

Products & Materials

Amplification Complementary DNA

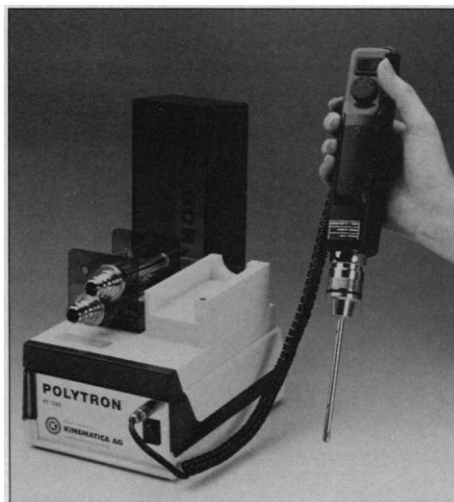
QUICK-Clone cDNA is a double-stranded, high-purity cDNA for polymerase chain reaction (PCR) amplification. QUICK-Clone cDNA offers convenience in isolating and cloning genes because it eliminates the need to purify RNA or make cDNA libraries. Researchers use their own primers with QUICK-Clone cDNA to amplify and clone genes of interest, to rapidly acquire cDNA hybridization products, or to determine expressed gene regions. More than 25 QUICK-Clone cDNAs are available for several human, mouse, and rat tissues, including brain, liver, lung, heart, spleen, and placenta. QUICK-Clone is synthesized from polyadenylated RNA using an oligo(dT) primer, then purified to remove interfering RNA and genomic DNA for more specific PCR amplification. CLONTECH Laboratories. Circle 443.

Mass Analyzer

The LASERMAT Mass Analyzer can routinely obtain molecular weight measurements of biopolymers such as proteins, peptides, and oligosaccharides. Measurements can be obtained from picomole amounts, from small peptides and oligosaccharides to intact proteins larger than 200,000 daltons. LASERMAT's production of a molecular weight map provides high sensitivity analysis of proteolytic digests, allowing screening with greater specificity than high-performance liquid chromatography-based mapping protocols. Finnigan MAT. Circle 444.

Handheld Homogenizer

The Polytron handheld homogenizer is for preparation of sample volumes from 0.1 ml. Two motors are available: a line-operated model and a rechargeable battery pack model. The design of the controls allows single-handed operation. Applications include preparation of milligram quantities of



tissue, direct radioimmunoassay homogenizations, and resuspension of pellets in small centrifuge tubes. Brinkmann Instruments. Circle 445.

CO₂ Incubator

ACCIS (Advanced Computer-Controlled Incubator System) is a water-jacketed CO₂ incubator that offers a precise culturing environment. ACCIS' microcomputer controls allow the user to program all parameters through a four-key pad with visual feedback through the 80-character vacuum fluorescent display screen. A calibration mode checks calibrations once a week and makes any needed adjustments. Lab-Line Instruments. Circle 446.

Automatic Capillary Electrophoresis

Impact is a fully automatic capillary electrophoresis system with two kinds of ultraviolet/visible light detectors: a dual wavelength or a high-speed scanning (up to 32 wavelengths) detector for peak identification on the fly. The instrument features hydrodynamic or electrokinetic injection. It has an 82-position autosampler and control and data acquisition software that allows night runs and acquisition of high-quality, three-dimensional electropherograms. Europhor. Circle 447.

Size-Exclusion HPLC Columns

Three new size-exclusion high-performance liquid chromatography columns are tailored for the separation of low molecular weight polymers and peptides. Packed with porous styrene divinylbenzene matrix, the new columns are available in pore sizes of

30, 70, and 170 Å to permit fractionation in three different ranges. These columns are for exclusion of smaller molecular weight substances, such as peptides, polymers, or carbohydrates with molecular weights less than 200,000 daltons. Bio-Rad Laboratories. Circle 448.

One-Step Nucleic Acid Isolation

DS SELECT can rapidly isolate double-stranded nucleic acids from mixtures containing buffers, salts, nucleotides, and primers. Purified product can be recovered from aqueous solution in less than 3 minutes. DS SELECT recovers 95% of double-stranded DNA and removes 99% of primers. Applications include polymerase chain reaction, sequencing, and solution hybridization. The purified DNA is suitable for electrophoretic analysis, restriction, and cloning. Advanced Genetic Technologies Co. Circle 449.

Literature

1991 Essentials of Gas Chromatography is a 232-page catalog with expanded sections on capillary columns and accessories, autosampler vials, and Environmental Protection Agency standards. Chemical Research Supplies. Circle 450.

Molecular Biology Products and Services, 1991 Catalog, describes more than 35 kits and products, including a new Ribonuclease Protection Assay Kit. Ambion. Circle 451.

