date infrastructure for research in molecular biology and generous start-up funds are available. The Department has a long term commitment to molecular biology and anticipates advertising another position to be filled in July 1994. Correspondence should be directed to Professor R. E. Pearlman, Molecular Biology Search Committee.

Molecular Biology: a candidate in molecular biology to nominate for a Natural Sciences and Engineering Research Council (NSERC) Women's Faculty Award. Nominees should be Canadian citizens or permanent residents within 5 years of receiving their doctorate degrees. Correspondence should be directed to Professor R. E. Pearlman, Molecular Biology Search Committee.

Send completed applications, which should include a current CV, three letters of reference, a research proposal and a selection of published works to the appropriate Professor at: Department of Biology, York University, North York, Ontario, Canada M3J 1P3. The closing date for these competitions is 15 August 1992 and the Department's fax number is 416-736-5698.

York University is situated in Metropolitan Toronto, an active centre for scientific and scholarly research which offers a wide range of cultural activities. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. York University is implementing a policy of employment equity, including affirmative action for women faculty.

**CHIEF, LABORATORY OF CELL BIOLOGY
DIVISION OF CYTOKINE BIOLOGY
CENTER FOR BIOLOGICS EVALUATION AND RESEARCH
DHHS/PHS/FOOD AND DRUG ADMINISTRATION**

The Food and Drug Administration, Center for Biologics Evaluation and Research, Division of Cytokine Biology invites applications for the position of Chief, Laboratory of Cell Biology, located in Bethesda, Maryland (Medical Officer or interdisciplinary position appropriate for Biologist, Chemist, Microbiologist). The Laboratory is responsible for supervising and conducting research related to protein growth factors and special responsibility for wound healing and neurotrophic factors. The Laboratory Chief is responsible for independently originating, developing, conducting and leading a research program related to the biology and chemistry of growth factors and/or the cell biology of issues related to these factors. An extensive background in cellular biology and demonstrated experience in conducting research is required.

Salary range for chemist, microbiologist, and biologist is \$54,607 to \$70,987 at the GM-14 level and \$64,233 to \$83,502 at the GM-15 level. Salary range for physician is \$63,707 to \$80,087 at the GM-14 level and \$68,515 to \$87,784 at the GM-15 level. Physicians may also be eligible for a Physician's Comparability Allowance up to \$20,000 per year. Salary is commensurate with education and experience. The grade of the position depends upon the research qualifications of the candidate as determined by the CBER Peer Review Board. **U.S. citizenship is required. FDA is an equal opportunity employer and has a smoke free environment. Advertisement closes August 7, 1992.**

For information on where and how to apply, and to obtain appropriate forms, please call Ms. Phillips on (301) 496-5394.



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Several 12-month postdoc appointments, renewable for further 12 months, pending satisfactory progress. Based at CIMMYT—a leading global, nonprofit institute—in Mexico. Starting salary US\$26,000 plus benefits. Appointments available commencing September 1992. Research pertaining to ongoing programs in maize improvement. Covers recurrent selection, germplasm development, insect rearing and host plant resistance, disease epidemiology and host/pathogen interaction. PhD in plant breeding/genetics/pathology/entomology, as relevant. Knowledge of computer statistics packages. Ability to conduct and manage research activities and work in a multi-disciplinary team. Fluency in English a must, knowledge of Spanish a plus. Send letter of interest, resumé or c.v., copy of academic record, and names and FAXs (or addresses) of three references to: **Dr. R.L. Paliwal, Director, Maize Program, CIMMYT, Lisboa 27, Apdo. Postal 6-641, 06600 México, D.F., MEXICO; Tel: 52-595-42100; FAX: 52-595-41069.**

VACCINE RESEARCH AND DEVELOPMENT

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

UBI is currently expanding its Vaccine Research and Development program to focus on the development of synthetic vaccines for the prevention of AIDS, hepatitis C, HTLV, and other infectious/autoimmune diseases. Opportunities exist in the following areas for Technical Associates, Scientists, Senior Scientists and Directors who have a strong commitment to excellence, and are dedicated to actively participating in goal-oriented, multidisciplinary vaccine research and development products.

- **Molecular Biology:** Experience in gene expression, and protein/peptide purification.
- **Virology:** Experience with HIV, hepatitis C, HTLV, Epstein Barr virus, respiratory syncytial virus, hepatitis A virus and related viruses.
- **Immunology-Cellular and Humoral:** Experience with in vitro assessments of cytotoxic T cells, virus neutralization, and/or mucosal immunity. Background with animal models of viruses is desirable.
- **Vaccine Formulation:** Experience in adjuvant technology and vaccine delivery vehicles.
- **Vaccine Development:** Experience in biologics testing, toxicology, process and production of biologics.

Located on Long Island, in close proximity to world-renowned Cold Spring Harbor Laboratory, the State University of New York at Stony Brook, and only 50 miles from Manhattan, UBI offers an active and stimulating scientific environment. An excellent benefits package and competitive salary accompany these positions.

Please send CV with salary requirements to: **Human Resources, UBI, 25 Davids Drive, Hauppauge, New York 11788.**

Hafslund Nycomed is a publically-listed Norwegian industrial corporation. The major growth area is the pharmaceutical industry, with energy operations as a permanent foundation. Hafslund Nycomed's objective is to be a world leader in medical imaging and to achieve a strong international position in selected areas of therapeutic drug research and development. Hafslund Nycomed has 3300 employees with operating revenue in 1991 of USD 900 million.

Nycomed Drug Research is the organisation within the Hafslund Nycomed Corporation responsible for innovative therapeutics research. The main fields of research are Immunology/haematology, cardiovascular pharmacology and novel drug delivery systems. Our research facilities are located in Copenhagen, Linz, Munich, Oslo and Vienna and employ some 200 scientists and staff.

Nycomed Drug Research in Oslo is located in a beautiful setting in a Research Park in close contact with surrounding academic institutions and the University Hospital. We are 25 scientists of a staff of 35 investigating haematology/immunology and thrombosis/haemostasis. We have well equipped laboratories including organic/peptide chemistry with NMR; biochemistry, in vitro and in vivo laboratories with an X-ray irradiator and flow cytometer with sorter. The haematology/immunology group consisting of some 20 scientists are presently investigating small peptides/peptidomimetics that regulate the proliferation of early haematopoietic stem cells and function closely with our medicinal chemistry group. Clinically we are aiming toward the discovery of drugs that can protect haematopoietic stem cells from cytotoxic agents such as those used in cancer chemotherapy or that can stimulate the recovery of the haematopoietic system after bone marrow transplantation or cancer chemotherapy. The haematology group is working in close collaboration with a similar group at SmithKline Beecham Pharmaceuticals, Pennsylvania, and leading academic institutions in Europe and USA. We are expanding and need:

DIRECTOR OF RESEARCH EXPERIMENTAL HAEMATOLOGY

To lead the haematology group, the successful candidate should have a strong scientific background and qualifications as a research manager.

Required qualifications should include Ph.D. or M.D., Ph.D. with extensive knowledge of the different aspects of experimental haematology (stem cell biology and techniques, regulatory mechanisms; in vitro, ex vivo and in vivo models and techniques) proven by an impressive publication record. Detailed, hands-on knowledge of methods used in modern haematology is essential. Insight or experience in clinically relevant animal models and clinical trials with immunomodulators is an advantage.

Applications, including a Curriculum Vitae and three references, should be sent promptly to **Ms. Anne Westerboe**, Nycomed Bioreg AS, Gaustadalleen 21, N-0371 Oslo. Informal inquiries should be directed to **Dr. Steinar J. Engelsen** in Linz, telephone +43 732 5919 4366.

Pharmaceuticals and Drug Delivery

RESEARCH SCIENTIST

As an innovator and creative leader in the development of recombinant DNA-based human therapeutics based on the principles of cellular and molecular biology, Amgen is turning research into important clinical solutions. Because of the success of such breakthrough products as EPOGEN* (recombinant human Erythropoietin) and NEUPOGEN® (recombinant human G-CSF) we are expanding our research and further strengthening our technical base.

The Pharmaceuticals and Drug Delivery Department has an opening for a Scientist to initiate a program for delivery of proteins to the CNS. We require a PhD and preferably 1-2 years post-doctoral experience in the study of drug delivery across the blood brain barrier. Experience with delivery of peptides and proteins is preferred. A background in cellular biology and transport processes would be advantageous.

In addition to exciting, unique challenges, Amgen offers Research Scientists strong support for external collaborations and interactions with peers in the academic community. We offer an excellent compensation and benefits package. For consideration, please send your CV to: Amgen Inc., Staffing Department, Code#S-125, Amgen Center, Thousand Oaks, CA 91320-1789. Amgen is an equal opportunity employer.



Principals only, please.

Assistant Professor Neuropathology Department of Laboratory Medicine & Pathology University of Minnesota

Faculty position available at rank of assistant professor (tenure track) in neuropathology to begin as early as January 1, 1993. Minimum qualifications are M.D., eligible for licensure in state of Minnesota, board certified/eligible in anatomic pathology and neuropathology. Demonstrated research productivity is necessary with experience in molecular biological methods desirable. Excellent opportunities exist for interaction with University research and graduate programs in Neurosciences, Cell Biology and Pathobiology.

Teaching responsibilities include residents in neuropathology, general pathology, neurology, neurosurgery and medical students.

Applicant will be expected to assist in providing neuropathological services to the University Hospital and affiliated hospitals.

Send curriculum vitae, three letters of recommendation and a brief research summary by September 30, 1992 to:

Neuropathology Search Committee
Department of Laboratory Medicine
and Pathology
University of Minnesota, Box 198
UMHC
420 Delaware Street SE
Minneapolis, MN 55455

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National Institutes of Health

MOLECULAR GENETICIST Research Scientist/Senior Postdoctoral Fellow

The Laboratory of Cellular Development and Oncology, National Institute of Dental Research, seeks an outstanding candidate for a research scientist or senior postdoctoral fellow position. The Laboratory will give preference to individuals with the potential to develop a program focusing on the molecular aspects of genetic diseases with a craniofacial/oral component. Applicants should have at least 3 years postdoctoral training and research experience in genetics and molecular biology. A substantial record of publication in these areas is required. Starting salary will be commensurate with qualifications and experience. Interested candidates should submit a curriculum vitae, several reprints, summary of research interests and names of three references **no later than July 31, 1992.**

Material should be sent to: **Faye M. Harbrant, Personnel Management Specialist, National Institute of Dental Research, National Institutes of Health, Bldg. 31, Rm. 2C23, 9000 Rockville Pike, Bethesda, MD 20892.**

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POSITIONS OPEN

IUCN PLANT PROGRAMME OFFICER

Full-time position in Species Conservation Unit, at IUCN Headquarters, Switzerland. Responsibilities include: developing and leading Plant Conservation Programme; orienting and activating Species Survival Commission plant Specialist Groups, especially in relation to developing and implementing conservation action plans; developing plant databases among the SSC groups in collaboration with the World Conservation Monitoring Centre; liaising with Botanic Gardens Conservation International; and promoting IUCN work on plant genetic resources and medicinal plants. The successful candidate should have a graduate degree (Ph.D. preferred), experience in plant conservation, fluency in English, and strong writing skills. Job involves some international travel. Applicants should submit their curriculum vitae by 31 July 1992 to: **Head of Personnel, IUCN, Avenue du Mont Blac, CH-1196 Gland, Switzerland.**

DEPUTY DIRECTOR TEMPLE UNIVERSITY SCHOOL OF MEDICINE

The Fels Institute for Cancer Research and Molecular Biology and The Department of Biochemistry of the TEMPLE UNIVERSITY SCHOOL OF MEDICINE seeks a Deputy Director. Must be a senior investigator with an extensive record of published research in the area of Cancer, Oncology or Molecular Biology of Human Diseases. Responsibilities are to: administer and promote competitive research programs; maintain primary responsibility for obtaining and administering institutional grant support, including our National Cancer Institute CORE and Training Grants; assist the Director in the formulation and execution of Institute policies and budgets; coordinate the management of the Institute's 7 scientific programs and 12 shared resource facilities; and represent the Director on various University committees and at meetings of Cancer Center Directors at the National Institutes of Health.

