

Monoclonal Antibodies

A monoclonal antibody (MAb) is available that reacts with the 140-kD surface protein on activated platelets, megakaryocytes, and activated endothelial cells. It inhibits the interaction between platelets and monocytes. It is suitable for use in flow cytometry and fluorescence microscopy. Serotec. Circle 348.

Diversi-T γ V1.4 is a murine MAb that identifies a variable region V γ 1.4 determinant, also known in scientific literature as V γ 4, on the T cell antigen receptor gamma chain. It allows researchers to investigate the role of T cell subsets in T cell-related leukemias and lymphomas, hematological disorders, allergic reactions, infectious diseases, autoimmune disorders, and other immune disorders. Available in purified and FITC-conjugated forms, it can be used in flow cytometry, immunoprecipitation procedures, and immunochemical staining of live, frozen, and fixed cells. T Cell Diagnostics. Circle 349.

Antibody Subclass Test

The ISOTYPE Ab-STAT test performs a sensitive and specific determination of mouse monoclonal antibody class and subclass in 5 min. The instrument-free, semiquantitative enzyme immunoassay features affinity-purified, isotype-specific antibodies bound to a test membrane. The test is particularly useful for characterizing monoclonal antibodies and class-switch variants, performing quality control of bioreactor and class-switch variants, and monitoring purification processes. SangStat Medical Corp. Circle 350.

Oligonucleotide Assay Kit

The ELONA line of prepared microwell plates, reagents, and kits provides a convenient and economical alternative to membrane hybridization assays for the quantitation of oligonucleotides. The ELONA

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.

procedure extends the ability to perform DNA assays to all labs without the need for sophisticated equipment and instrumentation. The kits make use of standard plate fillers, readers, and washers available in most laboratories. XENOPORE Corp. Circle 351.

"Super Rare Cutting" Endonuclease

Meganuclease I is a new enzyme for megabase genomic DNA digestion. It cleaves DNA within an 18-bp recognition sequence. It is the only commercially available rare cutter that recognizes a sequence longer than 8 bp, according to the manufacturer. The enzyme is designed for genome analysis, mapping of large DNA fragments, and insertion mapping. Boehringer Mannheim. Circle 352.

Capillary Electrophoresis System

Model 270A-HT is a high throughput capillary electrophoresis system that provides 50 sample positions and eight buffer reservoirs. The system features sample evaporation control coupled with sample thermostating. Effective evaporation control has a direct impact on run-to-run reproducibility and sample quantification. Applied Biosystems. Circle 353.

Micromanipulator

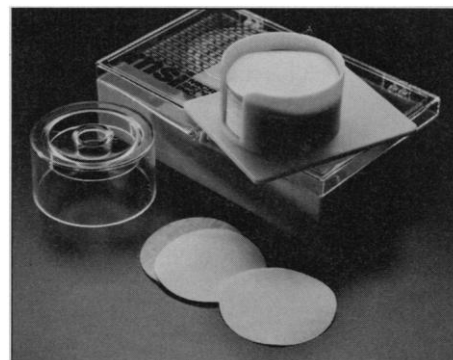
The Micromanipulator 5171 features a programmable joystick or keypad for automated cell injection, electrode calibration, tip cleaning, cell location memory, and a variety of other techniques. Resolution of 0.15 μ m allows extremely fine positioning. Drift-free DC stepper motors permit stable measurements for hours or days. The joystick can be used to independently control a second device, such as a second micromanipulator or a motorized microscope stage. Eppendorf North America. Circle 354.

Micro-Injector

The IM-200 Micro-Injector makes possible a wide range of precision cellular experiments. The IM-200 can deliver a given volume, ranging from microliters to femtoliters, repetitively through a pipette at variable intervals. The unit features adjustable injection, balance and clearing pressures, and fill and hold suction. Narishige USA. Circle 355.

Nylon Moisture Barriers

The MAGNA SH hydrophobicized nylon membrane filters are designed for venting applications that require a moisture barrier without airflow restriction. The water break-



through values of the filter are similar to those of Teflon membranes. It is the only available hydrophobic venting membrane that can be gamma radiation-sterilized. It is available in standard laboratory disk diameters and in pore sizes of 0.1 μ m to 5.0 μ m. Micron Separations Inc. Circle 356.

Microsampling Microscopy Technique

The ATR objective mounts easily on all IR-Plan research and analytical microscopes for infrared microscopy of optically opaque or highly absorbing materials with virtually no sample preparation. The optic device permits direct analysis of samples such as carbon-filled rubber, polymers, coatings, semisolid materials, biological materials, and microquantities of liquids and contaminants. Samples as small as 10 μ m can be analyzed. Spectra-Tech. Circle 357.

Literature

Compact Bench Top Model Centrifuges C/CR/CT 4.12-22 details a line including five models. Jouan. Circle 358.

Biohit Proline Electronic Pipettor describes a state-of-the-art device for microprocessor-controlled multipurpose liquid dispensing. Vanguard International. Circle 359.

Safe Use of Biological Safety Cabinets or the Case of the Contaminated Cultures is a videotape that dramatizes an investigation into the source of contamination in a laboratory. Eagleson Institute. Circle 360.

FC 203 and FC 204 Multi-mode Fraction Collectors contains information on two of these instruments. Gilson Medical Electronics. Circle 361.

Science

PERSONNEL PLACEMENT

LINE CLASSIFIED ADVERTISEMENTS

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➤ **How to Submit a Classified Ad:** Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Deadline for applications stated in ad must be at least 2 weeks after date of publication. Include billing information, and desired publication date.

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FAX: 202-682-0816

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POSITIONS OPEN

BIOCHEMIST. Knox College invites applications for the new faculty position of biochemist at the **ASSISTANT PROFESSOR** rank with a joint appointment in biology and chemistry. It is funded by a Howard Hughes Medical Institute grant to Knox. The candidate is expected to teach introductory chemistry and biochemistry as well as upper-level biochemistry courses. Undergraduate research is an essential part of our program and the candidate will develop an undergraduate research program. Central to the expectations for this position will be to assist biology and chemistry to shape a new biochemistry major. A Ph.D. in biochemistry is required; some experience in cell tissue culture methods is preferred. The Biology and Chemistry Departments are renowned for the vigor of their programs, quality of the facilities, and extent of undergraduate research. The Chemistry Department is ACS certified. To apply send current curriculum vitae, transcripts, three letters of recommendation, and a description of a research program that could involve undergraduates to: **Robert Kooser, Director-Knox HHMI Program, K46, Knox College, Galesburg, IL 61401.** *Knox College is an Affirmative Action/Equal Opportunity Employer. With its history of commitment to equal rights, Knox especially encourages women and minorities to apply.* Application review begins in mid-December and continues until the position is filled.

FACULTY POSITIONS IN PHARMACOLOGY

The Department of Pharmacology of The University of Texas Southwestern Medical Center seeks applications for tenure-track positions at the level of **ASSISTANT PROFESSOR**. Applicants must have a relevant Ph.D. or M.D. degree, postdoctoral training, and show evidence of firm commitment to a career in independent research. We are particularly interested in considering individuals with an appropriate background who wish to apply techniques of molecular or cellular biology or biochemistry to fundamental problems of pharmacological interest. Responsibilities will also include teaching of medical and/or graduate students after the first year of employment. Send curriculum vitae and a brief description of proposed research to: **Ms. Wendy Deane, c/o Alfred G. Gilman, Chairman, Department of Pharmacology, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235.** *An Equal Opportunity/Affirmative Action Employer.*

The University of San Diego (USD), Department of Biology, invites applicants for a tenure-track position at the **ASSISTANT PROFESSOR** level beginning in September 1992. Teaching responsibilities include animal physiology, an introductory biology course for majors, and an upper division course in the candidate's area of specialty. USD is an independent Catholic university whose primary aim is teaching excellence. Active scholarship by the faculty is considered essential to this aim, and the candidate is expected to maintain an active research program which has the potential for undergraduate involvement. Teaching experience is desirable. *Women and minorities are particularly encouraged to apply.* Submit curriculum vitae, a brief description of teaching philosophy and research interests, and names and addresses of three references by 6 December 1991 to: **Chair, Department of Biology, University of San Diego, Alcalá Park, San Diego, CA 92110.**

CELLULAR IMMUNOLOGIST

The Department of Biological Sciences at the State University of New York at Binghamton invites applications for a tenure-track position, pending funding, at the **ASSISTANT PROFESSOR** level for fall 1992. The successful candidate will be expected to develop and maintain an independent, externally funded research program preferably using the approaches and techniques of molecular biology, and to teach undergraduate and graduate courses in immunology. Send curriculum vitae, summaries of current and proposed research and teaching interests, publications, and have three letters of recommendation sent to: **Dr. S. D. Michael, Department of Biological Sciences, State University of New York, Binghamton, NY 13902-6000,** by 15 December 1991. The University of Binghamton is one of the four doctoral granting campuses of the SUNY system and is committed to growth in research and graduate education. *The State University of New York at Binghamton is strongly committed to Affirmative Action. We offer access to services and recruit students and employees without regard to race, color, sex, religion, age, disability, marital status, sexual orientation or national origin.*

POSITIONS OPEN

DEPARTMENT OF ANIMAL SCIENCE TEXAS A&M UNIVERSITY MOLECULAR BIOLOGY

Applicants for this 12-month, tenure-track research and teaching position at the rank of **ASSISTANT PROFESSOR** must have a Ph.D. in molecular biology, genetics, biochemistry or closely related discipline and additional postdoctoral training in molecular biology. The successful candidate will investigate problems in the areas of localization, expression and regulation of genes influencing mammalian growth, development, lactation and reproduction. The incumbent will develop a strong independent research program that includes interactions with other Department of Animal Science faculty members. Collaborative research with scientists in the College of Agriculture and Life Sciences and Veterinary Medicine and with members of the Intercollegiate Faculties of Genetics and Molecular and Cell Biology and the Institute of Biosciences and Technology is expected. Teaching opportunities will be at both the graduate and undergraduate levels and may include a course in molecular biology or genetics, guest lectures in other departmental offerings and an active graduate student training program. Laboratory facilities and start-up funds for research are available. The closing deadline is 28 February 1992 or until a suitable applicant is found. Candidates should submit a letter of application, a complete résumé of their educational and professional experiences, undergraduate and graduate transcripts, statement of research interests and other supporting documents deemed pertinent by the applicant and request that a minimum of three letters of recommendation be sent to: **Dr. J. F. Taylor, Department of Animal Science, 432 Kleberg Center, Texas A&M University, College Station, TX 77843-2471.** Telephone: 409-845-2616, FAX: 409-845-6970. *The Texas A&M University System is an Affirmative Action and Equal Opportunity Employer.*

BIOLOGY, ASSISTANT PROFESSOR. Temporary position for spring semester 1992 (beginning January) with probability of tenure-track position beginning fall 1992. Immunologist with interest and expertise in microbiology and molecular biology. Ph.D. required; preference given to candidates with teaching and/or recent postdoctoral experience. Successful applicant expected to teach undergraduate biology courses for majors and nonmajors. Primary interest and commitment to quality undergraduate instruction plus supervision of an active undergraduate research program is required.

Applications, including a statement of teaching and research interests, curriculum vitae, transcripts, and three letters of recommendation should be submitted to: **Dr. William A. Shergalis, Dean/College of Arts and Sciences, King's College, 133 North River Street, Wilkes-Barre, PA 18711.** Application deadline: 29 November 1991.

King's College is an Equal Opportunity Employer and specifically invites and encourages applications from women and minorities.

BIOLOGY OF ANIMAL BEHAVIOR

The Reed College Biology Department invites applications for the tenure-track position of **ASSISTANT PROFESSOR** with appointment to commence in the fall of 1992. A Ph.D. is required and postdoctoral experience is highly desirable. The successful applicant should have a working knowledge of invertebrate diversity and be able to combine sub-organismal, organismal, and population levels in teaching an upper-division lecture/laboratory course in the biology of behavior. He/she will be expected to establish an active and competitive research program, preferably with invertebrates, for which partial released time from teaching and start-up funding are available. Among additional teaching duties will be the direction of yearlong senior thesis research in areas related to animal behavior. We seek an individual committed to teaching and research in the undergraduate environment. Reed College is a selective liberal arts institution with a distinguished record of educational accomplishment and a strong commitment to scholarship. Applications including curriculum vitae and three recent letters of reference should be sent by 15 January 1992 to:

**S. Arch, Chair
Biology Department
Reed College
Portland, OR 97202-8199**

Reed College is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

ANATOMY/HISTOLOGY ASSISTANT PROFESSOR AND ONE LECTURER OPENING

The Department of Biology at the University of Michigan-Flint invites applications for the following positions to begin fall of 1992. (1) Full-time, tenure-track position at assistant professor level with primary teaching responsibilities in human gross anatomy, histology, endocrinology, and neuroanatomy/physiology. Requirements: Ph.D., demonstrated teaching ability, active research record, and broad training in biology. (2) One full-time lecturer with primary responsibilities for laboratory instruction in the areas of introductory biology, nursing anatomy and physiology. Requirements: Master's or equivalent, demonstrated teaching ability, and broad training in biology. Ph.D.'s will not be considered for lecturer position. Send résumé including teaching areas, copies of representative recent publications, and a list of at least three references to: **Dr. Russell Schenck, Department of Biology, University of Michigan-Flint, Flint, MI 48502-2186.** Screening of applicants will begin 1 February 1992. The University of Michigan-Flint, established in 1956, is an urban regional unit of the University of Michigan. *UM-Flint is a nondiscriminatory, Affirmative Action Employer. Minorities, women and physically challenged persons are especially encouraged to apply.*

FACULTY POSITION

The Beckman Laser Institute and Medical Clinic, University of California, Irvine is seeking to fill a position at the **ASSISTANT PROFESSOR** level in the area of applied laser physics. The series will be commensurate with the experience and the qualifications of the candidate. The person recruited for this position must have research experience in the area of laser physics as applied to biomedical problems with emphasis on the mechanisms of laser interaction with cells, tissues, and organ systems. At least 2 to 3 years of postdoctoral experience is required at the time of application. Publications should demonstrate experience with spectroscopic and electro-optical devices as applied to tissue optics and biophysics. The individual is expected to develop an independent research program that interfaces basic science with applied medicine. Qualified candidates should send curriculum vitae, copies of significant recent reprints, and the names and addresses of three references to: **Professor Michael W. Berns, Beckman Laser Institute and Medical Clinic, 1002 Health Sciences Road East, Irvine, CA 92715** before 1 January 1992. *The University of California is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.*

BIOLOGY, ASSISTANT PROFESSOR. Hobart College for men and William Smith College for women are residential colleges that are located on the western shore of Seneca Lake in upstate New York. The Biology Department invites applications for a tenure-track position available July 1992. Individuals studying evolutionary questions at the molecular, organismal, or population level are encouraged to apply. Responsibilities include teaching a course in evolution, a course in the candidate's specialty, participating in the introductory biology course, and contributing to the colleges' general curriculum. In addition, the candidate is expected to implement a research program that involves undergraduates. Candidates must have the Ph.D. degree by the starting date. Applicants should send curriculum vitae, a statement of teaching philosophy and goals and a statement of research interests, official transcripts showing all degrees received, and three letters of reference to: **Valerie M. Kish, Biology Department, Hobart and William Smith Colleges, Geneva, NY 14456.** Review of applications will begin on 16 December 1991. *Equal Opportunity/Affirmative Action Employer.*

BIOCHEMISTRY, ASSISTANT PROFESSOR, tenure-track, beginning fall 1992. Applicants will be evaluated on their potential as enthusiastic teachers and promise for developing a research program that actively involves undergraduate students. Candidates must have a Ph.D. in biochemistry with broad experience in chemistry. Experience with radioisotopic techniques desirable. *Women and minority candidates encouraged to apply.*

Submit curriculum vitae, statement of research interest, transcripts, and three letters of reference by 10 January 1992 to: **Dr. Robert E. Nylund, Chairman, Department of Chemistry, Susquehanna University, Selinsgrove, PA 17870.**

POSITIONS OPEN

BIOLOGY. Randolph-Macon Woman's College, a competitive liberal arts college with historic strengths in the sciences, invites applications for a tenure-track position at the level of **ASSISTANT PROFESSOR** beginning in the fall of 1992. Ph.D. and teaching experience required. Preference will be given to the candidate who is broadly trained in botany and demonstrates a strong background in field biology and plant physiology. Teaching responsibilities include a nonmajors course in conservation, a core course in botany, and upper level courses in field botany and plant physiology. Send letter of application, including a statement of teaching and research interests, curriculum vitae and names, addresses and telephone numbers of three references by 15 December 1991 to: **Dr. Douglas H. Shedd, Department of Biology, Randolph-Macon Woman's College, Lynchburg, VA 24503.** Telephone: 804-522-9839.

CHEMISTRY POSITION. Agnes Scott College invites applications for a full-time, tenure-track, **ASSISTANT PROFESSOR** of chemistry, either organic/bioorganic or analytical/physical concentration, to begin August 1992. Ph.D. required. Commitments to excellence in teaching and an active research program in which undergraduate students can participate are expected. Recently renovated building with excellent facilities. Broad complement of modern instrumentation. ACS-approved since 1957, offering degrees in chemistry and chemistry with biochemistry emphasis. Private, liberal arts college for women located in metropolitan Atlanta. Send résumé, a brief discussion of research plans, undergraduate and graduate transcripts, and three letters of recommendation to: **T. Leon Venable, Chair, Department of Chemistry, Agnes Scott College, Decatur, GA 30030-3797.** To receive full consideration, applications must be received by 16 December 1991. *Minorities and women are especially encouraged to apply. An Equal Opportunity Employer.*

ECOSYSTEMS BIOLOGIST. Millersville University. Tenure-track position beginning October 1992 at the rank of **ASSISTANT PROFESSOR.** Responsibilities include developing and teaching upper level as well as introductory biology courses. The advanced courses will include community/ecosystems and/or restoration ecology. Ph.D. and a strong commitment to teaching and maintaining an active research program involving undergraduates required. Must have experience with both mathematical modeling and field experimentation involving the manipulation of ecosystems. Competence in the restoration of damaged ecosystems and interest in cooperative research and teaching are preferred. This is an opportunity to participate in a multidisciplinary academic initiative in restoration ecology. The University, located near Lancaster, Pennsylvania, enrolls 7800 students including 550 biology majors; the 22-member department offers a variety of baccalaureate programs and a master's program. Full consideration will be given to applications received by 15 December 1991. Send curriculum vitae, copies of transcripts, and three current letters of recommendation to: **Dr. David A. Zegers, Ecosystems Biologist Search Committee, Department of Biology/S1191, Millersville University, Millersville, PA 17551.** *Affirmative Action/Equal Opportunity Employer.*

MEDICAL ONCOLOGY ASSISTANT PROFESSOR OF MEDICINE TENURE TRACK POSITION

A position is available for a tenure-track faculty member at the assistant professor level in the Division of Medical Oncology, Department of Medicine, University of Minnesota. Candidates must be Board-certified in internal medicine and Board-eligible in medical oncology. Preference will be given to candidates with strong laboratory research training and evidence of the ability to attract external funding for research in the area of molecular biology of gene expression in normal and malignant cells. Responsibilities include patient care service in medical oncology and/or bone marrow transplantation including both inpatient and outpatient follow up, teaching of medical students, residents and fellows, and development of a productive research program in molecular oncology. Interested applicants must submit curriculum vitae and a description of research interests and plans by 15 December 1991 to: **Gordon D. Ginder, M.D., Professor of Medicine, Director, Division of Medical Oncology, Box 286 UMHC, University of Minnesota, Minneapolis, MN 55455;** telephone: 612-624-7915. *The University of Minnesota is an Equal Opportunity Educator and Employer.*

POSITIONS OPEN

ECOLOGIST

The Department of Ecology, Evolution and Behavior invites applicants for a tenure-track **ASSISTANT PROFESSORSHIP.** We seek applicants who have demonstrated outstanding research ability in any ecological discipline, and are especially interested in community/ecosystem ecology or behavioral/evolutionary ecology. Duties include teaching an undergraduate and a specialty course, and establishment of an active program of research and graduate training. Applicants should submit curriculum vitae, reprints, and have three letters of recommendation sent, by 31 December 1991, to: **Search Committee, Department of Ecology, Evolution and Behavior, 318 Church Street S.E., University of Minnesota, Minneapolis, MN 55455.** *The University of Minnesota is an Equal Opportunity Employer and Educator.*

