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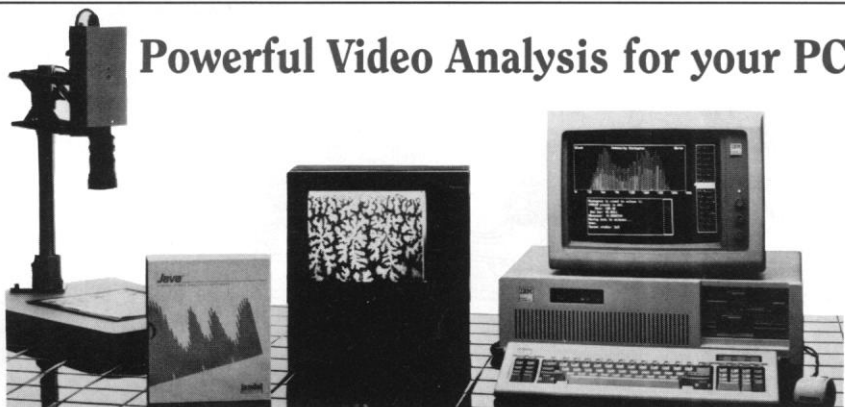
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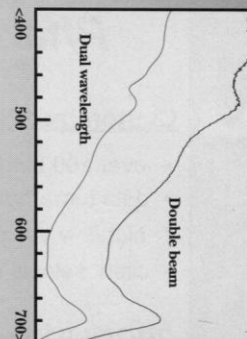
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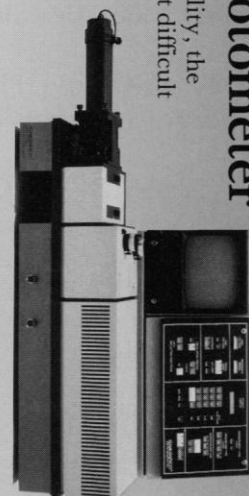
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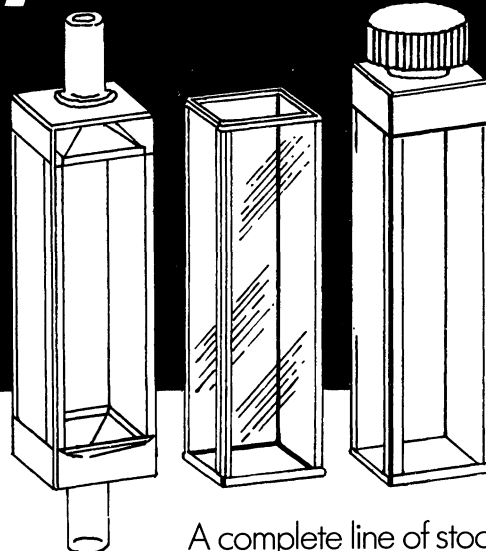
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A mouse anti-MAP kinase MAb is coupled to agarose for use in immunoprecipitation and affinity chromatography. Zymed Laboratories. Circle 87.

Murine IgM Monoclonal Antibody Purification Kit

This kit's mild binding and elution conditions result in highly pure (>95%) IgM preparations that retain full activity. Each kit contains a 1 by 4 ml prepacked column of reusable affinity gel, binding buffer, and elution buffer salts sufficient for ten isolations. BioAffinity Systems. Circle 88.

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Scientific Graphing Software

PlotIT 2.0 is designed to allow the user to transform complex data into accurate, easy-to-understand charts and graphs for more effective analysis. Versions are available for DOS, Windows, and various mini and mainframe operating systems. The new version for DOS includes several major new features: It can read dBASE database files, Excel and Lotus 1-2-3 spreadsheet files, and ASCII files. It provides high-quality outline fonts and gives access to thousands of third-party fonts. It has enhanced autoscaling capabilities, greater parameter flexibility, a Compose/Edit feature that lets the user compose multiple graphs at once, support of rotated x- and y-axis labels, and a variety of new graphs and plots. Scientific Programming Enterprises. Circle 90.

Single Miniblot Instruments

MN28SL and MN20SL are miniblotters for protein immunoblotting of individual miniblots. MN28SL has 28 channels for

maximum screening capability, and each channel holds as little as 50 µl. MN20SL, with 20 channels, optimizes high sensitivity



detection of low titer or low affinity antibodies. The channel capacity of MN20SL is 350 µl. Intact preblotted membranes are mounted directly in the miniblitter, not cut into strips as in traditional immunoblotting methods. Multiple channels function as separate miniature incubation trays and cross-channel contamination is eliminated by a patented sealing system. A washing manifold plugs into the miniblitter and rinses all channels simultaneously, in seconds. The process cuts time, minimizes handling of membranes, and increases the reproducibility of the procedure. Immunetics. Circle 91.

DNA Labeling Kit

The Ready-To-Go DNA Labeling Kit allows premixed, individual reactions that are stable at room temperature. DNA can be labeled simply by adding it (and labeled dCTP) to one of the premixed oligo-labeling reactions provided in the kit. The key to the kit is a patented process in which reaction mixes are turned into a glass that is stable indefinitely at room temperature. The vitrified reaction mix quickly rehydrates when mixed with water or aqueous buffer. Pharmacia Biotech Europe. Circle 92.

Literature

Molecular Biology Supplement to the Laboratory Products Catalogue features new products such as the Investigator 2-D Electrophoresis System, Bio Image Electrophoresis Analyzers, Plex Chemiluminescent Kits, and BaseStation Automated DNA Sequencer. Millipore. Circle 93.

The Porton LF 3000 Protein Sequencer is a brochure describing this system and a full range of options, including a complete protein workstation, dual-wavelength diode array detection, high sensitivity chemistry, and sequencing data management. Beckman Instruments. Circle 94.

Seiler Instrument Microscope Accessories is a 39-page catalog featuring slides, lens tissue, cleaning kits, cover slips, illuminators, microtomes, replacement bulbs, and more. Seiler Instrument. Circle 95.

High-Purity Inorganic Analytical Standards 1992 is a 28-page catalog offering single-element standards, multi-element calibration standards, interference check standards, drinking water standards, quality control standards, and more. ChemService. Circle 96.

Laboratory Equipment for Viscosity Measurement includes glass capillary viscometers, automatic viscometers, rotary viscometers, constant temperature baths, viscosity standards, and special purpose instruments. Cannon Instrument Co. Circle 97.

Liquid Analysis Instrumentation presents 12 pages of analyzers, electrodes, conductivity cells, and accessories. Leeds & Northrup. Circle 98.

So Advanced They're Simple is a brochure describing a new generation of microprocessor-controlled syringe pumps designed for low, pulse-free flow rates. KD Scientific. Circle 99.

Hybond Membranes: The Direct Route to Excellent Blotting Results details membranes for use in Northern (RNA) blotting, Southern (DNA) blotting, and protein immunoblotting. Amersham Scientific International. 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.

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POSITIONS OPEN

ASSISTANT PROFESSORSHIP—The Department of Veterinary Microbiology, College of Veterinary Medicine, University of Missouri—Columbia has an immediate opening for a full-time tenure-track position at the rank of Assistant Professor. The Department focuses on biotechnology and contemporary immunologic technology for controlling infectious diseases of veterinary, zoonotic, and comparative medical importance. The Department collaborates with campus researchers in molecular/cell biology, medicine, agriculture, and biological sciences.

Requires a Ph.D. molecular virologist. D.V.M. degree is preferred. The position will involve development of a competitive research program in molecular virology and instruction of graduate and professional (D.V.M.) students.

Applications will be reviewed beginning **November 1, 1992**, and will be accepted until suitable candidates are identified. Salaries negotiable.

Send curriculum vitae, names and addresses of three references, and a statement of professional goals to:

Dr. James G. Thorne, Chair, Search Committee
Department of Veterinary Microbiology
104 Connaway Hall
University of Missouri—Columbia
Columbia, MO 65211
Telephone: 314-882-6550

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ASSISTANT PROFESSOR MOLECULAR REPRODUCTIVE BIOLOGY

Applications are invited for a tenure-track position at the Assistant Professor level beginning in the fall of 1992 with a primary appointment in the Department of Urologic Surgery and a joint appointment in the Department of Cell Biology and Neuroanatomy. Applicants must have a Ph.D. and/or M.D. with at least two years of postdoctoral experience. We are seeking candidates who will establish an extramurally funded research program using cellular and molecular approaches to male reproduction and are interested in interacting with other members of the departments who study the cell biology of the testis, epididymis, and sperm. In addition, the candidate will be expected to participate in teaching one of the basic medical courses offered by the Department of Cell Biology and Neuroanatomy and in the graduate program. Interested candidates should send their curriculum vitae, a statement of current and future research interests, and three letters of recommendation no later than 1 September 1992 to: **R.V. Menken, Department of Cell Biology and Neuroanatomy, University of Minnesota, 4-135 Jackson Hall, 321 Church Street SE, Minneapolis, MN 55455.** Start date of the position is 1 October 1992. *The University of Minnesota is an Equal Opportunity Educator and Employer.*

A tenure-track **ASSISTANT PROFESSOR** position is available in the Pulmonary Diseases and Critical Care Medicine Section, Department of Medicine for a Ph.D. with at least two years of postgraduate experience. Demonstrated expertise and previous research in cellular/molecular biology applicable to lung biology is required. The candidate will be expected to develop an independent research program. Send curriculum vitae and names of three references to: **Mitchell Friedman, M.D., Professor and Chief, Section of Pulmonary Diseases and Critical Care Medicine (SL9), Tulane University Medical Center, 1430 Tulane Avenue, New Orleans, LA 70112-2699.** Applications will be accepted until a qualified candidate is selected. *Tulane University is an Equal Opportunity/Affirmative Action Employer.*

The **Department of Chemistry, Yale University**, invites applications for a position at the **ASSISTANT PROFESSOR** level, effective academic year 1993. We seek bright teacher-scholars who show promise for developing outstanding research programs in the broad area of organic chemistry.

Applicants should send curriculum vitae, a statement of research interests and plans, and should arrange for the submission of three letters of recommendation. All materials should be received by 31 October 1992. Send applications to: **Chair, Faculty Search Committee, P.O. Box 6666, 225 Prospect Street, New Haven, CT 06511-8118.** *Yale University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR. The Department of Pathology and Laboratory Medicine at the University of Pennsylvania seeks applications for a tenure-track position in the Molecular Diagnosis Section available beginning July 1, 1993. The candidate must hold M.D., Ph.D., or M.D./Ph.D. degrees and preferably, be board eligible or board certified in Anatomic Pathology, Clinical Pathology, Pediatrics, or Internal Medicine. The successful applicant will have a background in molecular biology and will participate in expanding an active program in genetic diagnosis with current strengths in neurogenetics and cystic fibrosis. The applicant will also be expected to develop a strong independent research program, preferably in human genetics. The environment for individual and collaborative research within the Department and at the University of Pennsylvania is outstanding, including the presence of the Human Genome Center. Curriculum vitae, a statement describing research interests, and the names of three references should be submitted by November 1, 1992 to: **Dr. Steven Spitalnik, Chairman of Search Committee, Department of Pathology and Laboratory Medicine, 220 John Morgan Building, University of Pennsylvania, Philadelphia, PA 19104.** *The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.*

TENURE-TRACK, ASSISTANT PROFESSOR DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY VIRGINIA COMMONWEALTH UNIVERSITY

Tenure-track assistant professorship in the Department of Microbiology and Immunology at Virginia Commonwealth University. An individual with expertise in one or more areas of contemporary immunobiology, including cellular or molecular immunology, immunogenetics or immunochemistry is being sought. Applicants must hold a Ph.D. or equivalent degree and have at least two years of productive postdoctoral experience. Successful applicants expected to develop and maintain strong, grant-supported independent research program including training of graduate students and postdoctorals. Participation in graduate and professional level teaching and service activities is required. Candidates should submit a statement of research interests, curriculum vitae, and the names and addresses of three references by October 15, 1992. Submit materials to: **Dr. F.L. Macrina, Box 678 MCV Station, Richmond, VA 23298-0678.** *Virginia Commonwealth University is a culturally diverse, Equal Opportunity/Affirmative Action Employer. Women, minorities, and persons with disabilities are encouraged to apply.*

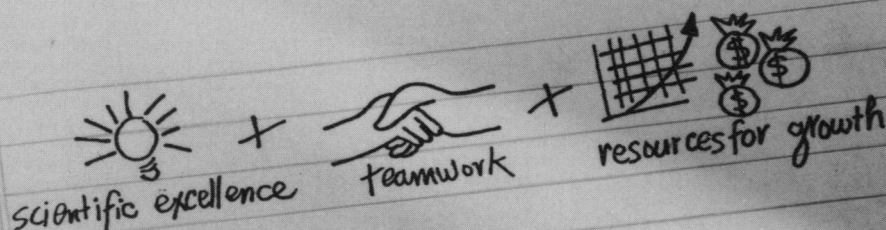
The Departments of Human Genetics and Pediatrics and the Human Genome Center at the University of Utah are seeking an individual with experience in both pediatric medicine and the human genome project. The position will be at the **PROFESSOR OR ASSOCIATE PROFESSOR** level. The successful candidate will be expected to develop a strong research program at the interface between genomic linkage methods development and genetic linkage approaches to the discovery of genetic mechanisms and genes controlling human development. The successful applicant will need demonstrated experience and an effective track record in the development and use of DNA based genetic markers and maps of markers as well as in pediatric clinical medicine.

Application deadline will be September 14, 1992. Applications submitted after the deadline may be considered if no qualified candidates have applied by the deadline. Send curriculum vitae and references to: **Dr. Raymond L. White, Human Genetics Department, University of Utah, Building 533, Room 2100, Salt Lake City, UT 84112.** *The University of Utah is an Equal Opportunity Employer.*

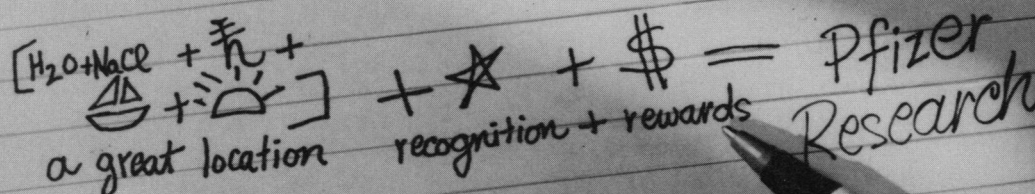
ASSISTANT/ASSOCIATE PROFESSOR

Department of Animal Sciences, University of Vermont (UVM) invites applications for a tenure track nine-month position. Basic research in mammary gland biology that complements existing expertise in: applied mastitis management; pathogenesis of mastitis, growth factor regulation of mammary development and lactation. Undergraduate teaching of animal anatomy/physiology course and graduate course in area of expertise. Send letter of intent, curriculum vitae, list of publications, recent transcripts and three letters of reference to: **Stewart Gibson, Chair, ASCI Department, Search Committee, Carrigan Hall UVM, Burlington, VT 05405-0044.** *Affirmative Action/Equal Opportunity Employer.*

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Research Scientists, BS/MS/PhD

Molecular Genetics— Skilled molecular biologists with a BS, MS or PhD and demonstrated experience in molecular biology and recombinant DNA techniques are needed to participate in all aspects of identifying new targets for drug discovery research in the areas of cancer, cardiovascular biology, neurobiology and obesity. A background in gene cloning, DNA sequencing and computer sequence analysis, and expression of cDNA sequences is highly desirable. (Response Code KG)

Biomolecular NMR— Interact with scientists at all levels in a lab equipped with an AMX-600 spectrometer, triple-resonance inverse probe, and an assortment of off-line processing hardware and software. Should possess a PhD in Chemistry, Biophysics or Biochemistry with an emphasis on NMR structure determination. Must be highly motivated with NMR experience in macromolecule structure determination, particularly of peptides, proteins, and protein-ligand complexes. Familiarity with multi-dimensional NMR of labelled systems is required, as is proficiency in NOE-based structure refinement. Postdoctoral experience in protein structure determination using NMR methods is highly desirable. (Response Code CN)

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MICHIGAN STATE MICROBIAL ECOLOGY/EVOLUTION

The Department of Microbiology at Michigan State University (MSU) seeks to fill a tenure-track faculty position at the level of **ASSISTANT PROFESSOR** in the broad area of microbial ecology and/or evolution. Candidates whose research involves modern molecular, biochemical, and/or physiological approaches are of particular interest. Responsibilities include developing an externally funded research program with national visibility, and limited teaching duties at the undergraduate and/or graduate level. A Ph.D. and two or more years of postdoctoral experience are required. The Department of Microbiology at MSU is one of the largest and most diverse such departments in the nation. It is a major participant in the MSU-NSF Center for Microbial Ecology and is home to the Bergey's Manual Trust. To apply, send curriculum vitae with an outline of plans for future research and arrange for at least three letters of reference to be sent to: **Chairperson, Ecology/Evolution Search Committee, Department of Microbiology, 178 Giltner Hall, Michigan State University, East Lansing, MI 48824**. Review of applications will begin October 1, 1992. *Michigan State University is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are particularly encouraged to apply.*

FACULTY POSITIONS UNIVERSITY OF MARYLAND AT COLLEGE PARK

The Department of Microbiology invites applications for two tenure-track positions in **Cellular/Molecular Immunology** and in **Eukaryotic Virology**. The rank could be either **ASSISTANT** or **ASSOCIATE PROFESSOR**, depending on experience and research accomplishments. The positions include highly competitive packages consisting of generous start-up funds, newly-renovated laboratory space, and access to state-of-the-art core facilities. Selected candidates will be expected to establish strong and independent research programs, direct graduate students, and participate in the department's teaching program. Send curriculum vitae, pertinent reprints and a statement of research interests, and arrange for three letters of evaluation to be submitted to: **Department of Microbiology, University of Maryland, College Park, MD 20742**. Please address the correspondence either to **Dr. Bob Roberson, Chair of the Immunology Search Committee** or to **Dr. Daniel Stein, Chair of the Virology Search Committee**. Review of applications will begin on 9 October 1992 and continue until suitable candidates are identified. *The University of Maryland is an Equal Opportunity/Affirmative Action Employer.*

The Utah Human Genome Center and the Department of Human Genetics at the University of Utah are seeking an individual at the **PROFESSOR OR ASSOCIATE PROFESSOR** level for a tenure track faculty appointment. The individual should have a strong background in statistical genetics, human gene mapping and the development of DNA markers and marker maps. A demonstrated ability to develop computerized algorithms for map building would be helpful. The successful candidate will be expected to develop a strong research program in the development of genetic linkage tools and in the application of those tools to the mapping of human disease genes.