Qualifications include the ability to obtain independent peer-reviewed funding in support of their research as demonstrated by a significant record of accomplishment in research and extensive success in writing federal grants and scientific proposals. Must meet qualifications for appointment as a full Professor in the Department of Biochemistry of the Medical School.

Please send curriculum vitae and bibliography to: **E. Premkumar Reddy, Ph.D., Director, Fels Institute for Cancer Research and Molecular Biology, TEMPLE UNIVERSITY SCHOOL OF MEDICINE, Medical Research Building, 3400 North Broad Street, Philadelphia, PA 19140.**

Temple University is an Equal Opportunity Employer and strongly encourages applications from women and minorities.

VICE PRESIDENT/DRUG DEVELOPMENT to formulate policy and direct all aspects of research, operation, finance, compliance with U.S. and international regulatory agencies, manufacture and marketing for drug development activities in the United States. Provides hands-on research management leadership and scientific expertise to drug development projects in areas of cardiovascular, allergy/inflammation, gastroenterology, bone metabolism, blood products, cancer, CNS and infectious diseases and determination/analysis of drug substance and dosage forms utilizing applied principles of chemistry (emphasis on stereochemistry and biosynthesis), pharmaceuticals, pharmacokinetics, clinical pharmacology, medicinal chemistry, spectral interpretation, NMR, MS, IR and UV. Ph.D. in Biochemistry plus 5 years in the job or 5 years of experience as Director of Research and Development/Pharmaceuticals required. Previous experience must include 5 years of hands-on experience providing research, financial, operational, manufacturing and regulatory compliance management of drug development projects in cardiovascular, allergy/inflammation, gastroenterology, bone metabolism, blood products, cancer, CNS and infectious diseases and determination/analysis of drug substance and dosage forms utilizing chemistry (emphasis on stereochemistry and biosynthesis), pharmaceuticals, pharmacokinetics, clinical pharmacology, medicinal chemistry, spectral interpretation, NMR, MS, IR, and UV. Forty hours per week; 8:30 a.m. to 5:00 p.m.; Monday to Friday. Salary: \$88,055.00 per year. Send résumés to: **Judy Owens, H37, Rhone-Poulenc Rorer Central Research, 500 Arcola Road, Collegeville, PA 19426. Equal Opportunity Employer.**

POSITIONS OPEN

HEAD AND PROFESSOR OF PLANT PATHOLOGY sought in the Department of Plant Pathology at Auburn University. The Department Head provides leadership and direction in all teaching, research, and extension programs of the department. The Department Head plays a key role in faculty and staff recruitment and professional development, and budgetary matters including fund allocations and accountability. Candidates for the position must have a Ph.D. in plant pathology or a closely related discipline; an outstanding professional record, including research with a strong publication record in refereed journals; successful history of receiving extramural funding, including competitive grants; commitment to excellence in instruction, extension, and research programs; record of leadership and evidence of administrative capabilities; and a commitment to affirmative action. Closing date for applications is **15 August 1992** (or until position is filled). Applications, including curriculum vitae, names of four references, and a statement of administrative philosophy and qualifications to: **Dr. Joseph Touchton, Chairman of Search Committee, Department of Agronomy and Soils, 201 Funchess Hall, Auburn University, AL 36849-5412.** *Auburn University is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.*

**THE SCHOOL FOR FIELD STUDIES
IN CONJUNCTION WITH
NORTHEASTERN UNIVERSITY
FIELD DIRECTOR**

Center for Marine Resource Studies, Caribbean

Director will lead faculty and 30 undergraduates in summer and semester programs in an interdisciplinary, hands-on, field-oriented research program. Will manage all aspects of the site, live on-site in a remote field setting and provide academic leadership for faculty and students.

Qualifications: Ph.D. preferred, M.S. minimum, solid administrative, research and field experience. Must have experience in the region and have applied background in the specific focus of the center. Must have extensive experience in marine resource management or marine ecology in the area. **TO APPLY:** Send letter and curriculum vitae to: **SCI Search, School for Field Studies, 16 Broadway, Beverly, MA 01915, telephone: 508-927-7777, or FAX: 508-927-5127.**

BIOLOGY: Bates College has openings for **TWO FACULTY POSITIONS** in Biology for the Fall of 1992. The first position is a full year leave replacement in **MARINE ECOLOGY**. The successful applicant will participate in a team taught introductory Population Ecology course in the Winter and will offer advanced electives which might include: Marine Invertebrates, Animal Behavior, Oceanography, courses in animal ecology and/or courses with an environmental focus. The Ph.D. is required. The second position is full time, Fall Semester only, and involves teaching a large introductory level Biology course to majors and non-majors. Content in this course includes: Mendelian genetics, cell division, biological diversity, and evolutionary concepts. The Ph.D. is preferred but not required. Previous College level teaching experience is also preferred for both positions. Both positions begin 31 August 1992. Salary commensurate with degree, rank, and previous experience. Please forward a letter of application by 15 July 1992 accompanied by curriculum vitae, graduate transcripts and three letters of recommendation to: **Introductory Biology Search, Department of Biology/Box 403, Lane Hall, Bates College, Lewiston, ME 04240, or Ecology Search, Department of Biology/Box 404, Lane Hall, Bates College, Lewiston, ME 04240.**

Bates College encourages applications from members of underrepresented groups. Bates College is an Affirmative Action/Equal Opportunity Employer.

MOLECULAR ONCOLOGY/HEMATOLOGY POSTDOCTORAL POSITIONS. Funding now available for 3-year research fellowships (four) in adjacent Oncology Center laboratories to study either: (a) A signal transduction pathway involving p53 which controls cell cycle responses to DNA damage: **Michael Kastan, M.D., Ph.D.** (three positions) OR (b) Molecular biology of genes expressed in hematopoietic stem cells, including a new receptor: **Curt Civin, M.D. and Donald Small, M.D., Ph.D.** Ph.D. and experience in protein biochemistry and molecular biology required. Salary approximately \$28,000 per year plus benefits. Provide curriculum vitae and three reference letters: **Johns Hopkins Oncology Center 3-109, 600 North Wolfe Street, Baltimore, MD 21205. Telephone: 410-955-8816, FAX: 410-955-8897.**



GLAXO INSTITUTE FOR MOLECULAR BIOLOGY

Research at the Glaxo Institute in Geneva is focussed on discovering the molecular mechanisms of diseases of the CNS, allergies and inflammatory conditions. We have an outstanding opportunity for a

POSTDOCTORAL FELLOWSHIP IN BIOCHEMISTRY

**to study receptor function by protein
engineering with unnatural amino acids**

The successful applicant will join an interdisciplinary team of biochemists and biologists who are probing receptor function by spectroscopic techniques. Candidates should have experience in protein biochemistry with a strong background in molecular biology and have an interest in developing new technologies for studying protein structure and function.

The Institute provides a dynamic international research environment and actively encourages collaborative projects with academic groups as well as the publication and presentation of results at scientific meetings. The Glaxo Institute is part of the Glaxo group, one of the world's most successful healthcare companies which has an outstanding reputation for the quality of both its research and products.

We offer an excellent compensation and benefits package and significant opportunities for career development. Geneva, situated in a very attractive part of Europe, has many advantages as a place to live.

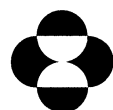
If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three referees to : Rita Gloor, Personnel Manager, Glaxo Institute for Molecular Biology, 14 chemin des Aulx, 1228 Plan-les-Ouates, Geneva, Switzerland.

SENIOR DIRECTOR

Center for Research in Medical Education

Merck & Co., Inc., a world leader in ethical pharmaceuticals, has established a new position within its Human Health Division to conceive, develop and present innovative systems, programs, and approaches for educating the practicing physician. These programs are intended to establish new standards for postgraduate medical education and provide practicing physicians highly stimulating learning experiences. This is an opportunity for an individual with an M.D., M.D./Ph.D., or Ph.D., with broad experience and national recognition for research in medical education, to achieve additional professional recognition and personal growth by creating programs of premier quality and content while meeting, and even exceeding, the professional needs of the practicing physician. Proven expertise in computer technology is essential.

If you are interested in this unique position, please send your curriculum vitae, including list of publications, to **Dr. G.S. Levey, Senior Vice President, Medical & Scientific Affairs, Merck Human Health Division, P.O. Box 2000, Rahway, NJ 07065.** EEO/AA/VH Employer.



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Searle, a leader in pharmaceutical research, development and marketing, has an excellent opportunity for a Senior Research Investigator in the Drug Metabolism Section.

The candidate we select will use his/her skills to design and conduct metabolism and pharmacokinetic studies in animals and man. This position is also responsible for preparing reports that interpret data for internal use as well as for submission to regulatory agencies. As a member of project teams, the Senior Research Investigator will integrate his/her research with that of his/her colleagues in Product Discovery, Clinical and other departments within Research and Development.

The qualified applicant will have a PH.D. in Pharmacology or related field and 2-5 years of experience in drug metabolism/pharmacokinetics.

Investigate the opportunities Searle has for you. Send your resume, in strict confidence, to: **Searle, Human Resources, Dept. JS2, 4901 Searle Parkway, Skokie, IL 60077.** An equal opportunity employer M/F/D.

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SCIENTISTS

DNA SYNTHESIS AND PURIFICATION

In this vital position, you'll be responsible for DNA synthesis and purification research. You must possess a Ph.D. and 0-2 years' experience in organic synthesis, HPLC, gel electrophoresis, and DNA synthesis. This is an excellent opportunity with management potential for those candidates with the appropriate combination of leadership skills and experience.

MEDICINAL CHEMISTRY

As a member of our dynamic team, you must possess a Ph.D. in organic or medicinal chemistry and two years' postdoctoral training with 0-5 years' of relevant experience and demonstrated ability in the design, synthesis and improvement of novel biologically-active agents.

As an emerging force in the pharmaceutical industry, Gilead provides a comprehensive compensation and benefits package, which reflects our leadership and commitment to our science. If you enjoy a team-oriented environment and would like to make an impact in the development of a new class of human therapeutics, please send your CV to: Human Resources, Gilead Sciences, 346 Lakeside Drive, Foster City, CA 94404. An equal opportunity employer.

GILEAD
SCIENCES



**Public Announcement
regarding a
New Research and Development Project on
High Temperature Carbon Dioxide
Separation, Fixation and Utilization Technology**

Announced by the New Energy and Industrial Technology
Development Organization on June 25, 1992

In order to promote the research of global environmental technology and industrial technologies, the New Energy and Industrial Technology Development Organization (NEDO) would like to inform all interested companies and research organizations regarding the research and development project described below. This new project is being undertaken as part of the Research and Development Program on Industrial Technology for Protection of the Global Environment and The National Research and Development Program of the Ministry of International Trade and Industry of Japan.

Theme of the Research Project

"Research and Development of Environmentally Friendly Technology for the High Temperature Carbon Dioxide Separation, Fixation and Utilization Technology"

Outline of the Research Work to be Entrusted

In order to reduce large-volume discharges of carbon dioxide from large-scale stationary sources into the atmosphere, the research and development work to be entrusted will be directed towards developing separation systems using ceramic membranes, which can isolate carbon dioxide at high temperatures of more than 300°C from waste gas, and developing carbon dioxide fixation and utilization methods for industry use.

Procedures for Application

(1) Qualification Criteria

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

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

(2) Explanatory Meeting

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

Date: Thursday, July 9, 1992
Time: 14:00 to 15:00
Place: NEDO's Head Office
Sunshine 60 Building, 30th Floor, Room 30-02
1-1, Higashi-Ikebukuro 3-chome
Toshima-ku, Tokyo 170

(3) Further Information

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

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

POSTDOCTORAL POSITION

Pharmaceutical company with nationwide distribution has an immediate opening in the study of pharmacokinetic modeling of drugs targeted for the central nervous system.

Applicants should have a thorough understanding of pharmacokinetic modeling of endogenous and exogenous body constituents using known computer programs such as PCNONLIN. Additionally, experience with mainframe computing is essential and an interest in exploration of novel models is desirable. The candidate will join an experienced drug metabolism team in planning, conducting and analyzing data from pharmacokinetic studies.