ECOLOGIST/POPULATION BIOLOGIST. The Department of Biological Sciences, University of New Orleans (UNO), has a tenure-track position for an **ASSISTANT PROFESSOR,** beginning August 1992. Ph.D. and postdoctoral experience required. Duties include developing a research program and teaching introductory population biology. Send résumé, statement of research goals, and three letters of reference to: **Dr. R. C. Cashner, Department of Biological Sciences, University of New Orleans, New Orleans, LA 70148;** telephone: 504-286-6589. Deadline: 1 February 1992. *UNO is an Equal Employment Opportunity/Affirmative Action Employer.*

PLANT/POPULATION ECOLOGIST

Bradley University invites applications for a tenure-track appointment at the **ASSISTANT PROFESSOR** level. The starting date is 17 August 1992. Responsibilities, in addition to participation in the introductory courses, include developing upper division courses in two of the following areas: plant ecology, population ecology, or vertebrate ecology. The individual will be expected to maintain an active research program involving undergraduate and/or graduate students. A Ph.D. is required and postdoctoral experience is preferred. Applicants should submit curriculum vitae, a statement of research interests and three letters of recommendation to: **Dr. John A. DePinto, Department of Biology, Bradley University, Peoria, IL 61625.** To ensure full consideration applications should be received by 13 December 1991. Interviews may be conducted before the closing date, but no final decision will be made before that time. *Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.*

PLANT BIOLOGIST. Tenure-track position at the **ASSISTANT PROFESSOR** level in the Biology Department of Whitman College beginning August 1992. Responsibilities include teaching and an ongoing program of scholarly activity. The successful candidate will teach three courses each year, including participation in the introductory course (all with laboratories), and direction of undergraduate student research. Field orientation preferred. Ph.D. required. Whitman College is a liberal arts college of 1150 students committed to undergraduate teaching and research. Send curriculum vitae, three letters of recommendation, transcripts, and statements of teaching and research interests to: **Dr. Charles M. Drabek, Biology Department, Whitman College, Walla Walla, WA 99362;** telephone: 509-527-5227 or -5225. *Affirmative Action, Equal Opportunity Employer.*

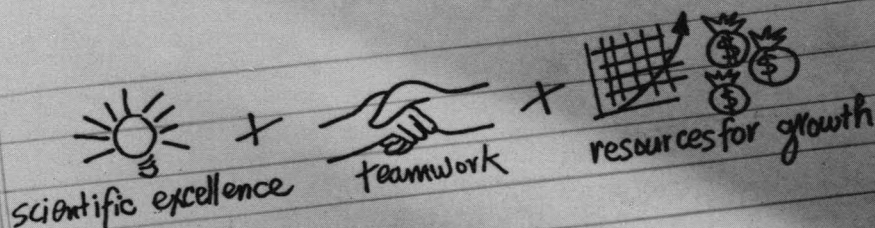
ASSISTANT PROFESSOR OF MICROBIOLOGY

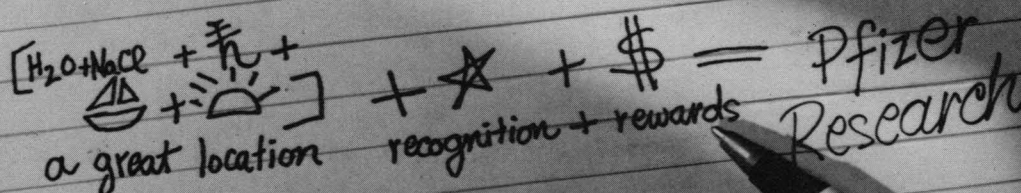
Applications are invited for two tenure-track faculty positions at the University of Southern California (USC) School of Medicine Department of Microbiology and Norris Comprehensive Cancer Center. The areas of interest include immunology, yeast molecular biology, gene regulation, virology and oncogenes. However, all areas of molecular biology will be considered. The successful candidate will be expected to undertake a vigorous research program and to participate in the teaching activities of the medical and graduate schools.

Applicants should send curriculum vitae, a statement of research and teaching interests and three letters of reference to: **Dr. Peter K. Vogt, Chairman, Department of Microbiology, HMR 401, 2011 Zonal Avenue, Los Angeles, CA 90033-1054.**

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Pfizer Inc, a dynamic leader in the healthcare industry, is committed to continuing its remarkable growth in research. Our Molecular Genetics Research Department currently has openings for research scientists in the following areas:

Molecular Pharmacology

Osteoporosis—conduct research into the regulation of gene expression in bone cells. Experience in bone cell culturing, western blotting, RNase protection assays, construction and screening of cDNA libraries and subtractive hybridization is preferred.

Immunoregulation—study molecular mechanisms of gene expression and signal transduction in hematopoietic cells. Experience in molecular cloning techniques, tissue culture, cell transfection, mRNA analysis, and western analysis is preferred.

Signal Transduction

Conduct studies involving the analysis of cultured cell lines and primary cells for changes in protein phosphorylation and protein synthesis. Experience is highly desired in: tissue culture, gel electrophoresis, western blotting, isotopic labelling of whole cells, enzymology, immunoprecipitation, autoradiology and analysis of autoradiograms.

Protein Biochemistry

Perform studies emphasizing biophysical characterization and microisolation of proteins for structural analysis. Experience with HPLC and electrophoretic techniques, as well as a background of training in protein structure and physical and organic chemistry. Acquaintance with spectroscopic methods desired.

Transgenic Technology

Help develop a transgenic animal group. Candidates with proven experience in various techniques for generating transgenic mice necessary. A background in transgenic animal production is required, and knowledge of embryonic stem cell technology is desired.

To learn how you can be part of our success, please send your resume to: Mr. Kym Goddu, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, CT 06340. We are an equal opportunity employer.



Central Research

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The Bristol-Myers Squibb Pharmaceutical Research Institute is continuing to expand our extensive research efforts in the area of cardiovascular, infectious, oncologic and metabolic diseases.

BIOCHEMISTS

Our research in biochemistry is targeted toward novel antivirals and a thorough understanding of the mechanisms of viral replication and pathogenesis. We are currently seeking motivated scientists with a BS/MS degree and experience with enzymology, protein purification, protein chemistry or kinetics in our Virology Department. Familiarity with basic techniques of molecular biology is desired. **Positions are available in both Princeton & Wallingford. Please reply to Dept. 259A-AR.**

MOLECULAR BIOLOGISTS

We are seeking enthusiastic Associate Research Scientists (BS/MS) and Research Investigators (PhD) with experience working in our Virology Department. Successful candidates will apply the tools of molecular biology to programs defining novel antiviral targets and discovering antiviral agents. **Positions are available in both Princeton & Wallingford. Please reply to Dept. 259B-AR.**

TRANSGENIC MICE FACILITY

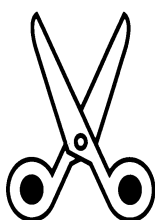
We are in search of a PhD with extensive experience in transgenic mice technology. The successful candidate will be in charge of training and supervising technical staff to support ongoing basic research programs on oncogenes, transcription factors and growth factor receptors. The position is also endowed with additional technical staff, laboratory space and resources to support the candidate's own research program. The extent of these resources will be in accordance with the candidate's experience and research credentials. **This position is located in Princeton. Please reply to Dept. 259C-BM.**

■ Candidates applying for Princeton, NJ openings should forward a resume (including Dept. #) to: **Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources Dept., P.O. Box 4000, Princeton, NJ 08543-4000.**

■ Candidates applying for Wallingford, CT openings should forward a resume (including Dept. #) to: **Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources Dept., P.O. Box 5101, Wallingford, CT 06492-7661.** Equal Opportunity Employer, M/F/D/V.



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POSITIONS OPEN

ENVIRONMENTAL SCIENCE/ECOLOGY FACULTY POSITION

The Department of Natural Sciences at the College of St. Francis (CSF) invites applications for a full-time faculty position at the **ASSISTANT PROFESSOR** level beginning August 1992. The successful candidate will play a leadership role in the implementation of a new environmental science major, including: teaching (earth science, botany, ecology, environmental issues and other courses in area of expertise), advising environmental science majors, supervision of undergraduate research and internships, and service on college committees. Doctorate in environmental science, ecology or related field required. Undergraduate teaching experience preferred.

The College of St. Francis is a Catholic college offering programs in the liberal arts and sciences as well as professional, preprofessional and career programs at both the undergraduate and graduate levels. CSF is located 35 miles southwest of Chicago. *CSF is an Equal Opportunity Employer and encourages the applications of qualified women and minorities.* Salary and benefits are competitive.

To apply, send a letter of application, curriculum vitae, transcripts, sample syllabi, and three letters of recommendation to: **Ms. Joanne Corcoran, Science Search Secretary, College of St. Francis, 500 Wilcox Street, Joliet, IL 60435.** Review of applications will begin 15 December 1991 and continue until the position is filled.

COORDINATOR FOR GENERAL BIOLOGY LABORATORIES. The College of Charleston, Department of Biology, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level to teach general biology and to coordinate and direct general biology laboratories serving approximately 1000 students per semester. The College is a liberal arts institution whose primary aim is teaching excellence. Candidates must possess a Ph.D. or M.S. in a biological science, teaching experience, and a demonstrated commitment to education. Send curriculum vitae, transcripts, reprints of recent publications, and three letters of reference by 8 January 1992 to: **Chair, Department of Biology, General Biology Search Committee, Department of Biology, College of Charleston, Charleston, SC 29424.** *The College of Charleston is an Equal Opportunity/Affirmative Action Employer.*

ENVIRONMENTAL CHEMIST

The Department of Agricultural Chemistry at Oregon State University (OSU) invites applications for a tenure-track **ASSISTANT PROFESSOR** position. Applicants must have a Ph.D. with a strong background in chemistry and research experience concerned with the fundamental physical, chemical or biochemical processes influencing the fate and behavior of pesticides and other chemicals in the environment. The successful candidate would be expected to develop an externally funded research program, mentor graduate students, and contribute to departmental teaching and extension efforts. Qualified individuals should forward curriculum vitae, a statement of research interests and a list of at least three references to:

**Environmental Chemist Search Committee
Department of Agricultural Chemistry
Oregon State University
Weniger Hall, Room 339
Corvallis, OR 97331-6502**

Application deadline is 15 December 1991.

OSU is an Affirmative Action/Equal Employment Opportunity Employer and is responsive to the needs of dual-career couples.

ASSISTANT PROFESSOR

Emporia State University (ESU) is seeking an immunobiologist who enjoys teaching undergraduate and graduate students and has a commitment to scholarly activities beginning 18 August 1992. The successful candidate for this 9-month tenure-track position will teach a course in immunology plus one or more courses in either microbiology, molecular biology, developmental biology, parasitology or general education biology. A Ph.D. is required. Screening will begin 16 December 1991 and continue until the position is filled. Send curriculum vitae, a statement of interests and professional goals and the names and telephone numbers of three references to: **Dr. Carl Prophet, Chair, Division of Biological Sciences, Emporia State University, Emporia, KS 66801-5087.** *ESU is an Affirmative Action/Equal Opportunity Employer. We encourage applications from members of protected classes.*

POSITIONS OPEN

ASSISTANT PROFESSOR FACULTY POSITION/PHARMACEUTICS SCHOOL OF PHARMACY THE UNIVERSITY OF KANSAS

The Department of Pharmaceutical Chemistry (Pharmaceutics) at The University of Kansas invites applications for a tenure-track position at the level of assistant professor starting in August 1992. The department's research interests encompass the broadly defined area of pharmaceutics (including physical pharmacy/bioanalytical chemistry/drug delivery research including peptide and protein characterization, formulation and delivery).

Applicants are expected to possess or earn in the immediate future a Ph.D. degree in pharmaceutics, chemistry or engineering or a closely related area. Preference will be given to applicants with postdoctoral experience and an educational background or experience in the pharmaceutical sciences. Applicants should have a demonstrated ability to communicate effectively, a genuine interest in teaching, and have shown exceptional research capability/potential. The faculty member will have teaching responsibilities at the undergraduate and graduate level and will be expected to develop a strong research program. The preferred area of research is the application of physical or physical organic chemistry to the solution of pharmaceutical problems.

Applications should include curriculum vitae, letters from three references, and a short statement of future research interests. Send applications by 1 January 1992 to:

Dr. Valentino J. Stella
Department of Pharmaceutical Chemistry
The University of Kansas
3006 Malott Hall
Lawrence, KS 66045

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

FACULTY POSITIONS DEPARTMENT OF PHARMACOLOGY

The Department of Pharmacology at Stanford University School of Medicine invites applications for several tenure-track positions at the ASSISTANT PROFESSOR level. Candidates must have a Ph.D. or M.D. degree and postdoctoral research experience. Candidates should be interested in developing independent research experience. Candidates should be interested in developing independent research programs that utilize biochemical, genetic, and molecular biological approaches to analyze problems of pharmacological interest, particularly in the areas of cancer biology or neuroscience. Appointees will interact with other faculty members with strong research programs in signal transduction, hormone action, gene regulation, and cell growth and differentiation. Appointees will also participate in teaching medical pharmacology and in graduate (Ph.D.) training in a stimulating medical environment.

Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates. Candidate should send curriculum vitae, a description of future research plans, and at least three letters of reference to: James P. Whitlock, Jr., M.D., Department of Pharmacology, Stanford University School of Medicine, Stanford, CA 94305-5332.

Minneapolis. University of Minnesota, Department of Psychiatry seeks two psychiatrists to fill full-time faculty positions as ASSISTANT PROFESSOR, probationary, tenure-track. The position requires a commitment to research and teaching. The successful applicant will share with other faculty members responsibility for one of several teams which treat hospitalized and non-hospitalized general psychiatric patients. Each team, in addition to treating patients, will be involved in the following: (1) clinical supervision of medical students, psychiatric residents, and allied health professionals; service commitment is linked to clinical supervision. (2) conduct clinical or basic research leading to scientific publications; (3) grant writing; and (4) participating in design and teaching of didactic courses for residents and medical students. Applicants should be Board eligible, with demonstrated interest and ability to do adult psychiatric research. Send résumés to: Richard Pyle, M.D., UMHC Box 393, University of Minnesota Hospitals, Minneapolis, MN 55455 by 1 January 1992. Beginning date of appointment is 1 July 1992.

The University of Minnesota is an Equal Opportunity Educator and Employer.

DIRECTOR-INFLAMMATION PLUS Inflammation Research Team

NOVA PHARMACEUTICAL CORPORATION, a leading research & development company in Baltimore, MD, seeks to build a specific research project team beginning with an individual who will manage our Inflammation Group within the Research Division. Responsibilities of the Director will include management of Nova's drug discovery project involving leumedins, a novel class of anti-inflammatory drugs that inhibit leukocyte adhesion. The director will play a leadership role interfacing Research & Development efforts relating to specific projects.

Qualified candidates for the position of Director will possess a PhD or MD, related scientific expertise, and a proven administrative/managerial track record. Industrial experience is a plus.

Qualified candidates for remaining research team members include PhD or MD plus a strong scientific background in a relevant field.

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For immediate consideration, please send your resume with salary history to:

NOVA PHARMACEUTICAL CORPORATION
Personnel-91-027, 6200 Freeport Centre
Baltimore, MD 21224-6522



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SAINT LOUIS UNIVERSITY

VICE PRESIDENT AND CHIEF EXECUTIVE OFFICER FOR THE MEDICAL CENTER SAINT LOUIS UNIVERSITY

Saint Louis University invites applications and nominations for the position of Vice President and Chief Executive Officer for the Saint Louis University Medical Center. The Vice President is the Chief Executive Officer of a long-established, modern, major health science center for St. Louis and the surrounding region of Illinois and Missouri. The Medical Center campus is located in the City of St. Louis and is one of four campuses of Saint Louis University. The Center includes four schools: School of Medicine, School of Nursing, School of Allied Health Professions, School of Public Health, plus an ultra modern hospital opened in 1988. In addition, there are graduate programs leading to masters' and doctoral degrees in the various schools. The Saint Louis University Medical Center is also a major research center with numerous internationally renowned programs.

The Vice President and Chief Executive Officer is expected to provide dynamic and creative leadership, characterized by initiative and vision in the overall direction of the Medical Center. He or she is responsible for the administration of the Center, including academic programs, research administration, and health care procedures. Applicants should possess the academic credentials usually associated with such a position (M.D., Ph.D., or comparable earned degrees), have had experience in academic and/or health care administration, research, and teaching, and be able to demonstrate an understanding and appreciation of the various missions of Saint Louis University. The University, founded in 1818, is the oldest institution of higher education west of the Mississippi River. Its Medical Center is linked inextricably to the 450-year history of academic excellence associated with the Jesuit education tradition.

Candidates should submit a curriculum vitae and a letter of application to:

Joan Hrubetz, Ph.D., R.N.
Chair, Search Committee for the Selection of the
Vice President and Chief Executive Officer, Medical Center
Office of the Vice President
Saint Louis University
3556 Caroline Street, Room 207
St. Louis, Missouri 63104-1085

Applications should be submitted as soon as possible and will be kept confidential during the initial screening process. This Search Committee will begin application review on February 1, 1992. The Vice President position will be filled when the chosen candidate is able to assume the responsibility after July 1, 1992. Saint Louis University is an equal opportunity and affirmative action institution.

POSITIONS OPEN

OBSTETRICS AND GYNECOLOGY FACULTY POSITION THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER AT DALLAS

Applications are invited for the position of **ASSISTANT PROFESSOR** of obstetrics and gynecology in the Division of Gynecologic Oncology. The position carries with it the possibility of an appointment to a basic science department and the Cancer Center. Candidates should have an advanced degree in basic science and special expertise in molecular biology and an established record in the area of cellular mechanisms in oncogenesis and transformation. The appointee will be expected to develop a strong and independently funded research program in gynecologic oncology as well as enter into collaborative projects with members of the Cancer Center and the Green Center for Reproductive Biology Sciences, and will participate, in addition, in the teaching activities of the basic science and Obstetrics and Gynecology Departments. Applicants should send curriculum vitae together with the names of three references to:

F. Gary Cunningham, M.D., Professor and Chairman
Department of Obstetrics and Gynecology,
University of Texas
Southwestern Medical Center at Dallas,
5323 Harry Hines Boulevard,
Dallas, TX 75235-9032

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

POPULATION BIOLOGIST/GENETICIST. ASSISTANT PROFESSOR (tenure track) beginning July 1992 at liberal arts college with strong programs in science. Teaching responsibilities in genetics, organismic/population biology and advanced specialty course. Commitment to research, with undergraduate involvement, is expected. Application deadline: 10 December 1991. *Franklin and Marshall College is committed to cultural pluralism through the hiring of minorities and women (Affirmative Action).* Send résumé, graduate and undergraduate transcripts, research and teaching statements, and arrange for letters from three referees to:

Dr. Kathleen Triman
Department of Biology
Franklin and Marshall College
P.O. Box 3003
Lancaster, PA 17604-3003
Telephone: 717-291-3948
FAX: 717-291-4143

FACULTY POSITIONS NEUROSCIENCE AND ANATOMY

The Department of Neuroscience and Anatomy of The Pennsylvania State University College of Medicine, The Hershey Medical Center, has tenure-track **ASSISTANT PROFESSOR** positions available for the current and forthcoming academic years. Qualified individuals should have a Ph.D. or M.D. degree, postdoctoral training, and research interests in areas of cellular or molecular neurobiology. More experienced individuals may also be considered for associate professor positions. Appointed faculty are expected to maintain an active research program and participate in departmental teaching. Interested persons should send curriculum vitae, a statement of research interests, and names of three referees to: **Robert J. Milner, Ph.D., Department of Neuroscience and Anatomy, The Milton S. Hershey Medical Center, P.O. Box 850, Hershey, PA 17033.** Deadline for applications is 1 February 1992.