Application deadline will be September 14, 1992. Applications submitted after the deadline may be considered if no qualified candidates have applied by the deadline. Send curriculum vitae and references to: **Dr. Raymond L. White, Human Genetics Department, University of Utah, Building 533, Room 2100, Salt Lake City, UT 84112**. *The University of Utah is an Equal Opportunity Employer.*

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POSITIONS OPEN

BIOCHEMISTRY FACULTY POSITION UNIVERSITY OF WISCONSIN-MADISON

The Department of Biochemistry at the University of Wisconsin-Madison invites applications for a tenure-track position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. Although all areas of biochemistry will be considered, we are particularly interested in applications from individuals whose research emphasizes some aspect of metabolism. The successful candidate is expected to develop a vigorous, independent research program and participate in the undergraduate and graduate teaching of general and specialized biochemistry courses. Applications, including curriculum vitae, list of publications, summary of past work and accomplishments, and a statement of plans for future research, should be sent to: **Professor Hector F. DeLuca, Chairman, Department of Biochemistry, University of Wisconsin-Madison, 420 Henry Mall, Madison, WI 53706**. In addition, applicants should arrange for at least three letters of reference to be mailed to the same address. Application materials should be received by October 1, 1992. *The University of Wisconsin-Madison is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.* Names, titles and/or occupations, and addresses of applicants and nominees cannot be kept confidential.

At the Swiss Federal Institute of Technology in Zurich (ETHZ) there is an opening for a

CHAIR IN MYCOLOGY

Depending on qualification and age of the successful candidate, employment will be either as Assistant Professor with tenure track or as Full Professor. The new professor is expected to participate in the teaching of undergraduate students from various biological disciplines and to teach advanced mycology in the context of a curriculum for microbiology. The teaching goals are to provide students with a solid background in the systematics, metabolism and genetics of fungi and to explain the importance of fungi in ecology and biotechnology. Active and topical research is to be entertained in one or several areas of modern mycology. There is ample opportunity for collaborative interaction with other research groups at the ETH.

Candidates with several years of independent and outstanding research work in the area of mycology are asked to submit their applications with curriculum vitae, list of publications and a synopsis of past and planned teaching and research activities no later than **October 15, 1992**, to the President of ETH Zurich, **Prof. Dr. J. Nüesch, ETH Zentrum, CH-8092 Zurich**. *In its effort to increase the number of women in top academic positions, the ETHZ specifically invites applications from women.*

GEOGRAPHIC MEDICINE—The University of Alabama at Birmingham (UAB) Department of Medicine is seeking candidates for **DIVISION DIRECTOR** of Geographic Medicine. Candidates should have an active, funded research program in molecular parasitology and an established reputation in research. International experience is preferred. Demonstrated leadership and a clear commitment to academic excellence are required. Appointment will be at an appropriate rank based on qualifications and experience. Qualified applicants should submit curriculum vitae to: **J. Claude Bennett, M.D., Chairman, Department of Medicine, UAB Station, Birmingham, AL 35294**. *An Equal Opportunity/Affirmative Action Employer.*

MOLECULAR BIOLOGIST MIAMI VASCULAR INSTITUTE

The Miami Vascular Institute of Miami, Florida, seeks a molecular biologist to start and direct a Vascular Biology Research Program. **DIRECTOR** will have the opportunity to supervise the remodeling and configuring of nearly 3,000 square feet of space that will serve as the new laboratory. This exciting new program will focus on problems with direct relevance to clinical cardiovascular medicine. Principal focus of research to be postangioplasty restenosis. Familiarity with tissue culture desirable. Background or experience in molecular genetics highly desirable, though not essential. Salary highly competitive and commensurate with experience. Attractive benefits package included. Interested individuals should send curriculum vitae to: **Gary J. Becker, M.D., F.A.C.C., Miami Vascular Institute, 8900 North Kendall Drive, Miami, FL 33176**.

POSITIONS OPEN

CHAIR DEPARTMENT OF BIOLOGY UNIVERSITY OF VICTORIA VICTORIA, BRITISH COLUMBIA CANADA

Applications are invited for the position of Professor and Chair of the Department of Biology, University of Victoria. The Department has 26 faculty members, 11 staff members in support of teaching and research programs in ecological and evolutionary biology, physiology, and cellular and molecular biology, and 64 graduate students. In addition, the Department has specific research programs investigating the biology of forest trees, marine biology, molecular toxicology and neurobiology.

Candidates must have a distinguished record of scholarship and professional achievement in either ecological or evolutionary studies or both, and will be expected to participate in related teaching and research programs. Also, the successful candidate will demonstrate strong leadership qualities and administrative ability.

Send applications to:

**Dr. A.T. Matheson
Dean of Science
University of Victoria
Victoria, British Columbia
V8W 2Y2**

The competition will close on 31 October 1992. *The University of Victoria encourages women and members of minorities to apply. Applications from Canadian citizens and Landed Immigrants will be given first consideration.*

CHAIR, DEPARTMENT OF PSYCHOLOGY

Applications and nominations are invited for the position of professor (tenured) and Chair of the Department of Psychology at the University of Maryland, College Park (College of Behavioral and Social Sciences). Candidates should have a distinguished record of scholarship, a nationally recognized research program, a commitment to graduate and undergraduate teaching, and strong evidence of professorial and academic administrative leadership. Candidates should have a commitment to affirmative action and to working with faculty and students with diverse interests. Send a letter of nomination or application to: **Dr. Jonathan Wilkenfeld, Chair, Search Committee, Department of Government and Politics, University of Maryland, College Park, MD 20742**. Applicants should also send curriculum vitae, and names, addresses, telephone and FAX numbers of at least three individuals who could be contacted as references. For best consideration, applications should be received by October 15, 1992.

We particularly encourage nominations of women and minorities. The University of Maryland actively subscribes to a policy of Equal Educational and Employment Opportunities.

DIRECTOR, BOTANICAL GARDEN

The University of California Botanical Garden, Berkeley, is seeking an academic appointee to serve as Director (Academic Administrator) to manage the Garden and its staff. Managerial responsibilities include budget development, programmatic coordinator, facilities oversight, master planning of both program and capital projects and fund raising. An appointment as an adjunct professor in an appropriate biology department on the Berkeley campus will be sought. This is a full-time career position.

The Botanical Garden occupies 34 acres, has collections of over 16,000 living accessions, with 24 buildings encompassing nearly 25,000 square feet. The budget is in excess of \$600,000 with extramural support of \$100,000 annually. The Garden is an integral part of the campus academic program, has a public education program, an active Friends group and volunteers. The position requires familiarity with University organization, management and operations, relevant technical scientific background at the advanced level (Ph.D. preferred), management and communications skills, strong oral, written, problem solving and decision-making skills.

Salary range is \$58,656 to \$80,376; salary will be commensurate with training and experience. Applicants should send curriculum vitae and name/address of three references to: **Dr. Wilford R. Gardner, Dean, College of Natural Resources, University of California, Berkeley, CA 94720** by October 1, 1992. For information call (510) 643-9941. Applications submitted after the deadline will not be considered.

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

Science is theatre.

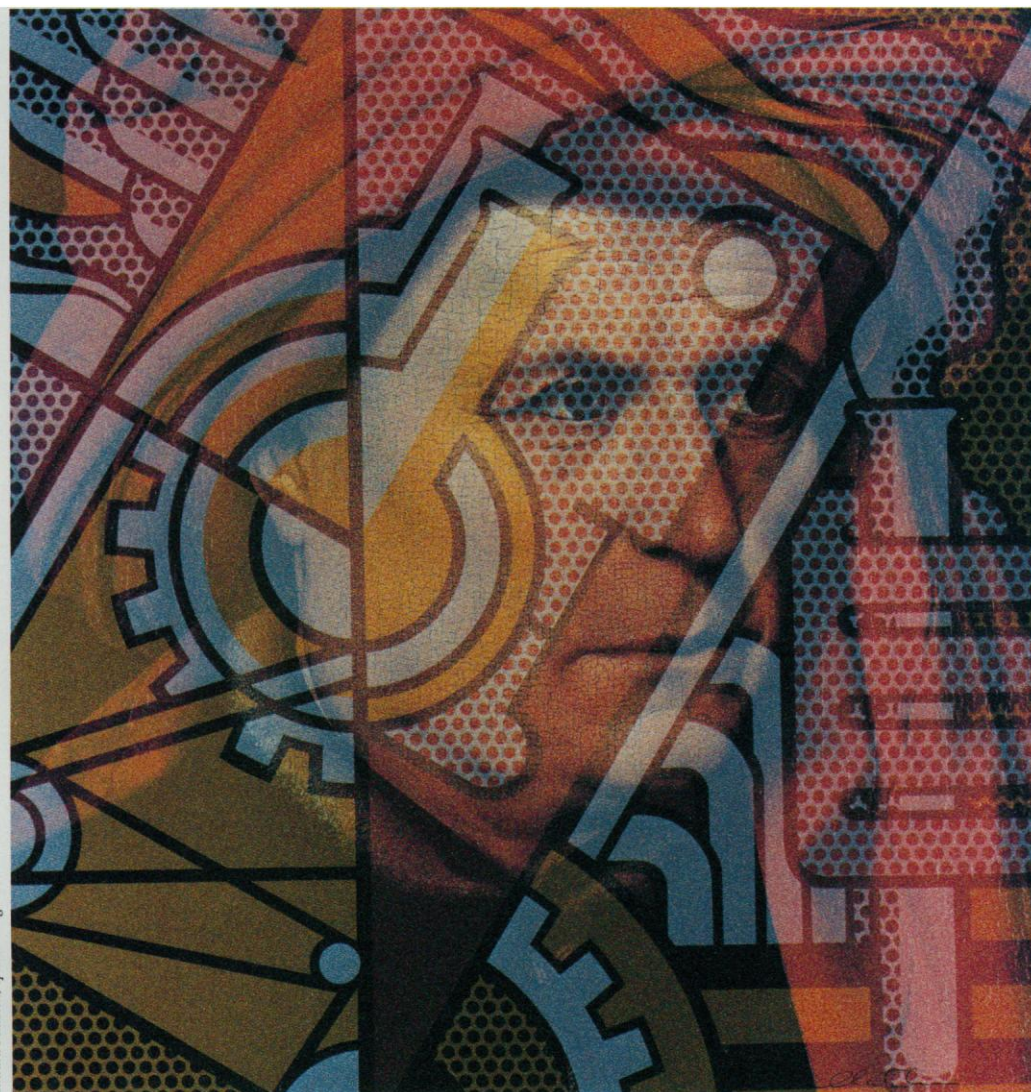
"Both disciplines are drawn from studied observations and are performed in an atmosphere of high uncertainty, totally dependent on the strength of human imagination." —Dr. Gwyn Morgan, SmithKline Beecham Pharmaceuticals Research and Development

The creation of great science depends on giving the finest scientific minds an arena in which to dare, explore and express themselves through the stimulation of peer collaboration and the support of a worldwide network of technology and data.

This is the environment of SmithKline Beecham Pharmaceuticals Research and Development. Our history has been marked by pioneer discoveries including the phenothiazine tranquilizers, the H_2 -receptor antagonists for gastrointestinal diseases, the identification of the 6-APA nucleus for beta-lactam antibiotics, the creation of the semi-synthetic penicillins, the first successful development of the β -lactamase inhibitors to circumvent bacterial resistance and the development of the world's first genetically-engineered human vaccine against hepatitis B. These accomplishments have been recognized by the award of a Nobel Prize and twelve Queen's Awards in the U.K. since 1966.

We look to the future with great optimism and the opportunity to explore the yet unrevealed panorama of challenges in our quest for superior therapeutics. If you feel strongly about pursuing your career in a progressive environment, please send your resume to: SmithKline Beecham Pharmaceuticals, Research & Development, Dept. S8/92, P.O. Box 401, Conshohocken, PA 19428. An Equal Opportunity Employer, M/F/H/V.

Edvard Munch, optical collage 1991.



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of R&D depends
on the quality of
the resources.**

Senior Scientists/Assistant Scientist

There are a number of components to success in the pharmaceutical research process. The most important is our people. At Schering-Plough, we hire the best talent in our industry. Then, we provide them with the technical resources they need to do their best work: the most advanced instrumentation; the latest computerized systems; modern lab facilities. Finally, we spend over \$400 million annually on R&D, and are completing a \$300 million R&D facility.

Commitment of this scope has helped us achieve over \$3 billion in annual sales around the world.

BIOTECHNOLOGY- CELL BIOLOGY

Senior Scientist

Become a part of our multi-disciplinary team where our current focus of research is on Cytokine Biology and the discovery of lymphokine antagonists. Applicant should have a Ph.D. with 0-4 years' postdoctoral or industrial experience. Research in cell Biology is required; background in Cellular Immunology is highly preferred. Experience in Molecular Biology is a plus. Respond to Dept. 92-13.

Both positions offer highly competitive salaries, superior benefits, and all the challenge and growth potential an international industry leader can offer. Applicants should submit their cv, indicating position of interest to: George Czuba, Human Resources Dept., Schering-Plough Research Institute, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

VIROLOGY

Assistant Scientist

Your responsibilities will include establishing and running mechanistic screen/test systems for discovery of new anti-virals. Additionally, you will have the opportunity to work with our state-of-the-art robotics systems. The successful candidate will possess a BS in Biological Science with up to 3 years' experience. Your training should include Laboratory in microbiology and sterile technique. Understanding of cell culture techniques is a plus. Respond to Dept. 92-31.

The science of success



Schering-Plough
Research Institute

International Development Program Officer

The National Research Council is seeking a program officer for its Board on Science and Technology for International Development (BOSTID). Responsibilities include advising and coordinating programs in developing countries related to agricultural and forestry research in the Third World. Requires Ph.D. or equivalent in agriculture/forestry/plant sciences (genetics, physiology, microbiology, pathology or related field); at least 2 years experience and demonstrated capability to work effectively with U.S. and international experts and developing country scientists in cooperative research program management; broad knowledge of current agroforestry/silvicultural research in developing countries. Foreign language capability desirable; enjoyment of overseas travel essential. Salary commensurate with experience. Please send resume in confidence to: NRC/BOSTID, FO 2060, 2101 Constitution Ave., NW, Washington, DC 20418. EOE. Non-smoking environment.