Focused Filtration: Sartorius Membrane Technologies for Bioprocessing details a selection of filters for the lab, for pilot-scale production, and for full-scale production. Sartorius Corp. Circle 452.

ATCC Recombinant DNA Materials Catalogue, 1991 is a 240-page collection of cloning vectors, hosts for transformation and transfection (animal cell lines and microorganisms); clones from animal, bacterial, fungal, yeast, plant, viral, and viroid genomes; libraries; *Saccharomyces cerevisiae* genomic clone maps; and other information. American Type Culture Collection. Circle 453.

Racks & Supports is a 16-page specialty catalog of test tube racks, microsample tube racks, pipette racks, waterbath racks, drying racks, and more. VWR Scientific. Circle 454.

Recycling Free-Flow Focusing is a brochure that describes a new technique for purifying proteins, detailing the design and operation of the RF3 isoelectric focusing instrument. Rainin Instrument Corp. Circle 455.

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

Science

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For rates and information about fractional display ads (all ads 1/2 page and larger) and all Marketplace listings, contact:

Scherago Associates
 11 Penn Plaza, Suite 1003
 New York, NY 10001
 Telephone: 212-730-1050
 FAX: 212-382-3725

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POSITIONS OPEN

BIOCHEMISTRY

ALBERT EINSTEIN COLLEGE OF MEDICINE

The Department of Biochemistry at the Albert Einstein College of Medicine seeks **ASSISTANT PROFESSORS** for appointment to tenure-track positions. Salaries and other resources to initiate research programs are generous. Research strengths of the Department include protein-DNA interactions, regulation of gene expression, protein structure including crystallography, enzymology, membrane signaling and metabolic regulation. Applicants with research interests in these areas are preferred but research excellence in related areas of biochemistry will also be considered. *The Albert Einstein College of Medicine of Yeshiva University is an Equal Opportunity Employer.* Send curriculum vitae and the names of three or more references to: Ms. Joan Savastano, Administrator, Department of Biochemistry, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. Applications should be received before 1 December 1991. *Equal Opportunity Employer.*

MICROBIOLOGIST SWARTHMORE COLLEGE

The Biology Department of Swarthmore College seeks a microbiologist for a tenure-track appointment beginning September 1992, pending administration approval. This position will be at the **ASSISTANT PROFESSOR** level and entails teaching a sophomore-level microbiology course, an advanced course involving techniques of molecular biology, and participation in introductory biology. Ph.D. required. Please send curriculum vitae, statement of teaching and research interests, and three letters of recommendation by 15 December 1991 to: Dr. Scott Gilbert, Microbiology Search Committee, Swarthmore, PA 19081-1937. *Women and minorities are encouraged to apply. Swarthmore College is an Equal Opportunity Employer.*

UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

One tenure-track **ASSISTANT PROFESSOR** position is available for the spring of 1992. The University of Louisville is part of the State of Kentucky system and the department is undergoing a well-funded expansion at all levels. Candidates should hold a Ph.D., D.V.M., or M.D. degree and have at least 2 years of postdoctoral experience. Successful applicants receive generous start-up support, 12-month "hard money" salary, and are expected to excel in teaching medical and graduate students. They should be able to establish independent molecularly oriented research programs in one of four areas: virology, immunology, pathogenic mechanisms, or cell biology. Applicants should send curriculum vitae, statement on research interests, and the names of three references by 30 November 1991 to: Dr. Gordon D. Ross, Chairman, Department of Microbiology and Immunology, University of Louisville, Louisville, KY 40292. *The University of Louisville is an Equal Opportunity Employer that encourages applications from women and minorities.*

LAWRENCE UNIVERSITY ASSISTANT PROFESSOR MOLECULAR BIOLOGY

Tenure-track position in the biology department of a small, high-quality liberal arts college. Duties include developing a course in modern molecular biology for undergraduate biology and chemistry majors, one or more courses in area of specialty, and supervision of undergraduate research. All department members contribute to the introductory biology course and to the freshman core program. Candidates with significant postdoctoral research experience will be given preference. A commitment to excellence in research-oriented undergraduate education is required. Substantial start-up funds are available for research and instructional equipment. Responsibilities will begin no later than fall term, 1992. Applicants should send curriculum vitae, undergraduate transcripts, a brief description of research and teaching interests, and have three letters of reference sent to: Dr. William J. Perreault, Chair, Biology Department, Lawrence University, Box 599, Appleton, WI 54912. To insure consideration all application materials must arrive by 1 December 1991. *Lawrence University promotes Equal Opportunities for all.*