For further information about this position, please contact **Dr. S. Curry at (716) 274-5878**. Please send resume, a description of research experience and the names of three references to: **Attn: Employment Office, Ref. Ad #RSC909, Fisons Corporation, P.O. Box 1710, Rochester, NY 14603.**

FISONS

Fisons Pharmaceutical Corporation

No Agency Referrals Please

An Equal Opportunity Employer M/F/H/V

Pharmaceutical/ Biotechnology: Careers In Industry

This special section, reprinted from the May 8 issue of **SCIENCE** takes an in-depth look at careers in the pharmaceutical and biotechnology industries.

Highlighted topics include:

- Challenges and incentives offered by a pharmaceutical or biotechnology firm
- A sampling of salaries for scientists in industry
- How industry salaries compare with university jobs
- "Hot" new fields in industry

Also included are "career stories" from five scientists who made the decision to move to a position in industry.

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POSITIONS OPEN

PHARMACOLOGY

Twelve-month position available immediately to teach pharmacology to Optometry, Pharmacy and Osteopathic Medical students and to participate in the committee structure of the University. Ph.D. required. Rank is open. Send letter of application and complete résumé by 1 August 1992, to: **Harold E. Laubach, Ph.D., Associate Dean for Basic Sciences, Southeastern University of the Health Sciences (SEUHS), 1750 N. E. 168th Street, North Miami Beach, FL 33162. SEUHS is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION in immunology to study mechanisms that control T cell development and function, T cell repertoire selection, and cellular signals which determine cell fate. Emphasis on comparative studies of $\alpha\beta$ and $\gamma\delta$ T cells. Experience in molecular biology, biochemistry, and/or immunology desirable. Starting date negotiable. Send curriculum vitae to: **Dr. A. Augustin, Division of Basic Immunology, National Jewish Center for Immunology and Respiratory Medicine, 1400 Jackson Street, Denver, CO 80206.**

POSTDOCTORAL ASSOCIATE position available in a physiology laboratory to study the mechanisms responsible for the altered skeletal muscle ion channels in malignant hyperthermia susceptible pigs. Individual will utilize whole cell patch-clamp techniques to study calcium currents and contractile properties of myotubes. Ph.D. in Biological Science received within the last three years plus 1 year research experience required. Previous experience in electrophysiology and/or muscle physiology is desirable. Position to start 1 October 1992, application deadline is 26 August 1992. Send letter of application, curriculum vitae and names of three references to: **Esther M. Gallant, Veterinary Pathobiology, College of Veterinary Medicine, 1988 Fitch Avenue, St. Paul, MN 55108. The University of Minnesota is an Equal Opportunity Educator and Employer.**

POSTDOCTORAL ASSOCIATE. Forest ecologist or plant ecophysiology to work with a team of modelers to assess response of North American forests to ozone. Responsibilities: (1) parameterize a tree physiological model (TREGRO) for important north american species and (2) simulate effects of ozone on forest growth. No modeling experience necessary. Send curriculum vitae, names/addresses of three references to: **Dr. David Weinstein, telephone: 607-254-1228 or Dr. Ruth Yanai, telephone: 607-254-1367, Boyce Thompson Institute for Plant Research, Tower Road, Ithaca, NY 14853-1801. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL ASSOCIATES STONY BROOK

Positions available for biochemists or cell biologists with molecular biology experience preferred. Project 1: hormonal regulation of mRNA stability, analysis of RNA turnover elements and factors, and pathways of mRNA degradation. Project 2: role of apoE in modulating signal transduction pathways and cellular cholesterol metabolism. Emphasis is on molecular biological approaches and transgenic models. Send curriculum vitae and names of three references to: **Dr. David Williams, Department of Pharmacological Sciences, Health Sciences Center, SUNY at Stony Brook, Stony Brook, NY 11794.**

POSTDOCTORAL POSITION. Available immediately to study the biochemistry, molecular biology, and genetics of insulin-dependent diabetes mellitus and atherosclerosis using mouse models. Candidates must have a Ph.D. with training and experience in molecular biology, genetics, lipid transport and/or immunology. Please send curriculum vitae with names and telephone numbers of three references to: **Dr. Renee C. LeBoeuf, Department of Medicine, Nutritional Sciences DL-10, University of Washington, Seattle, WA 98195. Affirmative Action/Equal Opportunity Employer.**

TWO POSTDOCTORAL POSITIONS IN MOLECULAR VIROLOGY AND IMMUNOLOGY AT YALE UNIVERSITY SCHOOL OF MEDICINE. To develop papillomavirus vaccines and to investigate papillomavirus gene functions using an animal model. Interested candidates should forward curriculum vitae and letters of recommendation to: **Janet Brandsma, Ph.D., Section of Comparative Medicine, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510. An Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

QUANTITATIVE ECOLOGIST. A POSTDOCTORAL POSITION is available immediately at Applied Biomathematics, an ecological research and software company. Projects may include software for qualitative modeling, ecological risk analysis, spatial models and remote sensing. Facility with Pascal or C is required. Salary is \$34,000 per annum plus benefits. Send curriculum vitae and names, addresses and telephone numbers of three references to: **Dr. Scott Ferson, Applied Biomathematics, 100 North Country Road, Setauket, NY 11733.**

POSTDOCTORAL POSITIONS in the molecular genetics and molecular biology of Alzheimer Disease and other inherited neurologic diseases, and of the APP gene. Experience in molecular genetics, molecular biology, protease biochemistry, transgenic models or neurology required. Apply to: **Dr. P. St. George-Hyslop, Tanz Building, University of Toronto, 6 Queens Park Crescent, Toronto, Ontario, Canada, M5S 1A8.**

POSTDOCTORAL POSITION available at Childrens Hospital/Harvard Medical School to study endocytosis and transepithelial transport of microorganisms and vaccines by intestinal epithelial cells and cell/molecular basis of immune protection of epithelial surfaces. Experience in cell culture, monoclonal Abs, immunoassays, immunocytochemistry, SDS-PAGE preferred. Funded position, available immediately. Send or FAX curriculum vitae, cover letter, names/telephone numbers of three references to: **Marian R. Neutra, Ph.D., Director, GI Cell Biology Laboratory, Enders 461, Childrens Hospital, 300 Longwood Avenue, Boston, MA 02115. Telephone: 617-735-6229; FAX: 617-730-0404.**

POSTDOCTORAL POSITION. Immediate opening for 2-year position to study *C. elegans* cold-sensitive embryonic-lethal genes, their suppressors and/or the colocalization of GAPDH mRNA at the thin myofilament. Requires Ph.D. with background in genetics and molecular biology. Send curriculum vitae and names of three references to: **Ralph M. Hecht, Ph.D., Department of Biochemistry, 4800 Calhoun, Houston, TX 77204-5934. Equal Opportunity Employer/Affirmative Action.**

POSTDOCTORAL POSITIONS—DRUG METABOLISM. Studies of anticancer and other drugs in humans, both in vivo and in vitro with tissue preparations, cell cultures and purified enzymes. A chemical/biochemical background is required. Available immediately. Send inquiries to: **Dr. Thomas Walle, Department of Pharmacology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425; telephone: 803-792-2471. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION. Applications are invited for a postdoctoral scientist to join in the isolation and cloning of genes from *Heliothis* midguts which bind *Bacillus thuringiensis* insecticidal proteins. Insect midgut proteins are critical to the specificity and action of these toxins. The candidate will receive training in the isolation and purification of proteins as well as cDNA cloning of mRNA. The preferred candidate will have some experience in molecular biology. Please submit curriculum vitae, statement of research interest, FAX number and address of three references to: **Dr. Mike Adang, University of Georgia, Department of Entomology, Athens, GA 30602.**

POSTDOCTORAL POSITION. Available immediately to study the neuronal cytoskeleton using a wide variety of morphological and biochemical techniques. Principal interests in the laboratory include the mechanisms by which axonal and dendritic microtubules are organized and how they contribute to the fundamental polarity of the neuron. Send curriculum vitae and three letters of reference to: **Dr. Peter W. Baas, Department of Anatomy, University of Wisconsin Medical School, 1300 University Avenue, Madison, WI 53706.**

POSTDOCTORAL POSITION BIOCHEMISTRY, MOLECULAR BIOLOGY

Available immediately to study glycosyltransferases/glycosidases involved in glycoprotein biosynthesis and processing. Send résumé and two letters of reference to: **Dr. Inder K. Vijay, Program in Molecular and Cell Biology, Room 2125, Animal Sciences Center, University of Maryland, College Park, MD 20742. An Equal Opportunity/Affirmative Action Employer.**

Opportunities in Hematology R&D

Miles Inc., Diagnostics Division, a leading developer of automated clinical laboratory instruments, is expanding and has immediate opportunities within its Hematology Research & Development Group for the following professionals:

S E N I O R R E S E A R C H S C I E N T I S T S

Candidates will have primary responsibility for the design, execution and reporting of studies on the development of methods for specific cell identification and counting, for incorporation in automated hematology instruments for use in the routine diagnostics and clinical research on peripheral blood and tissue samples.

PhD in Cell Biology/Cytochemistry or related disciplines required. A minimum of 4 years' industrial or postdoctoral experience methodologically oriented research and/or development with strengths in flow cytometry and cytochemistry preferred.

R E S E A R C H S C I E N T I S T S

Candidates will develop and utilize flow-cytometric and cytochemical methods in support of studies to develop and commercialize automated cytoanalytical instrumentation. Additional responsibilities will include processing biological tissues and fluids, reagent preparation and qualification; system testing and data analysis.

PhD/MS/BS in Biology, Biochemistry, Biophysics or related areas with 2-6 years' industrial or postdoctoral experience preferred. Demonstrated skills in blood cell and tissue processing, cytochemical and immunocytochemical methods and general chemical/biochemical laboratory methodology necessary.

Miles Inc., Diagnostics Division, provides a professional and stimulating environment, competitive salary and a comprehensive benefits package. **Qualified candidates are invited to send CV/resume to: Manager, Human Resources—R&D, Miles Inc., Diagnostics Division, 511 Benedict Avenue, Tarrytown, NY 10591.** An Equal Opportunity/Affirmative Action Employer M/F/H/V.

Postdoctoral Training Toxicology and Carcinogenesis

Positions are available for studies in various aspects of cancer research and toxicology in the Center in Molecular Toxicology through the Departments of Biochemistry, Chemistry, Medicine, and Pharmacology. Areas of investigation relating to toxicology and carcinogenesis are: 1) enzymatic oxidation, 2) oxidative damage, 3) DNA adduct chemistry, 4) mechanisms of mutagenesis, 5) structural and regulatory biology, and 6) analytic method development. Salaries are negotiable.

Faculty

| | |
|---------------------|---------------------|
| Ian A. Blair | Thomas M. Harris |
| Raymond F. Burk | Mark M. Jones |
| Peter Gettins | Lawrence J. Marnett |
| F. Peter Guengerich | Michael R. Waterman |

Applicants should submit curriculum vitae and three letters of recommendation to Dr. F. Peter Guengerich, Director, Center in Molecular Toxicology, Vanderbilt University, School of Medicine, Nashville, TN 37232-0146

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BIOLOGY

EXPERIMENT SUPPORT SCIENTISTS

This is a unique opportunity to participate in the planning and implementation of life science experiments supported by NASA studying the effects of the space environment on living systems. The Experiment Support Scientist will act as the primary interface between scientific investigators and NASA, ensuring experiment goals are achieved. You will represent the investigator in forums which address scientific issues, prepare official documentation required for the conduct of the experiment, and assist with the implementation of the experiment.

An MS degree and laboratory experience in the life sciences is required. Excellent written and verbal communication skills and organizational ability is required. Ability to work in a multidisciplinary team environment is essential. Primate physiology research background is preferred. Other life sciences disciplines are encouraged to apply. Please forward a curriculum vitae and telephone numbers of two references to: Blythe Asagi, Human Resources, Lockheed Engineering & Sciences Company, P.O. Box 168, Moffett Field, CA 94035-0168. We are an equal opportunity, affirmative action employer.