The Department of Biological Chemistry, The University of Michigan, invites applications for a faculty position at the rank of **ASSISTANT PROFESSOR**. Limited term, nontenure-track appointment up to 3 years with possibility of two year extension. Candidates should have a Ph.D. in biochemistry with postdoctoral experience in the isolation and characterization of cytochrome P450 from extrahepatic tissues. A strong interest in the structure and function of olfactory or brain P450 and publications in this area are essential. Teaching obligations will not exceed 5 to 10% of total effort. Send résumé to: **Professor M. J. Coon, Department of Biological Chemistry, Medical School, The University of Michigan, 1301 Catherine Road, Ann Arbor, MI 48109-0606.** Applications should be postmarked no later than 15 December 1991. *A nondiscriminatory, Affirmative Action Employer.*

POSITIONS OPEN

MARINE ENVIRONMENTAL CHEMIST, ASSISTANT PROFESSOR, tenure track, Ph.D., start fall 1992. Research interest in geochemistry, environmental chemistry, and/or toxicology to involve advanced undergraduates. Teach required courses (e.g., environmental or marine chemistry, geochemistry) in rapidly growing undergraduate marine science program, and provide upper level courses in specialty. Participate periodically in interdisciplinary general education. Send résumé, undergraduate and graduate transcripts, three recommendation letters by 30 January 1991 to: **Dr. William Szelistowski, Eckerd College, P.O. Box 12560, St. Petersburg, FL 33733.** *Equal Opportunity Employer.*

ASSISTANT PROFESSOR, NEUROSURGERY. The Division of Neurosurgery, Louisiana State University Medical Center in Shreveport invites applications for a tenure-track position. Candidates must possess Ph.D. with experience in molecular biology, immunology and monoclonal antibodies. Successful applicant will be expected to develop an independent research program while participating in ongoing brain tumor studies. Send curriculum vitae and references to: **Anil Nanda, M.D., Chief of Neurosurgery, LSU Medical Center, P.O. Box 33932, Shreveport, LA 71130.** Telephone: 318-674-6137. *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR VERTEBRATE ZOOLOGIST (tenure track) to teach a course in vertebrate zoology to undergraduates and develop courses in area of specialty to strengthen our expanding graduate program. Ph.D., postdoctoral training, and a vigorous research program in some aspect of ornithology, mammalogy or ichthyology are required. Apply with curriculum vitae, three letters of reference and recent publications. Applications must be postmarked on or before 15 January 1992 to: **Dr. Joel Trexler, Chair, Vertebrate Zoologist Search and Screen Committee, Department of Biological Sciences, Florida International University (FIU), The Public University at Miami, University Park, Miami, FL 33199.** *FIU is an Affirmative Action/Equal Opportunity Employer.*

ANATOMY AND PHYSIOLOGY KANSAS STATE UNIVERSITY (KSU) COLLEGE OF VETERINARY MEDICINE

The Department of Anatomy and Physiology invites applications for two faculty positions with appointments beginning 1 July 1992. Candidates should have a funded extramural research program or have an established research program with considerable potential for securing funding. Research areas of emphasis within the department include cell biology, exercise physiology and neurobiology.

PHARMACOLOGY. ASSISTANT/ASSOCIATE PROFESSOR, tenure-track position. Candidates should have a broad background in pharmacology and a strong interest in professional and graduate instruction. Preference will be given to individuals with a background in veterinary pharmacology. D.V.M. and/or Ph.D. required.

PHYSIOLOGICAL CHEMISTRY. ASSISTANT PROFESSOR, tenure-track position. Candidates should have a strong interest in professional and graduate instruction and a background in intermediary metabolism. D.V.M. and/or Ph.D. required.

Applications should include a cover letter indicating the position being applied for, curriculum vitae, a statement of research and teaching interest, three letters of recommendation and reprints of three representative publications. Applications will be received until positions are filled. Send applications to: **Dr. Jon D. Dunn, Professor and Department Head, Department of Anatomy and Physiology, VMS 228, Kansas State University, Manhattan, KS 66506.** *KSU is an Equal Opportunity Employer/Affirmative Action Employer.*

Desert Research Institute, University of Nevada System Executive Director, Atmospheric Sciences Center, Reno. Senior manager with proven ability to secure research funds. Ph.D. in science or engineering. Applications review begins 15 March 1992. Excellent benefits. **FULL RESEARCH PROFESSOR**; salary commensurate at college-administrator level. Send letter or interest/resumé; **Recruitment Officer, Desert Research Institute, 2505 Chandler Avenue, Las Vegas, NV 89120.** Telephone **Dr. James Hudson, Search Committee Chairman** for details, 702-677-3119. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

BIOCHEMIST/ RESEARCH ASSISTANT PROFESSOR

Nontenure leading faculty position on annual 12-month basis, full-time appointment, starting January 1992. Salary: \$30,000. Position intended to be long term, subject to continuing funding. Will perform spectroscopic, kinetic, and mutagenesis studies of oxygen-sensitive metalloenzymes. Will also assist in teaching and advising graduate students, technicians, and postdoctoral associates; publish research results in refereed journals; present findings at national and international scientific meetings.

Requires Ph.D. in biochemistry or microbiology, demonstrable experience in EPR spectroscopy of metal centers in proteins, isolation and kinetic analyses of oxygen-sensitive metalloenzymes, electrochemical studies of enzymes, DNA cloning, DNA sequencing, site-directed mutagenesis, anaerobic microbiology, and a record of scholarly publications in this area.

Submit application letter, curriculum vitae, and three letters of recommendation postmarked by 2 January 1992 (or until a suitable candidate applies thereafter) to: **Dr. Stephen W. Ragsdale, Department of Biochemistry, University of Nebraska-Lincoln, Lincoln, NE 68583-0718.** Telephone: 402-472-2943.

Affirmative Action/Equal Opportunity Employer.

The Department of Neurology, University of California, Irvine (UCI), has a second opening for a Ph.D. in pharmacology, psychobiology, neuroscience or biology, or related field at the **ASSISTANT ADJUNCT PROFESSOR** level. Candidate would join the movement disorders group working with an M.D. and a Ph.D. should have experience in HPLC, receptor binding and behavioral studies, in vivo autoradiography. Send curriculum vitae and names of three references to: **Dr. Stanley Van Den Noort, Chairman, 107 Whitby Building, UCI, Irvine, CA 92715.** Refer to position #91-6. *Affirmative Action/Equal Opportunity Employer.*

DEVELOPMENTAL NEUROSCIENTISTS

The Developmental and Behavioral Neuroscience Program of the Institute for the Study of Developmental Disabilities, The University of Illinois at Chicago (UIC) seeks two principal investigators as **RESEARCH ASSISTANT PROFESSORS** (hard-funded, nontenure-track). The areas of experimental research should be reflective of developmental aspects of neurobiology and/or behavior. We seek individuals who have demonstrated promise in establishing strong, independently funded research programs and have a commitment to the study of problems related to developmental disabilities. A Ph.D. and relevant postdoctoral experience are required. While these are research-intensive positions in a dynamic, new program, opportunities exist for departmental affiliations. Applicants should send curriculum vitae, reprints/preprints, statement of research goals and the names and addresses of three referees to: **Dr. Emanuel D. Pollack, Director, Developmental and Behavioral Neuroscience Program, ISDD (M/C 627), The University of Illinois at Chicago, 1640 West Roosevelt Road, Chicago, IL 60608.** Application deadline is 31 December 1991.

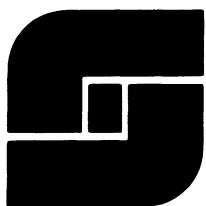
UIC is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT OR ASSOCIATE PROFESSOR POSITIONS IN IMMUNOLOGY DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY LOYOLA UNIVERSITY CHICAGO

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

Submit curriculum vitae, statement of research interest and a list of three references to: **Dr. Katherine L. Knight, Chairperson, Department of Microbiology and Immunology, Loyola University Chicago, Stritch School of Medicine, 2160 South First Avenue, Maywood, IL 60153.**

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



MOLECULAR BIOLOGIST

With a staff of over 700, Southern Research Institute is an independent research organization engaged in state-of-the-art, interdisciplinary studies. Research areas include cancer and viral disease cause and prevention, preclinical drug development and evaluation, environmental sciences, and aerospace materials research.

We are seeking a Molecular Biologist to join our research team. We are currently conducting studies in tumor biology, cellular and humoral immunology, and the effects of biological response modifiers, novel biological agents, and developmental chemotherapeutic agents. Expansion into molecular analysis as it applies to tumor biology, immunology, and toxicology is currently underway. Facilities are equipped to accommodate both in vitro and in vivo studies. The position requires a Ph.D. in molecular biology (or related discipline) with 1-3 years of postdoctoral experience in the molecular aspects of oncogenes or tumor suppressor genes, which might relate to toxicology, carcinogenicity, or novel cancer drug development. A successful candidate will work within a multidisciplinary environment in cooperation with investigators in cell biology, immunology, pharmacology, biochemistry, toxicology, and experimental therapeutics. Candidate must demonstrate potential for development of research projects in relevant areas and contribute to ongoing projects requiring molecular analysis and/or development of model systems.

The Birmingham metropolitan area, with a population of approximately one million, offers a mild, seasonal climate; abundant educational, recreational, and cultural opportunities; below average living costs and taxes; and a variety of convenient and attractive housing alternatives. To apply, send c.v. to Mr. Tracy E. Higgins, Dept. 501, Human Resources, Southern Research Institute, P.O. Box 55305, Birmingham, AL 35255.

We are an equal opportunity/affirmative action employer

FACULTY POSITIONS IN BIOCHEMISTRY

St. Jude Children's Research Hospital

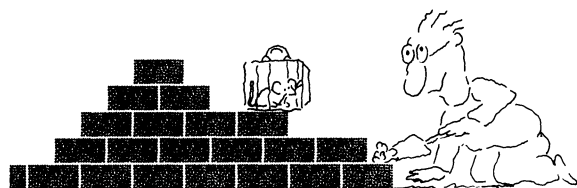
St. Jude Children's Research Hospital, a private research institute, is engaged in a major expansion of its facilities and scientific activities. A new research building opened in August, 1991 which provides 240,000 square feet of new laboratory space to house the institute's basic science programs. As part of this 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, more senior 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 ongoing 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 N. Lauderdale
Memphis, TN 38105 USA

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Washington, DC 20005 The Global Weekly of Research **SCIENCE**

Clinical Research Scientist

The Agricultural Division of The Upjohn Company is seeking applications for a Clinical Research Scientist. Responsibilities include serving as Project Leader for Developmental Research Projects leading to the registration of new animal health products worldwide. The candidate will be responsible for designing, implementing and communicating results from clinical trials characterizing the test compounds efficacy in either companion or food producing animals. Projects encompass new chemical entities and the evaluation of new leads.

The position is based at the Worldwide Headquarters in Kalamazoo, Michigan. The position requires either a DVM/VMD degree and/or Ph.D. in an appropriate field of study and a minimum of 2 years Post Doctorate experience. The candidate should have appropriate clinical training and or further academic experiences leading to either board certification or academic degrees. The incumbent must demonstrate good clinical research and analytical skills as well as effective written and oral communication competencies.

Individuals with specialization in the fields of immunology, microbiology, internal medicine, pharmacology and or epidemiology as well as individuals with experience in the development of new animal drugs are encouraged to apply.

Upjohn offers a competitive salary, benefits and relocation package commensurate with the expected contribution. For confidential consideration please send your resume/cv to: The Upjohn Company, Corporate Recruiting, Kalamazoo, MI 49001-0199. Please refer to Position Number 910632-092 in your cover letter. An Equal Opportunity Employer M/F.

Upjohn

POSITIONS OPEN

STATISTICAL GENETICS

A tenure-track position in statistical genetics is available in the Department of Statistics at North Carolina State University.

The position will be at the **ASSISTANT PROFESSOR** level and will be filled by a person with advanced training in statistics and genetics. A Ph.D. is required, and postdoctoral experience desired. Responsibilities will include teaching within the Statistics Department and conducting research in statistical aspects of population or quantitative genetics, including development of methodology for making inferences from molecular genetic data.

The appointee will be associated with the Program in Statistical Genetics within the Department of Statistics, and will join a large and active group of workers in the fields of statistics and genetics at N.C. State University and other Research Triangle institutions.

Send letter of application, curriculum vitae and the names of three references to: **Dr. B. S. Weir, Department of Statistics, North Carolina State University, Raleigh, NC 27695-8203** by 31 January 1992.

Proper documentation of identity and employability is required before the hiring process can be finalized. *Equal Opportunity Employer/Affirmative Action Employer.*

PSYCHONEUROIMMUNOLOGIST UNIVERSITY OF TEXAS MEDICAL BRANCH (UTMB)

The Department of Psychiatry and Behavioral Sciences is searching for candidates for a position at the **ASSISTANT PROFESSOR** level. We are looking for an independent scientist to collaborate with an established, multidisciplinary group in studying the interactions between the nervous and immune systems. The applicant should have a Ph.D., or equivalent degree with postdoctoral experience. Preference will be given to individuals with molecular biology experience and interests in neuroendocrinology, cytokines, neuroimmunology or behavioral disorders. Primarily, the candidate will be expected to carry on an active research program; but clinical participation, dependent upon the individual's qualifications and interests, may be possible. Women and minorities are encouraged to apply. Applicants should submit full curriculum vitae, research interests, three recent reprints, and the name of three references to:

**Dr. Eric M. Smith, Chairman
Psychoneuroimmunologist Search Committee
Department of Psychiatry and Behavioral Sciences
University of Texas Medical Branch
Galveston, TX 77550**

Equal Opportunity/Affirmative Action Employer, M/F/H/V. UTMB hires only individuals authorized to work in the United States.

ANATOMY FACULTY POSITION. Applications are invited for a tenure-track position at the level of **ASSISTANT OR ASSOCIATE PROFESSOR**. Individuals who have an earned doctorate in human anatomy from a department associated with a medical school should apply. Teaching responsibilities will be in histology, neuroanatomy and gross anatomy. Research opportunities are available. Send curriculum vitae and names of three references to: **Gerald D. Meetz, Ph.D., Chairman, Department of Anatomy, University of Osteopathic Medicine and Health Sciences, 3200 Grand Avenue, Des Moines, IA 50312.** The University is an *Equal Opportunity Employer.*

SURGICAL ONCOLOGIST. ABMS Board-certified with a strong record in surgical oncology and related research and ability to attract extramural support in oncology (clinical and basic sciences). This position offers an excellent opportunity to build a strong surgical oncology unit within the Department of Surgery in the School of Medicine, University of Utah, and to be involved in the education of medical students and residents, as well as the professional development of colleagues. The successful applicant will be named to the newly endowed Grant and Mildred Beckstrand Chair in Surgical Oncology and will be appointed **ASSOCIATE PROFESSOR/PROFESSOR** rank appropriate to experience. Send curriculum vitae, bibliography and three references to: **Dr. Walter Stevens, Acting Vice President for Health Sciences, 211 Park Building, University of Utah, Salt Lake City, UT 84112.** The position will remain open until 28 February 1992 or until a suitable applicant is identified. *The University of Utah is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

FACULTY POSITION PEDIATRIC ONCOLOGY RESEARCH

The Department of Pediatrics at the University of California San Francisco (UCSF) wishes to recruit an established investigator in the general field of pediatric oncology research. An individual with an established record of accomplishment in molecular oncogenesis, cancer biology or immunology, or tumor progression, would be most suitable. The candidate must be committed to the investigation of the fundamental causes, pathogenesis and therapy of pediatric malignancies. It is expected that the person who fills this position will establish a major research program and will attract trainees from both clinical and basic science departments. The department has an active clinical program for the diagnosis and management of childhood cancers with which the occupant of this position would interact. Opportunities to participate in these clinical programs is available. Affiliation with the Graduate Program in Biological Sciences is strongly encouraged. It is anticipated that the successful applicant would qualify for a tenured appointment at the **ASSOCIATE OR FULL PROFESSOR** level at UCSF. *The University of California is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.* Send curriculum vitae and names of three references to: **Dr. Lois B. Epstein, Chairperson, Pediatric Oncology Search Committee, Box 0128, Cancer Research Institute, University of California, San Francisco, CA 94143.**

PLANT PHYSIOLOGIST. The College of Charleston, Department of Biology, invites applications for a tenure-track position at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. Candidates must possess the Ph.D. degree, a strong commitment to teaching, and an active, ongoing research program, which has the potential for undergraduate involvement. Teaching responsibilities include plant physiology, general botany and general biology. The College of Charleston is a liberal arts institution whose primary aim is teaching excellence. In addition to its undergraduate programs, the department offers a graduate degree in marine biology. Applicants should submit curriculum vitae, a statement of teaching philosophy and research interests, reprints of recent publications and three letters of reference by 8 January 1992 to: **Chair, Department of Biology, Plant Physiology Search Committee, College of Charleston, Charleston, SC 29424.** *The College of Charleston is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE/FULL PROFESSOR FACULTY POSITION IN PHYSICAL OCEANOGRAPHY/Rutgers University. The Institute of Marine and Coastal Sciences of Rutgers University invites applications for a tenure-track position in the area of physical oceanography.

Applicants must have a Ph.D. and a strong record of published research and grant support. The successful candidate will be expected to teach courses primarily at the senior and graduate student level, as well as to establish an innovative, forward-looking research program in dynamical or observational oceanography. Preference will be given to candidates with demonstrated expertise in studying the coastal and/or large-scale ocean circulation. Appointment will be at a level commensurate with prior experience.

Curriculum vitae, a statement of research interests, and four letters of reference should be sent prior to 1 January 1992 to: **Dr. Frederick Grassle, Director, Institute of Marine and Coastal Sciences, Post Office Box 231, Rutgers University, New Brunswick, NJ 08903-0231.**

Rutgers University is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION, DEPARTMENT OF SURGERY. The University of Iowa Department of Surgery invites applications from M.D. candidates at the **ASSISTANT OR ASSOCIATE PROFESSOR** level in the transplantation service. Physician candidate must have extensive experience in fine needle aspiration, transplantation cytology, immunology, and clinical experience in caring for organ transplant patients. Individual also must have experience in performing and interpreting needle aspirations of kidney, pancreas, and liver. *Women and minorities are encouraged to apply.* Applicants should send curriculum vitae to: **R. J. Corry, M.D., Professor and Head, Department of Surgery, The University of Iowa College of Medicine, Iowa City, IA 52242.** *We are an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

THE UNIVERSITY OF NEW MEXICO TOXICOLOGY PROGRAM

A full-time (12-month), tenure-track, **ASSISTANT OR ASSOCIATE PROFESSOR** faculty position is available at The University of New Mexico College of Pharmacy for candidates with a Ph.D. in pharmacology, toxicology, or a related discipline. Preference will be given to candidates who demonstrate strong research potential and a commitment to undergraduate and graduate teaching in the areas of pharmacology and toxicology. Candidates with a degree in pharmacy and/or with teaching experience in pharmacology and toxicology are also preferred. *The University of New Mexico is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.* Applicants should send curriculum vitae, statement of career interests and goals, a research plan, and the names of three references to: **Scott W. Burchiel, Ph.D., Chair, Faculty Search Committee, College of Pharmacy, The University of New Mexico, Albuquerque, NM 87131.** Applications will be received until 16 March 1992, or until a successful candidate is hired.

FACULTY POSITIONS. Cornell University Medical College, Department of Pharmacology. Candidates are sought for three tenure-track positions at the level of **ASSISTANT OR ASSOCIATE PROFESSOR**. Candidates should have significant research experience in pharmacological approaches to problems of vertebrate biology. The responsibilities of this position include development of an active, independent research program and participation in both medical and graduate student teaching programs in the department. Applicants should send curriculum vitae, a summary of proposed research, and should arrange to have letters sent from at least three scientists who can evaluate the candidate's accomplishments. Cornell University Medical College is a part of the New York Hospital-Cornell Medical Center and adjacent to Memorial Sloan Kettering Cancer Center and Rockefeller University. Applications should be sent to: **Chair, Pharmacology Search Committee, c/o Room E-409, Pharmacology Department, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.** *Equal Employment Opportunity/Affirmative Action, M/F/H/V.*

CELL BIOLOGY AND CELLULAR NEUROBIOLOGY

The Department of Anatomy and Cell Biology in the Faculty of Medicine at the University of Alberta invites applications for four to six faculty positions. Applicants should have research expertise in cell or developmental biology, in molecular biology relating to problems in cell function, or in cellular or molecular neurobiology. Applicants should have proven records of research achievement and will be eligible for funding by the Alberta Heritage Foundation for Medical Research. Candidates should be capable of teaching graduate courses in cell or developmental biology or medical school courses in cell biology/histology or medical gross anatomy. Positions are available at the levels of **ASSISTANT PROFESSOR** (\$38,955 to \$55,755), **ASSOCIATE PROFESSOR** (\$48,083 to \$70,331), and **FULL PROFESSOR** (\$60,083 and up). Successful candidates will be encouraged to carry on independent research programs, but will also have the opportunity for collaborative interactions with several multidisciplinary research groups within the University. Deadline for receipt of applications is 28 February 1992.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

Please submit curriculum vitae, a summary of research interests, and the names of four referees to: **Dr. Richard A. Murphy, Professor and Chairman, Department of Anatomy and Cell Biology, Faculty of Medicine, University of Alberta, Edmonton, Alberta, Canada, T6G 2H7.**

The University of Alberta is committed to the principle of Equity in Employment. The university encourages applications from aboriginal persons, disabled persons, members of visible minorities, and women.