**NATIONAL
RESEARCH
COUNCIL**



"MINORITIES IN SCIENCE...A SEARCH FOR SOLUTIONS"

13 November Issue Cover Story in SCIENCE

In a first-time cover story, the 13 November issue of Science explores the complex problems and obstacles facing minorities as they work and compete in the scientific community.

HIGHLIGHTS INCLUDE:

AFFIRMATIVE ACTION PROGRAMS, CAREER PROFILES, BARRIERS FACING
MINORITIES, THE SEARCH FOR SOLUTIONS

BENEFITS OF ADVERTISING IN THIS SPECIAL ISSUE:

• **MORE VISIBILITY.** Strategically located in the main body of the magazine, next to career-related editorial. • **HARVEY RESEARCH STUDY** measures reader awareness and retention of your ad.

BONUS DISTRIBUTION:

REPRINTS DISTRIBUTED TO: Minority Access to Research Centers • Minority Biomedical Research Support Program • National Hispanic Leadership Conference • National Network of Minority Women in Science • National Organization for the Advancement of Black Chemists and Chemical Engineers • National Puerto Rican Coalition • National Technical Association. In addition to these organizations, many more will receive this section for use through mailings and at meetings.

Don't miss this first time advertising opportunity!
Contact Janis Crowley at (212) 496-7704.

Space Reservation Deadline: Tuesday, October 27

SEARCH REOPENED ASSISTANT/ASSOCIATE PROFESSOR CANCER PHARMACOLOGY/ EXPERIMENTAL THERAPEUTICS

The Department of Pharmacology, University of Tennessee College of Medicine, is seeking candidate with research interests in **cancer pharmacology/tumor biology** for an available tenure-track position. The person selected for this opening should be capable of establishing a laboratory program which utilizes the modern constructs of biochemistry, molecular biology, and/or cell biology as applied to the study of problems of current relevance in cancer research. Studies on cell growth factors and regulation directly relevant to cancer therapeutics may be included. Candidates should possess the Ph.D. degree in Pharmacology, Biochemistry, or a related discipline, or the M.D. degree, and should have demonstrated excellence in research and a commitment to teaching. Candidates will be expected to participate in teaching of Pharmacology to professional and graduate students, in addition to establishing an independent research program. Applications from minority candidates and women are strongly encouraged. Please submit curriculum vitae, names of three references, and a brief statement of future research plans to: Dr. Mervyn Israel, Search Committee Chairman, Department of Pharmacology, The University of Tennessee, Memphis, The Health Science Center, 874 Union Avenue, Memphis, TN, 38163. Search will continue until the position has been filled. The University of Tennessee, Memphis is an Equal Opportunity/Title IX/Section 504/Affirmative Action Employer.



01230

Sponsored by the National Heart, Lung, and Blood Institute

Postdoctoral Positions in HIV Research

Two postdoctoral positions are available at the PARKE-DAVIS Pharmaceutical Research Division, Warner-Lambert Company, to work on the molecular biology and biochemistry of HIV. The successful candidates for these positions will participate in a National Cooperative Drug Discovery Grant, "Molecular Interventions for AIDS", centered at the University of Michigan.

The two positions are:

- **Molecular Virologist** - Requirements include Ph.D. in molecular biology, virology or related area. The projects will involve expression of HIV proteins in mammalian cell systems and study of their functions in cells.
- **Biochemist** - Requirements include a Ph.D. in biochemistry or related area. The project will involve site directed mutagenesis and gene expression in *E. coli*; followed by enzyme isolation and characterization.

Relevant experience and a strong publication record are requirements for both positions.

Because of the interdisciplinary and collaborative nature of these projects, strong communication skills are essential. Each of these positions offers a unique opportunity to work in an active virology program within a major pharmaceutical company; plus extensive interactions with students, postdocs and faculty involved with HIV and gene therapy at the University of Michigan.

Interested scientists should send a curriculum vitae and three references to **PARKE-DAVIS Pharmaceutical Research Division, Human Resources, Box JDM-PDLP, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment"**



"Equal Opportunity in Action"

Upjohn

FERMENTATION MICROBIOLOGIST

The Fermentation Products Production Group is seeking an experienced microbiologist to work closely with staff from our Fermentation Plant and Bioprocess Research and Development Groups. The selected candidate will be responsible for the preparation and maintenance of cultures required for large-scale fermentations. This position will monitor key parameters and use judgement to implement changes during the fermentation process. A bachelor's or master's degree along with a background in industrial microbiology, fermentation and statistics is required.

Upjohn offers a very competitive compensation and benefits package including relocation assistance. The Kalamazoo area has a population of 225,000 and provides an excellent mix of cultural and recreational pursuits. Qualified candidates are invited to send their resumes (refer to position code #125 in your cover letter) to:

**THE UPJOHN COMPANY
Corporate Recruiting
Position #125
7000 Portage Street
Kalamazoo, MI 49001**

An equal opportunity employer, M/F.

POSITIONS OPEN

PHARMACOLOGY

**DEPARTMENT OF PHARMACOLOGY
FOX CHASE CANCER CENTER
PHILADELPHIA, PENNSYLVANIA**

An **ASSOCIATE MEMBER** (equivalent Assistant Professor) tenured track position is available. The candidate should hold a Ph.D., M.D. or equivalent degree and have demonstrated ability to conduct independent research and attract extramural funding. Although the position is not restricted to any specific discipline, individuals with research interest in molecular pharmacology, metabolism, pharmacogenetics or drug development related to cancer therapeutics are encouraged to apply. No formal teaching obligations are involved. Applicants should submit curriculum vitae, a brief statement of research interests and career plans and the names of three references to: **Personnel Department-MAS, Kenneth D. Tew, Ph.D., Chairman, Department of Pharmacology, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.**

The Swiss Federal Institute of Technology in Zurich (ETHZ) invites applications for a new

CHAIR IN ENVIRONMENTAL SCIENCES

The new professor is expected to be experienced in some environment-related scientific disciplines and possess a solid record in tackling environmental problems. The professor is expected to participate in trans-disciplinary research on the causes of environmental problems and to contribute to the development of concepts related to the man-environment system in its entirety. The teaching side involves lecture courses for first or second year students. The main responsibility will be to develop and lead, in collaboration with other ETHZ professors and members of neighbouring universities and research institutes, a "Case Study Programme" for fourth year students. In this programme students are to confront complex real-world environmental issues, and learn to work as members of a multidisciplinary team.

Suitably qualified individuals are invited to apply and should forward their applications (including curriculum vitae, list of publications and a brief description of their ideas for this professorial post) **no later than September 30, 1992**, to the President of ETH Zurich, **Prof. Dr. J. Nüesch, ETH Zentrum, CH-8092 Zurich**. *In its effort to increase the number of women in top academic positions, the ETHZ specifically invites applications from women.*

DIRECTOR OF THE CLINICAL RESEARCH CENTER, UNIVERSITY OF CALIFORNIA, SAN DIEGO (UCSD) MEDICAL CENTER—Applications are invited for the position of Program Director of the Clinical Research Center at the University of California, San Diego School of Medicine, effective January 1, 1993. Candidates must be active and funded clinical investigators with an M.D. degree in well-established investigative programs. Familiarity with NIH-funded GCRCs is desirable, as is administrative experience and evidence of academic leadership. Faculty appointment at the Associate Professor or Full Professor in the In-Residence series will be commensurate with candidate's years of experience and based on UC pay scales.

Applications supported by curriculum vitae and a list of two to three potential references should be sent no later than September 15, 1992 to: **JERROLD M. OLEFSKY, M.D., Chair, CRC Director Search Committee, University of California, San Diego, Department of Medicine (9111G), 9500 Gilman Drive, La Jolla, CA 92093. UCSD is an Equal Opportunity/Affirmative Action Employer.**

SOUTHERN CONNECTICUT STATE UNIVERSITY (SCSU)

The Department of Biology invites applications for a full-time tenure-track **FACULTY POSITION**. Applicants must have a doctorate in animal physiology, university teaching experience preferred. The candidate would be expected to teach undergraduate animal physiology courses and graduate courses in human physiology, endocrinology and research methods. A letter of introduction describing one's current interests, curriculum vitae, and three letters of recommendation should be sent to: **Vernon A. Nelson, Department of Biology, Search #92-64, SCSU, 501 Crescent Street, New Haven, CT 06515, by September 25, 1992. SCSU is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

The Swiss Federal Institute of Technology in Zurich (ETHZ) invites applications for a

CHAIR IN MOLECULAR BIOLOGY

Research will focus on the fundamental aspects of the molecular biology, in particular the design, folding, structure and function of proteins and polypeptides. It is expected that the successful candidate will have a special interest in contacts and collaborative projects with the existing research groups in the field of structure determination by crystallographic and NMR methods.

Teaching duties comprise lectures and courses on the molecular biology, function and structure of polypeptides and proteins to students in biochemistry and biology at all university levels.

Please submit your application together with curriculum vitae and a list of publications to the President of the ETH Zurich, Prof. Dr. J. Nüesch, ETH Zentrum, CH-8092 Zurich, no later than October 15, 1992. *In its effort to increase the number of women in top academic positions, the ETHZ specifically invites applications from women.*

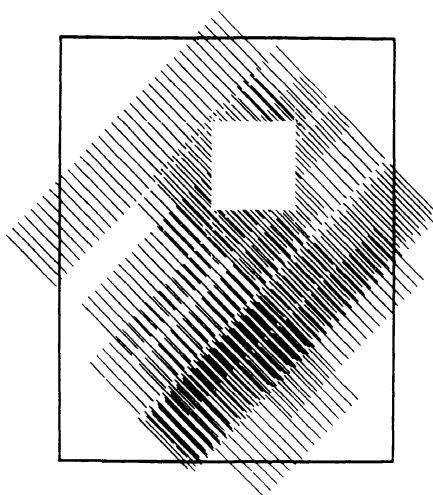
DIRECTOR GENETIC ENGINEERING FACILITY

The University of Illinois Biotechnology Center is seeking a Director for the Genetic Engineering Facility with responsibilities to oversee the operation and development of the Facility which provides oligonucleotide synthesis, protein sequencing, peptide synthesis, amino acid analysis, DNA sequencing, and related technologies. Qualifications include an M.S. or Ph.D. in Biochemistry, Chemistry, or a related science. Applicant must have extensive knowledge of protein and nucleic acid chemistry, be informed about new developments, and make recommendations about equipment acquisition and services. Director should have hands-on familiarity with the facility's equipment. Director trains and supervises technical personnel and manages budget. The position is a full-time, 12 month regular academic professional appointment. Salary is negotiable and commensurate with experience. The position is available September 21, 1992. Full consideration requires that applications be received by September 15, 1992. Send letter of application, résumé and names of three references to: Dr. Janet Glaser, Associate Director, University of Illinois Biotechnology Center, 901 South Mathews Avenue, Urbana, IL 61801. Telephone: (217) 333-1695. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

The University of California, San Francisco School of Medicine. **TENURED TRACK FACULTY POSITION IN THE PROGRAM OF BIOLOGICAL SCIENCES.** The Department of Orthopaedic Surgery and the Program in Biological Sciences of the School of Medicine, University of California, San Francisco seek a molecular cell and/or developmental biologist whose primary interest is in the organization and function of bone and cartilage as tissues. The successful candidate for this tenure track position should have a demonstrated expertise in connective tissue research primarily in osteogenesis and chondrogenesis. The successful candidate should be able to develop an active and independently funded research program and teach professional and graduate students.

Letters of application should be accompanied by curriculum vitae and bibliography, narrative description of plans for future research, and the names, addresses and telephone numbers of three references. Please send all material by September 15, 1992 to: Dr. Bruce Alberts, Chairman of the Search Committee, Professor of Biochemistry and Biophysics, Box 0448—HSE 920, University of California, Medical Center, San Francisco, CA 94143-0450 or Dr. David S. Bradford, M.D., Professor and Chairman, Department of Orthopaedic Surgery, University of California, Medical Center, San Francisco, CA 94143-0728.

POSTDOCTORAL POSITION available immediately to study functional roles of protein-DNA and protein-protein interactions in eukaryotic gene regulation. Recent Ph.D.'s in biochemistry or genetics with research experience in protein manipulation and/or cDNA expression libraries are encouraged to apply. Please send curriculum vitae, description of research background, and names of two references to: Ms. Tina Jones, Department of Genetics, University of California, Davis, CA 95616.



THE OBJECTIVE ADVANTAGE.

The MITRE Corporation is an independent, not-for-profit system engineer and integrator working in the public interest. Through our Center for Civil Systems, MITRE provides the government with objective expertise in civilian systems development and engineering. Pursuing work in the areas of space, and energy, resources and environment, the Center is recognized as a major source for the innovative technology needed to solve tough, national systems problems. With the increasing complexity and size of systems challenges, the Center is being called on to support a wide spectrum of efforts including government regulatory, development and remediation projects, and NASA programs.

ANALYTICAL CHEMIST

Interact directly with clients and contractors as you perform reviews of hazardous waste sampling, analysis/work plans and statements of work, with additional responsibility for conducting laboratory audits and providing technical guidance to project managers. Qualifications include an MS or PhD in Chemistry, knowledge of QA and QC chemical measurements, and 8-10 years' experience in: hands-on analysis of environmental samples for organic and inorganic analytes; SW846 methods; laboratory audits; data review and validation. Proven ability to interpret environmental data is critical.

CHEMICAL/ENVIRONMENTAL/CIVIL ENGINEER

Review technical proposals and designs for remediation of contaminated hazardous waste sites, as well as develop and modify specifications for remedial design and action. In addition to an appropriate MS or PhD degree, candidates must have 7+ years' site remediation experience, and in-depth knowledge of remedial technology design principles, applications, regulatory requirements, and costs. Demonstrated ability to assess site conditions with respect to contaminant chemistry, geology and hydrogeology is essential.

Please forward resumes, indicating position(s) of interest, to: The Office of Human Resources, Section M814, The MITRE Corporation, 7525 Colshire Drive, McLean, VA 22102.

MITRE's PROJECT INVOLVEMENT INCLUDES, BUT IS NOT LIMITED TO:

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MITRE

Center for Civil Systems

SCIENCE's 2nd Annual CAREERS IN SCIENCE

18 September 1992

The second annual Careers issue is custom-designed for recruitment. This special cover story is the ideal environment for your message and will include:

Career trends in:

- Multidisciplinary Fields - Biotechnology, Neuroscience, Material Science, Pharmaceuticals and more.
- Industry
- Money, funding and jobs

Special recruitment advertising section-Full-page ads will be placed within this editorial section located in the main body of the magazine (ROP), and will be included in the Harvey Research Study on reader retention. All other size ads will be placed in the traditional back-of-the-book section.

Bonus Distribution:

NIH Research Festival, 24 & 25 September, Bethesda, MD
Neuroscience, 25 to 30 October, Anaheim, CA,
ASCB Meeting, 15 to 19 November, Denver, CO

With a recruitment ad in SCIENCE, you are guaranteed a worldwide circulation of 155,000 qualified, paid subscribers, and a pass-along readership of over 465,000 total readers. SCIENCE, in its 112th year of publication, is the most respected journal in the industry, ensuring that your ad will be well-read.

For more information or to place your ad, please call
Janis Crowley, Recruitment Advertising Manager,
212-496-7704

Reservation Deadline: Tuesday, 1 September 1992

CHAIRPERSON DEPARTMENT OF CELL BIOLOGY

The Department of Cell Biology of UMDNJ-School of Osteopathic Medicine, seeks applications and nominations of distinguished academic scientists qualified to serve as the founding departmental chairperson. The School of Osteopathic Medicine has recently undergone a major expansion and is now in the process of constructing its new campus in Stratford, close to the cultural and recreational centers of Philadelphia, the Jersey Shore and the mountains.

The Basic Science Departments have an emphasis in molecular biology and cellular function, and are housed in a modern, fully-equipped research building. The new department consists of 6 faculty and is expected to grow to 15. The present faculty are young and vigorous and encompass research programs in cell signaling and neuronal growth regulation. The Department will have responsibility for the instruction of medical students in the disciplines of Anatomy, Histology, Neuroscience and Physiology.