 **Lockheed**
Engineering & Sciences Company

Scientist Protein Engineering

Genentech, Inc., an internationally recognized leader in the field of biotechnology, is seeking a Scientist to conduct independent research involving the mutational analysis of proteins and their functional design. This person will interact with structural biologists and chemists while focusing on the use of structure and function principles to develop new protein, peptide and small molecule pharmaceuticals.

The successful candidate should have a PhD in Biochemistry, Biophysics, Molecular Biology or Chemistry with at least 2 years' postdoctoral experience. You should also have a background in protein structure and function relationships, molecular biological techniques (mutagenesis/heterologous gene expression) and biochemical/biophysical methods.

Our progressive company offers an excellent salary and benefits package which includes child care facilities, free health club membership and fully paid medical/dental/vision coverage. For immediate consideration, please send your resume to Genentech, Inc., Human Resources, Dept. YSJW, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal opportunity employment. Women and minorities are encouraged to apply.

Genentech, Inc.

Medizinisches Institut für Umwelthygiene at Heinrich-Heine University Düsseldorf

The Medizinisches Institut für Umwelthygiene (MIU) (Medical Institute for Environmental Hygiene) at Heinrich-Heine University Düsseldorf (supporting organization: Society for Promoting Air Hygiene and Silicosis Research) seeks to appoint a

DIRECTOR (male or female)

(to succeed Prof. Dr. med. H.-W. Schlipkoter).

This Institute is a research establishment supported by the Federal Republic of Germany and the Land of North Rhine-Westphalia according to Art. 91b GG (Blue List Institute). It enjoys a high reputation in Germany and abroad.

The Institute employs a staff of about 280 of which one-quarter are scientists. The impact of environmental factors on human health is researched in 14 departments working in close collaboration (analytic chemistry, biochemistry, biostatistics, electron microscopy, epidemiology, experimental hygiene, immissions measuring technology, immunology, neurotoxicology, psychophysiology, toxicology, environmental pathology, cytobiology and clinical environmental medicine).

The emphasis of the research is documented by departmental cooperation among the working groups of the Institute: epidemiology, immunology, inhalation toxicology and pneumoconiosis, neuro and behaviour toxicology, toxicology and allergies as well as environmental carcinogenesis.

The successful candidate will be appointed jointly with the Medical Faculty of Heinrich-Heine University Düsseldorf to the Chair of Environmental Medicine (C 4) and given leave of absence in order to head the Institute.

This invitation is addressed to scientists of international standing whose research activities blend with the biomedical environmental research activities of the Institute. Applicants should be university graduates and have held posts as a university lecturer or equivalent. They will have gained experience in directing and managing scientific institutes. The position also requires excellent knowledge of the German language.

The Institute Director will present the work of the Institute to specialist committees and the general public.

Applications including CV, a list of publications and brief summary of scientific work to date should be sent to the following address by August 15, 1992:

**Vorstand der Gesellschaft
zur Förderung der Lufthygiene
und Silikonforschung e.V.
Auf'm Hennekamp 50
4000 Düsseldorf 1**

POSTDOCTORAL FELLOWSHIP

A 2-year postdoctoral position in electrophysiology is currently available in the Pharmacology Department at ICI Pharmaceuticals Group, for independent and collaborative research on the action of drugs and neuromodulators on neuronal calcium channels. Candidate will be involved in ongoing research using the patch-clamp technique in combination with molecular biology to examine calcium channel regulation in acutely isolated and cultured neurons.

Experience in brain slice techniques and knowledge of whole-cell patch-clamp helpful. Familiarity with computer-based data acquisition and analytical techniques desirable.

Interested candidates should submit a curriculum vitae and names/letters of reference to: **Dr. J. M. H. French-Mullen, Dept. of Pharmacology, ICI Pharmaceuticals Group, Concord Pike and New Murphy Road, Wilmington, DE 19897.**



Pharmaceuticals

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HYPERTENSION PROGRAM

We are recruiting faculty for the newly-created Hypertension Program of the Mount Sinai School of Medicine, New York, N.Y. and the VA Medical Center, Bronx, N.Y. Applicants should be MDs, and BE/BC in Internal Medicine would be an advantage but is not essential. We seek individuals with an established record or potential in clinical and/or basic science research, to utilize the excellent facilities at both institutions. There are outstanding opportunities for basic research in a dedicated Research Building on the modern VA Campus, and excellent potential for clinical investigation at both institutions. Academic appointment at Mount Sinai, and good VA benefit packages available.

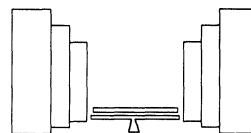
Send Curriculum Vitae and the names of at least two references by July 31, 1992 to:

Clive Rosendorff, M.D., Ph.D., Director

**DEPARTMENT OF
VETERANS AFFAIRS
BRONX VA MEDICAL CENTER**

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The Salk Institute for Biological Studies

Visual Neuroscience Assistant Professor

The Salk Institute for Biological Studies is seeking applications for a faculty position at the Assistant Professor level in the Vision Research Center. The successful candidate is expected to establish an independent research program employing any variety of experimental techniques to address the neural bases of visual perception and visually-guided behavior. We are particularly interested in individuals working on the cellular basis of visual cortical function and/or the relationship between cortical function and perception. Qualified candidates should send curriculum vitae, description of research interests, reprints of selected publications, and the names and addresses of three individuals who have been asked to submit letters of recommendation to:

Thomas D. Albright, Director
Vision Center Laboratory
The Salk Institute for Biological Studies
P.O. Box 85800
San Diego, CA 92186

The Salk Institute is an Equal Opportunity Employer

Training And Research Opportunities.

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

Anticancer Drug Action **Kurt W. Kohn, MD, PhD**

Senior Staff Fellow (assistant professor equivalent) position is available to study the effect of anticancer drugs on cell cycle regulator elements, including the cyclin-dependent kinase family and related phosphatases. Training and experience required in appropriate areas of molecular/cellular biology, protein chemistry and pharmacology of DNA-reactive anticancer drugs. Laboratory of Molecular Pharmacology (OE-16), NCI, Building 31, Room 5C25.

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

Opportunities for research in epidemiology include studying the role of occupation, radiation, diet/nutrition, genetics, infectious agents, lifestyle factors, medications, and environmental pollution in the development of cancer. Fellowships in biostatistics and methods development are also available. Applications are accepted on a continuing basis from candidates with a variety of academic, clinical and research backgrounds. Epidemiology and Biostatistics Program (OE-16), NCI, EPN, Room 543.

Cellular Regulation **Claude B. Klee, MD**

Drosophila genetics are used to identify the physiological roles of the calmodulin-stimulated protein phosphatase, calcineurin. Experience in molecular and developmental biology and signal transduction is required. Laboratory of Biochemistry (OE-16), NCI, Building 37, Room 4E28.

Muscle Transcription Factors **Michael T. Crow, PhD**

A unique class of transcription factors expressed in skeletal and cardiac muscle are being defined. The laboratory is interested in isolating and cloning these factors using novel screening procedures based on protein expression, determining how these factors interact with serum response factor to achieve tissue-specific gene transactivation and elucidating how the expression of these factors is altered by muscle activity and aging. Laboratory of Cardiovascular Science (OE-16), NIA, 4940 Eastern Avenue, Baltimore, MD 21224.

Neuropeptide Gene Expression **Y. Peng Loh, PhD**

The molecular mechanisms regulating the onset of expression of neuropeptides and their processing enzymes are studied at the gene level in the developing frog brain. A minimum of three years experience in molecular biology, especially in the analysis of cis- and trans-acting elements regulating gene expression, is essential. This position may be filled at the Senior Staff Fellow (assistant professor equivalent) level. Laboratory of Developmental Neurobiology (OE-16), NICHD, Building 36, Room 2A21.

Regulation of Cell Growth and Differentiation **Bruce H. Howard, MD**

The role of RNA polymerase III-transcribed interspersed repetitive sequences in control of mammalian cell growth and differentiation is being determined. Proven experience in techniques of molecular cloning, analysis of gene expression, mammalian gene transfer, signal transduction mechanisms, protein purification and chromatin analysis is required. Laboratory of Molecular Growth Regulation (OE-16), NICHD, Building 6, Room 416.

Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings you may access the NIH EDNET Bulletin Board's POSTDOC conference via modem (1,3014922221 or 1,8003582221). The settings for modem access are "7,Even,1". When connected to NIH, type in "vt100" at the connect message, "F5E" at initial, and "AJL1" at account.

Those interested in receiving information on other postdoctoral opportunities in NIH research laboratories, as well as information on clinical training opportunities, may contact the Office of Education, Building 10, Room 1C129. Phone: 301-496-2427.

To Apply

If you hold a PhD, MD, or equivalent degree and would like to be considered for one of these positions, please send a cover letter, *curriculum vitae*, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



National Institutes Of Health

9000 Rockville Pike, Bethesda, MD 20892

Equal Opportunity Employer

STAFF SCIENTIST

Developmental Molecular Genetics

The Hospital For Sick Children Research Institute in Toronto, Canada is seeking to appoint a Staff Scientist. The qualified individual will be expected to establish an independent research programme in the area of developmental molecular genetics.

Individuals with either a Ph.D., M.D. or both will be considered. Those with an M.D. will be expected to have completed at least four years of post-clinical bench research training. Candidates with a Ph.D. are also expected to have completed, at a minimum, a 2-3 year post-doctoral fellowship.

The successful candidate will be appointed as a Scientist at The Hospital For Sick Children Research Institute with a cross-appointment to an appropriate Department at the University of Toronto. Start-up support and laboratory facilities will be made available for the successful candidate to develop his/her independent research programme and interactions with investigators in established Developmental Biology programmes in Toronto will be encouraged. Laboratory facilities will include access to a complete small animal transgenic facility.

Send curriculum vitae and a list of three referees by September 15, 1992, to: **Dr. K. Skorecki, Director, Division of Nephrology, Dept. of Medicine and Paediatrics, The Hospital For Sick Children, 555 University Avenue, Room 5128C, Toronto, Ontario, Canada M5G 1X8.**

In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.



**THE HOSPITAL
FOR SICK CHILDREN**

SCIENTIST

Drug Metabolism and Pharmacokinetics

SmithKline Beecham, a worldwide leader in pharmaceutical research, is seeking a scientist to join our **Drug Analysis** group. The ideal candidate will supervise and motivate a small team of scientists engaged in the development, validation, and routine application of assays for the quantification of new drug compounds in biological fluids.

Requirements include a Ph.D. in analytical chemistry or biochemistry with experience in the pharmaceutical industry working under GLP conditions, excellent interpersonal skills, a proven record of achievement in the area of trace bioanalytical techniques; radioimmunoassay and/or GC/MS experience is desirable.

Our state-of-the-art research facility is located in suburban Philadelphia, near Valley Forge, PA. We offer a competitive compensation/benefits package and a stimulating team environment. For confidential consideration, send your resume to: **HR McConnell, M046, Employment, SmithKline Beecham Pharmaceuticals, PO Box 1539, King of Prussia, PA 19406-0939.** We are an Equal Opportunity Employer, M/F/H/V.



SmithKline Beecham
Pharmaceuticals

RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY

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

PROJECT LEADER, SPECIALTY CARBOHYDRATES (JOB #1372) - The successful candidate will initiate an independent research program on starch biosynthetic and/or modifying enzymes. The ideal candidate will be knowledgeable about starches and be capable of isolating and assaying enzymes involved in starch synthesis and modification. Expertise in recombinant DNA technology would be an additional asset. The ultimate research goal will be to enhance current, and develop new, value added starches. The successful candidate will be expected to work with molecular and cellular biologists to clone starch related genes and transfer them into target crops. **EDUCATION/EXPERIENCE:** Ph.D. or equivalent in biochemistry or a related field plus 3 or more years of relevant research experience are required. More experienced individuals are encouraged to apply.