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POSITIONS OPEN

PRESIDENTIAL ENDOWED CHAIR IN IMMUNOLOGY

The University of Utah School of Medicine is seeking an internationally recognized investigator in a field of immunobiology related to transplantation. The applicant must be qualified for the rank of full professor, and must have demonstrated the ability to sustain independent funding. It is anticipated that this individual would provide scientific leadership to an already assembled group of investigators. Departmental affiliation and compensation are negotiable. *The University of Utah is an Equal Opportunity Employer.*

Closing: 31 December 1991 or when a suitable candidate is identified.

Apply to: Patrick G. Beatty, M.D., Ph.D., Chair Search Committee, Division of Hematology/Oncology, University of Utah School of Medicine, 50 North Medical Drive, Salt Lake City, UT 84132. FAX: 801-585-3432; telephone: 801-585-3229.

CHAIR DEPARTMENT OF BIOLOGY THE UNIVERSITY OF VIRGINIA

The Department of Biology at the University of Virginia seeks a biologist with a distinguished research program and a commitment to teaching at the graduate and undergraduate levels to lead a department with current strengths in molecular and developmental biology and in biological timing. The department has appointed 13 faculty members during the past 5 years, and ample opportunity exists for continued development. The area of interest of applicants is open. Applications, including a cover letter; curriculum vitae; statements of research and teaching interests; and the names, addresses and telephone numbers of five references should be sent to: Michael Menaker, Chair of Search Committee, Department of Biology, Gilmer Hall, The University of Virginia, Charlottesville, VA 22901. Review of applications will begin 1 December 1991. *The University of Virginia is an Equal Opportunity/Affirmative Action Employer.*

ENDOWED CHAIR IN PALYNOLOGY LOUISIANA STATE UNIVERSITY (LSU)

The Department of Geology and Geophysics at LSU invites applications and nominations for an anticipated endowed chair in palynology, with duties to begin in August 1992. We are particularly interested in finding a scientist with academic and/or industrial experience in pre-Quaternary stratigraphic palynology who can establish, and serve as director of, an integrated Center for Excellence in Palynology, dedicated to both research and teaching. The American Association of Stratigraphic Palynologists is supporting the establishment of this center at LSU. Applicants should have a Ph.D., an enthusiasm for teaching, a record of excellence in scientific research, and appropriate administrative skills. This tenure-track appointment will be at the FULL PROFESSOR OR ASSOCIATE PROFESSOR level.

Applicants should submit a letter with a description of their research and teaching interests, curriculum vitae, and the names of at least three references to: Barun K. Sen Gupta, Chair, Palynology Search Committee, Department of Geology and Geophysics, Louisiana State University, Baton Rouge, LA 70803-4101. The initial deadline for applications is 15 March 1992; the search will continue until the position is filled. All application materials will be held in strict confidence. *Louisiana State University is an Equal Opportunity/Affirmative Action Employer.*

DEPUTY DIRECTOR. Yale University seeks Deputy Director for the Center for Theoretical and Applied Neuroscience. Requires Ph.D. in neuroscience or related area, familiarity with research at the center, and demonstrated competence in quantitative light microscopy. Responsibilities include research, administration, and fundraising. Send curriculum vitae, list of five references, and a brief statement to: E. Dubois, Department of Human Resources, Yale University, P.O. Box 1404 Yale Station, New Haven, CT 06520-1404. *Affirmative Action/Equal Opportunity Employer.*

15 NOVEMBER 1991

Technical Specialist Biotechnology

Perkin-Elmer has an outstanding career opportunity available in our Biotechnology joint venture/PE Cetus.

Applicants must have at least a B.S. or M.S. degree in molecular biology or biochemistry and 3-5 years of recent industrial lab experience utilizing techniques for DNA isolation, manipulation, separation, amplification and optical detection. Up to 20% travel may be required.

The successful candidate will directly contribute to the process of developing a variety of technical documents, product support literature, published articles, telemarketing and responding to customer requests for technical product information. Will have primary responsibility for information management projects such as direct telephone applications support of molecular biologists performing PCR related techniques and the diagnosis/solution of problems related to the optimal use of instrument systems and reagent products in the customer's lab. Prior experience in presenting technical seminars and techniques workshops to customers and sales professionals is required.

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Molecular Biology Challenges

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Sr. Scientist — Develop novel *Bacillus thuringiensis* microbial products. Requirements: PhD and 2 years research experience or MS and 8 years experience. Research experience and expertise in gene cloning, expression and vector development in gram positive bacteria.

Sr. Scientist — Investigate mechanisms of regulating gene expression in plants, particularly reproductive tissue. PhD and 2+ years postdoctoral experience in plant molecular biology required.

Postdoctoral Associates — Candidates with PhD in molecular biology or plant science: 1) study the regulation of plant gene expression, 2) cloning Bt toxin receptors from insects and analyzing interactions of Bt toxins with their receptors, 3) study regulation of inducible genes in plants.

We offer excellent salaries and benefits. Please forward a resume, three letters of professional reference and transcripts, indicating position of interest, to: Mary-Dell Chilton, CIBA-GEIGY Corporation, Agricultural Division, PO Box 12257, Research Triangle Park, NC 27709. We Are An Equal Opportunity Employer M/F/H/V.

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POSITIONS OPEN

TULANE UNIVERSITY FREEPORT-McMoRAN CHAIR IN ENVIRONMENTAL POLICY

Tulane University's Center for Bioenvironmental Research announces the establishment of the Freeport-McMoRan Chair in Environmental Policy, and invites nominations and applications. Candidates should have earned a national reputation in a major area of environmental policy, as indicated by a strong record of research and publications. Specifically, we seek the following qualities:

Ph.D. or equivalent degree required; teaching experience strongly preferred; academic qualifications commensurate with a tenured appointment as full professor; a research record demonstrating integral knowledge of scientific issues and policy development in the environmental area; familiarity with the process of setting, implementing, and evaluating environmental policies; expertise in risk management, including risk assessment, and/or in the analysis of economic, political, social, legal aspects of environmental policy.

The chairholder will be a tenured member of the Tulane University faculty with an appointment in the appropriate academic department and also a member of the Center for Bioenvironmental Research. The center consists of faculty of Tulane and Xavier Universities from a broad range of academic disciplines. The chairholder will be expected not only to pursue significant research but to foster cooperative inter-disciplinary efforts among colleagues on this subject.

Letters of application or nomination should be accompanied by curriculum vitae and the names and addresses of three references. *Tulane University is an Equal Opportunity/Affirmative Action Employer. Qualified women and minority group members are strongly encouraged to apply.*

Applications will be accepted until the position is filled. Interested scholars are encouraged to submit their materials as quickly as possible. All correspondence should be directed to:

Professor James Wright
Chair of Search Committee
Freeport McMoRan Chair in
Environmental Policy
Department of Sociology
220 Newcomb Hall
Tulane University
New Orleans, LA 70118

EXECUTIVE DIRECTOR

The Platte River Whooping Crane Maintenance Trust is an endowed nonprofit corporation organized to preserve the ecological diversity of the Platte River for migratory birds.

The Executive Director manages the trust's programs in a broad range of scientific, economic, and agricultural arenas. The director is responsible for supervising professional and field staff, planning and budgeting, managing natural areas and agricultural lands, participating in interagency water management planning, overseeing water rights litigation, negotiating land purchases and easements, and promoting wise stewardship of the Platte River.

Requirements: (1) advanced degree in biology, ecology, or aquatic/riparian resources management (administrative experience also considered), (2) minimum of 5 years of professional experience, (3) excellent oral and written communication skills, (4) proven ability to interact with diverse groups, including farmers, university scientists, news media, the public, other conservation groups, and state and federal agencies, (5) experience working with competing interests on multidisciplinary environmental conflicts, and (6) strong commitment to protecting land/water resources and biological conservation.

Starting salary: \$50,000 to \$57,000 commensurate with experience. Comprehensive benefits. Closing date 1 January 1992. Send cover letter, résumé, and names, addresses, and telephone numbers of three references to:

Platte River Whooping Crane Maintenance Trust
2550 North Diers Avenue, Suite H
Grand Island, NE 68803

Telephone: 308-384-4633; FAX: 308-384-4634

POSITIONS OPEN

ROCKEFELLER UNIVERSITY DIRECTOR COMPUTING, TELECOMMUNICATIONS AND INFORMATION SERVICES

The Rockefeller University is a research and graduate university located in New York City. The 700 faculty in the university's laboratories are actively engaged in basic research in a wide range of biological and physical sciences.

The university has begun a major restructuring of its computing, telecommunications and information services and is seeking a chief information services officer to lead this effort. With a focus on meeting the computational research and information support needs of faculty, the university will mobilize resources to reinforce and expand its investment in information and computational technology. The director will lead in further development of a service organization and staff that is technically expert and oriented to help solve research and information management challenges using state of the art applications of information technology.

Candidates should demonstrate experience and competence both in the leadership of staff, and in the application of information technology in the conduct of research and administration in an academic or comparable setting.

Knowledge of current and evolving telecommunications systems and computer technologies including mainframe, minicomputers and desktop systems is essential. We also require strong interpersonal skills in reaching out and relating to research scientists and staff and in seeking to understand and use information technology effectively.

An advanced degree in computer science, or a related discipline, and experience managing Unix, Macintosh, or PC applications is preferred.

The salary range for this position is competitive and commensurate with experience. *The Rockefeller University is an Equal Opportunity, Affirmative Action Employer.*

Résumés should be submitted not later than 29 November 1991, but preferred by 27 November 1991 to:

Mr. Frederick M. Bohen
Executive Vice President
The Rockefeller University
1230 York Avenue, Box 257
New York, NY 10021

DEPARTMENT MANAGER—VIROLOGY

Responsibilities: Direct, supervise, manage and staff an effective scientific department to ensure the timely and productive response to the research, development and/or scale-up needs of the company; manage and coordinate the selection of appropriate methods, techniques and criteria for obtaining desired results; conduct and collaborate with others on research relevant for long-term objectives and concerns; write and edit financial papers, patent applications, research and development proposals, assay procedures, S.O.P.'s, protocols and summarize present data at internal and external scientific meetings; identify, analyze and interpret scientific meetings; identify, analyze and interpret research data and report results; write original proposals for research programs as necessary; read and abstract pertinent scientific articles; supervise the maintenance of accurate and reliable laboratory notebooks relevant to appropriate research projects and develop departmental budget and monitor expenditures.

Requirements: Ph.D. in biochemistry, microbiology or molecular biology plus 7 years' experience as department manager, virology, or 7 years' research scientist in virology. Experience to include: 3 years' experience in managing a research team; research specialization in rotavirus enteric infections and in the development of relevant animal models to study viral pathogenesis; research experience in process development for viral vaccine; and at least five published articles as primary author in peer-reviewed recognized scientific journals.

Salary: \$58,000 per year. Send résumé to: Pamela S. Shaughnessy, State of New York Department of Labor, 140 West Main Street, Rochester, NY 14614. Job Order Number NY0500735.

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FAX NUMBER: 202-682-0816

POSITIONS OPEN

LABORATORY DIRECTOR ENVIRONMENTAL MONITORING SYSTEMS LABORATORY OFFICE OF MODELING, MONITORING SYSTEMS AND QUALITY ASSURANCE LAS VEGAS, NEVADA

ES 401/1301

\$87,000 TO \$95,300

The U.S. Environmental Protection Agency (EPA) is seeking highly qualified candidates for the position of Laboratory Director, Environmental Monitoring Systems Laboratory, Las Vegas, Nevada (EMSL-LV), Office of Modeling, Monitoring Systems and Quality Assurance (OMMSQA). The EMSL-LV is a component of the Office of Research and Development (ORD) and is responsible for research and development supporting a major segment of the Agency's programs relating to human and ecosystem exposure to environmental pollutants. The Laboratory conducts research and development in the areas of analytical chemistry, immunochemistry, field monitoring methods and design, ecological status and trends, terrestrial ecology, integrated human exposure assessment, human biomarkers of exposure, remote sensing, geohydrology, and environmental radiation assessment.

Applicants for this Senior Executive Service (SES) position must have a bachelor's or higher degree in the biological or physical sciences, or a field relating to the work of the laboratory, and professional experience demonstrating leadership and technical competence in one of those fields. Applicants must also meet the technical and executive qualifications described in the vacancy announcement. For a copy of the vacancy announcement, call or write:

Chaunta Gladney
Environmental Protection Agency
Executive Resources and
Special Programs Division
Room M3910 (Mail Code: PM-224)
401 M Street, S.W. (Waterside Mall)
Washington, DC 20460
Telephone: 202-260-3328

Applications must be postmarked by 1 December 1991. *EPA is an Equal Opportunity Employer.*

DEPUTY HEAD OF BIOLOGICALS

Experienced candidates (M.S., Ph.D. or equivalent) with demonstrated practical expertise in immunology and cell biology are invited to apply for the position as deputy head of our biologicals. Department located in Gaithersburg, Maryland. Sound experience of all aspects of monoclonal antibodies, immunoassay systems and serology are required and some experience in virology is desirable. This position offers a good starting salary and excellent prospects for promotion. Please send letter of application, curriculum vitae and the names and addresses of three referees to: **Box 12, SCIENCE Classified Advertising, 1333 H Street, NW, Room 940, Washington, DC 20005.**

FACULTY POSITIONS IN PATHOLOGY

The Department of Pathology and Laboratory Medicine, Texas A&M University College of Medicine, invites applications for tenure-track positions from individuals with teaching and research interests. A background in pathology, with Board certification, is sought in addition to the M.D. degree. The department engages in only a limited amount of pathology service work. The location of the department on a main university campus provides close interaction with other disciplines. The present experimental interests include endothelial cell function, oncogenes, membrane receptors, and mechanisms of metastasis. We are seeking applicants who can build an independent research program and contribute to our pathology teaching directed toward medical students and graduate students. Some financial support is available for young investigators to establish a research program. Individuals may send their curriculum vitae, any recent reprints, and a brief description of their research interests to:

Dr. Julius A. Gordon
Head, Department of Pathology
and Laboratory Medicine
Room 208, Reynolds Medical Building
Texas A&M University College of Medicine
College Station, TX 77843-1114

GRADUATE PROGRAM CELL AND MOLECULAR BIOLOGY (MULTI-DEPARTMENTAL)

- GENE EXPRESSION AND REGULATION
- DEVELOPMENTAL BIOLOGY AND GENETICS
- SIGNAL TRANSDUCTION AND MEMBRANE BIOLOGY
- STRUCTURAL AND COMPUTATIONAL BIOLOGY
- MOLECULAR VIROLOGY, IMMUNOLOGY AND AIDS
- CELL CYCLE, GROWTH CONTROL AND CANCER BIOLOGY
- LIPID METABOLISM AND CARDIOVASCULAR BIOLOGY
- THE HUMAN GENOME AND GENE THERAPY

The Graduate school at BAYLOR COLLEGE OF MEDICINE has created a graduate program in CELL AND MOLECULAR BIOLOGY stressing basic research in the above areas. Students accepted for studies leading to the Ph.D. will receive financial support. For further information please contact Dr. Savio L.C. Woo, Director at the following address:

**Graduate Program in Cell and Molecular Biology
Baylor College of Medicine
The Graduate School
One Baylor Plaza, Room S101
Houston, Texas 77030**

Phone: (713) 798-6557

JOB DESCRIPTION GERMPLASM SPECIALIST TROPICAL FORAGES PROGRAM

The Centro Internacional de Agricultura Tropical (CIAT) is one of 13 International Agricultural Research centers operating under the umbrella of the Consultative Group on International Agricultural Research (CGIAR). CIAT's mission is, in coordination with national agricultural research systems, to generate sustainable food production technologies that allow for equitable growth of the agricultural sector in tropical developing countries, which are compatible with the enhancement of the natural resource base. One of its research programs deals with tropical forages. The Tropical Forages Program develops germplasm for the acid, infertile soils of the lowland and mid-altitude tropics. The Germplasm Specialist would form part of an interdisciplinary group headquartered at Cali, Colombia.

The Germplasm Specialist will be primarily responsible for the acquisition and characterization of selected tropical forage germplasm, including herbaceous and woody legumes, through exchange and collection. He/she will conduct agronomic evaluation at screening sites in Colombia, and will develop and refine evaluation methodologies for multipurpose woody forage species. Research will require close collaboration with the Program's Pathologist, Entomologist, Agronomist, breeder, and other scientists.

The candidate should have a Ph.D. or equivalent in Botany, Forage Agronomy, Plant Geography or related discipline; experience in collection and evaluation of forage species; fluency in English; competence in Spanish or Portuguese advantageous. Extensive travel will be required.

CIAT is an equal-opportunity employer. Remuneration and conditions are competitive with those offered by similar international organizations.

Closing date for applications is 31 December 1991. Please submit curriculum vitae including names and addresses of three referees to: Dr. Filemón Torres, Deputy Director General, CIAT, Apartado Aéreo 6713, Cali, Colombia.



Cancer Research Campaign

CHRISTIE CRC RESEARCH CENTRE PATERSON INSTITUTE FOR CANCER RESEARCH SENIOR MOLECULAR GENETICIST

Applications are invited from experienced postdoctoral scientists to take up a senior Cancer Research Campaign post in the field of cancer genetics. The successful applicant would work with, and possibly lead, an existing team studying breast and ovarian cancer, but would also be able to develop an independent, but related programme. It is anticipated that the successful applicant will already have a substantial reputation in this or a related field. There already exist excellent links with physicians and surgeons as well as epidemiologists and the Regional Genetics Service. The post could be non-time limited for a suitable applicant. The salary will depend upon age and experience but will be in the range £26,176 to £38,751 including a non-superannuable CRC enhancement equivalent to two increments on the salary scale (subject to annual review). Applications giving a full CV and outline of research interests and the names of three academic referees should be sent to Professor D G Harnden, Department of Cancer Genetics, Paterson Institute for Cancer Research, Christie Hospital, Manchester M20 9BX by 13 December 1991.

Fighting cancer on all fronts.

Postdoctoral Scientist

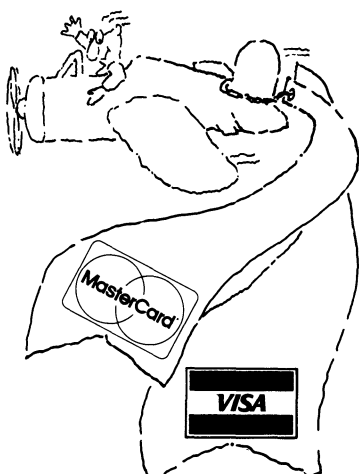
Genentech, a leader in the biotechnology industry, has an immediate opportunity available for a Postdoctoral Scientist in our Cardiovascular Research department.

Concentrating on the area of fibrinolysis, the position specifically involves the study of a recently identified novel plasma carboxypeptidase B that binds plasminogen and may potentially regulate fibrinolysis.

This position requires a PhD in a related field. Experience in protein chemistry and cell or molecular biology is desirable.