POSITIONS OPEN

ASSISTANT PROFESSOR. The Department of Chemistry at Stanford University will consider applications for a tenure-track appointment as assistant professor starting in the 1992/1993 or 1993/1994 academic year. Preference will be given to applicants in physical chemistry or closely related fields. Applicants must be strongly motivated toward creative research and have a commitment to teaching at the undergraduate and graduate levels. In applying, please send curriculum vitae, list of publications, a brief statement of research interests (three pages or less) and, in addition, have three letters of recommendation sent to: **Professor Harden M. McConnell, Chairman, Department of Chemistry, Stanford University, Stanford, CA 94305.** *Stanford is committed to Equal Opportunity through Affirmative Action in Employment, and we are especially eager to identify minority persons and women with appropriate qualifications.* Applications should be received by 1 December 1991.

ASSISTANT PROFESSORS. Two 10-month, tenure-track positions are available starting 1 September 1992. Applicants must have a Ph.D. and postdoctoral experience. Teaching responsibilities include undergraduate and graduate courses in applicants' areas of training.

MOLECULAR BIOLOGIST. Applicants with expertise in eukaryotic molecular biology are encouraged to apply, but all outstanding applicants will be considered.

ANATOMIST/PHYSIOLOGIST. Preference will be given to applicants with expertise in mammalian anatomy. This position is contingent upon budgetary approval.

Send curriculum vitae, a statement of research interests, and three letters of recommendation to: **Dr. H. Lee, Chairman, Biology Department, Rutgers University, Camden, NJ 08102.** Review of applications will begin 1 December 1991 and continue until positions are filled. *Rutgers-The State University of New Jersey is an Equal Opportunity/Affirmative Action Employer.*

HARVARD UNIVERSITY DEPARTMENT OF CHEMISTRY

ASSISTANT PROFESSOR OF INORGANIC CHEMISTRY

Applications are invited for an assistant professorship in any area of inorganic chemistry. Applicants should arrange to have three letters of recommendation sent independently and should provide curriculum vitae and brief descriptions of their future research plans. *Harvard University is an Affirmative Action, Equal Opportunity Employer. Applications from women and minority group members are welcome.* Applications and supporting materials should be sent no later than 1 November 1991, to: **Professor Richard H. Holm, Department of Chemistry, Harvard University, 12 Oxford Street, Cambridge, MA 02138.**

PLANT MOLECULAR BIOLOGY ASSISTANT PROFESSOR

The Department of Biology at the University of Michigan invites applications for a tenure-track **ASSISTANT PROFESSOR** position. We seek individuals who employ the techniques of molecular biology to attack significant problems in plant biology. The department has just completed a \$13-million building renovation, and the new faculty member will be housed in a modern laboratory. Facilities for DNA synthesis and molecular graphics are within the department; peptide synthesis and DNA and protein sequencing facilities are available nearby. In addition, the Matthaei Botanical Gardens, a unit of the department, provides facilities for the growth of experimental plant material. The successful candidate will be expected to conduct an active research program and to participate in the graduate and undergraduate teaching programs of the department. Applicants should submit current curriculum vitae and a statement of research plans and should ask at least three referees to send letters of recommendation to:

Dr. Eran Pichersky
 Chair, Plant Molecular Biology Search Committee
 Department of Biology
 The University of Michigan
 Ann Arbor, MI 48109-1048

Deadlines for applications is 1 December 1991. *The University of Michigan is an Affirmative Action/Equal Opportunity Employer.*

ROCKEFELLER FOUNDATION BIOTECHNOLOGY CAREER FELLOWSHIPS

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

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

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

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

SIMON FRASER UNIVERSITY



SIMON FRASER UNIVERSITY DEPARTMENT OF BIOLOGICAL SCIENCES FOREST ENTOMOLOGY-CHEMICAL ECOLOGY- NEUROPHYSIOLOGY

Applications are sought for a tenure-track, Assistant Professor position, commencing 1 January, 1992. The Successful applicant will be expected to develop an independent research program integrating the disciplines of forest entomology, chemical ecology and neurophysiology. He/she will be part of an interdisciplinary team that is engaged in elucidating the chemistry, biology and practical application of forest insect semiochemicals. We seek a person with postdoctoral experience, a strong record of research accomplishment, a sound background in forest entomology, chemical ecology and electrophysiology, familiarity with analytical chemistry, and ability to teach entomology, ecology and pest management.

Applicants should submit a curriculum vitae, reprints and a statement of current and future research interests, and should arrange to have three letters of recommendation sent to:

**Dr. B. A. McKeown, Chair
Dept. of Biological Sciences
Simon Fraser University
Burnaby, B. C.
Canada, V5A 1S6**

The deadline date for applications is 1 November, 1991.