RESEARCH ASSOCIATE, SPECIALTY SEED PROTEINS (JOB #1373) - The successful candidate for this position will become a member of a team investigating methods of altering amino acid composition of seeds via genetic engineering. Applicants must have extensive experience in molecular cloning techniques. Skills in seed protein analysis will be considered a plus. A broad working knowledge of plant biology is desirable. **EDUCATION/EXPERIENCE:** B.S. degree or equivalent work experience in molecular biology/biochemistry or related field plus 3 or more years relevant experience are required.

Applications received by JULY 31, 1992 will be assured of consideration. However, applications will be considered until the positions are filled.

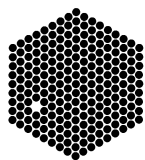
Pioneer Hi-Bred International, Inc. is an Equal Opportunity/Affirmative Action employer. Please send resume indicating the JOB # on the outside of the envelope and include the names, addresses and telephone numbers of three references in your correspondence to:



PIONEER®

PIONEER HI-BRED INTERNATIONAL, INC.

Plant Breeding Division
Department of Biotechnology Research
Attn: Lisa Hall JOB # _____
P.O. Box 38
Johnston, IA 50131-0038



EMBL

The European Molecular Biology Laboratory is an international research organization situated in Heidelberg, Germany. Its Biological Structures and Biocomputing Programme is seeking applicants for the position of

GROUP LEADER

in the characterization of protein folding *in vivo* **or** in membrane protein structure determination.

Characterization of Protein Folding *in vivo*: Candidates should have a strong experimental background in the characterization of protein folding in eukaryotic or prokaryotic cells. The successful candidate will join five other groups in the Programme using theoretical and experimental approaches to explore protein folding. Candidates with experience in membrane proteins and/or the interpretation of folding in the light of structural information are particularly encouraged to apply.

Membrane protein structure: Candidates should have experience in high resolution structural approaches to membrane proteins. The successful candidate will join six other groups within the Programme that are pursuing membrane protein structure by X-ray and electron crystallography, NMR, mutagenesis, spectroscopy and theoretical approaches. Candidates with an interest in photosynthetic or pore forming proteins are particularly encouraged to apply.

The Biological Structures and Biocomputing Programme at EMBL comprises 18 groups using experimental (X-ray crystallography, electron microscopy, cell biology, mutagenesis, NMR, and optical spectroscopy) as well as computational techniques (sequence analysis, molecular dynamics, protein design) to a range of topics in structural biology including nucleic acid protein interactions, muscle structure, virus structure as well as membrane protein structure and protein folding.

EMBL

Personnel Section,
Postfach 10 22 09
D-6900 Heidelberg
Germany

Informal enquiries may be directed to Dr. Steve Fuller or Dr. Dietrich Suck (+49 6221 3870).

Please send a CV, a brief research proposal, the names of referees, and a list of publications to the Personnel Section, quoting ref. no: 92/14



Washington

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TENURE TRACK ASSISTANT PROFESSOR MOLECULAR BIOLOGY AND PHARMACOLOGY

The Department of Molecular Biology and Pharmacology at Washington University School of Medicine is recruiting an individual at the level of Assistant Professor in the tenure track. Outstanding scientists working within the broad area of molecular biology and biological chemistry will be considered with an emphasis on those who are expert at using molecular genetic approaches to examine fundamental questions in gene regulation and function, particularly as they affect cellular differentiation.

Interested applicants should forward a curriculum vitae, a short summary of research plans, and the names and addresses of three references to:

Search Committee (c/o Jeffrey Gordon, Head)
Department of Molecular Biology and Pharmacology
Washington University School of Medicine
660 South Euclid Avenue, Box 8103
St. Louis, Missouri 63110

Washington University is an Affirmative Action/Equal Opportunity Employer committed to increasing the representation of women and minority groups on its faculty.

B.S./M.S. SCIENTISTS Pharmacology, Drug Metabolism, Analytical Chemistry

For more than 115 years, scientists at Eli Lilly and Company have been developing novel, high quality pharmaceutical products. To further build its research capabilities the Department of Drug Metabolism and Disposition is seeking self-motivated, innovative B.S./M.S. scientists to work with senior investigators studying chemical transformations in biological systems. The ideal candidate will have the following qualifications:

- Bachelor's or Master's degree in analytical chemistry, biochemistry, pharmacology, pharmaceutical sciences, or in a related discipline.
- Experience in developing and implementing quantitative bioanalytical methods to study absorption, distribution, metabolism, and excretion of potential new drugs in non-rodent/rodent animal models.
- Excellent organizational and communication skills.
- Experience with HPLC and/or GC systems.

The Company offers an attractive total compensation program. Entry level and salary will be based upon each candidate's experience. For prompt consideration please forward your resume to: Eli Lilly and Company, Scientific Recruitment-DMD, Lilly Corporate Center, Indianapolis, IN 46285. An Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION is available September 1992 to study the function and metabolism of vitamin K. Project includes the isolation, purification, and characterization of a vitamin K-dependent protein. A Ph.D. in biochemistry or a related field is required. Experience in protein purification is desirable. Send curriculum vitae, statement of research experience, and names and addresses of three references to: **Dr. Myrtle Thierry-Palmer, Department of Biochemistry, Morehouse School of Medicine, 720 Westview Drive, S.W., Atlanta, GA 30310; telephone: 404-752-1505.**

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

POSTDOCTORAL POSITION

Research on structure/function relationships in eukaryotic RNA binding proteins with emphasis on hnRNP and other related proteins containing the RNP consensus sequence. Approaches being used include in vitro mutagenesis, synthetic peptide analogues and a variety of biophysical techniques including fluorescence, CD and NMR. Experience in in vitro mutagenesis and biophysical methods of protein characterization would be useful but not absolutely essential. Applicants should send curriculum vitae to: **Dr. Kenneth Williams, Department of Molecular Biophysics and Biochemistry, Yale University, 333 Cedar Street, New Haven, CT 06510. Equal Opportunity Employer.**

POSTDOCTORAL to conduct research on carbon flow and denitrification in groundwater and soils using stable isotope techniques. Ph.D. required, experience with molecular techniques and/or stable isotopes preferred. Send letter of application and three letters of reference by 15 August 1992 to: **Peter M. Groffman, Institute of Ecosystem Studies, Box AB, Millbrook, NY 12545.**

POSTDOCTORAL POSITION available immediately to study tyrosine kinases in the central nervous system. Projects include cloning novel tyrosine kinase and phosphatase genes expressed in the brain and retina, and functional studies pertaining to signal transduction, cell adhesion and axon outgrowth. Candidate should have Ph.D. and experience with recombinant DNA methods. Please send curriculum vitae and names of three references to: **Dr. Patricia F. Maness, Department of Biochemistry and Biophysics, CB#7260, 505 FLOB Building, University of North Carolina at Chapel Hill, School of Medicine, Chapel Hill, NC 27599-7260. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS at Albert Einstein College of Medicine (AECOM) in several areas of biophysics. At least two appointments will be made in the laboratory of Professor Mark R. Chance starting September 1 or later. Training and opportunities for research are available in several projects including coenzyme B₁₂ enzymology and zinc finger proteins. Our approaches to structure-function investigations involve molecular biology, molecular modeling and dynamics, and spectroscopy, including time-resolved optical and x-ray techniques. We are interested in molecular biologists who wish to learn biophysics, physicists interested in biology, and chemists who are in between. Please send a letter of inquiry and curriculum vitae to: **AECOM, Ullman 303, 1300 Morris Park Avenue, Bronx, NY 10461.**

POSTDOCTORAL FELLOW. Position is available to study cytotoxic T cell responses to human papillomaviruses. Candidate must have a recent Ph.D. in virology or immunology. Preference will be given to candidate with proven experience with CTL assays. Send curriculum vitae and names of three references to: **Dr. Raphael P. Viscidi, Department of Pediatrics, The Johns Hopkins University School of Medicine, 600 North Wolfe Street, Baltimore, MD 21205. FAX: 410-955-0229.**

POSITIONS OPEN

POSTDOCTORAL POSITION available to study sexual development in the filamentous fungi (*Neurospora* and *Podospora*). The work focuses on the functions of mating-specific genes and the control of their expression at the molecular level. Opportunities exist for collaborative research with laboratories in Canada and France. Experience in molecular biology and genetics techniques desired. Please send curriculum vitae, names of three references (with telephone numbers) and statement of background and goals to: **Dr. Mary Anne Nelson, Department of Biology, University of New Mexico, Albuquerque, NM 87131. FAX: 505-277-0304.**

FELLOWSHIP IN ENDOCRINOLOGY AND BIOLOGY. University of California, San Diego. Positions for M.D.'s and Ph.D.'s in September 1992 and June 1993. Specific research areas include: molecular, cellular, and clinical biology of the calcium-regulating hormones (calcitonin, PTH, PTH-related protein); regulation of neuroendocrine gene expression, including the chromogranins; and bone matrix proteins. *U.S. citizen or permanent resident status required for NIH training grant.* Send curriculum vitae and references to: **Dr. L. J. Deftos, SDVAMC, 3350 La Jolla Village Drive, San Diego, CA 92161. Affirmative Action/Equal Opportunity Employer.**

NIH POSTDOCTORAL FELLOWSHIP

Available to study cell aging and controls of cell proliferation/differentiation. Start date prior to 1 January 1993. Send curriculum vitae and statement of research interests to: **Barbara Gilchrist, M.D., Department of Dermatology, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118.**

U.S. DEPARTMENT OF ENERGY (DOE) POSTDOCTORAL RESEARCH PROGRAM. Appointments to do research in physical sciences, engineering, and computer sciences tenable at various DOE laboratories. Degree after 1989; *U.S. citizens and PRA eligible.* Stipend is \$52,800. Contact: **DOE Distinguished Postdoctoral Research Program, Science/Engineering Education Division, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831-0117, telephone: 615-576-9934.**

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION: University of Oklahoma. Cellular and molecular biology of uromodulin (Tamm-Horsfall protein). Exciting project, fun atmosphere and competitive salary. Contact: **Dr. Satish Kumar, Kidney Research Laboratory, University of Oklahoma Health Sciences Center, 941 Stanton L. Young Boulevard #BSEB 302, Oklahoma City, OK 73104. Telephone: 405-271-3920; FAX: 405-271-3191.**

POSTDOCTORAL RESEARCH ASSOCIATE

Positions are available in the Molecular Urology Laboratory for NIH-funded studies of transgenic mouse models of prostate neoplasia and for molecular studies of androgen regulation of the cell cycle and apoptosis. Requires experience and background in recombinant DNA methods and nucleic acid analysis. Experience with immunocytochemistry and/or in situ hybridization also preferred. Send curriculum vitae and names of references to: **Dr. Ralph Buttyan, Department of Urology, Columbia University College of Physicians and Surgeons, 630 West 168th Street, New York, NY 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.**

Higuchi Biosciences Center and the department of Pharmacology and Toxicology at the University of Kansas seek a **RESEARCH ASSOCIATE** to participate in research focused on cloning and expression of proteins forming NMDA receptor complex in brain. Studies involve cloning and sequencing of genes, expression in mammalian and insect cells, site-directed mutagenesis, and regulation of gene expression. *Required:* Ph.D. in biochemistry, molecular biology, neurobiology or related discipline; experience in research in molecular biology. *Preferred:* One or two years of postdoctoral experience in molecular biology or molecular neurobiology. Salary range \$23,000 to \$26,000 plus benefits. Send cover letter, résumé and names, addresses and telephone numbers of three references to: **Anette Lundsgaarde, Higuchi Biosciences Center, 2099 Constant Avenue, Lawrence, KS 66047-2535 by 17 July 1992. Telephone: 913-864-5183. The University of Kansas is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP. Available immediately for molecular biologist with recent Ph.D. or M.D. to work as part of an interdisciplinary team investigating cellular receptors involved in cell motility. Applicants should have experience in molecular cloning techniques; experience in biochemistry helpful. The appointment is for 2 years with an opportunity for career advancement.