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POSITIONS OPEN

FACULTY POSITION IN RETROVIROLOGY AND DIRECTOR CENTER FOR RETROVIRUS RESEARCH THE OHIO STATE UNIVERSITY

The Department of Veterinary Pathobiology invites applications for a tenure-track position as a faculty person and Director of the newly created University Center for Retrovirus Research. The center is supported in part by royalties from Leukocell® (feline leukemia vaccine) and consists of faculty persons plus graduate and postdoctoral students interested in the role of retroviruses in the pathogenesis of human and animal diseases. The applicant should have a Ph.D. degree or equivalent with an established record of research experience in retrovirology or related fields, proven ability to obtain extramural research funds, and a strong commitment to graduate education. Maintenance of an independent, established research program with extramural support and development of collaborative research efforts with faculty and graduate students on animal and/or human health-related retroviral disease problems are essential. Applications should include curriculum vitae, statement of career goals, summary of current research activities, and names of at least four individuals from whom letters of reference may be solicited. Academic rank and salary are negotiable. The deadline for receipt of applications is January 1992 or until the position is filled. Address all correspondence to: **Dr. Charles C. Capen, Professor and Chairman, Department of Veterinary Pathobiology, The Ohio State University, 1925 Coffey Road, Columbus, OH 43210.** *The Ohio State University is one of the designated NIAID AIDS Clinical Trials Unit and an Equal Opportunity/Affirmative Action Employer.*

BOARD-CERTIFIED CARDIOLOGIST for full-time faculty position. Academic rank based on qualifications. Excellent record in research in molecular and/or cell biology required. Majority of time dedicated to research. Position to remain open until filled. *The University of Washington is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.* Contact: **Alan Chait, M.D., Chair, Search Committee, University of Washington School of Medicine, RG-26, Seattle, WA 98195.**

FACULTY POSITION DEPARTMENT OF PLANETARY SCIENCES LUNAR AND PLANETARY LABORATORY THE UNIVERSITY OF ARIZONA BASIC SOLAR SYSTEM RESEARCH ASSOCIATED WITH EXTRATERRESTRIAL RESOURCE DEVELOPMENT

The University of Arizona's Department of Planetary Sciences/Lunar and Planetary Laboratory expects to fill a regular tenure-track faculty position in the area of solar system basic research with relevance to the eventual development and utilization of extraterrestrial resources. This position will be filled as part of a University effort in support of a NASA Space Engineering Research Center. The center is devoted to developing technologies to enable future large-scale space activities through use of the material and energy resources of near-Earth space.

The successful candidate will be expected to carry out research in basic planetary sciences and, at least partly, in areas supportive of the space development program. In addition to establishing and maintaining a distinguished research program, the appointed person will teach at the graduate and undergraduate levels, supervise graduate students, and participate in the general scholarly activities of the Department and University. Rank and salary are dependent on qualifications and seniority. To be considered for appointment at a senior level, an applicant will have demonstrated a sustained record of internationally distinguished scientific accomplishment and leadership, as well as a high level of teaching ability. To be considered for appointment at a junior level, a candidate must show clear promise of such achievement.

Inquiries and applications, including a résumé and bibliography, as well as the names and addresses of at least four references, should be sent before 15 February 1992 to:

**Professor Eugene H. Levy, Director
Lunar and Planetary Laboratory
The University of Arizona
Tucson, AZ 85721
Telephone: 602-621-6962**

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

POSITIONS OPEN

The University of Alabama at Birmingham, *An Equal Opportunity/Affirmative Action Employer*, invites applications for **FACULTY APPOINTMENTS** in the Department of Pathology. An applicant should have an M.D., M.D.-Ph.D., or Ph.D. degree in one of the basic sciences such as biochemistry, cell biology, etc., and desire to focus his/her efforts on graduate education and research. Applicants will be considered who either have an existing independently funded research program or have a plan to develop such a program.

Academic rank and tenure are dependent upon the qualifications of the applicant.

Current curriculum vitae of interested persons should be forwarded to: **Jay M. McDonald, M.D., Professor and Chairman, Department of Pathology, The University of Alabama at Birmingham, University Station, Birmingham, AL 35294.**

SIGNAL TRANSDUCTION UNIVERSITY OF PITTSBURGH

Applications are invited to fill a new tenure-track position available 1 July 1992. The appointee will be expected to develop and maintain a funded research program focusing on a biochemical analysis of signal transduction mechanisms and their relevance to neuronal function. Applicants should have a Ph.D. or M.D. degree and postdoctoral experience. Resources are available to provide salary, space, seed money, and faculty rank appropriate to the individual's experience. Applicants should send curriculum vitae, a one-page statement of research goals, and three representative publications to:

**Michael J. Zigmond
Department of Behavioral Neuroscience
University of Pittsburgh
Pittsburgh, PA 15260**

Three letters of recommendation also should be sent to Dr. Zigmond. All materials must be received by 1 February 1992. *The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.*

MOLECULAR AND CELLULAR BIOLOGIST. Tenure-track **FACULTY POSITION** available in Department of Medicine. Candidate should possess M.D. or Ph.D. and have demonstrated expertise in running independent research program involving liver. Interest in lipid metabolism, membrane transport or hepatotoxicity is highly desirable. Individual will be part of a multidisciplinary NIH-supported Liver Center located in recently opened research building. Rank and salary commensurate with qualifications and experience. Submit curriculum vitae and letter of interest to: **Dr. Francis R. Simon, Department of Medicine, B-158, University of Colorado Health Sciences Center, 4200 East 9th Avenue, Denver, CO 80262. Telephone: 303-270-8566.**

INTERDISCIPLINARY GRADUATE PROGRAMS IN BIOBEHAVIORAL ASPECTS OF CHRONIC DISEASE

The Department of Health Studies, University of Waterloo, Ontario, Canada, offers M.Sc. and Ph.D. degrees with research emphases on: disease risk factors, psychoneuroimmunology, behavioral teratology, stress biology, preventive nutrition, behavioral oncology. The department offers both laboratory and community-based research opportunities. For information contact: **Graduate Officer, Department of Health Studies, Faculty of Applied Health Sciences, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1. FAX: 519-746-6776; telephone: 519-885-1211.**

POSTDOCTORAL POSITIONS IN GASTRO-INTESTINAL CANCER RESEARCH at Memorial Sloan-Kettering Cancer Center, 2 to 3 years NIH funded positions are available immediately to study either the role of TGFβ1 and FGFs in colon cancer differentiation and tumor progression with Eileen Friedman, Ph.D. or the genetic alterations in the initiation, progression, and metastasis of colorectal carcinoma with Suresh C. Jhanwar, Ph.D. Applicant must have a recent doctorate or medical degree with training in either biochemistry or molecular genetics and be either a U.S. citizen or a permanent resident. Successful candidate would have excellent academic environment and opportunity for interaction with various clinical and basic departments at the center. Please send curriculum vitae and names and telephone numbers of three references to: **Ms. Rae Ann McMahon, GI Service, Memorial Hospital, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, Box 234, New York, NY 10021.**

POSITIONS OPEN

POSTDOCTORAL POSITION

Three-year position available March 1992 to investigate the role of p53 tumor suppressor gene and other oncogenes in tumorigenesis. Applicants should have experience in molecular biology techniques. Previous experience in oncogene research desired.

Send curriculum vitae and the names of three references by 31 December 1991 to: **Dr. E. P. Diamandis, Department of Clinical Biochemistry, Toronto Western Hospital, 399 Bathurst Street, Toronto, Ontario M5T 2S8 Canada.**

POSTDOCTORAL POSITION

A postdoctoral position is available in the Department of Pathology, Emory University School of Medicine, to study malaria parasites. Ongoing studies will include the characterization of antigens of human and non-human malaria parasites using animal models and in vitro cultivation. Experience in protein purification techniques is essential. The annual salary for this position is \$26,000. Please send curriculum vitae plus names of three references to: **Dr. Pascal Millet, Malaria Branch F12, Centers for Disease Control, Atlanta, GA 30333; telephone: 404-488-4169. Emory University is an Equal Opportunity/Affirmative Action Employer.**

RNA PROCESSING POSTDOCTORAL POSITION

A funded position will be open in early 1992 for a postdoctoral fellow to join a program addressing interactions between spliceosome proteins and small nuclear RNPs. Previous experience with mRNA splicing and protein purification desirable. Send curriculum vitae and the names of at least two references to:

**Dr. Thoru Pederson
Cell Biology Group
c/o Personnel Office**

**Worcester Foundation for Experimental Biology
222 Maple Avenue
Shrewsbury, MA 01545**

Affirmative Action/Equal Opportunity Employer, M/F/H.

POSTDOCTORAL POSITION IN TROPICAL ECOLOGY/FORESTRY. The Center for Tropical Forest Science will hire a research associate to develop models of tropical tree populations. The 3-year position will be based at Harvard University with 2 to 4 months per year spent in Panama and Asia. Relevant experience includes modeling studies of animal or plant populations and interest in tropical forest biology and management. By 21 December 1991, send a description of research experience and curriculum vitae via U.S. mail to: **R. Condit, Smithsonian Tropical Research Institute, Unit 0948, APO AA 34002-0948, with a copy to: P. S. Ashton, Harvard University for International Development, 1 Eliot Street, Cambridge, MA 02138.**

POSTDOCTORAL POSITION, MECHANISTIC ENZYMOLOGY. Biochemist or bio-organic chemist to work on the biosynthesis and hydrolysis of folate "conjugates"; i.e., folylpoly- γ -glutamates. This research will involve the use of steady-state kinetics, pulse-chase techniques, and spectroscopy to study the mechanism of these enzyme-catalyzed reactions. For prior work, see [*Biochemistry* 27, 9062 (1988); *J. Biol. Chem.* 265, 14073 (1990); *J. Med. Chem.* 33, 1022 (1990)]. Salary negotiable. Send curriculum vitae together with a statement of research interests and experience to: **Professor James K. Coward, Department of Chemistry, The University of Michigan, Ann Arbor, MI 48109-1055. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS available at Children's Hospital/Harvard Medical School to study adherence, endocytosis and transepithelial transport of microorganisms and recombinant antigens in specialized intestinal epithelial cells, and cell/molecular basis of immune protection of epithelial surfaces. Well-equipped new laboratory, excellent environment. Experience in cell culture, monoclonal Abs, immunoassays, immunocytochemistry, protein analysis, cDNA cloning and expression preferred. Ph.D., M.D., or D.V.M. Funded positions, available now. Send curriculum vitae, cover letter, and names/telephone numbers of three references to: **Marian R. Neutra, Ph.D., Director, GI Cell Biology Laboratory, Enders 461, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. Telephone: 617-735-6229; FAX: 617-730-0404.**

The recent opening of the new Glaxo Inc. Girolami Research Institute, located in Research Triangle Park, NC, represents Glaxo's monumental commitment in the pharmaceutical industry to the discovery of drugs for unmet patient needs. Scientists engaged in Glaxo's expanding research and development programs at the Center have a premier facility in which to work. The following opportunity is now available.

MOLECULAR BIOLOGIST

Cancer Gene Targets Group

We seek a Molecular Biologist with experience in cell biology for our Cancer Gene Targets Group. Emphasis is on an interdisciplinary approach to the regulation of cancer gene expression, both at the DNA and RNA level. This individual will work independently within the group to establish novel molecular and cell biological approaches to understand how chemically-modified oligonucleotides regulate gene expression.

Qualifications must include Ph.D. or M.D. plus a minimum of 2 years relevant post-doctoral experience. Prior experience in the areas of cell microinjection and mammalian cell transcriptional control would be preferred, but strong candidates in the area of developmental biology or molecular genetics are invited to apply.

Join Glaxo and enjoy an excellent salary, flexible benefits, an on-site recreation and fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction. Equally appealing is our world famous scientific, industrial and academic community in Research Triangle Park, NC. Send your resume, including salary history, to: **Job #JB/SM, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709. (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/H/V.**

Glaxo Inc.

Harvard Medical School—McLean Hospital Alcohol and Drug Abuse Research Center

Applicants are invited to apply for post-doctoral research training (National Research Service Awards) at the Alcohol and Drug Abuse Research Center on the grounds of McLean and at the Harvard Medical School.

The Alcohol and Drug Abuse Research Center is a multidisciplinary research program which includes basic, clinical and treatment research. Trainees may participate in research on the behavioral pharmacology of substance abuse; the neuroendocrine consequences of cocaine and alcohol abuse; the effects of drug abuse on the brain as assessed by brain imaging techniques (MRI, MRS, SPECT and EEG); the evaluation of the safety and effectiveness of new pharmacotherapies for the treatment of drug abuse. The clinical research programs emphasize analysis of the antecedents and consequences of drug abuse by women. McLean Hospital is an affiliate of the Harvard Medical School and the Massachusetts General Hospital and is located in Belmont, MA, a suburb of Boston. Salary is commensurate with experience (PGY 1 to PGY 7).

Please send a curriculum vita, reprints of some recent papers, a brief statement about research interests and goals, and the names of three references (including complete addresses and telephone numbers) to: **Dr. Jack H. Mendelson, Professor of Psychiatry (Neuroscience) or Dr. Nancy K. Mello, Professor of Psychology (Neuroscience), Co-Directors, Alcohol and Drug Abuse Research Center, McLean Hospital, 115 Mill Street, Belmont, MA 02178. McLean Hospital is an equal opportunity/affirmative action employer.**



McLean Hospital

POSITIONS OPEN

ECOLOGY POSTDOCTORAL POSITION. Modeling potential ecological impacts of zebra mussels. Specific approaches may include trophic interactions, recruitment and dispersal. Computer modeling experience preferred. Freshwater, marine and terrestrial ecologists invited to apply. Funding for 2 years. Start as soon as 1 January 1992; application review begins 1 December 1991. Send curriculum vitae and three letters of reference to: **Dr. Dianna Padilla, Department of Zoology, University of Wisconsin, Madison, WI 53706, or PADILLA@wiscmac.bitnet.** An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY. Full-time position available immediately to study the regulation and role of the fatty acid cytochrome P450 gene family in carcinogenesis, signal transduction, and human diseases. Experience in molecular biology necessary. Competitive salary and fringe benefits. Submit curriculum vitae, letters of recommendation and research papers to: **Office of Human Resources, c/o Dr. James P. Hardwick, Northeastern Ohio Universities College of Medicine, P.O. Box 95, Rootstown, OH 44272.** An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS IN VASCULAR BIOLOGY

Multidisciplinary training in anti-oxidant mechanisms, cell-cell interactions, endothelial barrier, endothelial-derived mediators, vascular injury, and adhesion molecules. Contact: **A. B. Malik, Ph.D. (A-66), The Albany Medical College, 47 New Scotland Avenue, Albany, NY 12208.**

POSTDOCTORAL POSITION at Oak Ridge National Laboratory (ORNL) to conduct research on the biocatalytic design of enzymes (cellulases) using chemical modification. Degree in biochemistry/chemistry/biochemical engineering is required with experience and/or interest in protein biochemistry. For position information: **Jonathan Woodward, ORNL, Oak Ridge, TN 37831-2008; telephone: 615-574-6826.** 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.**

ATTENTION Science ADVERTISERS \$40 SPECIAL

Place your classified ad in any January 1992 or February 1992 issue of *SCIENCE* and we'll give you double exposure. We'll display the same position announcement at the **Employment Exchange** during the **AAAS Annual Meeting** for only \$40 more. That's less than the cost of one additional line.

Hurry—place your ads now! The **Employment Exchange** will take place at the **AAAS Annual Meeting**, 7 to 10 February 1992, at the Hyatt Regency Hotel in Chicago, Illinois. Thousands of scientists in various disciplines have been invited to participate. Act fast and you can reach this unique pool of candidates.

When you place your classified ad in *SCIENCE*, simply let us know that you want to take advantage of the \$40 Special and we'll do the rest.

For more information on how you can interview candidates on-site contact **Jacquelyn Roberts** at (202) 326-6737.

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN GENE TARGETING

Individuals with M.D. or Ph.D. are sought to investigate mouse models with targeted defects in growth and differentiation control genes, and tumor suppressor genes.

Positions are renewable for up to 4 years and are available immediately. Salary, benefits, working conditions, and scientific and living environments are excellent.

Please send curriculum vitae and names, addresses and telephone numbers of three references to:

Dr. Thomas Doetschman
Department of Molecular Genetics,
Biochemistry and Microbiology
University of Cincinnati College of Medicine
Cincinnati, OH 45267-0524

POSTDOCTORAL ASSISTANT for research center in southwestern Ohio. Will formulate and carry out the specific experimental objectives designed to meet the broad research goals of the research operation; will design double experiments, interpret the data in a rigorous manner, draw the appropriate conclusions, and communicate them in an effective way both verbally and in writing; will perform research involving all the common techniques of recombinant DNA technology; will include maintaining and breeding transgenic mice; will work in an independent manner without daily supervision. Job requires Ph.D. in biochemistry/molecular biology and 3 years of experience as a research assistant. The 3 years research, gained prior, during or after degree, to have been in the area of transgenic mouse models of cardiac myosins, biochemistry of muscle development, isolation of nucleic acids and proteins which encodes Myosin Heavy Chains, cloning, sequencing, Southern and Northern hybridizations, computer sequence analysis. Forty hours per week; 8:00 a.m. to 5:00 p.m. Salary: \$27,000 per year. Must have proof of legal authority to work permanently in the United States. Send résumé in duplicate (no calls) to: **J. Davies, JO#1230805, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

POSTDOCTORAL ASSOCIATE

A postdoctoral position is open immediately to study gene expression in early *Xenopus* development. One of our main interests concerns the translational control of maternal mRNA by poly(A) elongation. See *Genes Dev.* 5, 1697 (1991), for reference. We are especially interested in individuals with expertise in molecular biology and/or protein biochemistry. Please send curriculum vitae and names of three references to: **Dr. Joel Richter, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.** An Affirmative Action/Equal Opportunity Employer, M/F/H.

CARDIAC MEMBRANE STRUCTURE AND FUNCTION NIH-funded **POSTDOCTORAL TRAINING POSITION** available 1 July 1992 for 2 or 3 years research training in cardiac physiology, pharmacology, biochemistry and biophysics at NIH stipend levels. Minimum requirements: Ph.D. or M.D. degree. *Qualified minority candidates are encouraged to apply.* For further information contact: **Arnold M. Katz, M.D., Cardiology Division, University of Connecticut Health Center, Farmington, CT 06030-1305.**

An Affirmative Action/Equal Opportunity Employer, M/W/H.

POSTDOCTORAL POSITIONS are available to study the regulation of chemo-mechanical transduction by myosin in cells and in vitro. The training experience includes opportunities for collaborative, multidisciplinary research involving experimental approaches such as mechanical measurements of contractile protein properties in vitro, optical imaging and localization or expressed native and mutant regulatory proteins in cultured cells, and biochemical measurements of intermediates in second-messenger cascades as related to mechanical endpoints in cells and tissues. Experience in protein biochemistry is desirable. Please address inquiries to: **Kristine Kamm, Ph.D., Department of Physiology, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9040; telephone: 214-688-6878; FAX: 214-688-2974.** An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITIONS now available at the University of Virginia, Charlottesville, to work on the molecular pharmacology of purinergic and adrenergic receptors. Molecular biology experience is desirable. To apply, send curriculum vitae and the names of three references to: **Dr. Joel Linden, Box 158 or Dr. Kevin Lynch, Box 449, Health Sciences Center, University of Virginia, Charlottesville, VA 22908.** Equal Opportunity Employer.

POSTDOCTORAL POSITION

Available immediately to determine drug metabolizing genotypes associated with increased lung cancer risk in ethnic population. Project will also investigate possible associated alterations in oncogenes and tumor suppressor genes. Candidates should have a Ph.D. degree and experience in molecular biology, particularly RFLP and PCR analyses, and recombinant DNA. Send curriculum vitae and three references with telephone numbers to: **Dr. Alan Lau, Molecular Oncology, Cancer Research Center of Hawaii, University of Hawaii, 1236 Lauhala Street, Honolulu, HI 96813.** Inquiries: 808-586-2959. Closing date: 31 January 1992 or until position is filled. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION IN MOLECULAR CARDIOVASCULAR PHARMACOLOGY

Available for recent Ph.D. in pharmacology, physiology or biochemistry. Project related to molecular pharmacology of purine receptors and the involvement of second messenger systems in vascular and endothelial cells. Salary NIH level. Experience in cardiovascular science preferred. Send curriculum vitae and three letters of recommendation by 1 December 1991 to: **Dr. S. Jamal Mustafa, Department of Pharmacology, East Carolina University, Greenville, NC 27858.** Federal law requires proper documentation of identity and employability at the time of employment. Affirmative Action/Equal Employment Opportunity.