We are seeking candidates who have an outstanding record of research achievements, are dedicated to high-quality educational programs and have administrative experience. Although we are seeking individuals with research interests in any area of modern cell biology, we are particularly emphasizing the recruitment of individuals with research interests in mechanisms of intracellular signalling or receptor action. Appointment will be made at the Professor level with a starting date as early as April 1, 1993 and no later than July 1, 1993.

Letters of application, CV and the names, addresses and telephone numbers of 4 references should be submitted to: **Richard Schimmel, PhD, Assistant Dean for Basic Sciences, UMDNJ-School of Osteopathic Medicine, 401 South Central Plaza, Stratford, NJ 08084.** UMDNJ, NJ's university of the health sciences, is an Affirmative Action/Equal Employment Opportunity Employer, m/f/h/v, and a member of the University Health System of New Jersey.



DIRECTOR JAMES FORD BELL MUSEUM OF NATURAL HISTORY

The Bell Museum of Natural History, University of Minnesota, Minneapolis, MN is seeking a Director. The major responsibilities of the Director will be to direct the public education, research, and curatorial activities of the Museum, to work closely with the Museum's Advisory Board, to lead in obtaining external support for research and public programs, and to represent the BMNH in the museum community. The current staff includes six faculty in the fields of invertebrates, ornithology, mammalogy, herpetology, ichthyology, and ethology, and Curators of Public Education, Exhibits, and Natural History Art. A new faculty curator in systematics will be hired with the help of the new Director.

The Museum has significant regional collections of major vertebrate groups and of mollusks. Exhibits include world-class natural history dioramas and temporary and traveling exhibits on topical subjects. The Museum also has major holdings of natural history art. Public education programs serve a wide variety of audiences.

Candidate for the position of Director must qualify for tenure in a Department at the University of Minnesota. Other requirements are a Ph.D. or equivalent degree in an appropriate field of natural science, an excellent record for research and teaching, preferably in modern systematics, with a minimum of seven years university faculty and/or museum experience. Maintenance of an active, personal research program and time devoted to teaching is expected. In addition, a sound understanding of the importance of both academic and public aspects of natural history museums in university settings and a demonstrated interest in promoting the major disciplines served by natural history museums, including systematics, biogeography, and conservation biology, are essential. The director also needs a strong interest in promoting the use, care and growth of biological collections, administrative ability and aggressiveness in fund-raising, and dedication to further public awareness and understanding of the intimate relationship between humans and their environment. Salary commensurate with experience.

Applications must include a current curriculum vitae, a letter explaining your interest in the position and summarizing your qualifications, and the names, addresses and phone numbers of at least three references.

Applications with supporting material will be accepted until September 30, 1992 and should be sent to: Chair, Search Committee for Director, James Ford Bell Museum of Natural History, University of Minnesota, 10 Church Street SE, Minneapolis, MN 55455.

THE UNIVERSITY OF MINNESOTA IS AN EQUAL OPPORTUNITY EDUCATOR AND EMPLOYER.

UNIVERSITY
OF MINNESOTA



Hoechst-Roussel Pharmaceuticals Inc.

Impact Neuroscience Research And Your Career.

Hoechst-Roussel Pharmaceuticals Inc., a fast growing subsidiary of Hoechst Celanese, a Fortune 100 chemical/pharmaceutical leader, has outstanding career opportunities for discovery scientists.

Working within an environment that fosters growth and creativity, the neuroscience research group is focused on the discovery of novel agents for the treatment of Alzheimer's Disease, Schizophrenia and Obsessive-Compulsive Disorders. In a state-of-the-art facility soon to be completed, candidates will develop, conduct and supervise new experimental approaches, and participate on multi-disciplinary teams, designed to advance new compounds through the drug discovery process.

Biochemical and Behavioral Pharmacology

SENIOR RESEARCH BIOCHEMICAL PHARMACOLOGIST

In vivo neurochemical techniques, including a strong background in HPLC, brain microdialysis, RIA and ELISA are highly desirable. Ph.D. in Pharmacology/Biochemistry and 1-2 years post-doctoral experience required. **(Job # A)**

SENIOR RESEARCH BIOCHEMICAL PHARMACOLOGIST

Neurochemical techniques including ligand binding and kinetics, protein and peptide isolation and cell culture experience are highly desirable. Ph.D. in Pharmacology/Biochemistry and 1-2 years post-doctoral experience required. **(Job # B)**

SENIOR RESEARCH BIOCHEMICAL PHARMACOLOGIST

In vitro neurochemical techniques, including a strong background in cyclic nucleotide and phosphorylation second messenger systems and cell culture experience are preferred. Experience with recombinant proteins is desirable. Ph.D. in Pharmacology/Biochemistry and 1-2 years post-doctoral experience required. **(Job # C)**

SENIOR RESEARCH BEHAVIORAL PHARMACOLOGIST

Evaluation of potential new therapeutic agents in animal behavioral models, including learning, memory, motivation and cognitive processing. A background including computerized data collection and analysis is desirable. Ph.D. in Behavioral Pharmacology and 1-2 years post-doctoral experience required. **(Job # D)**

Molecular Neurobiology

SENIOR RESEARCH MOLECULAR NEUROBIOLOGISTS (2 Positions)

Molecular cloning techniques and PCR technology background is required, as well as a broad knowledge of neurobiology. Previous transgenic experience a plus. Assignment will be at the Mount Sinai Medical School for the first year, then at the Bridgewater, N.J. site. Ph.D. in Biochemistry/ Molecular Biology with 1-2 years post-doctoral experience required. **(Job # E)**

SENIOR RESEARCH MOLECULAR NEUROBIOLOGIST

Broad experience with biochemical techniques in cell biology, including peptide mapping, enzyme purification and mammalian tissue culture is required. Experience with mechanisms of neuronal protein degradation is preferred. Ph.D. in Biochemistry/ Cell Biology with 1-2 years of post-doctoral experience required. **(Job # F)**

SENIOR RESEARCH MOLECULAR NEUROBIOLOGIST

Eukaryotic transcriptional regulation and protein expression experience required, as well as extensive knowledge of PCR and molecular cloning techniques. Background in virology or transgenics desirable. Ph.D. in Biochemistry/ Cell Biology with 1-2 years of post-doctoral experience required. **(Job # G)**

RESEARCH MOLECULAR BIOLOGIST

Ability to perform a variety of enzyme studies and kinetic analysis is required. Knowledge of western blotting, protein purification and tissue culture desired. MS/BS in Biology, Biochemistry or related discipline required. **(Job # H)**

Chemistry

SENIOR RESEARCH CHEMIST

Design and synthesis of novel organic compounds for pharmacological evaluation and supervision of same. Ph.D. in Organic or Medicinal Chemistry with a strong background in organic synthesis, spectral interpretation and separation skills. 1-2 years post-doctoral experience preferred. **(Job # I)**

In our suburban corporate complex, you'll enjoy an excellent salary with a flexible benefits program, on-site fitness center, and a 401(K) savings plan. For prompt consideration, send your resume with salary history/requirements, and indicate the job letter of the position desired, to: Supervisor, Human Resources, Building L, Hoechst-Roussel Pharmaceuticals Inc., Post Office Box 2500, Routes 202-206, Somerville, NJ 08876-1258. An affirmative action employer M/F/H/V.

Hoechst Celanese

Hoechst



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POSTDOCTORAL FELLOWSHIPS



IN PROSTATE
CANCER
RESEARCH



Positions available for Ph.D. or M.D. with molecular biology, protein purification, immunohistochemistry and/or monoclonal antibody experience to work in laboratory investigating novel glycoproteins associated with prostate cancer. Current studies include protein purification, isolating cDNAs, RNA and DNA amplification, preparing recombinant proteins and synthetic peptides, epitope mapping, production of primary and second generation monoclonal antibodies, and immunoassay development. Send curriculum vitae with three letters of reference and statement of research interests to: **George L. Wright, Jr., Ph.D., CENTER FOR UROLOGICAL ONCOLOGY, Eastern Virginia Medical School, 700 West Olney Road, Norfolk, VA. 23507-1696. FAX: 804-624-2255. An Equal Opportunity/Affirmative Action Employer.**

RECEPTOR BIOCHEMIST

Continued growth within Lilly Research Laboratories has created a job opportunity for a BS or MS Biochemist in the Biochemical Pharmacology Department.

The selected candidate will possess experience in receptor binding or signal transduction. A working knowledge of relevant techniques such as second messenger assays, kinase assays, molecular biology, or mammalian tissue culture would be desirable. A strong desire to discover new "breakthrough" drugs is essential. The successful candidate will develop new receptor binding assays, screen for new chemical leads in these assays, characterize active compounds for mechanism and specificity, and determine functional activity of these compounds *in vitro*.

We offer an attractive salary and benefits package. Please send resume to: Katie Carson, Corporate Recruitment, Dept. S-814, Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285. We are an equal opportunity employer and value diversity in the work force.



POSITIONS OPEN

NUCLEIC ACID FACILITY MANAGER

Iowa State University invites applications for Manager of its Nucleic Acid Facility. An M.S. degree with at least six years or Ph.D. with at least three years of experience with nucleic acid instrumentation and computer operation is required. Individuals should have the ability to interact effectively with the facility's personnel and clientele. The manager will operate existing and develop new automated systems for DNA synthesis, sequencing, purification and analysis; administer the facility; and supervise staff. Applicants should send curriculum vitae and three letters of reference by September 15, 1992, to: **Dr. Walter R. Fehr, Director of Biotechnology, 1210 Molecular Biology Building, Iowa State University, Ames, IA 50011 (FAX: 515-294-4629).** Nationally competitive salary and benefits.

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION in Nutrient Control of Gene Expression. Available immediately to identify cis-elements and trans-factors that mediate the fatty acid inhibition of transcription of genes coding for lipogenic enzymes. Experience required in molecular biology techniques, particularly PCR, gel shift, footprinting and cloning. Send curriculum vitae and letters of reference to: **Dr. Steven D. Clarke, Department of Food Science and Nutrition, Colorado State University, Ft. Collins, CO 80523; FAX: 303-491-7252. An Equal Opportunity/Affirmative Action Employer.**

Haskell Laboratory for Toxicology and Industrial Medicine, Du Pont, has a **POSTDOCTORAL POSITION** available.

Postdoctoral position available immediately for a Ph.D. with extensive molecular and cell biology experience to participate in pulmonary mechanistic studies designed to elucidate toxicological effects of inhaled particulates. The successful candidate should have working knowledge of common molecular biology techniques, tissue culture methods and/or experience with ELISA and standard protein isolation techniques. Postdoctoral positions are one year assignments renewable for a second year upon mutual agreement. Excellent salary. Please submit curriculum vitae and cover letter to:

**David B. Warheit, Ph.D.
Senior Research Toxicologist
E. I. du Pont de Nemours and Company
P.O. Box 50, Elkton Road
Newark, DE 19714**

Du Pont is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION MOLECULAR ONCOLOGY PROGRAM

Postdoctoral position available in research laboratory investigating mitogenetic pathways mediated by tyrosine kinases. Interested candidates should forward curriculum vitae and three letters of recommendation to: **Gary D. Kruh, M.D., Ph.D., c/o: Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111.** Telephone inquiries can be made by calling Dr. Kruh at (215) 728-5317. *Equal Opportunity Employer.*

POSTDOCTORAL OR RESEARCH ASSOCIATE POSITION. Available to study molecular interactions between human leukemia and immune cells and tumor pathogenesis, including characterization of cytokines from tumor and lymphocytes and molecular biology. The candidates must have a recent Ph.D. or an equivalent degree and must be familiar with protein chemistry and biochemistry. Send curriculum vitae and names of three references to: **J. W. Chiao, Department of Medicine, New York Medical College, Valhalla, NY 10595.**

POSTDOCTORAL POSITIONS IN VISION RESEARCH—Training in: psychophysics; biophysics and biophysics of transduction; retinal circuitry and blood flow; physiology of cortex, eye movements, and visually guided behavior; genetics, immunology and molecular biology of eye diseases. Integrated with other programs of the Mahoney Institute for Neurological Sciences. Write/FAX: **Dr. P. Sterling, Director, Vision Training Grant, 123 Anatomy/Chemistry Building, University of Pennsylvania, Philadelphia, PA 19104-6058. FAX: (215) 898-9871. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

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

POSTDOCTORAL POSITION available at Brigham and Women's Hospital/Harvard Medical School to study the molecular biology of proteolytic enzymes and their role in macrophage differentiation and function. Experience in molecular biology, transgenic models, or homologous recombination required. Apply to: **Dr. Harold A. Chapman, Respiratory Division, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. An Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS—Two positions available January 1993 at Oak Ridge National Laboratory (ORNL) or other appropriate research organizations in the Program on Compensatory Mechanisms in Fish Populations (COMPMECH). COMPMECH is aimed at synthesizing the quantitative understanding of critical life stages and processes involved in fish population regulation. One position emphasizes applying and comparing simulation models. The other position emphasizes coordinating activities on small-mouth bass or salmonids.

For position information: **Webb Van Winkle, Environmental Sciences Division, ORNL, P.O. Box 2008, Oak Ridge, TN 37831-6038; telephone: (615) 574-7398.** For application material: **Postgraduate Research Program, Science/Engineering Education Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117; telephone: (615) 576-3456.**

POSTDOCTORAL POSITION IN ENVIRONMENTAL STRESS MOLECULAR BIOLOGY is immediately available to work on the structure and function of stress proteins in plants. Experience in molecular biology and/or protein biochemistry is required. Knowledge of plant biology is desirable, but not essential. Send curriculum vitae and the names of three references to: **Dr. Charles Guy, Department of Environmental Horticulture, University of Florida, Gainesville, FL 32611. Telephone: 904-392-7934; FAX: 904-392-3870.**

POSTDOCTORAL POSITION

Immediately available for a biochemist/molecular biologist with Ph.D., M.D., or Ph.D./M.D. Research entails assistance in the design and optimization of a PCR diagnostics laboratory and design of new diagnostic PCR protocols relevant to human disease. Experience in basic molecular biology techniques and comprehensive theoretical understanding of nucleic acids preferred. Experience in PCR techniques is not a prerequisite but will be helpful. Salary commensurate with experience. Applicants should submit an application letter specifying their research interests and curriculum vitae naming two references to:

**Richard N. Re, M.D.
Vice President and Director of Research
Alton Ochsner Medical Foundation
1516 Jefferson Highway
New Orleans, LA 70121
*An Equal Opportunity Employer***

POSTDOCTORAL POSITION available immediately to study evolutionary relationships of marine algae using gene sequence comparisons. Molecular biology experience required, phylogeny experience preferred. This research is part of a three year NSF EPSCoR grant awarded to the State of Maine. Send curriculum vitae and names of three references to: **Dr. Robert A. Andersen, Bigelow Laboratory for Ocean Sciences, West Boothbay Harbor, ME 04575. Equal Opportunity Employer.**

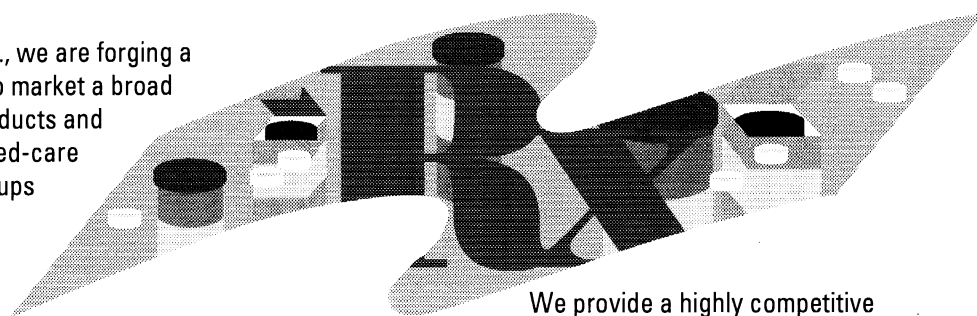
PHARM. D., PH.D., M.D.

Positions are available throughout the country.

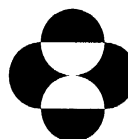
INFORMATION SCIENTISTS

As a unit of Merck & Co., Inc., we are forging a new business organization to market a broad range of pharmaceutical products and services to identified managed-care systems, hospital buying groups and other defined market segments.

The Information Scientist is responsible for exceeding the medical information needs of a sub-set of customers with diverse needs in highly technical disease entity, medical economic and/or product information areas. If selected, you will represent our group to thought leaders within non-traditional and academic communities. You will identify, establish and maintain service relationships by providing up-to-the-minute, well-researched information to clinicians, investigators and institutions who impact on product purchasing decisions. We are seeking individuals with Pharm.D., Ph.D. and/or M.D. credentials who have highly developed interpersonal and computer skills as well as a commitment to public health and welfare.