Please send curriculum vitae including name and addresses of three references to: **Douglas Cines, M.D., Hematology-Oncology, 7 Silverstein Pavillion, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104.**

POSTDOCTORAL RESEARCH POSITIONS. Available immediately to study the physiology and biophysics of ion channels (different Na channels, cardiac SR Ca-release channels, modulation of K channels in different cells) using reconstitution and/or patch clamp techniques. Please send curriculum vitae, statement of research interest and names of three references to: **Samuel Cukierman, M.D., Ph.D., or Donald M. Bers, Ph.D., Department of Physiology, Loyola Medical School, 2160 South First Avenue, Maywood, IL 60153. Loyola is an Equal Opportunity/Affirmative Action Employer.**

INSTITUTE OF PLANT SCIENCES PHYTOMEDICINE RESEARCH ASSOCIATE (OBERASSISTENT/IN) IN APPLIED ENTOMOLOGY

We are seeking a creative and cooperative scientist with strong expertise and post-doctoral experience in population dynamics of insects in agroecosystems.

Responsibilities include (1) research together with graduate and undergraduate students on population dynamics including qualitative and quantitative field and laboratory studies, with special emphasis on herbivore/crop plant interaction and dispersal of insects, (2) participation in teaching and administration.

Send curriculum vitae, publications and three references to: **Professor Dr. Silvia Dorn, Institute of Plant Sciences, Applied Entomology, ETH Zentrum, Clausstr. 21, CH-8092 Zürich.**

RESEARCH ASSISTANT II—Prepare virus crystals x-ray diffraction studies of virus structures. Duties include cell culture and virus crystallization and crystal handling. Cell culture, infecting cell monolayers with virus by sterile techniques in hood; harvest and purify by using ultracentrifuge machine; concentration and measuring it by using spectrophotometer; crystal preparation and handling by control at microcondition and mounting crystal under microscope. Master's Degree in Public Health with six months of experience in biological research including sterile, purification techniques. Work experience gained prior to earning of the degree will be acceptable. 8:00 a.m. to 5:00 p.m.; 40 hours per week. Salary: \$22,000 per calendar year. Contact: **Sandra T. Starnes, Alabama State Employment Service, 3440 Third Avenue South, Birmingham, Alabama 35222. RE: Job Order #AL0228736.**

RECEPTOR LABORATORIES, INC., a young, venture-backed biotechnology company developing innovative drug-discovery technologies, has openings in its Research and Development Program:

BIOANALYTICAL PEPTIDE CHEMIST—Ph.D. level, preferably including postdoctoral experience. Develop and execute analytical techniques for the isolation, purification, and characterization of compounds bound to biological macromolecules.

ENZYMOLOGIST—Ph.D. level, with significant experience and expertise in proteolytic enzymes. Minimum of 2 years postdoctoral experience or the equivalent required.

Receptor Laboratories offers competitive salaries, an attractive benefits program, a stimulating work environment, and an opportunity for equity participation. Please send your application in confidence to:



**Personnel and Recruitment
Receptor Laboratories, Inc.
2201 West Campbell Park Drive
Chicago, IL 60612-3501**

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**DIRECTOR, DIVISION OF EPIDEMIOLOGY AND PREVENTION RESEARCH
NATIONAL INSTITUTE ON DRUG ABUSE
ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION
U.S. PUBLIC HEALTH SERVICE**

The National Institute on Drug Abuse (NIDA) invites nominations and applications for this Senior Executive Service position, located in Rockville, Maryland.

The Director, Division of Epidemiology and Prevention Research (DEPR), is responsible for the management and direction of the major Federal drug abuse epidemiology program relevant to the reduction of the demand for illicit drugs of abuse. The Director is responsible for the establishment, development, design, management, and continuous enhancement of the Institute's epidemiology and prevention research programs. DEPR has an FY 1992 budget of approximately \$44 million and a staff of 50.

Desirable qualifications include an M.D. or Ph.D. degree with extensive postgraduate research experience, and experience in the scientific and administrative management of research programs with an epidemiological component which has established the candidate as an authority in the field of epidemiological research and its interpretation for policy and services relevance.

The annual salary range for this position is \$90,000 to \$104,000 (plus up to \$20,000 per annum allowance for physicians only). A recruitment bonus of up to 25 percent of base pay may be available to a nonfederal candidate selected for this position, subject to individual approval. A relocation bonus of up to 25 percent may be available to a permanent Federal employee who must relocate to accept this position, subject to individual approval. Senior Executive Service members are also eligible for performance awards of 5 to 20 percent of base salary. Submit applications (Application for Federal Employment, SF 171), accompanied by a current curriculum vitae and bibliography to:

Ms. Lynn E. Brooks-Smith
Division of Personnel Management, ADAMHA
5600 Fishers Lane, Rm. 15C-26
Rockville, Maryland 20857 (phone 301/443-5030)

Complete application material (which must include SF 171) must be postmarked by August 28, 1992.

THE NATIONAL INSTITUTE ON DRUG ABUSE IS AN EQUAL OPPORTUNITY EMPLOYER



RESEARCH SCIENTISTS

**We're working to enhance the body's
natural ability to heal itself.**

At Immunobiology Research Institute, our small team of scientists is carrying out basic research of peptide drugs in the exploration of new, exciting and non-toxic ways of moderating the immune system. Led by the world-renowned immunologist, Dr. Gideon Goldstein, and a member of the Johnson & Johnson family of companies, the people of IRI are conducting some of the most exciting work in immunobiology today. Currently, we are seeking Research Scientists in the following areas to join us:

PHARMACOKINETICS

You will design and conduct pharmacokinetic studies on peptide drugs, as well as originate, monitor and review data results of studies conducted at contract labs. Responsibilities include bioanalytical method development; animal surgery; dosing and sampling; sample analysis, and data interpretation. To qualify, you must possess a PhD in a physical or life science with at least 5 years' postgraduate experience characterizing the absorption, distribution, metabolism and excretion of drugs in preclinical and clinical studies. Expertise in pharmacokinetic models, small animal surgery, and test method development is also required along with knowledge of GLP. Experience with peptide/protein drugs and knowledge of toxicology is desirable.

LC-MS INSTRUMENTATION

We'll look to you to develop and apply LC-MS methodology to the characterization of proteins, peptides, and metabolites in iso-

lated samples and in complex matrices. In addition, you will participate in the planning and execution of interdisciplinary research projects involving peptide drug characterization, pharmacokinetics, metabolism, and protein isolation/characterization. An MS/PhD in Chemistry and a minimum of 2 years' related postgraduate experience is required. You must also possess extensive "hands-on" mass spectrometry operating and troubleshooting experience and the ability to modify instrumentation to meet laboratory and clinical demands. Experience in chromatography and drug metabolism is also desirable.

Ours is an atmosphere which can offer you many of the best features of a world-class academic environment; a place where the freedom to explore new ideas and the interchange of knowledge is nurtured. If this is the opportunity you've been seeking, we invite you to send your resume, indicating position of interest, to: Human Resources, Immunobiology Research Institute, Route 22 East, P.O. Box 999, Annandale, NJ 08801-0999. An equal opportunity employer.

Immunobiology Research Institute

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"Leadership Beyond Compliance"

Biologists

At Genentech, we are proud of the reputation we have built for the quality, commitment and diversity of our research efforts as well as for our business success. Our commitment to R&D starts with finding the top scientific talent in many fields of biological science, and continues with an R&D expenditure of over 40% of revenues. Our scientists publish over 200 papers per year, and the citation rate for these manuscripts match the best research universities and institutes. We are currently building an \$85 million, 275,000 square-foot research facility, scheduled for completion in 1992, to house our Research organization.

Genentech is interested in hiring integrative biologists who have an advanced degree (e.g. medicine, physiology, pharmacology or animal science) and at least 5 years of subsequent experience. You should have a superior record of recognized scientific achievement as well

as the drive, creativity and vision to continue making outstanding contributions. The position will require the ability to solve complex biological problems with relevant animal or organ system models. Our current primary areas of interest include the fields of Cardiovascular, Neuroscience, Immunology and Endocrinology research. You should also share our ultimate goal of developing products that help combat serious human medical conditions.

Our company offers an extensive benefits package which includes fully paid medical/dental/vision coverage, child care facilities, free health club membership and an employee stock purchase plan. To apply, please send your Curriculum Vitae to Dr. Art Levinson, Vice President of Research, Mailstop VS, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We are an equal opportunity employer. Women and minorities are encouraged to apply.

Genentech, Inc.

Geisinger Clinic

Postdoctoral Position Cardiovascular

Position available in the laboratory of Dr. Janet Robshaw at the Weis Center for Research. This position offers a unique opportunity to combine pharmacological and molecular biological approaches to investigate the function of different α_1 -adrenergic receptor and G protein subtypes in neonatal, rat cardiac myocytes. The successful applicant for this position will have a Ph.D. degree with experience in one or more of the following areas: cell culture, transfection/microinjection of cDNAs into cells, analysis of receptor-G protein coupling and phospholipase C.

The Weis Center for Research is a well-equipped facility located in a semi-rural area. Competitive salary and fringe benefits are available. Send curriculum vitae and names of three references to: Human Resources (JDR), Geisinger Clinic, 100 N. Academy Avenue, Danville, PA 17822-3024.

Geisinger.

E.O.E.
M/F/H/V

Postdoctoral Positions In Immunology

Postdoctoral positions are available September 1, 1992 to study the molecular biology of T lymphocyte growth and differentiation. Ongoing projects are focused on interleukin 2 (IL-2) and its receptor with emphasis on signal transduction, and immediate/early gene expression. Systems have been developed to study the molecular genetic mechanisms controlling the differentiative switch in T cells that determines immunologic memory. A strong background in lymphocyte biology, biochemistry and molecular genetics is desirable.

To be considered, please submit a curriculum vitae, publication list, a statement of research accomplishments and future objectives, and have 3 qualified individuals forward letters of recommendation to: **Dr. Kendall A. Smith, Chief, Division of Allergy/Immunology, Department of Medicine, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.** Equal Opportunity Employer M/F/H/V

CORNELL UNIVERSITY MEDICAL COLLEGE



POSITIONS OPEN

COLUMBIA UNIVERSITY DEPARTMENT OF PHARMACOLOGY ASSOCIATE RESEARCH SCIENTIST

The Department of Pharmacology invites applications for the position of Associate Research Scientist. The successful candidate is expected to begin an independent research program in studies of sinoatrial node function and electrophysiologic mechanisms using ion sensitive microelectrodes. Requirements include a Ph.D. and/or M.D. degree and a minimum of 3 years of postdoctoral research in electrophysiology and ion sensitive electrode technology. Candidates should submit their curriculum vitae, a brief statement of research interests and future plans, and the names of three references by 20 July 1992 to: **Dr. Michael R. Rosen, Department of Pharmacology, Columbia University, 630 West 168th Street, New York, NY 10032.** *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

CONFOCAL MICROSCOPY

ABL-Basic Research Program, located at the Frederick Cancer Research and Development Center (FCRDC) in Frederick, Maryland, has a unique opportunity for a scientist to head our new confocal microscopy group. Ph.D. applicants must have three plus years of background in subcellular biochemistry and one plus years of experience in use of confocal microscope to support labs within the Basic Research Program.