MOLECULAR NEUROBIOLOGY/ GENE REGULATION

POSTDOCTORAL POSITIONS available to study the control of neuronal cell determination by helix-loop-helix (HLH) DNA-binding proteins in *Drosophila*. Experience in molecular biology, genetics, or protein biochemistry is preferred. Please send curriculum vitae and the names of three references to:

Dr. Michael Caudy
Department of Cell Biology and Anatomy
Cornell University Medical College
1300 York Avenue, New York, NY 10021
FAX: 212-746-8175

Equal Opportunity Employer.

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY. Available immediately to characterize mitochondrial transport and aminotransferase proteins at the gene level. Experience in overexpression, site-directed mutagenesis and purification of recombinant proteins for structural analysis is desired. Send curriculum vitae and names of three references to: **Dr. Susan Hutson, Department of Biochemistry, Wake Forest University Medical Center, Winston-Salem, NC 27157.** Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION to investigate effect of global environmental change on biodiversity of mammals. Experience in plant-mammal interactions, statistics, and GIS beneficial. Start 1 January 1992 for at least 1 year. Salary: \$22,000 plus benefits. Send curriculum vitae and telephone numbers of references by 29 November 1991 to: **Guy Cameron, Department of Biology, University of Houston, Houston, TX 77204; telephone: 713-749-1196.** Equal Opportunity Employer.

POSTDOCTORAL POSITION in plant pathology/plant ecology. Project involves the effect of disease on plant population dynamics in genetically diverse wheat populations. Send curriculum vitae, statement of research interests, reprints or preprints of representative publications, and three letters of reference by 31 January 1992 to: **Dr. Chris Mundt, Department of Botany and Plant Pathology, Cordley Hall 2082, Oregon State University, Corvallis, OR 97331-2902.** Telephone: 503-737-5256; FAX: 503-737-3479. Affirmative Action/Equal Opportunity Employer and responsive to dual-career couples.

SENIOR ENGINEER- BIOTECHNOLOGY

Perkin-Elmer, one of the world's leading manufacturers of scientific and analytical instrumentation, has an excellent opportunity in its Biotechnology Product Development Engineering Department for a qualified Sr. Bio-Medical Engineer.

An M.S. Degree in Engineering plus a minimum of 6 years of related Research & Development experience involving the design of precision plastic parts and associated tooling is required. The successful candidate will also be familiar with a broad range of materials, biocompatibility issues, and associated biotechnology system products. Plastics experience is required.

Responsibilities include the design and development of precision parts and consumable products for use in Biotechnology instrumentation systems.

This Fortune 500 company offers competitive salaries and outstanding benefits. Benefits include medical, life and disability insurance, education assistance, retirement, and profit sharing savings plans.

Qualified applicants are invited to send their resumes, including salary history, in confidence to: **Deirdre Miklovich, Human Resources, The Perkin-Elmer Corporation, 761 Main Avenue, Norwalk, CT 06859-0325.**

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NEW ENGLAND BIOLABS

Postdoctoral Positions

New England Biolabs, a pioneer and leader in biotechnology located twenty miles north of Boston, is seeking applicants for postdoctoral positions available immediately.

Biochemist—To investigate the domain architecture of Type IIS restriction endonucleases (e.g., FokI) with the ultimate goals of separating binding and cleavage activities and altering cleavage specificities. Experience in one or more of the following areas is desired: Vector construction and DNA sequencing, site-specific and random mutagenesis, deletion analysis, protein purification, enzyme kinetics, and DNA binding and footprinting assays.

Parasitologist/Molecular Biologist—To study the host/parasite interaction and developmental biology of the filarial diseases of man and animals with goal to develop diagnostic reagents and vaccines.

In addition to competitive salary, New England Biolabs offers a very generous fringe benefits package. Attendance at meetings, publication of research results and open communication with others are encouraged.

Candidates please submit curriculum vitae with three references to:

New England Biolabs, Inc.

Human Resources

32 Tozer Road

Beverly, MA 01915-5510

An Equal Opportunity Employer



NEW ENGLAND

Biolabs



Wayne State University

Center for Molecular Biology

ASSOCIATE AND FULL PROFESSOR - Applications and nominations are invited for three tenured/tenure-track faculty positions at the associate professor or full professor level in the Center for Molecular Biology, an interdisciplinary program in the Division of Research and Graduate Studies. Research laboratories with excellent equipment and support facilities are located in the new Biological Sciences Building on the main campus of the University in proximity to one of the largest medical centers in the United States. Substantial start-up funds are available for these positions. The Center currently has nine full-time and three half-time primary faculty and will be undergoing substantial expansion during the next few years. The successful candidates should be independent investigators with outstanding accomplishments in molecular biology and have demonstrated ability to obtain extramural research funding. Experience with promoting economic development through effective technology transfer is highly desirable. Applicants should send complete curriculum vitae, a brief description of current and future research interests (three to four pages), a bibliography and reprints of significant publications, and recommendations from at least three references to:

**Dr. Robert H. Rownd, Director
Center for Molecular Biology
Wayne State University
Biological Sciences Building
5047 Gullen Mall
Detroit, Michigan 48202**

Wayne State University is an equal opportunity/affirmative action employer and invites applications from all qualified individuals.

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GLOBAL CHANGE DISTINGUISHED POSTDOCTORAL FELLOWSHIPS

Research opportunities in technical areas related to the interdisciplinary science elements of global change: climate and hydrologic systems, biogeochemical dynamics, ecological systems and dynamics, Earth system history, human interactions, solid Earth processes, and solar influences.

- * U.S. citizens & permanent resident aliens
- * Doctoral degree within last three years
- * Tenable at various university and federal laboratories, including those of DOE & NASA
- * Stipends: \$35,000
- * Deadline: February 15, 1992

For application materials contact:

**Global Change Postdoctoral Fellowships
Science/Engineering Education Division
Oak Ridge Associated Universities
P.O. Box 117
Oak Ridge, TN 37831-0117
(615) 576-4805**

POSITIONS OPEN

POSTDOCTORAL POSITION. Available immediately to investigate the role of specific oncogenes in human breast cancer. Candidates should have experience in molecular biology techniques and an interest in the molecular basis of human disease. Send curriculum vitae and names of three references to: **Anthony M. C. Brown, Ph.D., Department of Cell Biology and Anatomy, Cornell University Medical College, 1300 York Avenue, New York, NY 10021. Telephone: 212-746-6162** for more information. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS MOLECULAR EVOLUTION

Two positions are available immediately to conduct molecular evolutionary genetics of (1) visual pigment genes in various vertebrates [*Proc. Natl. Acad. Sci. U.S.A.* 87, 9315 (1990)] or (2) ADH genes in hominid species [*Am. J. Hum. Genet.* 46, 85 (1990)]. Experience with the molecular methodology and strong interest in molecular evolution are desirable. Send curriculum vitae, three references, and a statement of research interests to: **Shozo Yokoyama, Department of Biology, Syracuse University, 130 College Place, Syracuse, NY 13244. Telephone: 315-443-9166. FAX: 315-443-2012.** *Syracuse University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION. To develop anti-HIV gene therapy. Human bone marrow cells transfected with retroviral vectors expressing anti-HIV genes will be transplanted in Severe Combined Immuno Deficient mice and blood samples will be tested for resistance to HIV infections. Highly qualified candidates should have a Ph.D. and expertise in animal models, molecular biology and HIV infections. This position is funded by the Medical Research Council of Canada and is available immediately for up to 3 years. Salary \$25,000 to \$30,000 Canadian per year. Please send curriculum vitae and names of three references to: **Dr. S. Joshi (Ph.D., D.Sc.), Director, HIV Research Laboratory, Department of Microbiology, Faculty of Medicine, University of Toronto, Toronto, Ontario, M5S 1A8, Canada.** *Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION. To study signal transduction by recombinant natriuretic peptide receptors. Ph.D. with experience in protein/receptor biochemistry or molecular biology required; tissue culture and monoclonal antibody experience also useful. Send curriculum vitae and names of three references to: **Michael Chinkers, Ph.D., The Vollum Institute for Advanced Biomedical Research, The Oregon Health Sciences University, Portland, OR 97201-3098.** *An Affirmative Action/Equal Opportunity Employer.*

DARTMOUTH MEDICAL SCHOOL POSTDOCTORAL ASSOCIATE

One, and possibly two positions available 1992 to investigate the molecular basis of apoptotic cell death [*Cancer Cells* 2, 275 (1990)], or molecular studies on DNA repair in anticancer drug resistance [*Biochemistry* 28, 3120 (1989)]. Submit curriculum vitae, a description of research interests and names of three references to: **Dr. Alan Eastman, Department of Pharmacology, Dartmouth Medical School, Hanover, NH 03755-3835.**

TWO POSTDOCTORAL POSITIONS IN THE BIOLOGICAL USE OF ATOMIC FORCE/SCANNING TUNNELING MICROSCOPY

Immediate openings for two positions (Ph.D. and/or M.D.) in well-established laboratory applying AFM/STM and nanotechnology to study the dynamic structures of biomembranes and channels, receptors, and pumps using purified membranes, reconstitution and biochemical manipulations [see *Science* 253, 1405 (1991)]. One position is for a membrane biochemist/structural biologist. Experience in reconstitution is desirable. The second position is for a biophysicist with a background in physical science, molecular modeling, and image analysis. One position on NIH training grant. Send curriculum vitae and names of three references to: **M. F. Arnsdorf, M.D. or R. Lal, Ph.D., University of Chicago, Box 423, 5841 South Maryland Avenue, Chicago, IL 60637 or FAX: 312-702-4427.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION IN CONSERVATION BIOLOGY. Available immediately for NSF-funded research, to experimentally compare management programs for captive populations using an insect model system. Experience with electrophoresis, quantitative genetics and/or statistical methods highly desirable. Send curriculum vitae and names of three references to: **Edwin H. Bryant at 713-749-3956 (FAX: 713-749-2889), Department of Biology, University of Houston, Houston, TX 77204-5513.** *Equal Opportunity Employer.*

POSTDOCTORAL ASSOCIATE

Full-time position available in a new laboratory addition to our Department of Pharmacology. Individual will participate in research involving the identification and cloning of transcription factors involved in the regulation of genes encoding enzymes that metabolize drugs and carcinogens. Ph.D. required; previous research experience in molecular biology preferred. Interested candidates please send résumé to: **A. J., c/o Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111.** *Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIP BRAIN, BEHAVIOR AND IMMUNITY CENTER UNIVERSITY OF PITTSBURGH CARNEGIE MELLON UNIVERSITY

Two-year postdoctoral training positions evaluating the interaction between the central nervous system and the immune system in both animal and human models are available for individuals with either a Ph.D. or M.D. degree. Emphasis is being placed on the mechanism of stress-induced immune alteration and the role of the immune system in producing psychotic disease. Additional information can be obtained from: **Bruce S. Rabin, M.D., Ph.D., Director, Brain, Behavior and Immunity Center, Clinical Immunopathology-CLSI, Presbyterian University Hospital, Desoto at O'Hara Street, Pittsburgh, PA 15213-2582.** *An Equal Opportunity Employer.*

POSITION AVAILABLE Director of Field Services

Project 2061, the American Association for the Advancement of Science's comprehensive, long-term initiative to transform science, mathematics, and technology education, is seeking a Director of Field Services to work with school districts in preparing for future implementation efforts.

The responsibilities will include developing an operational plan to guide Project 2061's Vanguard and Affiliates activities; coordinating the work of the Project's six implementation R&D teams during 1991-1993; managing Vanguard and Affiliate program activities in response to the operation plan; managing the collection, analysis, and synthesis of information in preparation for The Action Handbook; representing Project 2061 to external audiences as appropriate; participating with other Project 2061 staff in planning Project 2061 programs and services.

Qualifications: Master's degree (science education or related field); five to ten years related work experience (K-12 teaching, curriculum development, and/or teacher supervision in science related field; experience in state-level advisory groups or task forces); successful experience with curriculum-based reform at State and Local education levels required; excellent writing and speaking skills. Ability to deal with high level education decision-makers. **This is a full time position which will be reviewed for long term continuation after the first eighteen months of employment.**

AAAS offers a competitive salary and excellent benefits, a professional environment, and pleasant surroundings convenient to Metro. Please submit cover letter, resume & salary requirement to:

**AAAS
Gregory Stokes
Human Resources Department
1333 H St., N.W., Suite #125
Wash., D.C., 20005
EOE**

CELL AND MOLECULAR BIOLOGISTS

Department of Cell & Structural Biology, University of Illinois at Urbana-Champaign, invites applications for **ASSISTANT, ASSOCIATE, or FULL PROFESSOR**, from PhD scientists interested in establishing an outstanding research program in a young, expanding department. Potential areas of focus include membrane receptors and signaling, cell cycle control, nuclear and cytoskeletal structure/function, cellular immunology, and molecular aspects of virus/host interactions. Responsibilities also include teaching core cell biology courses. Salary will be commensurate with experience and level.

Substantial start-up funds and laboratory facilities are available, along with exceptional physical and intellectual resources of the University: Transgenic Animal Facility; Center for Electron Microscopy; Genetic Engineering Facility, providing oligonucleotide and peptide synthesis and automated protein sequencing; Cell Science Laboratory, providing hybridoma culture and flow cytometry; Molecular Graphics Facility; National Center for Supercomputing Applications; and Beckman Institute for Advanced Science and Technology, which combines research in biological and physical sciences.

Urbana-Champaign offers the residential advantages of a medium-sized city (population 120,000) plus excellent cultural amenities on campus. Its location gives easy access to Chicago and St. Louis.

Applicants should send curriculum vitae, summary of research interests, and three letters of reference to: **Dr. Douglas Lauffenburger, Faculty Search Committee Chair, Department of Cell & Structural Biology, University of Illinois, 506 Morrill Hall, Urbana, IL 61801. Telephone: (217) 333-6118.**

To ensure full consideration, applications should be received by 1 January 1992. Interviews may be conducted before this date, but all applications received by then will be given full consideration. Final selection will not be made until after this date.

■ The University of

ILLINOIS

at Urbana-Champaign

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PROTEIN CRYSTALLOGRAPHY FACULTY POSITIONS AT THE OHIO STATE UNIVERSITY

Applications are invited for tenure track faculty positions at the Assistant Professor level. Outstanding applicants at a higher level will also be considered. Demonstrated excellence and strong commitment to research and teaching are essential. Successful candidates will occupy new laboratories on the macromolecular crystallography floor of the Biotechnology Center and hold a joint appointment in the Department of Biochemistry, or other appropriate departments. The University is located in Columbus, the state capital, a growing and affordable city of about one million people that has been cited by Newsweek magazine as one of the top ten cities. Candidates should submit a curriculum vitae, a statement of research interests and three letters of recommendation to: Dr. M. Sundaralingam, The Ohio State Biotechnology Center, 1060 Carmack Rd., Columbus, OH 43210. Review of applications will begin on December 15, 1991. The Ohio State University is an equal opportunity employer which specifically invites and encourages applications from women and minorities.

Department of Cell and Molecular Pharmacology and Experimental Therapeutics

Medical University of South Carolina • Charleston, South Carolina

Predoctoral and Postdoctoral Training Opportunities

Excellent opportunities exist for pre- and postdoctoral training funded by a NIH training grant and other resources. Current faculty interests:

Ervin E. Bagwell, *Regulation of cardiac Na/Ca exchanger*
Norman H. Bell, *Pathogenesis and treatment of osteoporosis*
Glen R. Gale, *Metal pharmacology and toxicology*
Perry V. Halushka, *Cloning of thromboxane A₂ receptors*
John D. Hildebrandt, *Signal transduction by GTP-binding proteins*
Ayad A. Jaffa, *Role of kallikreins in renal disease*
David J. Jollow, *Molecular toxicology of biomolecules; rhodopsin structure*
Robert L. Kent, *Signal transduction in cardiac cell growth*
Daniel R. Knapp, *Mass spectrometry of biomolecules; rhodopsin structure*
David T. Kurtz, *Hormonal and tissue-specific control of gene expression*
Stephen M. Lanier, *Plasticity of signal transduction*
George E. Lindenmayer, *Gene for cardiac Na/Ca exchanger*

Harry S. Margolius, *Tissue kallikreins, kinins and hypertension*
Kathryn E. Meier, *Phosphorylation cascades in signal transduction*
Donald H. Miller, *Kallikreins and kinins in ion transport phenomena*
Thomas A. Morinelli, *Regulation of thromboxane A₂ receptors*
Walter H. Newman, *The vascular endothelium in heart disease*
John E. Oatis, Jr., *Synthesis of prostaglandin and retinal analogs*
Philip J. Privitera, *Neurobiology of blood pressure control mechanisms*
Steven A. Rosenzweig, *Receptor structure and signaling mechanisms*
Kevin L. Schey, *Development and application of mass spectrometry*
Thomas Walle, *Drug metabolism and pharmacokinetics*
Jerry G. Webb, *Cellular mechanisms of arterial pressure control*

Excellent facilities and nationally competitive stipends available immediately. Postdoctoral applicants should contact investigators directly. Applicants for graduate studies should contact Dr. George E. Lindenmayer, Department of Cell and Molecular Pharmacology and Experimental Therapeutics, MUSC, 171 Ashley Ave. Charleston, SC 29425.

The MUSC is an Equal Opportunity/Affirmative Action Employer

DEPARTMENT HEAD BIOCHEMISTRY University of Georgia

Nominations and applications are invited for the position of Head of the Department of Biochemistry within the Division of Biological Sciences at the University of Georgia. The Department currently has 30 full-time faculty engaged in a variety of research activities, with annual sponsored research exceeding \$7M, and strong undergraduate and graduate programs. Recently, the Departments of Biochemistry and Genetics moved into a new 188,000 sq. ft. Life Sciences Building fully equipped for training and research in modern biochemistry.

Candidates should be established investigators with well-funded, active research programs. They should have outstanding records of scholarly contributions, teaching and professional activities. Candidates should also have an appreciation for the demands of administering a complex department. The new Head is expected to develop new programs associated with current and future vacancies and to promote the national and international stature of the Department. Applications received by February 15, 1992, are assured of consideration. Like all positions at the University of Georgia, this position is subject to approval by the Board of Regents of the University System and to budgetary considerations.

Applications with curriculum vitae, a statement of research interests and four letters of recommendation should be sent to:

Dr. Wyatt Anderson
Chair of Search Committee
c/o Department of Biochemistry
University of Georgia
Athens, Georgia 30602

The University of Georgia is an Equal Opportunity/Affirmative Action Employer

PHYSICAL OCEANOGRAPHER

Department of Physical Oceanography seeks applicants for appointment to Assistant, Associate or Senior Scientist level depending upon background, experience and tenure suitability. Ph.D. in physical oceanography or related field, postdoctoral experience and demonstrated expertise in oceanography preferred. Experience in acquisition and analysis of observations or in development of dynamical models of ocean processes desired.

Send curriculum vitae, short statement of research interest and publication list by February 1, 1992.

Dr. James Luyten
Chairman, Department of
Physical Oceanography
Box 54PI



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R&D Group Leader

Lead developmental efforts from product concept through market release. Current positions are open in our Controls division and in chromatography based diagnostic systems. You must have a PhD in Analytical Chemistry, Life Sciences or equivalent and previous experience developing diagnostic methods or controls.

Take the lead and join us by sending your resume and salary history to: Bio-Rad Laboratories, Attn: Bob Hall, Dept. #D512, 1000 Alfred Nobel Drive, Hercules, CA 94547. An Equal Opportunity Employer M/F/H/V.

BIO-RAD Bio-Rad Laboratories

POSITIONS OPEN

POSTDOCTORAL FELLOW. Mallinckrodt Medical, Inc., a leading company in the health care industry, has a 1-year appointment with renewal opportunities for a 2nd and 3rd year, for a biochemist to be involved in the development of radiolabeled peptides and proteins with applications for nuclear medicine.

This position will provide an ideal opportunity for the candidate to gain experience and training in both radio-pharmaceutical development in an industrial setting and in the use of pharmacological structure activity relationships of biologically active new molecules.

The successful candidate will have experience in preparation and purification of peptides and proteins, in their characterization by electrophoresis, mass spectrometry and chromatography, including the use of high-performance capillary electrophoresis.