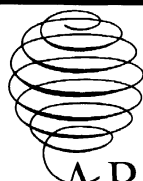


We provide a highly competitive compensation and benefits package. For consideration please submit your resume with salary requirements and geographic preference to: **Dept. SC, Z-62, P.O. Box 2069, Philadelphia, PA 19103.** We are an affirmative action/equal opportunity employer, m/f/d/v.



MERCK

A Unit of Merck & Co., Inc.



ARIAD

SENIOR RESEARCH SCIENTIST Pharmacology/Physiology

ARIAD Pharmaceuticals, Inc. is seeking a highly motivated and creative Senior Research Scientist who will participate in the design, conducting, interpretation and reporting of pharmacologic and physiologic studies. These studies will support the development of a new generation of small molecule drugs designed to target intracellular signaling and protein trafficking pathways and alter the course of specific diseases.

The successful candidate will be challenged with a broad responsibility developing appropriate *in vivo* models to support selected drug discovery programs in immunity, inflammation and pulmonary diseases. This position will involve extensive interactions with the Company's chemists and biologists in evaluating and studying lead molecules. Applicants should have a PhD in pharmacology, physiology or related field and 3-5 years' academic or industrial experience. Experience in small and large animal surgery is required; some experience in mass spectroscopy for quantitation of drug molecules in biological fluids is desirable. Excellent oral and written communication skills are essential.

ARIAD has a fully equipped laboratory suitable for sophisticated small and large animal studies, and offers an excellent salary and benefits package, incentive stock participation and the opportunity to contribute to a new and exciting area of drug discovery. **Please respond to: ARIAD Pharmaceuticals, Inc., Human Resources Office, Dept. I, 26 Landsdowne Street, Cambridge, MA 02139.** We are an equal opportunity, affirmative action employer.

COLLEGE OF ENGINEERING UNIVERSITY OF MARYLAND

POSITION TITLE: ASSISTANT MANAGER, BIOTECHNOLOGY PROGRAM

CATEGORY: ASSOCIATE STAFF, TWELVE MONTHS, FULL-TIME (AS4937)

RESPONSIBILITIES/DUTIES:

Under direction of the ERC Biotechnology Program Manager, act as coordinator of the business and technical operations of the various activities which come under the purview of the ERC Biotechnology Program. This includes planning, scheduling, coordination of resources, maintenance of highly complex instrumentation, and interaction with faculty and industrial professional researchers. Perform a variety of bioprocessing operations of a highly complex nature, many of which require a broad knowledge of Biotechnology, and most of which require the conception and development of new techniques. Supervise technician(s) and student worker(s) in performance of biotechnological projects. Responsible for billing on work performed, both interdepartmental, and to industrial client. Responsible for requisitioning new equipment, materials, and supplies needed for program operations.

QUALIFICATIONS:

Education: Minimum BA/BS Degree in Microbiology, Biotechnology, Chemical Engineering, or related area. MS degree preferred.

Experience: Minimum 2-4 years in complex bio-process activities including cell culture fermentations, product recovery, purification and bench scale studies.

SALARY RANGE: Commensurate with experience.

TO APPLY: Send letter of application, resume, names and addresses of references to:

Mr. Edward M. Sybert
Biotechnology Program Manager
Engineering Research Center
Stadium Drive Building
University of Maryland
College Park, MD 20742-3415

APPLICATIONS MUST BE RECEIVED BY SEPT. 18, 1992
THE UNIVERSITY OF MARYLAND IS AN AFFIRMATIVE
ACTION/EQUAL OPPORTUNITY EMPLOYER

ONCOLOGY DRUG DISCOVERY M.D./Ph.D.

The Pharmaceutical Research Institute of Bristol-Myers Squibb is developing a new program in Oncology Drug Discovery at their Princeton facility, headed by Dr. Bernd R. Seizinger. One of the major objectives of this program will be the elucidation of fundamental genetic and cell-biological mechanisms associated with cancer development, and the rapid utilization of these insights for the identification of novel targets for more specific anti-cancer therapies.

As part of these efforts, we are searching for a Director of a newly created Department of Molecular Drug Mechanisms. The major goal of this department will be the development of novel mechanism-based screening assays for a rational drug discovery, based on new insights into the cell-biology of cancer. Furthermore, the cellular action of anti-cancer drugs including drug resistance will be studied at the molecular level. Thus, the successful candidate is required to have an outstanding track-record in cellular and molecular biology, and/or molecular pharmacology (preferably both). An M.D., Ph.D., M.D./Ph.D., or equivalent degree is required.

A comprehensive benefits package and competitive salary will be offered. Qualified individuals should forward their resume to: **BRISTOL-MYERS SQUIBB PHARMACEUTICAL RESEARCH INSTITUTE, Human Resources Department, 345-BM, P.O. Box 4000, Princeton, NJ 08543-4000.** We are an equal opportunity employer, M/F/D/V.



Bristol-Myers Squibb Company

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**COMPELLING
SUCCESS**

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**SCIENTIFIC
SAVVY**

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**PATENT
SUPERIORITY**

As an established leader in carbohydrate engineering, Alpha-Beta Technology is utilizing its patented technologies to develop an exciting array of proprietary pharmaceutical products. We are seeking an articulate, experienced professional to play a critical role in the product approval process.

Director of Regulatory Affairs

Be a key contributor to our expanding success, reporting directly to Alpha-Beta's President/CEO. Your credentials must include 3-5 years' Regulatory Affairs experience in a biotech or pharmaceutical operation, with demonstrated leadership in regulatory relationship building and attendant documentation procedures. You must have in-depth experience with FDA interaction—CBER relationships highly desirable. A working knowledge of IND, PLA and NDA preparation is essential, as is a strong grasp of GMP and GCP for effective interaction with Research, Quality, Clinical Affairs and Manufacturing groups. A BS in Pharmacy, Molecular Biology or Analytical Chemistry is required; an MS would be helpful.

At Alpha-Beta we reward our talented staff with a competitive salary and benefits package as well as the support, respect and recognition necessary for personal growth. **Please send your resume in confidence to: Robert Sawdon, Alpha-Beta Technology, One Innovation Drive, Worcester, MA 01605. Principals. No phone calls, please. An Equal Opportunity Employer.**

ALPHA-BETA

TECHNOLOGY

DEAN OF THE SCHOOL OF PHARMACY UNIVERSITY OF WISCONSIN-MADISON

The University of Wisconsin-Madison continues its search for Dean of the School of Pharmacy and invites applications and nominations for the position. The Dean is the chief academic and administrative officer of the School and is responsible for academic planning, personnel, budget, and physical facilities. The Dean reports to the Chancellor.

The School of Pharmacy offers B.S. degrees in Pharmacy, Pharmaceutical Sciences, and Pharmacology-Toxicology, and the Doctor of Pharmacy degree. Through the Graduate School, students may earn the M.S. degree in Hospital Pharmacy and the Ph.D. degree in the fields of Pharmaceutics, Medicinal Chemistry, Pharmaceutical Biochemistry, Pharmacology, History of Pharmacy, Social Studies of Pharmacy, Pharmacy Administration, and Continuing Education.

Candidates must have a successful record of scholarly achievement and accomplishments that meet standards for a tenured appointment at the rank of full professor at UW-Madison; a commitment to maintain and expand professional pharmacy education and pharmacy graduate and postgraduate instruction, research, public service and outreach activities; and possess strong leadership and management skills.

The position is available January 1, 1993. All applications and nominations received by September 15, 1992, will be considered. Submit materials to:

**Professor Joseph Robinson, Chair
Search and Screen Committee
University of Wisconsin-Madison
134 Bascom Hall, 500 Lincoln Drive
Madison, WI 53706
Telephone (608) 262-3956**

The University of Wisconsin is an Equal Opportunity, Affirmative Action Employer.

ENGINEERS, SCIENTISTS & TECHNICIANS

**DNA Analysis Systems
Biochemical Automation and
Information Systems**

Molecular Tool, Inc. is a biotechnology company located in Baltimore, Maryland that is committed to the development and commercialization of highly integrated DNA-based systems for the analysis of complex genomes and genetic loci. Together with a key industry partner, Molecular Tool has embarked on a significant development program for near-term implementation of a large-scale DNA analysis system.

Engineers, Scientists and Technicians are invited to apply for a position in a multi-disciplinary team that is shaping the future of DNA analysis technology. Candidates with experience in the following areas are encouraged to apply:

■ **Automation and Instrumentation:**
Biochemistry process and/or laboratory automation, robotics, liquid handling and analytical instrument development or implementation.

■ **Information Systems and Data Management:**
Information systems implementation, database management, and data analysis. Experience with laboratory information systems and biological data preferred.

Situated on a campus of the Johns Hopkins University School of Medicine, Molecular Tool, Inc. offers a stimulating scientific environment, competitive salaries, an incentive program and medical insurance benefits. Interested candidates should send a resume together with the names of three references to **Ms. Loretta Burrows, Molecular Tool, Inc., Alpha Center, Hopkins Bayview Research Campus, 5210 Eastern Ave., Baltimore, MD 21224.** An Equal Opportunity Employer.

MOLECULAR TOOL, INC.

**The University of Texas Southwestern Medical School
Announces
THE PEPR PROGRAM
INDEPENDENT RESEARCH FELLOWSHIPS
for
PHYSICIAN-SCIENTISTS**

The University of Texas Southwestern Medical School, with support from the Lucille P. Markey Charitable Trust, has established a program that is designed to replace or supplement the usual postdoctoral fellowship. This program will provide three years of support for independent research carried out by exceptional physician/scientists in any aspect of biomedical science including the fields of Biochemistry, Genetics, Pharmacology, Molecular and Structural Biology, Immunology, Pathology and Physiology.

• **Fellowship Terms**

Three years of support for a fundamental research project that will be carried out in newly-constructed laboratories at Southwestern Medical School
— \$50,000–\$60,000 annual stipend, depending on qualifications
— \$70,000 research support, which includes salary for a Research Assistant, Junior Faculty Appointment, Independent laboratory space.

• **Eligibility**

People holding both M.D. and Ph.D. degrees required with the first of these degrees awarded no earlier than 1987.

• **Application**

By September 30, 1992, please submit a one-page abstract of the research proposal, together with a curriculum vitae and names, addresses and telephone numbers of three referees.

By November 1, 1992, please submit a research proposal, not more than eight pages in length, in double-spaced type. The proposal should be divided into Specific Aims, Background and Methods. It must include a full discussion of potential difficulties, both theoretical and practical, and should suggest methods by which these difficulties might be minimized or avoided. Please also send reprints of papers published by the candidate.

• **Schedule**

Candidate interviews—December, 1992.

Announcement of awards—January 10, 1993.

Fellowships start—July 1, 1993.

Applications and inquiries should be addressed to:

Dr. Joseph F. Sambrook, McDermott Center for Human Development,
University of Texas Southwestern Medical Center, 5323 Harry Hines Blvd,
Dallas, Texas 75235-8591

Telephone: (214) 688-7574 FAX (214) 688-7579

The University of Texas Southwestern Medical Center is an Affirmative Action/Equal Opportunity Employer

Two postdoctoral positions are available in the Sequencing by Hybridization (SBH) program, Biological and Medical Research Division, Argonne National Laboratory:

1. GENOME STRUCTURE GROUP
(Dr. Radomir Crkvenjakov)

2. INTEGRAL GENETICS GROUP
(Dr. Radoje Drmanac)

The participants will be involved in defining new genes and regulatory and repetitive elements using partial sequencing of cDNA and genomic clones by oligonucleotide hybridization; in developing new concepts for gene expression patterns and genome organization, functioning and evolution. SBH technology includes preparation of M13 libraries, PCR, dot-blot/Southern-blot hybridization with oligonucleotides, probe-sets optimization and searching data bases (See Proc. Natl. Acad. Sci. U.S.A. 88, 10089-10093, 1991 and Science news article 253, p. 1489, 1991, for references). Postdoctoral applicants must have received their degree within three years of the appointment. Salary will be competitive, commensurate with background and experience. Highly motivated scientists with training in molecular genetics/biology are invited to send curriculum vitae, bibliography and the names of three references to:

Susan M. Walker, Employment and Placement, Box BIM-POSTDOC-55,
Argonne National Laboratory,
9700 South Cass Avenue, Argonne, IL
60439-4833. Argonne is an equal opportunity/affirmative action employer.



OPPORTUNITIES IN ANALYTICAL CHEMISTRY AND MOLECULAR BIOLOGY

SmithKline Beecham Pharmaceuticals, a world leader in pharmaceutical research and development, has exciting scientific opportunities for the following:

Bioanalytical Chemist

An integral part of our innovative team, the incumbent will perform established assays (i.e. protein sequencing) on project and program compounds and work towards the development of new and/or improvement of existing bioanalytical assays.

Requirements include a BS/BA or MS (or equivalent) in Chemistry, Biochemistry, Biology or related discipline, with 2+ years of current lab experience for BS level applicants. Expertise with protein sequencing, reduction and alkylation, and tryptic digestions is also required. Experience with protein chromatography would also be beneficial. (Refer to Job Code #H198).

Molecular Biologist/Biochemist

As part of a research team, the selected candidate will perform experiments in protein chemistry and molecular biology, as well as assist in design, interpretation and modification of experiments and techniques. Requirements include a BS or MS (or equivalent) in Chemistry, Biochemistry, Biology or related discipline, with 3+ years of current laboratory experience for BS level applicants. Interest in carrying out structure/function and interaction studies of receptors and other proteins is highly desired. (Refer to Job Code #H199).

Our state-of-the-art research facility is located in suburban Philadelphia, near Valley Forge, PA. We provide a stimulating, innovative and rewarding work environment, as well as a competitive compensation/benefits/relocation package. For confidential consideration, please submit your resume indicating the appropriate job code number to: N. Hasson, Employment Administrator, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.



SmithKline Beecham
Pharmaceuticals

Challenging the natural limits.

Glaxo Inc. Research Institute and the
University of North Carolina at Chapel Hill present
**The Fourth Annual Frontiers in
Chemistry and Medicine Symposium**
November 1-3, 1992

To Be Held At: The University of North Carolina at Chapel Hill
Friday Continuing Education Center

"Inhibition and Inactivation of Serine
Thiol Proteases"

Robert Abeles, Brandeis University

"Targeting DNA and Transition Metal
Complexes"

Jackie Barton, California Institute
of Technology

"Academic Industrial Relations"

Ernest Ellet, University of North Carolina at
Chapel Hill

"Why is the Spliceosome a Ribonucleo-
protein Machine?"