Salary commensurate with experience. Excellent benefits including medical/dental and retirement. To apply, please send curriculum vitae, a brief summary of professional expertise with emphasis on expertise relevant to confocal microscopy, and the names of three professional references to: **Personnel Office/confoc, ABL-Basic Research Program, NCI-FCRDC, P.O. Box B, Building 428, Frederick, MD 21702.** *Equal Employment Opportunity/M/F/D/V.*

MAMMALIAN GENETICISTS. Unique opportunity to participate in the expansion of McLaughlin Research Institute, a small mammalian genetics center in Great Falls, Montana. Several openings for established investigators to work in a nonbureaucratic, interactive research environment and to participate in the institute's future development. A new research building, including a large mouse facility, is under construction and will be completed in the summer of 1993. Current research programs are on the genetics of susceptibility to cancer and neurodegenerative diseases, but recruits will play a major role in determining future research directions. Developmental biologists, molecular geneticists, neurogeneticists and immunologists whose research emphasizes mouse models are particularly encouraged to apply. Applications, including names of individuals we may contact for references, should be addressed to: **George A. Carlson, Ph.D., Director, McLaughlin Research Institute, 1625 3rd Avenue North, Great Falls, MT 59401.** For additional information contact George Carlson or any of the following members of our Scientific Advisory Committee: Irv Weissman, David Baltimore, Bruce Chesebro, Neal Copeland, Jeff Frelinger, Leroy Hood, or Jack Stimpfling. *An Equal Opportunity/Affirmative Action Employer.*

UCLA MEMBRANE BIOLOGY. POSTDOCTORAL and ASSISTANT RESEARCH PHYSIOLOGIST positions are available to study the biochemistry, biophysics, molecular biology, human genetics and regulation of sodium-dependent glucose (SGLT1) and amino acid transporters. Scientists with training and experience in protein chemistry, molecular biology, or biophysics are invited to apply for positions in an interactive research group in a superb environment for membrane biology. Very competitive salaries and fringe benefits are available for qualified candidates. Please send curriculum vitae, a summary of research experience, and the names of two references to: **Ernest M. Wright, Physiology Department, UCLA School of Medicine, Los Angeles, CA 90024-1751.** *The University of California is an Affirmative Action/Equal Opportunity Employer.*

More than 150,000 people paid to see your ad in **SCIENCE.** Classified Advertising Department telephone: 202-326-6555. FAX: 202-682-0816.

POSITIONS OPEN

FLOW CYTOMETRY SPECIALIST

Full-time flow cytometry specialist position available immediately in Hematology/Transplantation Biology Laboratory at the University of Minnesota. This laboratory is equipped with a FACS Star Laser Plus flow cytometry system. Experience in flow or imaging systems and sterile cell sorting and familiarity with computers required. The selected candidate will have a bachelor's degree in the biological, biophysical sciences or electromechanical engineering or equivalent experience. Three plus years of experience with flow cytometry and sterile cell sorting is required. Salary commensurate with experience. Please send curriculum vitae, summary of professional experience and one or more professional reference to: Catherine Verfaillie, M.D., Department of Medicine, Box 480, University of Minnesota Hospital and Clinic, Harvard Street at East River Road, Minneapolis, MN 55455.



U.S. DEPARTMENT OF AGRICULTURE (USDA) AGRICULTURAL RESEARCH SERVICE (ARS)

RESEARCH PLANT PATHOLOGIST, Crop Production and Pathology Research Unit, West Lafayette, Indiana. Permanent, full-time. Responsible for establishing and directing a program to determine the molecular basis of host-pathogen interactions for foliar fungal diseases, other than rusts, of cereal small grains. Research includes identification and characterization of genes in the host that control establishment of infection and induction of host plant resistance. Incumbent uses molecular techniques to identify and characterize genes for pathogenicity and characterize genetic variability among fungal populations. Degree in plant pathology or a related discipline and graduate study with major emphasis in plant pathology, and knowledge of genetics of fungal disease resistance and experience in using molecular techniques in plant disease research are required. A Ph.D. degree and the ability to manipulate cereal hosts and fungal pathogens to identify and enhance resistance factors are desirable. Salary range \$38,861-\$46,210 per annum based on qualifications and experience. For position information contact: J. R. Wilcox, 317-494-8074. For the vacancy announcement and application procedures contact: Beverly Webert, 301-344-1921. Applications must be marked 2N050 and postmarked by 12 August 1992. Incomplete applications will not be considered. ARS is an Equal Opportunity Employer.

ATTENTION SCIENCE ADVERTISERS \$40 SPECIAL

Place your classified ad in any May-August 1992 issue of SCIENCE and get double exposure. We'll display the same position announcement at the **Employment Exchange** during the **AAAS Pacific Division Meeting** or **Science Innovation '92** for only \$40 more. That's less than the cost of one additional line.

When you place your classified ad in SCIENCE, simply let us know that you want to take advantage of the \$40 Special and we'll do the rest. Please specify the meeting of your choice or both meetings.

The **Employment Exchange** will take place at the **AAAS Pacific Division Meeting**, 21-24 June 1992, at the University of California, Santa Barbara campus; followed by **Science Innovation '92**, 21-24 July 1992, at the Moscone Convention Center in San Francisco, California. Thousands of scientists in various disciplines have been invited to participate. Act fast and you can reach this unique pool of candidates.

For more information on how you can interview candidates on-site please refer to the 8 May 1992 issue of Science, or contact Jacquelyn Roberts at (202) 326-6737, FAX: (202) 842-1065.

OPPORTUNITIES IN OLIGONUCLEOTIDE THERAPEUTICS

Gen-Probe Incorporated is the acknowledged leader in DNA probe diagnostics. The foundation of our Company's success has been innovative approaches to solving challenging technical problems as well as the ability to apply our technology to important medical problems. These same strengths coupled with our experience in nucleic acid diagnostics make Gen-Probe uniquely suited to assume a leadership position in the emerging area of oligonucleotide therapeutics.

We are seeking Scientists with varied backgrounds and experience to join us in developing agents to treat HIV infections and develop core technologies. We seek those with a pioneering spirit who wish to explore new approaches in an environment that fosters creativity and rewards innovative contributions.

PROGRAM LEADER—The successful candidate will lead a group of creative Scientists developing oligonucleotide therapeutics for treating HIV infections from initial concepts through clinical trials. As such, you will have primary responsibility for the development of new agents and the evaluation of their effectiveness and safety.

Requirements include a PhD or MD degree in Virology, Cell Biology, Molecular Biology, Pathology, Pharmacology or other relevant discipline, and a minimum of 5-7 years' experience in the pharmaceutical industry in positions of increasing responsibility. At least 2 years' experience in HIV drug development is essential, as are demonstrated managerial and leadership skills and a record of significant scientific accomplishment as evidenced by publications in refereed journals and/or patents. Some experience with antisense agents is highly desirable. **Dept. 273.**

SENIOR RESEARCH SCIENTISTS—We are seeking candidates with 3-5 years' related experience, good supervisory and leadership skills, as well as a proven record of scientific accomplishment.

In Vitro Assay Development

Primary responsibility of this position is the development of *in vitro* assay systems for evaluating oligonucleotide therapeutic agents for treating HIV infections.

Candidates are required to possess a PhD or MD degree in Virology, Cell Biology, or other relevant discipline, and experience working with retroviruses and developing assay systems for monitoring expression of genes in eukaryotic cells. Previous experience with HIV is highly desirable. **Dept. 274.**

Chemistry

Successful candidates will design and synthesize novel organic compounds in support of the oligonucleotide therapeutics program. Experience with nucleic acid analogs and modifications and related chemistry of heterocycles is necessary. Experience in molecular modeling and structural chemistry is highly desirable.

Position requirements include a PhD in Chemistry and post-doctoral experience in

synthetic organic chemistry. One position also requires experience in process development and production scale-up in the chemical industry. **Dept. 275.**

Molecular Biology

This researcher will work on a special project requiring familiarity with a broad range of modern techniques in molecular genetics, including cloning, sequencing, expression systems, and nucleic acid characterization.

Candidates must have a PhD in Molecular Biology, Biochemistry, or a related, relevant discipline, and experience with the biological synthesis of nucleic acids. Experience with modern techniques of molecular genetics and with nucleic acid polymerizing enzymes is essential. Experience with eukaryotic systems is highly desirable. **Dept. 276.**

RESEARCH ASSOCIATES—Four candidates are sought, each of whom will report respectively to one of the Senior Research Scientist described above. Requirements include an MS or BS in Chemistry, Molecular Biology, Virology, Biochemistry, or related discipline and a minimum of 2 years' post-degree relevant experience. For one position, previous experience with HIV is essential.

Successful candidates may take advantage of significant opportunities for career advancement, including tuition reimbursement and the company's established policy of promoting individuals based upon ability and performance without rigid formal degree requirements. **Dept. 277.**

Gen-Probe offers the advantages of working for an established, successful company which, none-the-less, maintains an entrepreneurial focus. Experienced and highly educated support groups in DNA synthesis, computer analysis, sequencing and probe design, and other relevant areas are in place to allow incoming investigators to concentrate their efforts on development of new approaches. The UCSD campus is just across the street, allowing Gen-Probe researchers to take advantage of excellent library facilities, seminars, and the other resources of a renowned academic institution. As a center for biotechnology companies, San Diego offers a rich schedule of meetings and conferences in addition to the recreational opportunities afforded by its climate and location.

If you are excited by the challenge of working on one of the most difficult and important medical problems of our time, we'd like to hear from you. Please send your resume/C.V. referencing appropriate department code to: **GEN-PROBE INCORPORATED, Attn: Human Resources, 9880 Campus Point Drive, San Diego, CA 92121.**





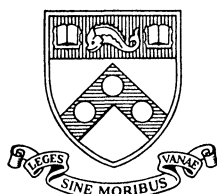
SCHOOL OF MEDICINE

CHAIRMAN, DEPARTMENT OF GENETICS

The University of Pennsylvania School of Medicine has an opening for the position of Professor and Chairman of the Department of Genetics.

Candidates must be of national and international stature and be able to provide academic leadership in the discipline of genetics, broadly defined, including human, mammalian and non-mammalian systems. Applicants must have demonstrated qualifications in research, education and administration in the field of genetics.

The University of Pennsylvania is an equal opportunity/affirmative action employer. Women and minority candidates are encouraged to apply.



Peter C. Nowell, M.D.
Chairman,
Genetics Search Committee
University of Pennsylvania
School of Medicine
M161 John Morgan Building
Philadelphia, PA 19104-6082

CANCER PREVENTION STUDIES BRANCH

Cancer Prevention Research Program
Division of Cancer Prevention and Control
National Cancer Institute • Public Health Service

STAFF FELLOW POSITION

A position is available for a doctoral-level individual to participate in a research program in nutrition and cancer prevention in the Cancer Prevention Studies Branch. The overall objectives of the CPSB are to identify, develop, and test hypotheses relevant to cancer prevention and control. The CPSB conducts intramural research in diet, nutrition and cancer; hormones and cancer; chemoprevention; intermediate endpoints in the neoplastic process (biochemical epidemiology) and other areas bearing on strategies for lowering human cancer risk. Branch research activities comprise intervention studies (clinical trials), observational epidemiologic investigations, and clinical nutrition studies. The Staff Fellow position provides a qualified applicant opportunities for participating in the development of a large cohort study of diet and cancer, integrating biomarker research into ongoing investigations, and analyzing data from several epidemiologic and clinical nutrition data bases.

Staff Fellow and Senior Staff Fellow positions are available for U.S. citizens and Fogarty Visiting Fellow and Associate positions are available for foreign nationals. Salary ranges from \$28,000 to \$70,850 depending on training and experience.

M.D. or Ph.D. applicants with training and/or experience in epidemiology, clinical trials, endocrinology and metabolism, nutritional science, biochemistry, and molecular or cell biology will be considered.

Qualified and interested candidates should send curriculum vitae and names and addresses of three (3) references to:

Arthur Schatzkin, M.D., Dr.P.H.
Cancer Prevention Studies Branch
National Cancer Institute, NIH
9000 Rockville Pike, EPN 211, Bethesda, MD 20892
Telephone: (301) 496-8559

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**Pharmaceutical/ Biotechnology:
Careers In Industry**

This special section, reprinted from the May 8 issue of **SCIENCE** takes an in-depth look at careers in the pharmaceutical and biotechnology industries.

Highlighted topics include:

- Challenges and incentives offered by a pharmaceutical or biotechnology firm
- A sampling of salaries for scientists in industry
- How industry salaries compare with university jobs
- "Hot" new fields in industry

Also included are "career stories" from five scientists who made the decision to move to a position in industry.

SCIENCE

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MARIE ELISE WHITNEY SNYDER MEMORIAL FELLOWSHIP WOMEN'S SCHOLAR AWARD IN MOLECULAR BIOLOGY

The Allegheny-Singer Research Institute and The Medical College of Pennsylvania invite applications for the Marie Elise Whitney Snyder Memorial Fellowship to support a women's scholar award in molecular biology. This award is intended to encourage the investigation of the basic molecular aspects of human disease by young women scientists, and offers the opportunity to initiate independent research at Allegheny-Singer Research Institute. Awards of up to \$50,000 a year for up to three years are made to individuals with either an M.D. or Ph.D. degree with extensive postdoctoral training or research experience in molecular biology. The awardee will have the opportunity to design and conduct research in a fully equipped laboratory as a staff scientist at Allegheny-Singer Research Institute with an accompanying faculty appointment at the appropriate rank at The Medical College of Pennsylvania. The awardee will be selected by a panel of nationally recognized scientists for the award which will begin July 1, 1993.