Excellent salary, benefits programs and relocation package accompany this position at our modern research facilities on a large campus in suburban St. Louis, Missouri. For consideration, please send curriculum vitae, three letters of recommendation and transcripts to: **Dr. J. L. Vanderheyden, Mallinckrodt Medical, Inc., P.O. Box 5840, 675 McDonnell Boulevard, St. Louis, MO 63134. Equal Opportunity Employer, M/F/H/V.**

FELLOWSHIPS IN TROPICAL BIOLOGY SMITHSONIAN TROPICAL RESEARCH INSTITUTE

Predoctoral, postdoctoral, senior postdoctoral, and 10-week graduate student fellowships are available to conduct research at the Smithsonian Tropical Research Institute (STRI) in the Republic of Panama. With a scientific staff of thirty, STRI is an international center for advanced study in tropical biology (ecology, paleoecology, evolution, behavioral ecology, plant physiology and molecular evolution) and archaeology. STRI provides logistical support for visitors at its facilities: housing and laboratories on Barro Colorado Island and near Soberania National Park (tropical moist forest); at Fortuna in western Panama (montane forest); at marine stations on the Atlantic and Pacific coasts; and a research library and laboratory complex in Panama City. For applications contact:

Office of Fellowships and Grants
Smithsonian Institution, Drawer TB
L'Enfant Plaza, Suite 7300
Washington, DC 20560
Telephone: 202-287-3271
Deadline: 15 January annually

Awards are based upon merit, without regard to race, color, religion, sex, national origin, age or condition of handicap of the applicant.

THE ANALYSIS OF BIOLOGICAL DIVERSIFICATION UNIVERSITY OF ARIZONA

A coalition of faculty members from the Departments of Ecology and Evolutionary Biology, Molecular and Cellular Biology, and Geosciences have established a Research Training Group in The Analysis of Biological Diversification, with funding from the National Science Foundation. Postdoctoral and graduate fellowships are available to pursue innovative research projects that integrate disparate approaches to diversification, including molecular biology, systematics, ecology, paleobiology, developmental biology, and population genetics. Our goal is to encourage students with training in any of these areas to cross the boundaries of traditional disciplines, and in particular to use phylogeny in understanding patterns of diversity and evolutionary processes.

For further information and application procedures, contact: **Michael J. Donoghue, Evolution and Diversity Program, Department of Ecology and Evolutionary Biology, University of Arizona, Tucson, AZ 85721.** Applicants for graduate fellowships should specify their preferred home department. For full consideration applications should be received by 1 February 1992 for positions available as of 1 July 1992, but later applications will be considered until positions are filled. *The University of Arizona is an Equal Opportunity/Affirmative Action Employer.*

NEUROIMMUNOLOGY. Fellowship focused on the immunology of interferons and their activities in multiple sclerosis. University of Maryland School of Medicine, Baltimore. Requires Ph.D. or M.D. with laboratory research experience. Send curriculum vitae to: **Kenneth Johnson, M.D., Chairman, Department of Neurology, UMH, N4W46, 22 South Greene Street, Baltimore, MD 21201.**

POSITIONS OPEN

POSTDOCTORAL FELLOW

A position is immediately available for a Ph.D. or M.D. to study hormonal regulation of neuronal function at the molecular level. Experience in molecular and/or cell biology is required. This is an NIH-funded position for up to 2 years. *U.S. citizenship required.* Please send curriculum vitae and names of three references to:

Jack L. Leonard, Ph.D.
Department of Physiology
University of Massachusetts Medical Center
55 Lake Avenue North
Worcester, MA 01655

POSTDOCTORAL FELLOW RESEARCH ASSOCIATE

To examine the regulation of growth and differentiation of hematopoietic cells. Studies will focus on the stimulation of c-Jun proto-oncogene activity by PKC activators and hematopoietic growth factors. Experience in protein chemistry and/or molecular biology is required. **Dr. A. Kraft, Division of Hematology/Oncology, University of Alabama at Birmingham, 513 THT, 1900 University Boulevard, Birmingham AL 35294.**

POSTDOCTORAL FELLOWSHIPS. The Monterey Bay Aquarium Research Institute (MBARI) invites applications in the fields of biological, chemical and physical oceanography, and in ocean engineering with particular emphasis on the integration of enabling technologies into oceanographic research. Send curriculum vitae; names and addresses of at least three references; undergraduate and graduate transcripts; a succinct description of doctoral research; and a concise statement of research interests, including the nature of the research project to be pursued at MBARI. Apply by 15 January 1992 to: **PF, MBARI, 160 Central Avenue, Pacific Grove, CA 93950. Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH OPPORTUNITIES IN INDIA. Research fellowships in India will be awarded through U.S. Agency for International Development program to U.S. citizens under 40 in 1992. Priority areas of research include: atmospheric/environmental sciences, biology, biotechnology, chemistry, computer software, electronics, forestry, geology, marine science, materials science, microelectronics, oceanography, physics, solid state electronics, water resources, and other appropriate fields. For application and proposal guidelines, contact: **Jeanine M. Daniels, Academy for Educational Development, 1255 23rd Street, N.W., Washington, DC 20037.**

POSTDOCTORAL RESEARCH

Two positions are available immediately in Cardiovascular Research Center, Thomas Jefferson University. In one position, the selected candidate will be involved in studies to examine the proto-oncogene expressions and their regulation in vascular cells and lesions. In the second position, the selected candidate will be involved in studies to construct expression vector and transfer therapeutic gene into vascular wall. This position offers an excellent research environment and potential for faculty position. Ph.D. degree in molecular/cellular biology or biochemistry is required. Candidates should have strong background in molecular biology and commitment to the research. Experience in recombinant DNA technology, gene expression or in situ hybridization is desirable. Send detailed curriculum vitae and names of three references by 1 January 1992 to: **Dr. A. Zalewski, 402 College Building, 1025 Walnut Street, Philadelphia, PA 19107 or FAX: 215-923-2539.**

RESEARCH ASSOCIATE

Conduct research on human immune system and its response to antigenic challenge; use x-ray crystallography and computer technology to study human diseases; make three-dimensional structure determination of human antibody by x-ray diffraction; use molecular replacement method to conduct studies in protein crystallography; study model of human immune system.

Bachelor's degree in chemistry or equivalent. Three years of related research experience thereof with 1 year of research experience in the job offered. Yearly salary: \$24,000. Apply at the: **Texas Employment Commission, Amarillo Texas,** or send résumé to the: **Texas Employment Commission, TEC Building, Austin, TX 78778, J. O. #6422066. Ad paid by an Equal Opportunity Employer.**

POSITIONS OPEN

PROTEIN ENGINEERING. POSTDOCTORAL RESEARCH in design and construction of novel enzyme catalysts. Experience with mutagenesis and Ph.D. in molecular biology or biochemistry preferred. *Caltech is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.* Send résumé and names of three references to: **Professor F. H. Arnold, Division of Chemistry and Chemical Engineering 210-41, California Institute of Technology, Pasadena, CA 91125.**

RESEARCH ASSOCIATE, Pennsylvania State. The Pennsylvania State University, College of Science, Department of Molecular and Cell Biology (University Park Campus) invites applications for a research associate position in the field of the endocrinology/neuroendocrinology of lactation. Applicants should have an M.D. (or related Ph.D.) and at least 2 years of postdoctoral experience in the field of milk-borne hormones and/or growth factors and endocrinology of the neonate. A strong background in the regulation of lactogenic hormones is required. The candidate is expected to be proficient in radioimmunoassays, cell culture/in vitro techniques, protein/peptide purification, minor surgery on rats and neuropharmacological manipulations. Duties involve design and conduct of experiments involving lactating animals and their offspring, instructing graduate students and postdoctoral fellows, and teaching part of the biochemical endocrinology course to upper-level undergraduate/graduate students. Salary range: \$25,000 to \$28,000. Benefits: health, dental, vision and life insurance. Approximate date position to be filled: 15 January 1992. Send letter of application, résumé, list of publications and names of three references before 15 December 1991 to: **Dr. C. E. Grosvenor, The Pennsylvania State University, Department of Molecular and Cell Biology, 6 Althouse Laboratory, Box SCI, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to Apply.**

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

The Gene Evaluation and Mapping Laboratory, Beltsville Agricultural Research Center, Beltsville, Maryland, seeks a **RESEARCH ASSOCIATE (2 YEARS)** to map genes in the bovine genome related to reproduction. Must have knowledge and skills in application of molecular biological and cytogenetic techniques to the genetic or physical mapping of genes. Ph.D. required. Salary commensurate with experience (\$31,116 to \$37,294). Apply with government form SF-171, transcripts, and copy of curriculum vitae to: **Dr. Caird E. Rexroad, GEML, USDA, Building 200, BARC-East, Beltsville, MD 20705.** For further information, telephone **Dr. Rexroad at 301-344-2534.** *ARS is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

RESEARCH ASSOCIATE POSITION available immediately for research on the autoregulation and differential release of amino acids and neuropeptides using a wide range of techniques in biochemistry and molecular biology. Send curriculum vitae and names of references to: **Dr. David M. Terrian, Department of Anatomy and Cell Biology, East Carolina University, Greenville, NC 27858.** *Federal law requires proper documentation of identity and employability at the time of employment. Affirmative Action/Equal Employment Opportunity Employer.*

Seeking to fill a **RESEARCH ASSOCIATE** position at an annual salary of \$23,365. This position will carry out Doppler echocardiographic studies for evaluation of cardiac function in our ongoing research programs. Teaching responsibilities include education of medical trainees in the echocardiography laboratory. This position will assume administrative responsibility for new research protocols. Minimum qualifications include Ph.D. or equivalent in medicine or biological sciences including 2 years of experience in medical biostatistics research, cardiology research in evaluation of cardiac systolic and diastolic function using echocardiography and measurement of 2-D and Doppler recordings by off-line computer system. Must have published research in cardiology journals and show commitment to academic research. Qualified applicants should send curriculum vitae to: **T. Moore, Kentucky Job Service, Reference # 824822, 300 South Upper Street, Lexington, KY 40508.**

Faculty Positions In MOLECULAR NEUROBIOLOGY

Applications are invited for tenure track faculty positions at the **Assistant or Associate Professor** level. Successful candidates will hold an academic appointment in an appropriate department in the Colleges of Medicine or Biological Sciences and join five current faculty in new laboratories on the neurobiology floor of the Ohio State Biotechnology Center. Applicants should demonstrate exceptional potential to develop strong research programs that apply molecular biological approaches to address significant problems in neurobiology such as signaling and cognition, nerve regeneration and repair, and neural development. The Center includes a transgenic mouse facility supervised by a full-time staff member, and candidates skilled in utilization of transgenic mice in neurobiologic research are encouraged to apply. The Ohio State University has made a major commitment to establish an outstanding interdisciplinary program in molecular neurobiology that is reflected by the quality research facilities and highly competitive start-up funds and salary that accompany these faculty positions.

Applicants should submit a curriculum vitae, statement of research plans, and arrange to have three letters of reference sent to: **Dr. Anthony Young, Chairperson, Molecular Neurobiology Search Committee, Ohio State Biotechnology Center, Rightmire Hall, 1060 Carmack Rd., Columbus, OH 43210.** Screening of candidates will begin on December 15, 1991. The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

**THE
OHIO
STATE
UNIVERSITY**

Post Doctoral Fellowship

\$36K-\$39K + Superannuation

A term of 3 yrs (should follow no more than 3 yrs after conferring of your doctorate)

*Division of Plant Industry,
Black Mtn, Canberra, ACT, Australia*

The goal of our research is to elucidate the mechanism and function of C_4 photosynthesis and the significance of this process in terms of plant performance. The fellowship is for 3 years. The successful applicant would be involved in studies on the extent of CO_2 leakage from bundle sheath cells in C_4 plants and aspects of the regulation of C_4 photosynthesis. Experience in plant biochemical research and skills in radiotracer and basic biochemical techniques are important. Applicants must have a PhD degree.

Additional job and selection details can be obtained from Dr M D Hatch, on 61 6 246 5264 or fax 61 6 246 5000, or the address below.

Please send your application including details of your experience, skills and qualifications, quoting Ref No. PG91041, marked "Confidential", to: **The Recruitment Office, CSIRO Division of Plant Industry, GPO Box 1600, Canberra ACT 2601, Australia**, by December 20, 1991.

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BioGenex Laboratories is a leader in the development, manufacture, and worldwide distribution of diagnostic products for the cell pathology market using immunological and DNA-based technology. The following opportunity is currently available:

Molecular Biology Manager/Group Leader

Responsibilities for this position include development of *in situ* hybridization assays. Prior experience in optimizing assay protocols (designing nucleic acid probes, defining hybridization conditions, increasing detection sensitivity) is essential. The successful candidate will have a Ph.D. in molecular biology or a related field and 5+ years of experience in probe assay development.

BioGenex offers a competitive salary and benefits package including medical, life insurance, and profit sharing. Send resume and salary history to:



Attn: Sharilyn Nelson
4600 Norris Canyon Rd.
San Ramon, CA 94583



The Royal Society



**The University
of Sheffield**

SORBY RESEARCH FELLOWSHIP

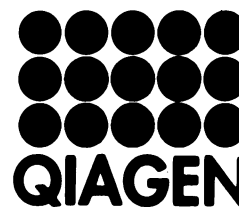
The Sorby Research Fund Committee representing the Royal Society and the University of Sheffield invites applications for the above post. The post, which is supported jointly by the Royal Society and the University, will be in any science department (including science, mathematics, engineering, materials, technology and medicine) at the University of Sheffield. The Fellow will be expected to undertake original scientific research and a limited amount of teaching. Tenable for three years in the first instance from 1 October 1992, the Fellowship is renewable for a further two years. At the end of the tenure of the Fellowship, the Fellow may be offered a lectureship within the University of Sheffield, subject to satisfactory performance during tenure, provided an appropriate vacancy is available. Salary within the range £12,690 - £17,593 pa. Limited research expenses will also be available.

Further particulars from Director of Personnel Services, The University, PO Box 594, Firth Court, Western Bank, Sheffield, Yorkshire S10 2UH United Kingdom (0742 768555 ext. 4144), to whom applications, including a full curriculum vitae and the names/addresses of two referees (two copies of all documents), should be sent by 28 February 1992. Ref: MAP440/HP

The University of Sheffield is an Equal Opportunity Employer.

MOLECULAR BIOLOGY

QIAGEN INC. is a fast growing Los Angeles area company, committed to excellence in the development and marketing of unique and innovative products for molecular biology. We are seeking highly motivated and talented individuals to join our sales & marketing and R&D groups.



Technical Sales Representatives

Applicants should have a BS/MS degree in molecular biology or related field and 2+ years of lab experience in molecular biology. Prior sales experience is preferred, but not necessary. Sales territories are available in North Carolina, New York, Ohio, Missouri and Montreal, Canada.

Technical Support Representatives

Applicants should have a BS/MS degree in molecular biology or related disciplines with 2+ years of laboratory experience in molecular biology. Will be responsible for answering technical inquiries related to our product lines.

Project Manager (Sequencing)

The position involves the development of products for sequencing. The successful candidate will interact closely with the R&D and the sales & marketing groups. A Ph.D. degree with extensive sequencing experience is required. The position is based initially at our corporate headquarters in Duesseldorf, Germany, and subsequently in the U.S.

Research Associates

Excellent opportunity to perform exciting and useful research leading to products based on nucleic acid purification technology. A BS/MS degree and at least 2 years of laboratory experience in molecular biology is required. The position is based initially at our corporate headquarters in Duesseldorf, Germany, and subsequently in the U.S.

We offer competitive salaries, benefits including relocation assistance and a challenging, high growth environment. For immediate consideration, please fax a resume, salary history and reference names to:

QIAGEN INC. Fax: 818 718-2056 • Phone: 800 426-8157.



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ASSOCIATE EDITOR

An editorial position at *Science* is available for a PhD scientist with a broad range of interests and research experience in one or more of the following areas: biochemistry, molecular pharmacology, pre-clinical sciences, structural biology, and/or bio-organic chemistry. We are seeking someone with at least two or three years of post-doctoral experience in quantitative aspects of the life sciences and publications in the refereed literature. Editors have varied responsibilities including solicitation, selection, and editing of manuscripts. Previous editorial experience is not required. This is a full-time position in our Washington offices.

Please send resume and a list of publications with cover letter and salary requirements to:

**Mr. Gregory Stokes
AAAS
1333 H Street, NW
Washington, DC 20005**

EOE

The Royal Botanic Gardens, Kew has made a major commitment to the use of molecular techniques in Biosystematics. A well-equipped molecular biology laboratory has been established, and a new purpose-built molecular biology complex is under construction in a large extension to Kew's world famous Jodrell Laboratory.

Head of Molecular Biosystematics

A unique opportunity exists for a molecular biologist with broad plant systematic interests and a strong interdisciplinary inclination. The successful candidate will head the molecular biosystematics section (founded in 1989) in the Jodrell Laboratory at the Royal Botanic Gardens, Kew. Applicants should have a proven record in angiosperm genome research, wide experience of molecular techniques, and experience of supervising research. A successful track record of winning competitive grants would be advantageous.

The scientist is required to lead and coordinate molecular research on a range of plant taxonomic, biosystematic, and conservation topics; to do independent biosystematic research on flowering plants; and, to supervise staff, Ph.D. students and long term visitors using molecular techniques.

The appointee will be responsible to the Keeper of the Jodrell Laboratory, Prof. M.D. Bennett, and will be expected to compete for additional funding, and to collaborate widely with other scientists working at Kew.

The post, which will be filled at either the SSO or PSO level (depending on age and experience), combines a rare opportunity to work in a delightful setting and to direct an important research programme using the world's richest plant collections.

For further information contact Prof. M. D. Bennett, Keeper of the Jodrell Laboratory, Royal Botanic Gardens, Kew, Richmond TW9 3DS, UK (Tel: 081-940 1171 Extn 4311; Fax 081-948 1197).

For further details and an application form (to be returned by 13th December 1991) write to Recruitment & Assessment Services, Alencon Link, Basingstoke, Hants RG21 1JB or telephone Basingstoke (0256) 468551, Fax (0256) 846660. Please quote reference B/1265.

The Royal Botanic Gardens, Kew is an equal opportunity employer.



The Science of Success

Syntex has earned its reputation in the pharmaceutical industry for superior and innovative research. Our strong commitment to R&D has opened new doors on patient care around the world. We currently have several key positions at our research headquarters in Palo Alto, CA.

Staff Researcher - GI Pharmacology

You will perform studies to elucidate mechanisms involved in gastrointestinal motility. Must have experience with in vivo and in vitro methodology. You will also provide technical and theoretical leadership within a work group. Good written and oral communications skills as well as proficiency with PCs is required.

PhD in Pharmacology or Physiology is required with up to 2 years postdoc experience with in vivo and in vitro isolated smooth muscle techniques preferred. Dept. JH/SR

Postdoctoral Fellows

The following positions are available in the lab of Dr. Harold Van Wart beginning March 1, 1992.

Two positions involve studying the mechanism of activation of matrix metalloproteinase zymogens, and two positions involve studying the mechanism of action of matrix metalloproteinases. These positions require experience in enzymology, biochemistry or solid phase peptide synthesis. Two additional postdoctoral positions are also available in the lab to carry out biophysical studies (stopped-flow, resonance Raman) of metalloproteinases and heme enzyme catalytic intermediates. Experience in related areas is desired. Please send your resume with three letters of reference to Dept. JH/HVW.

Syntex offers competitive salaries commensurate with experience, a relocation and comprehensive benefits package. For consideration, please send your resume indicating appropriate Dept. code to: SYNTEX, 3401 Hillview Avenue, Palo Alto, CA 94303. We are an equal opportunity employer.



SYNTEX

POSITIONS OPEN

RESEARCH ASSOCIATE. Position available for Ph.D. to join and aid in the direction of an active hematopoiesis program. Laboratory studies include assessment of the effects of growth factors and antibodies to growth factor receptors in the murine system. Laboratory space and support available in the new West Pennsylvania Research Foundation Building. Direct inquiries to:

Richard K. Shaddock, M.D.
Director, Western Pennsylvania Cancer Institute
4800 Friendship Avenue
Pittsburgh, PA 15224

UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA) SCHOOL OF MEDICINE MOLECULAR BIOLOGIST/ SENIOR RESEARCH ASSOCIATE

Position available for Ph.D. interested in studying molecular mechanisms of cytokine regulation, gene transduction and cancer immunotherapy.