Christine Guthrie, University of California-
San Francisco

"Asymmetric Catalysis For Drug
Synthesis"

Barry Sharpless, Scripps Research
Institute

"Studies in the Chemistry-Medicine
Continuum: Taxol, Phorbol, and DNA-
Cleaving Agents Studies"

Paul Wender, Stanford University

"Towards the Estimation of Binding
Constants in Aqueous Solution"

Dudley Williams, University of
Cambridge, UK

For registration and additional information call 919-941-3409 (Glaxo/Wanda Satterwhite)
or 919-962-2172 (UNC/Becky Smith) or write to:

Ms. Becky Smith
Symposium Coordinator/UNC
CB #3290
University of North Carolina
Chapel Hill, 27599-3290

POSITIONS OPEN

POSTDOCTORAL POSITION

Postdoctoral Position(s): One or two positions will be available in the Fall of 1992 to study the roles of the multiple G protein α , β and γ subunits in signal transduction. Major emphasis will be placed on expressing the subunits using the baculovirus/Sf9 cell system and reconstituting G proteins of defined subunit composition with receptors and effectors. A strong background in protein chemistry/molecular biology and an interest in hormone action are desired. Please send curriculum vitae including the names of three references to: **Dr. James C. Garrison, Department of Pharmacology, Box 448, University of Virginia Medical Center, Charlottesville, VA 22908.**



TWO POSTDOCTORAL POSITIONS IN MAIZE GENETICS. Research Geneticist (Plants), temporary (two-year) positions, Plant Genetics Research Unit, Columbia, Missouri. Participate in development and establishment of a prototype database on the genetics of maize, and work cooperatively with investigators establishing databases for other plant species. The first position has responsibilities to develop representation and ongoing entry of genetic data on analysis of measurable traits, pest responses, and stress responses. The second position has responsibilities on the genetic variants of maize, to develop compilation and ongoing entry of gene functions, gene mapping data, and cloned genes, and to map genes and to exchange information among cooperators in comprehensive, molecular-marker mapping of genes. Background and experience in maize genetics is essential for either position; for the first position, a Ph.D. and broad background in plant breeding/crop science is required; for the second position, a Ph.D. in relevant biology or genetics and experience in genetic analysis, mapping, and biochemical/molecular research are required. Skill in data handling, and database experience, are desirable. Salary: \$32,423 to \$38,861 based upon qualifications. Applicants must refer to No. 2N062. Send curriculum vitae and three references to: **Dr. E. H. Coe, ARS, USDA, 210 Curtis Hall, University of Missouri, Columbia, MO 65211. Telephone: 314-982-2768. USDA, ARS is an Equal Opportunity Employer.**

COLUMBIA UNIVERSITY CENTER FOR RADIOLOGICAL RESEARCH

POSTDOCTORAL POSITION available immediately to join an active research group studying the molecular mechanisms of radiation carcinogenesis using human cells in culture. Ph.D. in molecular genetics, cell biology or related fields with experience in molecular biology are encouraged to apply. Send curriculum vitae, names and addresses of three references, and a brief statement of research interest to: **Dr. Tom K. Hei, Center for Radiological Research, Columbia University, 630 West 168th Street, New York, NY 10032. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP

A postdoctoral fellowship is available to study signal transduction for cytokines and hormones including tumor necrosis factor- α , interleukin-1 and activin. Signaling will be assessed with respect to models of differentiation and neoplasia. Salary is \$30,000 per year. Please send curriculum vitae to:

Dr. Richard Kolesnick
Head, The Laboratory of Signal Transduction
Memorial Sloan-Kettering Cancer Center
1275 York Avenue
New York, NY 10021

POSTDOCTORAL RESEARCH FELLOWSHIP POSITION available immediately to study the genome flexibility and mechanisms involved in antigenic variability of *Giardia lamblia*, specifically addressing their biological role in host-parasite interaction, transmission and possible virulence. Experience in molecular biology and cell biology is preferred. Please send curriculum vitae and three letters of recommendation to: **Dr. Mary G.S. Lee, VC 15-219, Division of Tropical Medicine, Columbia University, 630 West 168th Street, New York, NY 10032. Columbia University takes Affirmative Action to ensure Equal Opportunity.**

Molecular Biosystems, Inc. (MBI), is a leader in the development and manufacturing of contrast agents for medical imaging, including ultrasound and MRI.

SCIENTISTS

- Develop final formulations for MRI & CT products. Ph.D. in Pharmacy or Medicinal Chemistry w/ 5 yrs. lab experience formulating organic/inorganic based drugs for solubility & tissue specific delivery. Drug delivery systems & tissue targeting experience. Knowledge of pharmaceutical operations, sterilization & cGMP regulations.
- Develop analytical methodology in support of process & product development & assembling IND and NDA's. Ph.D. in Analytical Chemistry w/ 5 yrs. experience in analytical method development in pharmaceutical industry.

RESEARCH ASSOCIATES

Positions available which require a BS in Chemistry w/ 3 yrs. lab experience or a MS w/ 1 yr. lab experience and a background in one of the following areas:

- Familiarity w/ techniques in wet chemistry, analytical spectrophotometry and chromatography.
- Scale-up, formulation activities and methods development.
- Hands-on experience in HPLC, FTIR, AA, UV and autotitrimetry.

We offer competitive salaries, a comprehensive benefits package & a pleasant working environment. Qualified candidates should submit résumé with salary history to:

Molecular Biosystems, Inc.
Human Resources Department A83-93
10030 Barnes Canyon Road
San Diego, CA 92121



An Equal Opportunity Employer

POSITIONS OPEN

KARNOFSKY FELLOWSHIP

St. Jude Children's Research Hospital, a premier center for biomedical research and catastrophic diseases of children, is pleased to offer the **Karnofsky Memorial Fellowship in Cancer Research** to candidates with a Ph.D. or M.D. degree. The Karnofsky fellowship honors the memory of Dr. David A. Karnofsky, a former member of the St. Jude Children's Research Hospital's Scientific Advisory Board and an internationally recognized authority on the importance of chemotherapy in the treatment of cancer.

The Karnofsky fellowship is available to investigators who are beyond the junior level of accomplishment and wish to gain further experience and expertise in one of the biomedical research specialties available at St. Jude. The fellowship appointment is for one to three years and is based on merit, recommendations and promise of a productive career in biomedical research. Stipends are highly competitive.

The Karnofsky fellowship is available immediately. Send inquiries to:

Allan Granoff, Ph.D.

Director

**St. Jude Children's Research Hospital
P.O. Box 318**

Memphis, TN 38101-0318

Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIPS

Four faculty members of **The Johns Hopkins University School of Medicine** invite applications for postdoctoral fellowships in a program project on "Regulation of Epithelial Differentiation and Transport." The faculty and their areas of interest are:

Mark Donowitz: Molecular studies of epithelial Na^+ / H^+ Exchangers—Protein kinase regulation.

Joseph Handler: Cell and molecular biology of regulation of two transporters whose activity varies over a large range in response to changes in the tonicity of the extracellular medium.

Marshall Montrose: Molecular biology of the cystic fibrosis gene in epithelial cells.

Cynthia Weikel: Molecular studies of bacterial toxin-mediated diarrheal disease.

The program is highly interactive—groups meet together regularly and a number of collaborative projects are in progress. Interested applicants, preferably recent Ph.D. candidates, should send curriculum vitae, names of three references and a statement of research interests to: **Dr. Mark Donowitz, Department of Medicine/Gastroenterology, The Johns Hopkins University School of Medicine, 720 Rutland Avenue, Ross 918, Baltimore, MD 21205-2196. FAX: 410-955-9677.**

POSTDOCTORAL RESEARCH ASSOCIATE

Conduct research supported by the National Institute on Drug Abuse concerned with the neuronal mechanisms underlying the subjective effects of CNS stimulants (*d*-amphetamine, cocaine), hallucinogens (LSD, mescaline) and related drugs of abuse (MDA, MDMA). Some knowledge of and interest in behavioral techniques such as drug discrimination as well as pharmacological assay procedures including HPLC, receptor binding, and in vivo dialysis desirable. In addition to developing his or her independent program of research, the successful candidate will be expected to coordinate and supervise the activities of technicians as well as undergraduate and graduate students. Send curriculum vitae, a statement of research interests and three letters of reference to: **James B. Appel, Ph.D., Behavioral Pharmacology Laboratory, Department of Psychology, University of South Carolina, Columbia, SC 29208.** *The University of South Carolina is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE and **RESEARCH TECHNICIAN** positions are available to study biochemical mechanisms and influence of biological response modifiers in the uptake enhancement of radiolabeled receptor specific molecules in experimental tumors. Applications are invited from Ph.D., M.D., or M.S. candidates with a strong background in immunology and animal models. Competitive salary is offered. Send resume and references to: **Dr. M.L. Thakur, Nuclear Medicine, 804 Main Building, Thomas Jefferson University, Philadelphia, PA 19107.** *Thomas Jefferson University is an Affirmative Action/Equal Opportunity Employer.*

Postdoctoral Research Fellow Signal Transduction

A postdoctoral position is available in the Department of Signal Transduction for a highly motivated and independent scientist interested in applying modern molecular techniques to the study of peptide receptors and associated signalling pathways. Current work is focused on the structure, function and regulation of novel angiotensin receptors and binding sites.

Applicants should be recent Ph.D. graduates with a strong background in molecular and cellular biology, biochemistry or a related area. However, an ability to explore new areas, enthusiasm and motivation are more important than the precise nature of previous experience.

The Department of Signal Transduction is a highly interactive group with strong ties to the University of Michigan and other academic institutions. Continued academic interactions and publication in leading journals is expected.

Qualified individuals should send CV and list of references to **PARKE-DAVIS Pharmaceutical Research Division, Human Resources, Box JDM-PD56, 2800 Plymouth Road, Ann Arbor, MI 48105.** "Smoke-Free Work Environment"



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GATTON COLLEGE

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Foundation Chair in Horticulture Department of Plant Production (Tenured)

The University of Queensland Gatton College is seeking to appoint a Professor of Horticulture to provide academic and research leadership and to assist with administration in the Department of Plant Production. This is a new and challenging position within the College following consolidation with The University of Queensland. The position requires a broad, yet integrative, vision covering the range of horticultural industries in Australasia and, in particular, their contribution to the international scene. The appointee will be expected to be a strong advocate interacting with industry and government as well as providing dynamic leadership in teaching and applied research.

Applicants must hold qualifications appropriate to the position and demonstrate specific strengths in postharvest horticulture, in addition to fruit and vegetable production or amenity horticulture. Experience in tropical and/or sub-tropical environments will be viewed favourably. It is University policy that all permanent members of the academic staff of a Department are eligible for appointment to its Headship. It is expected that the appointee to the Chair will be available for appointment as Head.

Salary is at the Professorial level (\$A77 900 per annum).

Method of application: An original plus three copies of an application and resume should be forwarded to: The College Registrar, The University of Queensland Gatton College, Lawes, Queensland, 4343, Australia by 25th September, 1992.

Applicants in the United Kingdom should lodge one further copy with the Appointments Officer, Association of Commonwealth Universities, 36 Jordan Square, London, WC1H 0PF by the same date.

Applications should include the names and addresses of three referees.

Further information is available by phoning Associate Professor K. Rickert (Head, Department of Plant Production) on (074) 601310 or Miss L. Howells (Assistant Personnel Officer) on (074) 601219.



DIRECTOR, MEDICAL AND SCIENTIFIC AFFAIRS

Howmedica, a world leader in the development of implantable orthopaedic devices, and a subsidiary of Fortune 100 Pfizer Inc., has created a challenging research and medical advisory position within its worldwide R&D center based in Rutherford, New Jersey.

In this key position, you will apply your research and clinical expertise to issues of implant/tissue interactions; establish and manage research programs; provide scientific and medical counsel in the development of new products and technological assessments; review and advise on preclinical testing and clinical research protocols; liaison with the orthopaedic surgeon community and customers on scientific and medical matters.

The Director, Medical & Scientific Affairs reports to the Senior Vice President, Research & Development.

Qualifications include:

- MD degree with strong research experience; clinical experience in orthopaedics, rheumatology or pathology preferred
- Preferred research experience in bio-materials with work in the area of material/tissue/implant interactions
- Superior judgment and sensitivity in dealing with complex issues, and excellent communication skills with which to convey your findings and establish productive working relationships
- Experience with medical devices is a plus

Proven expertise in research is a prime consideration, although some clinical experience is essential.

In return, we offer a new 30,000 square foot state-of-the-art research facility, located less than ten miles from Manhattan. We offer an excellent salary, comprehensive benefits and the support of a well-respected, worldwide industry leader. For confidential consideration, please send your resume, indicating salary history and requirements, to: **Ms. Maryann Anderson, Vice President-Personnel, Howmedica, Inc., 359 Veterans Boulevard, Rutherford, New Jersey 07070.** We are an equal opportunity employer.

Howmedica

SCIENTIST

Drug Metabolism and Pharmacokinetics

SmithKline Beecham Pharmaceuticals, a worldwide leader in pharmaceutical research, is seeking a scientist with a background in Biochemistry to join our Drug Metabolism and Pharmacokinetics Team.

The scientist will assist in the design and conduct of *in vitro* drug metabolism studies directed at understanding mechanisms of metabolism of novel therapeutic agents, and the effects of these agents on cytochrome P450 and other drug metabolizing enzymes. The position requires a working knowledge of biochemical techniques used for *in vitro* metabolism studies, quantitative analysis of drugs and metabolites in biological media using HPLC and radioisotopes, and experience with handling and dosing of laboratory animals and obtaining biological samples. This position requires a B.S. or M.S. degree in chemistry or a biological science plus 0-5 years of related work experience.

Located in a state-of-the-art facility in suburban Philadelphia near Valley Forge, we offer a challenging, stimulating environment in which to grow and excel. For confidential consideration, please forward your resume to: Employment Administrator, M048, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.



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**WEST VIRGINIA UNIVERSITY
HEALTH SCIENCES CENTER**

CHAIRPERSON DEPARTMENT OF PHYSIOLOGY

The WVU School of Medicine invites applications for the position of Van Lier Professor and Chairperson of the Department of Physiology. Applicants should have a Ph.D., M.D., or equivalent degree, a strong and continuing record in research and extramural funding, teaching experience, and administrative skills. Although not essential, research interests in neuro-, cardiovascular, renal, respiratory, or cellular/molecular physiology would fit particularly well with existing strengths in the Department of Physiology and the health sciences.

The search will remain active until the position is filled, and thus there is no formal application deadline. However, those applications received by September 15, 1992 will be assured of consideration during the first cycle of review. Applicants should send a curriculum vitae and the names of three references to:

William W. Fleming, Ph.D.
Chairman, Physiology Search Committee
Professor and Mylan Chairman of
Pharmacology & Toxicology
WVU School of Medicine
Morgantown, WV 26506

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The Du Pont Merck Pharmaceutical Company in Wilmington, Delaware is seeking Research Scientists for the following positions:

Pharmacology

A principal investigator position exists for an individual who will become involved with the analysis of protein/protein and protein/drug interactions to support mechanism based programs within Inflammatory Diseases in the areas of arthritis and immunosuppression. Dynamic, team oriented work will involve the analysis and regulation of enzyme activity, receptor-ligand interactions and protein/protein interactions. We are looking for a scientifically driven and creative Ph.D. with at least two years of postdoctoral experience in the general area of physical biochemistry. Demonstrated versatility and previous experience in the analysis of enzyme kinetics and/or ligand-receptor interactions is preferable. Familiarity with animal models of rheumatic disease pathobiology and with immunological mechanisms is highly desirable. Dept. RSP.

Molecular Biology

A principal investigator position exists within our Inflammatory Diseases Research Molecular Biology group. The incumbent will be responsible for the development of an independent research project directed at molecular mechanisms of inflammatory diseases. Responsibilities will include experimental design and data analysis with the intent to discover novel drug targets for therapeutic intervention. The successful candidate will have an M.D., Ph.D., or equivalent experience with a demonstrated expertise in biochemistry/molecular biology with emphasis on gene regulation and cellular activation mechanisms. Experience in molecular and cellular models of rheumatic disease pathobiology particularly rheumatoid and osteoarthritis is highly desirable. Additional familiarity with lymphocyte activation and immunological mechanisms would be beneficial. Dept. RSMP.

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We can offer the successful applicants competitive salaries and comprehensive benefits packages. For immediate consideration, please forward your resume including salary history and requirements, and listing department code indicated above to: Excalibur Human Resources, Dept. (code), P.O. Box 2249, Princeton, NJ 08543. NO PHONE CALLS, PLEASE. An Equal Opportunity Employer, M/F/H/V.

The Du Pont Merck Pharmaceutical Company
Merging Strengths...Emerging Opportunities.

OREGON ONCOLOGY

The Division of Hematology and Medical Oncology at Oregon Health Sciences University is seeking applicants for Assistant or Associate Professor of Medicine. Applicants must have demonstrated expertise in clinical or basic science research in oncology and be capable of developing an independent research program. The successful candidate will be expected to participate in teaching and clinical activities of the Division. This recruitment is planned as part of the foundation of the Oregon Cancer Center with support from the National Cancer Institute. Send letters of interest and curriculum vitae to:

Grover C. Bagby, M.D.
Head, Division of Hematology and Medical Oncology L580
Director, Oregon Cancer Center
Oregon Health Sciences University
3181 SW Sam Jackson Park Road
Portland, OR 97201

OHSU is an affirmative action employer. Women and minorities are encouraged to apply.

POSTDOCTORAL FELLOWSHIP

A 2-year postdoctoral position in pulmonary pharmacology is currently available in the Pharmacology Department at ICI Pharmaceuticals Group.

Candidate will be involved in ongoing research concerning effects and mechanisms of effects of C-fiber activation in the airways. Studies will also involve modulation of C-fiber responses.

PhD or equivalent in a biological science is required. Experience with isolated tissue preparations and measurement of physiological or pharmacological responses is preferred.