Eligible applicants will have an M.D., Ph.D. or equivalent degree with a minimum of three years of postdoctoral or research experience and be not more than 7 years beyond degree prior to the initiation of the award. The research will be conducted at the Allegheny-Singer Research Institute and the award may be used for salary or other support. Major items of equipment will be provided by the Institute.

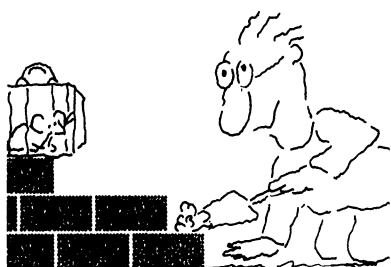
Interested candidates should apply by October 1, 1992 by submitting a curriculum vitae, a description of future research plans and long term career goals, and the names of three references to Dr. Leonard L. Ross, Dean, The Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, PA 19129. The reference letters should be sent directly to Dr. Ross. Selection of the awardee will be made by December 15, 1992.

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U.S. DEPARTMENT OF
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RESEARCH MOLECULAR BIOLOGIST. Crop Production and Pathology Research Unit, West Lafayette, Indiana. Permanent, full time. Responsible for initiating a research program to reduce losses of small grain cereal crops due to virus diseases. Primary emphasis involves understanding the genetic and molecular basis for the interrelationships of barley yellow dwarf virus and cereal hosts that are relevant to virus-host interactions. Incumbent applies the tools of molecular biology as appropriate in a team approach to pest resistance. The research will provide a basis for designing innovative and stable pest resistance in host cereals. Degree in the biological sciences, agricultural natural resources management, chemistry, or related discipline, and knowledge of plant molecular genetics and pathology/virology are required. A Ph.D. degree and research experience in plant host-virus interactions and use of molecular techniques in the investigation of plant diseases is desirable. Salary range: \$38,861 to \$46,210 per annum based on qualifications and experience. For position information contact: **J. R. Wilcox, 317-494-8074.** For the vacancy announcement and application procedures contact: **Beverly Webert, 301-344-1921.** Applications must be marked 2N049 and postmarked by 12 August 1992. Incomplete applications will not be considered. *ARS is an Equal Opportunity Employer.*

SENIOR SCIENTIST: Responsible for studies related to pesticides registration. Plant and animal metabolism, environmental fate and residue studies. Study design; protocol and preparation of reports for submission to regulatory agencies. Supervise contract labs and compliance studies. Isolation and identification of metabolites or degradates. Operate and maintain sophisticated analytical chemistry instrumentation. Requirements: Ph.D. biochemistry/organic chemistry and 2 years of experience with background in organic chemistry and biochemistry and in-depth HPLC background involving chromatography and biomolecular purification and isolation. Background in analysis of organic compounds using GC and TLC and other analytical methods and polymer chemistry with extensive instrumentation experience including spectroscopy and chromatography. Forty hours per week; \$49,500 per year; Résumé or curriculum vitae to: **Philadelphia Job Bank, 444 North 3rd Street, 3rd Floor, Philadelphia, PA 19123, JO #4494312.**

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ANNOUNCEMENTS

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MEETINGS

INTERNATIONAL LATEX CONFERENCE: SENSITIVITY TO LATEX IN MEDICAL DEVICES

Sponsored by: Food and Drug Administration, 5 to 7 November 1992, Baltimore, Maryland. Medical community, scientists, industry and regulatory agencies present data and address issues relevant to allergic reactions to latex medical devices. CONTACT: **Crosspaths Management Systems, Inc., 2 Wisconsin Circle, #660, Chevy Chase, MD 20815; telephone: 1-800-5CPATHS; FAX: 301-654-6334.**

1992 SYMPOSIUM ON FLORIDA KEYS REGIONAL ECOSYSTEM

A symposium that focuses on the regional environment of the Florida Keys will be held in Miami, Florida, 16 to 20 November 1992. Sessions include Geological Processes and Perspectives, Physical and Chemical Processes and Systems, Biotic Processes and Systems, Natural and Anthropogenic Stresses and Catastrophic Events, Consequences of Global Change, and Policy Issues. For further information, contact: **Chris Harwell, RSMAS, 4600 Rickenbacker Causeway, Miami, FL 33149; 305-361-4168.**

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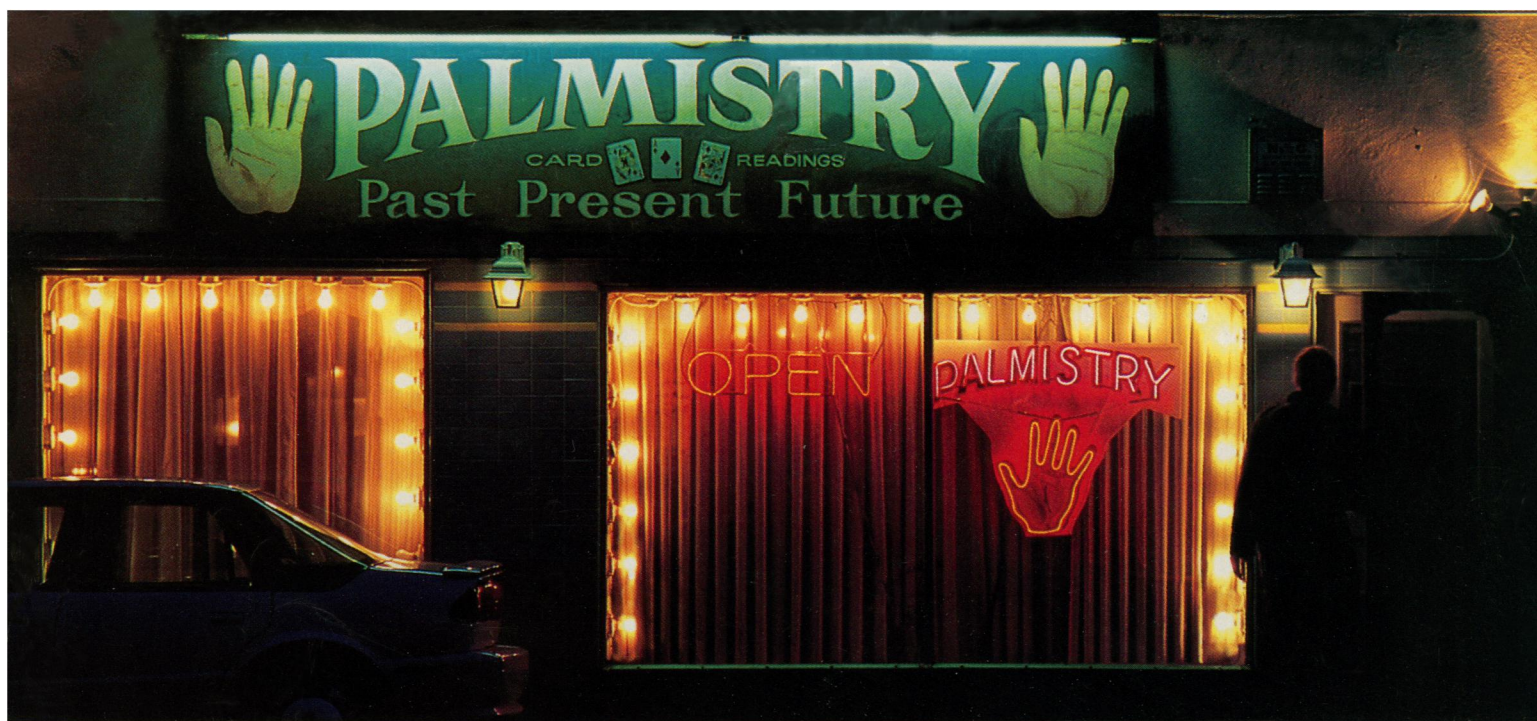
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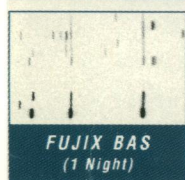
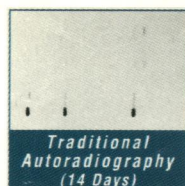
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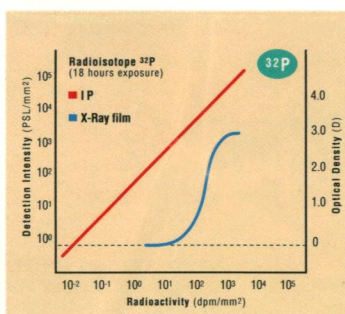
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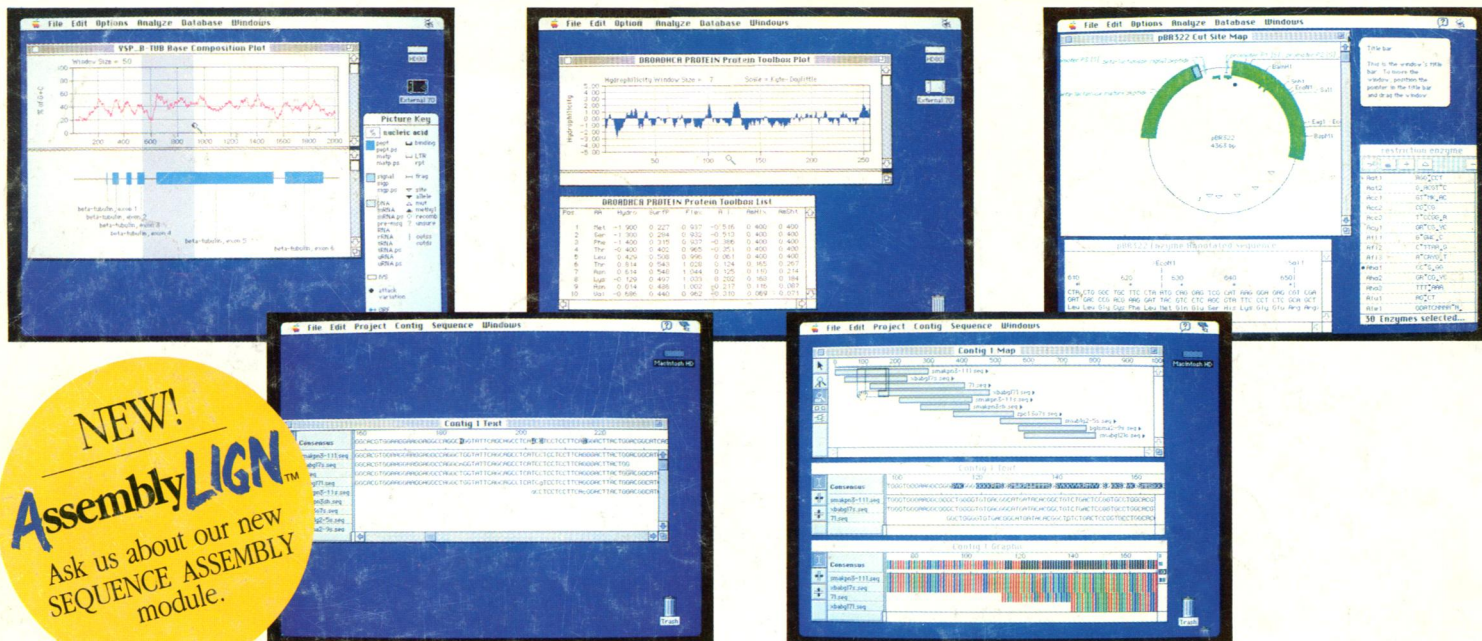
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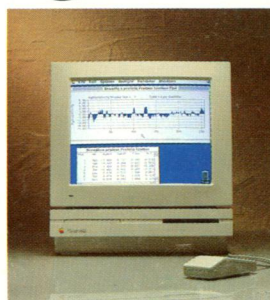
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