UCLA and its affiliated institutions are Equal Opportunity and Affirmative Action Employers. For consideration please submit curriculum vitae and two letters of reference to:

Arie Belldgrun, M.D.
UCLA School of Medicine
Center for the Health Sciences
66-118 CHS
10833 LeConte Avenue
Los Angeles, CA 90024-1738
Telephone: 213-206-1434

ASSISTANT STAFF SCIENTIST, Department of Heart and Hypertension Research. Medical facility in northeastern Ohio. Uses technical expertise in the isolation, purification, characterization, and reconstitution of plasma membrane and associated proteins. Researches the biochemistry of proteins involved in adrenergic receptor-mediated signal transduction. Performs and interprets kinetic analyses, thermodynamic analyses and studies of enzymes and other bimolecular reactions. Applies chromatographic procedures used in protein purification; and utilizes gel electrophoresis, radiogland binding assays, radioimmunoassay, and detergents and phospholipid for protein solubilization and reconstitution. Requires Ph.D. in biochemistry and 3 years of experience in the position offered or as a research associate. Must have specialized knowledge of adrenergic receptor signalling as evidenced by education, publications, or work experience. Forty hours per week, Monday through Friday, 8 a.m. to 5 p.m.; \$42,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé, in duplicate to: **S. Holton, Job Offer #1206013, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

ASSOCIATE STAFF RESEARCHER, PHARMACOLOGY. Conduct basic and applied research studies to identify new targets for therapeutic intervention in the area of angiotensin. Conduct experiments to investigate the role of receptor subtype in the control of renovascular, gastrointestinal and cognitive functions. Devise bioassay screens (in vitro and in vivo) for the evaluation of novel and standard drugs with identified receptors. Ph.D. in pharmacology with research experience in the areas of cardiovascular and renal physiology and pharmacology and the application of classical drug-receptor theory. Must have general working knowledge of biochemistry and biological statistical theory and practice. Must have experience working with isolated tissues for bioassay, whole animals, in vivo renovascular studies and analytical measures. Salary: \$51,000. Job site/interview: Palo Alto, California. Send this ad and your résumé to **Job Order #CR4454, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 30 November 1991.

BIOLOGIST/MOLECULAR desired for conducting independent and advanced research in a bio-organic chemistry laboratory setting in the area of nucleic acids research. Mechanisms of catalytic RNA/ribozymes will be studied. Ph.D. in genetics with some postdoctoral experience in chemistry necessary. Salary: \$2,500 per month; 1 year of experience. Job and interview: Duarte, California. Send this ad and your résumé of qualifications to: **Job Number BLW9419, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 30 November 1991.

POSITIONS OPEN

GENETICS

The Children's Mercy Hospital, located in Kansas City, Missouri, is a 167-bed acute care teaching facility, a major Midwest referral and research center with an expanding genetics program. It is the pediatric program for the University of Missouri-Kansas City with faculty appointments appropriate to experience.

Opportunities Available

Clinical Geneticist
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Cytogeneticist
BE/B.C. M.D. or Ph.D.
Molecular Geneticist
BE/B.C. M.D. or Ph.D.

Send résumés to:

Dr. David Harris
Genetics
Children's Mercy Hospital
2401 Gillham Road
Kansas City, MO 64108

Equal Opportunity Employer/Affirmative Action.

INTRODUCTORY BIOLOGY LABORATORY COORDINATOR. Full-time position, starting 15 August 1992, pending final budget approval. Nontenure-track, renewable up to 3 years. Responsibilities include instruction, supervision, and preparation in a unique sequence of freshman laboratories emphasizing cell biology and genetics. Qualifications: M.S. or Ph.D. in biology and experience teaching freshmen laboratories. Please send cover letter describing teaching philosophy and experience, curriculum vitae, and names of three references to: **Dr. James Watrous, Chairman Biology Department, Saint Joseph's University, 5600 City Avenue, Philadelphia, PA 19131.** *Equal Opportunity/Affirmative Action Employer.* Deadline: 6 December 1991.

MAMMALIAN CELL PHYSIOLOGIST

Full-time, tenure-track position, Ph.D. required; 12-hour teaching load per term. Courses: mammalian physiology, general physiology, histology, upper-division course of choice. Participation in freshman biology program, interdisciplinary courses, freshman composition seminar expected. Send letter of application, résumé, statement of teaching philosophy, three letters of reference, university transcripts to: **Dr. John Condie, Search Committee Chair, 753 BH, Fort Lewis College, Durango, CO 81301-3999.** All application materials must be received by 16 December 1991. *Affirmative Action/Equal Opportunity Employer.*

MOLECULAR BIOLOGIST RESEARCH SCIENTIST

Position immediately available in prokaryotic genetics laboratory to study basic and applied aspects of bacterial genes encoding biodegradable plastic. Ph.D. preferred, and experience in modern recombinant DNA techniques required. Applicant will also supervise undergraduate researchers and teach an occasional lecture. Salary range is from \$25,000 to \$30,000, depending on experience and qualifications. Send curriculum vitae and names of three professional references to: **Dr. Douglas Dennis, Department of Biology, James Madison University (JMU), Harrisonburg, VA 22807.** *JMU is an Affirmative Action/Equal Opportunity Employer and specifically encourages applications from women and minorities.*

MOLECULAR PARASITOLOGIST

Henry M. Jackson Foundation for the Advancement of Military Medicine.

Applications are invited for a **RESEARCH SCIENTIST** with experience in the study of parasitic organisms at the molecular level. The project will focus on the development of novel anti-sense oligonucleotides as therapeutic agents for specific parasitic illnesses. Experience with growth of parasitic agents in vitro and in murine models is essential. Additional experience with plasmid preparations, Northern, Southern, and Western blotting is highly desirable. Should possess a doctoral degree for this position which will be at the level of a postdoctoral fellow or of a nontenured assistant professor at USUHS. Salary will be commensurate with experience. The Henry M. Jackson Foundation offers an excellent benefits package. Please send curriculum vitae to: **Dr. Mitchell Carl, Naval Medical Research Institute, Building 17A, Room 316, Bethesda, MD 20814-5055.**

POSITIONS OPEN

BOYCE THOMPSON INSTITUTE FOR PLANT RESEARCH AT CORNELL UNIVERSITY

PLANT MOLECULAR BIOLOGIST

The Boyce Thompson Institute at Cornell University invites applications for a tenure-track **ASSISTANT SCIENTIST** position in the Plant Molecular Biology Program. We are particularly interested in candidates using molecular or genetic techniques to solve fundamental problems in plant development. The successful candidate will be expected to establish a vigorous, independent research program, and to collaborate with Institute and Cornell faculty. Submit curriculum vitae, statement of research goals, and three letters of reference by 15 January 1992 to:

Dr. H. Alan Wood, Chair, Search Committee
Boyce Thompson Institute
Tower Road
Ithaca, NY 14853

Boyce Thompson Institute is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

RADIOCHEMIST

Biogenics, Inc. seeks a radiochemist to direct cyclotron operations for a commercial Positron Emission Tomography (PET) facility to be located in the Philadelphia area. Preparation of routine mechanized radiopharmaceuticals and development of novel radiopharmaceuticals for research programs are expected. Interested persons should respond to: **Keith Mentz, Vice President, Biogenics, Inc., 2100 Keystone Avenue, Suite 703, Drexel Hill, PA 19026.**

REPRODUCTIVE ENDOCRINOLOGIST

Diagon Corporation is seeking individuals to conduct research and testing in the contraceptive development area. Candidates should have Ph.D. and 2 to 7 years of relevant experience or B.S. or M.S. and 5 to 10 years of relevant experience in mammalian reproductive physiology/biochemistry. Competitive salary and benefits, commensurate with experience. Eligible applicants should submit curriculum vitae to: **Martha O'Neill, Diagon Corporation, 9600 Medical Center Drive, Rockville, MD 20850.**

RESEARCH BIOCHEMIST

MOLECULAR VIROLOGY SECTION RESPIRATORY AND ENTERIC VIRUSES BRANCH

DIVISION OF VIRAL AND RICKETTSIAL DISEASES NATIONAL CENTER FOR INFECTIOUS DISEASES CENTERS FOR DISEASE CONTROL (CDC)

The Centers for Disease Control is seeking qualified applicants for a staff position in the Molecular Virology Section, Respiratory and Enteric Viruses Branch, Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases. The person appointed will direct and participate in studies on polioviruses and other enteroviruses, including molecular studies of genetic and antigenic variation and its role in human disease, genetic stability of vaccine viruses, and immune response to vaccine. Research biochemists with molecular biology and sequencing experience are being sought.

Qualifications preferred include a doctoral degree, significant scientific accomplishments in one or more areas of relevant research, and the ability to provide leadership for support staff.

Salary range is \$37,294 to \$48,481 per annum, depending on qualifications.

Further information can be obtained from **Olen M. Kew, Ph.D., Chief, Molecular Virology Section, or Mark A. Pallansch, Ph.D., Chief, Enterovirus Section, Respiratory and Enteric Viruses Branch (G17), Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases, Centers for Disease Control, Atlanta, GA 30333.** Telephone: 404-639-3596. FAX: 404-639-1307.

Interested candidates also may send their curriculum vitae in confidence along with the names of three professional references by 30 November 1991 to: **Janie Oddy, Personnel Management Office, Centers for Disease Control (D01), Atlanta, GA 30333.**

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ASSOCIATE SCIENTIST POSITION

Position available for Associate Scientist (minimum three years postdoctoral experience) or postdoctoral fellow. Research will focus on characterization of signal transduction pathways in cells responsible for regulating biological responses to mechanical deformation. Specific emphasis will be placed on mechanisms which regulate generation of second messengers by phospholipases. Experience in nucleic acid molecular biology and cell biology preferred.

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Division of Toxicology

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Requirements: Ph.D. in Biochemistry of Molecular Biology. Experience and education in biochemistry, molecular biology, or genetics preferred.

Interested candidates should send two copies of both cover letter and resume to: **Ms. Carla Kirmani, Administrative Officer, Division of Toxicology, Massachusetts Institute of Technology, 77 Mass. Avenue, Bldg. 16-325, Cambridge, MA 02139-4307.**

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Please send a detailed resume including three references and a statement describing your scientific interests and career goals to: **Jeanne Horgan, Personnel Department, ImmunoGen, Inc., 148 Sidney Street, Cambridge, MA 02139.**

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POSITIONS OPEN

BIOMECHANICS RESEARCH POSITION

The Department of Biomedical Engineering and Applied Therapeutics of The Cleveland Clinic Foundation is seeking an individual with a Ph.D. degree in biomechanics, biomedical engineering, mechanical engineering or related area for a **PROFESSIONAL STAFF** position. The successful candidate will have a demonstrated interest in the application of modeling and optimization techniques to research and clinical questions regarding analysis of human motion of the normal and pathological human neuromuscular and musculoskeletal systems. The candidate will participate in ongoing research projects, develop new research areas, and pursue and develop extramural funding sources. The Research Institute of The Cleveland Clinic Foundation offers a multidisciplinary, applied and basic science environment for scientists and clinicians. The Cleveland Clinic Foundation, an internationally renowned health care institution, is academically affiliated with The Ohio State University. Interested individuals should submit a cover letter, curriculum vitae and three letters of recommendation to: **Dr. Mark Grabner, Chairman, Biomechanics Search Committee, Department of Biomedical Engineering and Applied Therapeutics, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195-5254. The Cleveland Clinic is an Equal Opportunity/Affirmative Action Employer.**



A **RESEARCH GENETICIST (PLANTS)** position in the Plant Physiology and Genetics Research Unit, Urbana, Illinois, housed in Department of Agronomy facilities, University of Illinois. The incumbent is responsible for conceiving and implementing a research program to discover and develop classical, biochemical, and molecular genetic knowledge, techniques, and tools applicable to maize plants. In addition, the incumbent is responsible for coordinating the maintenance, categorization, and expansion of the Maize Genetics Stock Collection, and for providing seed samples of stock upon request. Work will be conducted cooperatively with other scientists within USDA/ARS and the University of Illinois. Professional experience and directly related education is required. A Ph.D. in a related field is desirable. Additional knowledge, abilities, and skills will be required. *U.S. citizenship required.* Salary range is \$37,294 to \$68,129 (GS-12/13/14). Starting date is approximately 1 April 1992. Contact **301-344-1258** for required form and application procedures; indicate **Adv. No. 2N006**. Closing date is 19 December 1991. For more information, contact: **J. E. Harper, telephone: 217-244-6670; FAX: 217-244-4419. ARS is an Equal Opportunity Employer.**

COLUMBIA UNIVERSITY

The Department of Pharmacology invites applications for the position of **ASSOCIATE RESEARCH SCIENTIST**. Successful candidates are expected to begin an independent research program in the studies of structure-function relationship of ion channels. Requirements include a Ph.D. and/or M.D. degree and a minimum of 1 year of postdoctoral research in electrophysiology.

Candidates should submit their curriculum vitae, a brief statement of research interests and future plans, and the names of three references by 29 November 1991 to: **Dr. Gea-Ny Tseng, Department of Pharmacology, Columbia University, 630 West 168th Street, New York, NY 10032.**

Columbia University is an Equal Opportunity/Affirmative Action Employer.

RESEARCH SCIENTIST. Saint Francis Hospital and Medical Center, located in Hartford, Connecticut, is seeking a candidate to join our Department of Research to work on molecular and cellular biology of skeletal cells. Candidates should have completed a doctorate degree and a postdoctoral fellowship and have prior molecular and cell biology experience. Candidates will be eligible for an appointment at the University of Connecticut School of Medicine. Interested individuals should send a résumé and references to: **Dr. Ernesto Canalis, Saint Francis Hospital and Medical Center, 114 Woodland Street, Hartford, CT 06105. FAX: 203-548-5415. Equal Opportunity Employment/Affirmative Action, M/F/D/V. Pre-employment drug testing.**

POSITIONS OPEN

Waquoit Bay National Estuarine Research Reserve seeks a **RESEARCH COORDINATOR** to conduct own research, coordinate all research at site, compile and manage data, supervise interns. Qualifications: Ph.D. estuarine or related science, supervisory and GIS experience. Demonstrated ability to fund research. 12-month grant. Possible extension. Salary: \$27,000. References, curriculum vitae, cover letter to: **C. Gault, WBNERR, P.O. Box 3092, Waquoit, MA 02536.** Closing date: 30 November 1991. Telephone: 508-457-0495.

SENIOR RESEARCH SCIENTIST. Research and develop enzyme immunoassays for detection of autoantibodies in human disease. Requires knowledge of cross-reacting human monoclonal antibodies and human sera, immunology of autoimmune diseases and systemic lupus erythematosus. Requires Ph.D. in clinical immunology and 2 years of experience or 2 years of experience in university level teaching and research. Salary: \$40,000 per year. Job site and interview: Santa Monica, California. Send ad and résumé to: **Job # RT-28039, P.O. Box 9560, Sacramento, CA 95823-0560** by 30 November 1991.

ANNOUNCEMENTS

PARKINSON RESEARCH GRANTS 1 JUNE 1992 TO 31 MAY 1993

The National Parkinson Foundation, of Miami, Florida, invites the submission of grant proposals for Parkinson research. A total of \$300,000.00 will be made available to support basic bench research on Parkinson's Disease. The award for a single grant will not exceed \$40,000.00. None of the monies are to be utilized for administrative overhead or travel expenses. The application deadline is 1 February 1992; grant starting date will be 1 June 1992. It is required that proposed studies specifically focus on mechanisms involved in the disease process and that they have the potential of finding the cause and prevention of Parkinson's Disease. Scientists entering the field of Parkinson research are encouraged to apply. Proposals will be assessed by the National Parkinson Foundation Scientific Advisory Board. To obtain submission information, please write to:

**National Parkinson Foundation, Inc.
Research Grants
1501 N.W. 9th Avenue
Miami, FL 33136**

REQUEST FOR PROPOSAL

The EPA's Environmental Research Laboratory in Corvallis, Oregon is requesting proposals for a study to map the sub-ecoregions of the western cornbelt ecoregion of the United States. The objective of the study is to subdivide this ecoregion (which encompasses the state of Iowa and parts of Minnesota, Missouri, Illinois, and Nebraska) into sub-ecoregions of ecologically similar areas. The regional delineations should be based, at least in part, on land surface forms, soils, land use, and potential natural vegetation and be compatible with the ecoregion approach used by Omernik, 1987 (*Annals of the Association of American Geographers*, 77(1):118-125). The final product should be a computer generated map delineating the sub-ecoregions and a report detailing procedures used to delineate the sub-ecoregions and supporting information about the approaches used. This study is part of a larger project to determine the effects of agricultural practices and land-use patterns on ecological sustainability and quality in the upper Midwest. Deadline for submission of proposals is 15 January 1992. For further information or to submit proposals contact: **Dr. Anne Fairbrother, USEPA, 200 S.W. 35th Street, Corvallis, OR 97333; telephone: 503-757-4606; FAX: 503-757-4799.**

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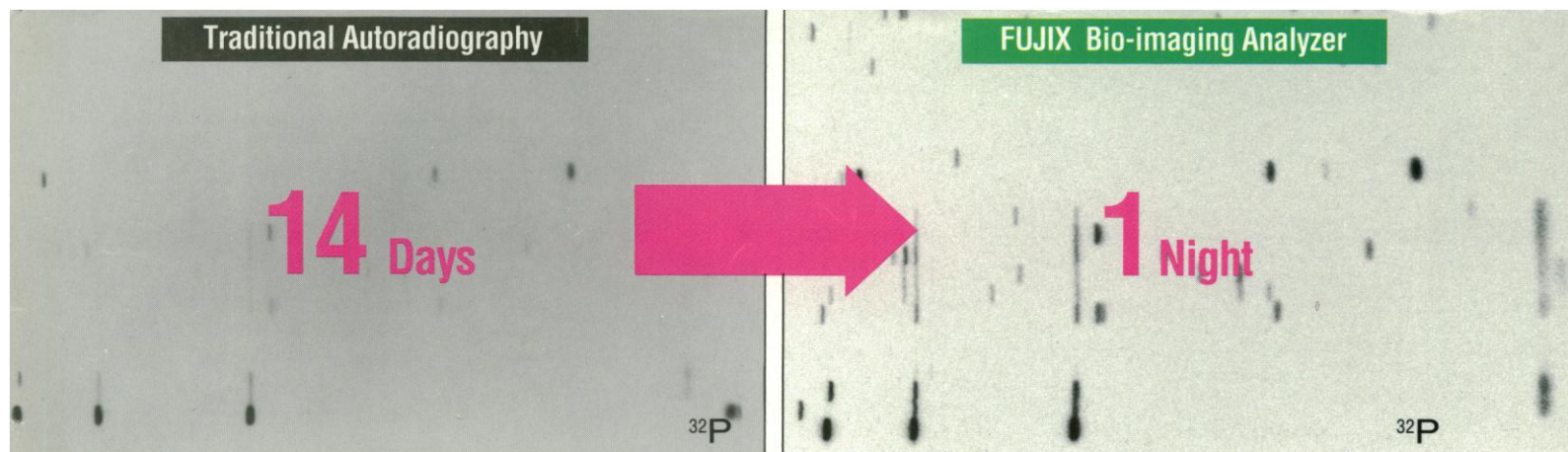
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Data: Prof. Takanami, Kyoto University

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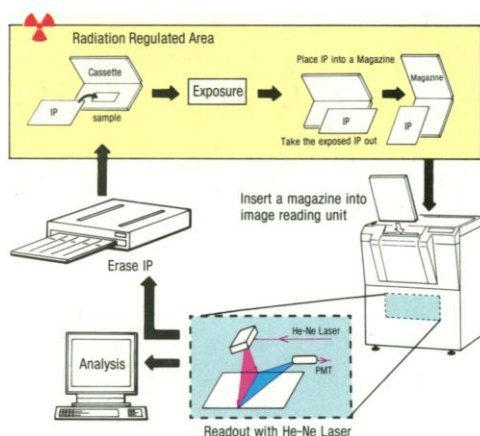
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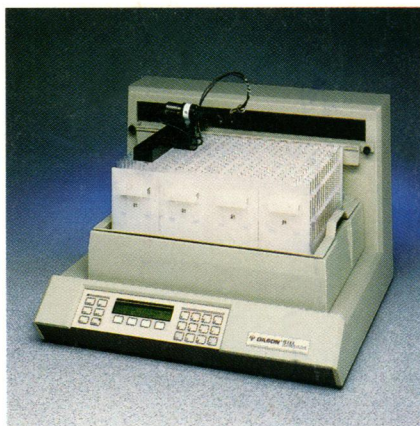
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