Interested candidates should submit a c.v. to: **Melanie M. Lewis, Human Resources, ICI Pharmaceuticals Group, Concord Pike and New Murphy Road, Wilmington, DE 19897.**



Pharmaceuticals

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POSITIONS OPEN

POSTDOCTORAL FELLOW

Position available to investigate the response elements required for endotoxin-induction of the interleukin-1 β gene. Position requires background in southern and northern blot analysis, reporter gene assays, gel mobility shift assays, transfection, etc. Level of Ph.D. degree, American citizenship, permanent resident or noncitizen national required. Forward curriculum vitae and names of three references to: **Dr. Charles E. McCall, Department of Medicine, Microbiology and Immunology, Bowman Gray School of Medicine of Wake Forest University. FAX: 919-716-7492. We are an Equal Opportunity/Affirmative Action Employer.**

NEUROBIOLOGY POSTDOCTORAL ASSOCIATE available to study the structure, function and development of the neuromuscular junction. Background in neurobiology or cell biology needed. Experience in immuno-electron microscopy, video-enhanced microscopy, intracellular recording, tissue culture and/or protein purification desirable. Send curriculum vitae and names of three references to: **Dr. Chien-Ping Ko, Neurobiology Section, Department of Biological Sciences, University of Southern California, Los Angeles, CA 90089-2520.**

PHARMACOLOGY

POSTDOCTORAL RESEARCH ASSOCIATES DRUG RESISTANCE

Openings exist in the Department of Pharmacology at the Fox Chase Cancer Center for two Postdoctoral Research Associates to participate in research programs focusing on mechanisms of resistance to anti-cancer drugs. The first involves cellular and molecular regulation of factors influencing responses to antimicrotubule agents. Background in cell or molecular biology, biochemistry or pharmacology is preferred. The second is a joint industrial academic venture which is designed to develop novel inhibitors of glutathione S-transferase. Background in biochemistry, pharmacology, toxicology and a potential career interest in drug development would be valuable. Successful applicants will be exposed to a multidisciplinary faculty and strong emphasis is placed upon career development and interdisciplinary interaction. Salary and fringe benefits are attractive and competitive. Send curriculum vitae and names of three references to: **Personnel Office—MAS, Kenneth D. Tew, Ph.D., Chairman, Department of Pharmacology, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH POSITIONS at CORNELL UNIVERSITY, ITHACA, NEW YORK. Study of the mechanisms controlling distribution of vitamin A derivatives between cells and sub-cellular compartments. Project areas include interactions of retinoids with cellular binding proteins, nuclear receptor proteins, and membranes. Background in biochemistry/biophysics preferred. Send curriculum vitae and names/addresses of three references to: **Dr. Noa Noy, Cornell University Medical College, F 231, 1300 York Avenue, New York, NY 10021.**

RESEARCH ASSOCIATE needed by a southwestern Ohio University assisting in calibrating magnetic resonance imaging machines, X-ray machines and other radiology equipment in accordance with federal and state guidelines using a variety of radiology testing equipment and preparing drafts of reports on the calibration. Under supervision, repairs MR (magnetic resonance) machines. Provides technical assistance to researchers, executing various research experiments using magnetic resonance systems within the Division of Medical Physics. Assists in developing and constructing various types of RF coils for (MR) scanners. Education must include Master's degree in Medical Physics. Education must also include undergraduate or graduate background in engineering as evidenced by bachelor's degree in engineering or graduate degree in medical physics obtained from an engineering department. Graduate education must have included a course in Magnetic Resonance Imaging. 8:00 a.m. to 5:00 p.m., Monday to Friday, 40 hours per week, \$30,000.00 per year. *Must have proof of legal authority to work permanently in United States.* Send résumé in duplicate (NO CALLS) to: **L. Ellison, JO# 1230850, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

POSITIONS OPEN

POSTDOCTORAL-RESEARCH ASSOCIATE

Department of Pharmaceutical Sciences, College of Pharmacy, University of Arizona. **Requirements:** Ph.D. in analytical, pharmaceutical, or medicinal chemistry with experience in chromatography. Duties include development of insoluble or unstable drug formulations. **Salary:** \$22,000 per year. **To apply:** Send curriculum vitae and three letters of recommendation to: **Dr. S.H. Yalkowsky, College of Pharmacy, University of Arizona, Tucson, AZ 85721. Résumé review will begin August 1, 1992, position will remain open until filled. THE UNIVERSITY OF ARIZONA IS AN EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER. WOMEN AND MINORITIES ARE ENCOURAGED TO APPLY.**

POSTDOCTORAL RESEARCHER (ANTICIPATED)

Ph.D. in botany, biology, biochemistry or related area and extensive experience in phycology, bryology, cladistic analysis or DNA sequencing required (experience in two or more of these areas desired). Primary responsibility: to conduct DNA sequencing and computer-assisted cladistic analysis. Position available: 1 September 1992; annual reappointments possible through May 1995. Submit curriculum vitae and three letters of recommendation to: **Dr. Russell L. Chapman, Department of Botany, Louisiana State University (LSU), Baton Rouge, LA 70803-1705. Telephone: 504-388-8483; FAX: 504-388-8459; EMAIL: BTRUSS@LSUVM. LSU is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE DEPARTMENT OF SURGERY

Position available for **RESEARCH ASSOCIATE** with interest in endothelial cell biology, immunology and molecular biology. Search committee chaired by Judy Thomas, Ph.D. Primary laboratory interest in interactions of endothelial cell in transplant rejection, both allograft and xenograft. **Requirements:** Master's degree or equivalent; Ph.D. preferred. Curriculum vitae to: **Dr. Carl Haisch, Division of Surgical Immunology and Transplantation, East Carolina University School of Medicine, Brody Building 4S10, Greenville, NC 27858.**

Federal law requires proper documentation of identity and employability prior to final consideration for this position. *East Carolina is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PLANT MOLECULAR BIOLOGIST—Position available immediately. Candidate must have good communication skills and be familiar with transgenic analysis (PCR, Southern and ELISA), marker/ trait linkage (RAPD) and DNA fingerprinting (RAPD). The position requires Master's in Biological Science or equivalent experience. Please send résumé and names of three references to: **Dennis E. Prosen, Ph.D., Harris Moran Seed Company, 100 Breen Road, San Juan Bautista, CA 95045. An Equal Opportunity Employer.**

ASSOCIATE RESEARCH SCIENTIST in the Department of Neurology, College of Physicians and Surgeons of Columbia University. Applicant must hold Ph.D. in one of the biological sciences with subsequent postdoctoral training or documented experience with cellular immunology and molecular biology. Preference given to individuals with research experience studying immunoglobulin genes and using transgenic animals. Salary based upon experience and credentials. Write to: **Norman Latov, M.D., Ph.D., Neurological Institute, 710 West 168th Street, New York, NY 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.**

SENIOR RESEARCH SCIENTIST: (ten openings) R&D in flight control system design, estimation and guidance algorithm development, computer-aided control system design, flight simulation, advanced system and control research, model development and validation, system integration and prototype implementation. Ph.D. in computer or physical sciences, applied math or electrical engineering required plus one year of experience or Master's plus four years of experience. Experience must have included all aspects of job offered. \$4800 per month. Location: Chatsworth, California. Send this ad and current résumé to: **Ching-Fang Lin, American GNC Corporation, 9131 Mason Avenue, Chatsworth, CA 91311 no later than 31 August 1992.**

Los Alamos National Laboratory

For over four decades, Los Alamos National Laboratory has challenged the frontiers of science, combining basic sciences with engineering and technological advances.

Program Director

Provide leadership and direction for the research in biological and environmental research programs, to help meet the needs of the Laboratory, the Department of Energy and the Nation. Requires significant accomplishments in these areas and the ability to lead and manage multidisciplinary efforts. Ph.D. with demonstrated expertise in biological, physical or medical sciences or equivalent combination of education and experience.

To formally apply for this position, interested candidates should forward a resume to Cathy Majerus (MS P280), Personnel Services Division 20242-AI, Los Alamos National Laboratory, Los Alamos, NM 87545. Affirmative Action/Equal Opportunity Employer. Must be able to obtain a Department of Energy Security Clearance. Los Alamos National Laboratory is operated by the University of California by the U. S. Department of Energy.

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RESEARCH SCIENTISTS

CoCensys Inc. is an innovative new company focused on the frontier of molecular therapeutics as it relates to diseases of the central nervous system (CNS). We are seeking highly motivated research scientists to add to our outstanding scientific team. Current opportunities include:

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We provide a high quality working environment, competitive salaries and fringe benefits. Send resume in strictest confidence to: Personnel Director, CoCensys Inc., 213 Technology Drive, Irvine, CA 92718. *CoCensys is an equal opportunity employer.*



Krannert Institute of Cardiology Indiana University School of Medicine Postdoctoral Positions Molecular and Cellular Cardiology

Postdoctoral positions in basic cardiovascular research are available in the Cardiovascular Division, Krannert Institute of Cardiology. Specific areas of research include: 1) cell cycle regulation in cardiac and vascular myocytes, 2) transgenic animal models, 3) molecular biological aspects of ion transport in myocardium, 4) regulation of contractile protein gene expression in vascular smooth muscle and 5) molecular physiology of cardiac and vascular contractility. Candidates with interest and experience in protein biochemistry, developmental biology, molecular biology and molecular physiology are encouraged to apply. The Krannert Institute is actively seeking minority candidates who are interested in clinical or basic molecular cardiology. The Krannert Institute of Cardiology contains a biotechnology center, a transgenic animal facility and state-of-the-art laboratories dedicated to basic cardiovascular research. Moreover, the environment is highly conducive to strong interactions with clinical cardiology and industry. Interested candidates may send a curriculum vitae and 3 letters of reference to: David R. Hathaway, M.D., Director, Krannert Institute of Cardiology, Department of Medicine, Indiana University School of Medicine, 1111 West 10th Street, Indianapolis, IN 46202-4800.

Indiana University School of Medicine is an Equal Opportunity/Affirmative Action Employer. Qualified women and minority candidates are encouraged to apply.

Director Bioorganic Chemistry

A unique opportunity is available within the Chemistry Department, PARKE-DAVIS Pharmaceutical Research Division, to lead an innovative, exploratory research group whose mission is to use organic chemistry as the basis for identifying and developing novel, broadly applicable strategies to drug discovery. Current efforts include molecular diversity and novel methods for controlling gene expression. Collaborations with international leaders in nucleic acid, synthetic organic, bioorganic, and peptide chemistry have been established to augment ongoing efforts.

In addition to a Ph.D. in Chemistry, the successful candidate will possess excellent leadership qualities, and the capability to lead a group of highly independent and creative scientists. He/she will have demonstrated a high level of creativity, and will have significant accomplishments in a number of diverse research areas, e.g. synthetic organic chemistry, nucleic acid chemistry, peptide chemistry, molecular biology, antibody techniques, and/or diagnostics. In addition to coordinating current efforts, he/she will be expected to identify and pursue totally novel research directions. A proven ability to initiate and coordinate collaborations with international academic centers of excellence is also a requirement for this position.

Interested individuals should forward their C.V. and list of references to Human Resources Box JDM-JB, PARKE-DAVIS Pharmaceutical Research Division, Warner-Lambert Co., 2800 Plymouth Rd., Ann Arbor, MI 48105. "Smoke-Free Work Environment"



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You'll guide and supervise a group of 2-4 scientists engaged in automation/method development and investigation of analytical failures, applying GMP requirements and performing necessary documentation, tracking and reporting for all projects. A B.S. in Chemistry with at least 10 years experience, an M.S. and 6 years experience, or a Ph.D. and 2 years experience is required. Additionally, at least 2 years supervisory experience is needed, as is comprehensive knowledge of analytical techniques which emphasize HPLC, an understanding of GMPs, and good written/verbal communication skills. Familiarity with LIMS is also desired.

Your skills and experience in this area will be rewarded with a competitive salary and comprehensive benefits package within a highly supportive and sophisticated working environment. To be considered, please forward your resume and salary history to: **John P. Savas, Senior Personnel Representative, Dept. 400SCI, MILES INC., P.O. Box 40, Elkhart, IN 46515.**



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FACULTY POSITIONS IN BIOCHEMISTRY

St. Jude Children's Research Hospital

St. Jude's Children's Research Hospital, a private research institute, is engaged in a major expansion of its facilities and scientific activities. A new research building which opened in August, 1991, provides 240,000 square feet of new laboratory space to house the institute's basic science programs. As part of the expansion, new faculty positions are now available in the Department of Biochemistry. Although preference will be given to applicants who have recently completed postdoctoral training and are seeking positions at the level of Assistant Member, investigators with appropriate research interests and qualifications will be considered for positions of higher faculty rank. Candidates with programs focusing on the regulation of cell growth, differentiation and transformation, the biochemistry and molecular biology of signal transduction, and mechanisms of gene regulation are particularly encouraged to apply. Opportunities exist for collaborative interactions with basic research programs in Virology and Molecular Biology, Immunology, Tumor Cell Biology and Pharmacology, as well as with clinical investigators in Hematology/Oncology and Infectious Diseases. In addition to new facilities and excellent start-up funds, salaries are nationally competitive and include a generous benefits package. A strong institutional commitment to its faculty ensures stability in program development and continuity of research activities.

Applicants should submit a curriculum vitae, a letter summarizing their research accomplishments and goals, and the names of three references to:

Dr. James N. Ihle, Chairman
Department of Biochemistry
St. Jude Children's Research Hospital
332 North Lauderdale
Memphis, TN 38105 USA

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Biopharmaceutical Leader

Somatogen, a biopharmaceutical company currently engaged in the development and manufacture of recombinant human hemoglobin, has opportunities in Research & Development: **Peptide Chemist** Responsibilities include synthesis and characterization of peptides and peptide analogs for a variety of uses, using manual and automated solid phase BOC and FMOC syntheses.

Applicants should have a B.S. or M.S. in Chemistry (preferably organic chemistry) and 2 - 3 years related experience. Experience in protein chemistry and protein-peptide interactions would also be helpful.

Scientist The successful candidate will have a Ph.D. in Molecular Biology or Biochemistry with a minimum of three years post-doctorate experience. This position requires experience in protein/protein and protein/DNA interactions, eucaryotic and/or procaryotic transcription factors as well as knowledge of X-ray crystallography.

A competitive salary and benefits package with equity complements this offer. Interested candidates may submit a resume and cover letter with job title of interest to:

Nancy Borne, Manager of Professional Development,
SOMATOGEN 5797 Central Ave., Boulder, CO 80301

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EOE

Professorship Department of Atmospheric, Oceanic, and Space Sciences University of Michigan

The Department of Atmospheric, Oceanic, and Space Sciences is seeking a tenured faculty member to lead the College of Engineering Global Change initiative and to be a senior member of the department. A suitable candidate will likely be described by the following list of attributes:

The candidate will be an established leader in one of the sciences related to global change with a record of solid, recognized achievements in scientific research.

He/she will have made contributions to a range of disciplines that demonstrate an interest in understanding the Earth as a system and a manifest concern for the impact of human activities on the system.

The candidate will have demonstrated excellence in teaching.

It is also desirable that the interests of the candidate extend to matters of public policy expressed through service in leadership roles in professional societies as well as national and international advisory bodies.

Candidates should send, by Sept. 1, 1992 a curriculum vitae, and names of five references to Prof. Thomas M. Donahue, Department of Atmospheric, Oceanic, and Space Sciences, 2455 Hayward Street, University of Michigan, Ann Arbor, Michigan, 48109-2143. The University of Michigan is an equal opportunity/affirmative action employer. Women and minorities are encouraged to apply.

UNIVERSITY OF CONNECTICUT
HEALTH CENTER
UNIVERSITY OF CONNECTICUT
SCHOOL OF MEDICINE



DEAN

The University of Connecticut Health Center in Farmington, Connecticut invites nominations and applications for the position of Dean of the School of Medicine. The Health Center is composed of the Schools of Medicine and Dental Medicine and John Dempsey and Uncas on Thames Hospitals. The Dean is the Chief Executive Officer of the School of Medicine and reports to the Vice President and Provost for Health Affairs.

The School of Medicine has missions in education, research, clinical care, and community service. In these programs, the School is in partnership with its affiliated hospitals within the greater Hartford area which represent the spectrum of urban, community, and tertiary care medicine. The School offers a wide range of Ph.D. programs in the biomedical sciences and a Masters of Public Medicine and advocates for its programs within the University, as well as the professional and lay communities. In order to advance its educational mission and commitment to improving the health care of state residents, the School of medicine is currently revising its educational, research and clinical programs while expanding the supporting clinical and research facilities.

Nominations and curriculum vitae should be submitted by September 1, 1992 to:

Leslie Wolfson, M.D.

Chair, Search Committee for the Dean
University of Connecticut School of Medicine
Farmington, CT 06030-1845

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BIOTECH JOB FAIRS

Postdoctoral Position: Developmental Toxicology

The Procter & Gamble Company has a post-doctoral position available at the Miami Valley Laboratories in Cincinnati, Ohio, to study the role in teratogenesis of chemically induced metallothionein synthesis and/or hepatic acute phase response in the pregnant animal.

The laboratory takes a diverse approach (molecular, biochemical, physiological, embryological) to the study of this and other teratogenic mechanisms. Candidates with experience in toxicology or developmental biology are preferred. Our laboratory is part of a large group carrying out basic research in toxicology in a collegial atmosphere where publishing results is stressed.

Salary is based on a competitive industrial scale. Applicants must be presently authorized to work in the U.S. on a full-time basis. Send CV, representative publications, and names of three references to:

**Dr. N. G. Howell, Dept. GD
The Procter & Gamble Company
P.O. Box 398707
Cincinnati, Ohio 45239-8707**

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CARDIOVASCULAR PHARMACOLOGIST

SmithKline Beecham Pharmaceuticals, a leader in innovative pharmaceutical research, has an opportunity for a Ph.D. Research Scientist to join its Cardiovascular Pharmacology Department. The selected candidate will establish and conduct independent research programs to explore mechanisms of thrombosis, cardiac function and congestive heart failure in relevant biochemical *in vitro* and *in vivo* models. The candidate will integrate pharmacologic, physiologic, biochemical and cell biology methodologies to identify new therapeutic strategies for cardiac/thrombotic diseases and publish and present scientific data.

Qualified candidates will have a Ph.D. in Pharmacology, Physiology, Biochemistry or a related discipline, with at least two years of postdoctoral training. A strong record of scientific publications in the field of cardiovascular research is required. Experience in techniques for monitoring hemodynamics and cardiac function is preferred, as is proficiency in cellular and/or biochemical techniques for studying congestive or cardiac function.

SmithKline Beecham Pharmaceuticals offers a stimulating and challenging scientific environment in which to grow and excel. We offer a competitive compensation/benefits/relocation package. For confidential consideration, please submit your C.V. along with the names of three references to: N. Hasson, Employment Administrator, #H0201, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/H/V.



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LAB SCIENTIST for waste to fuel co-processing facility in southwestern Ohio. Conduct analyses and procedures on organic and inorganic substances to determine and evaluate chemical and physical properties. Investigate samples from co-processing sites for toxicity characteristic leaching procedure (TCLP) according to scientific protocol. Perform chemical analysis on new or potential waste materials or raw materials to establish properties. Utilize various analytical computerized instruments/techniques including Atomic Absorption (AA), Gas Chromatography (GC), and Inductively Coupled Plasma (ICP). Bachelor of Science in Chemistry or Life Science and six months of experience in the job described or six months of experience with analyzing substances using computerized TCLP and GC. \$23,500 per year, 40 hours per week, Monday to Friday, 8:00 a.m. to 5:00 p.m. *Must have proof of legal authority to work indefinitely in United States.* Send résumé in duplicate (no calls) to: **G. Maugans, JO# 1343018, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

MOLECULAR GENETICIST/POPULATION BIOLOGIST. The National Zoological Park, Smithsonian Institution, invites applications from biologists using molecular techniques in studies of population and conservation genetics and sociobiology of higher vertebrates. The successful candidate will be expected to conduct independent research in one or more of the above areas, assist in management of the Molecular Genetics Laboratory, and develop collaborative projects with zoo staff. Hiring will be made at GS-12 or 13 (salary range: \$38,861 to \$60,070), depending upon education and/or experience. For complete application package and requirements call **202-287-3102** (24-hour, touchtone activated, automated response system), press 9 and request information on announcement #92-3073S. Applications must be received by September 25, 1992. For additional information on the position call **Dr. Rob Fleischer at 202-673-4815.** Applications require an SF-171 (Personal Qualifications Statement), curriculum vitae, research statement, reprints, and the names, addresses and telephone numbers of three references. *The Smithsonian Institution is an Equal Opportunity Employer; applications from minority and female candidates are encouraged.*

PLANT BIOTECHNOLOGY

ICI Seeds has openings at the level of **RESEARCH SPECIALIST** for individuals interested in **Maize Transformation.** The ideal candidate will have a B.S./M.S. in plant science and experience with plant transformation and molecular and biochemical characterization of transgenic plants. The positions are located at our Research Headquarters near Ames, Iowa. We offer a competitive salary commensurate with experience and a stimulating work environment. Please submit résumés in confidence to: **Dr. James C. Register III, ICI Seeds, P.O. Box 500, Slater, IA 50244.** *Equal Opportunity Employer.*

HARVARD INSTITUTE FOR INTERNATIONAL DEVELOPMENT (HIID)

QUANTITATIVE FOREST BIOLOGIST to work in Asia on analysis of data from large demographic plots in tropical forests. One year, renewable position. Advanced degree in biology or forestry with detailed knowledge of statistical and computer analysis techniques required. Apply to: **Ellen Seidensticker, Director of Recruitment, HIID, One Eliot Street, Cambridge, MA 02138.** *Harvard University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

Ph.D.—PHARMACOLOGY

The Product Development Division at Ribi ImmunoChem Research, Inc. invites applications for a position at the **RESEARCH SCIENTIST II** level. Candidates should have expertise in cellular immunology with managerial experience over technical staff. Experience with immunofluorescence, in-vitro cytotoxicity, ELISA and immunoblot desirable. The successful candidate will be expected to be the product advocate for tumor vaccine development projects. Applicants must have a Ph.D. in related scientific discipline with two to five years of industry experience. Send letter of interest, curriculum vitae, bibliography and three references to: **Human Resources Manager, Ribi ImmunoChem, 553 Old Corvallis Road, Hamilton, MT 59840.** *Equal Opportunity Employer.*

POSITIONS OPEN

ASSOCIATE RESEARCH SCIENTIST/ POSTDOCTORAL RESEARCH SCIENTIST

Position available immediately to study the biochemistry of DNA repair in yeast and human systems. Candidate should have a Ph.D. in biochemistry, molecular biology or a related field and, preferably, have experience with *in vitro* systems. Send curriculum vitae and the names and addresses of three references to: **Dr. Howard B. Lieberman, Center for Radiological Research, Columbia University, 630 West 168th Street, New York, NY 10032.** *We are an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR BIOLOGIST Franciscan Shared Laboratory, Inc.

Franciscan Shared Laboratory, Inc., an independent clinical laboratory serving the Greater Milwaukee area, has an immediate opening for a highly motivated Molecular Biologist. This is a unique opportunity for a Ph.D. with two years of postdoctoral experience in molecular biology with emphasis relating to diagnosis of disease in a clinical setting. The selected candidate will be expected to oversee the Molecular Diagnostic Division of our laboratory and to develop tests to analyze oncogene expression as well as microbiology and virology identification. Excellent oral and written communication skills required.

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**Robert A. Braun
Personnel Manager
Franciscan Shared Laboratory, Inc.
11020 West Plank Court, Suite 100
Wauwatosa, WI 53226**

RESEARCH SCIENTIST DIVISION CANCER RESEARCH

The Division of Cancer Research at Ribi ImmunoChem Research, Inc. invites applications for a position at the Research Scientist level. Candidates should have expertise in cellular immunology and cancer research to study aspects related to tumor antigen identification and isolation. Applicants must have a Ph.D. plus two years of postdoctoral experience. The successful candidate will be expected to participate in ongoing research projects and to develop an independent program in the area of cancer immunotherapy. Send letter of interest, curriculum vitae, bibliography and three references to: **Human Resources Manager, 553 Old Corvallis Road, Hamilton, MT 59840.** *Equal Opportunity Employer.*

SENIOR LABORATORY TECHNICIAN

Senior Laboratory Technician needed to study the immunologic consequences of adolescent alcohol abuse. Responsibilities include performing high level laboratory procedures, including phenotype analysis by FACS, cell-mediated lympholysis, proliferation assays and others. Master's degree and strong background in medical science required. Send curriculum vitae to: **Dr. Samuel Gershon, Center Director, Pittsburgh Adolescent Alcohol Research Center, Department of Psychiatry, 3811 O'Hara Street, Pittsburgh, PA 15213.** *EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER. Minorities and women are encouraged to apply.*

SCIENTIST. To conduct and supervise preclinical characterization of therapeutic agents to determine biochemical/pharmacological profile. Duties include organizing and supervising a biochemistry group and together with manager and research teams, prepare recommendations for selection of compounds for further development. Position requires Ph.D. in Pharmacology or Biochemistry with 2 years academic or industrial experience in drug and enzyme assay development, in vitro and in vivo biochemical and pharmacological methods, and drug metabolism with demonstrated strength in HPLC, GC/MS, including isolation, purification and characterization of metabolites/proteins from biological fluids and ocular tissues. Salary: \$4,333 per month. Place of employment and interview: Irvine, CA. Send this ad and letter stating your qualifications to: **Job # JJ 23530, P.O. Box 9560, Sacramento, CA 95823-0560** not later than September 14, 1992.

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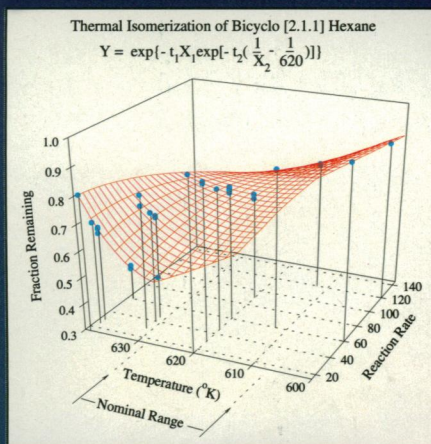
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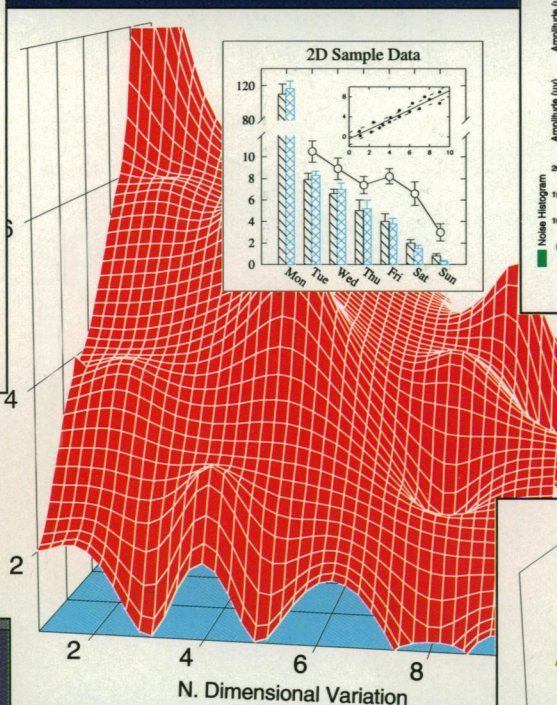
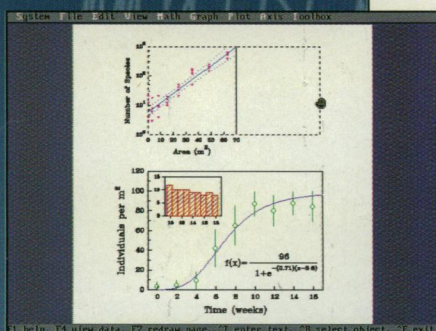
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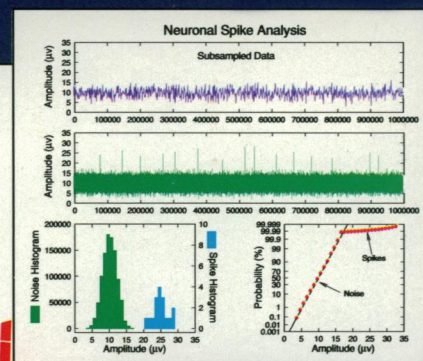


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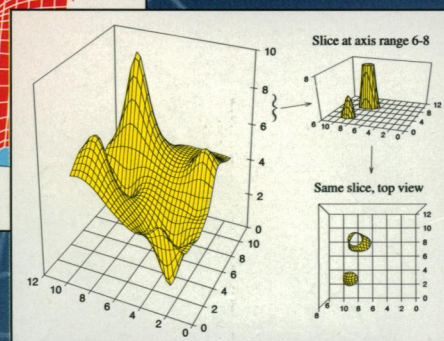
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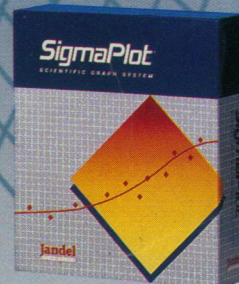
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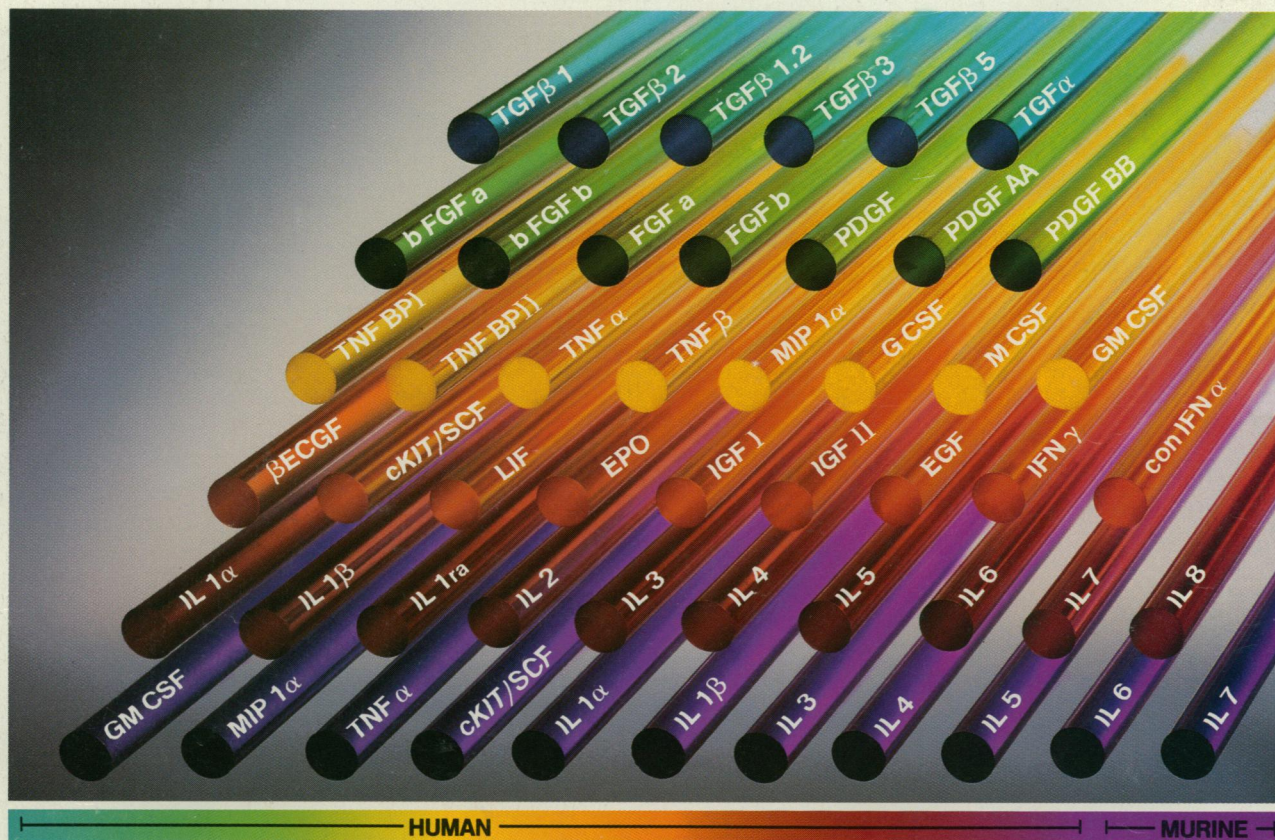


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