Simon Fraser University is committed to the principle of equity in employment and offers equal employment opportunities to qualified applicants. This advertisement is directed to applicant who at the time of application are eligible for employment in Canada.

Post Doctoral Fellowship

\$35,000-\$38,000 p.a.

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

The research will be directed at understanding how best to manage acid soils and minimise rates of soil acidification under pastures and crops.

This is a Post Doctoral Fellowship for 3 years funded by The Vincent Fairfax Family Foundation. Your job will be to describe and explain how processes occurring during the growth and decay of plants of various species interact with chemical transformations in the soil to determine the amount and distribution of acidity accumulating in soils. One aim of your work will be to define plant characteristics which should be sought in plant improvement programs for acid soils. You will have experiments under controlled conditions and in the field and will need to travel to field sites.

For further information telephone Dr Peter Randall on 61 6 246 5119 or Fax 61 6 246 5000.

Please send your application to: **The Recruitment Officer, CSIRO Division of Plant Industry, GPO Box 1600, Canberra ACT 2601, Australia, by November 1, 1991.**



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CytoMed... Where Lifesaving Therapies Start.

An innovative leader in the development of pharmaceutical drugs in inflammatory, cardiovascular and/or pulmonary therapies, CytoMed offers exciting career development with one of biotechnology's fastest growing firms. We are seeking professionals in the following fields to work closely as a multidisciplinary team actively involved in the discovery and development of novel drugs.

Synthetic Organic Chemists

Ph.D. in Organic Chemistry required; postdoctoral/industrial experience preferred. The successful candidates currently must be spending a majority of time at the bench and have a continuing record of independent medicinal chemical research.

Biochemists/Cell Biologists

Ph.D. with postdoctoral experience required. These positions will involve ligand-receptor binding, characterization of receptor-dependent signal transduction mechanisms, intracellular signals, and the design of screens for the discovery of novel drugs.

Pharmacologists

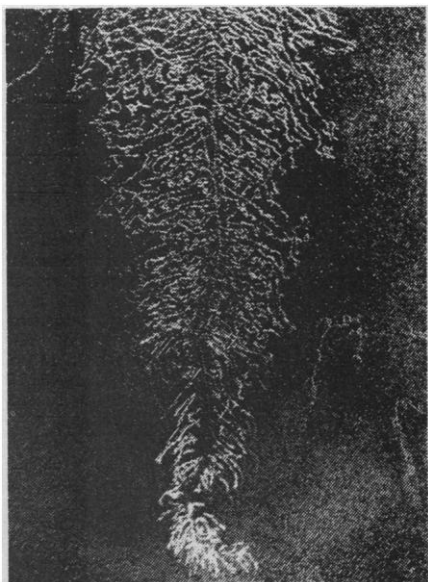
Ph.D. in Physiology/Pharmacology with postdoctoral experience required. The successful candidates will be involved in the development of in vivo animal models for screening novel drugs in the inflammatory/cardiovascular/pulmonary area.

Molecular Biologist/Immunologist

Ph.D. with mammalian protein expression experience required. Successful candidate will be involved in the design and expression of novel receptor genes for therapeutic applications.

Work with top minds in your field in a state-of-the-art R&D environment as you advance the course of biotechnology with us. **For more information about professional growth at CytoMed — and the competitive salary and comprehensive benefits we provide — send resume in confidence to: Human Resources, CytoMed, Inc., 840 Memorial Drive, Cambridge, MA 02139. An Equal Opportunity Employer.**

CytoMed



You Can't Influence The Future Unless You're Part Of It.

It isn't every day that two world powers unite to make important therapeutic contributions to human health care. In fact, it isn't even once in a decade that a research leader like Du Pont joins forces with a pharmaceutical giant like Merck. Yet, this is now a reality. This new, joint-venture pharmaceutical company puts the resources of two powerful R&D leaders within your grasp.

Du Pont Merck is seeking motivated individuals for two-year research fellowship programs. As a postdoctoral fellow, you will have the rare prospect of experiencing and impacting the stimulating world of modern pharmaceutical research. Postdoctoral fellows will receive a comprehensive package including a novel and exciting training environment, competitive salaries and medical benefits. In addition, postdoctoral fellows are encouraged to publish, attend and present their work at scientific meetings. Move with us into the future as we bring our mission of hope to the world community.



*Merging Strengths...
Emerging Opportunities*

INFLAMMATORY DISEASES RESEARCH

Here's a challenging opportunity to investigate the role of intracellular steroid receptors in gene activation and regulation of transcription factors. To qualify, you must have experience with the principles of gene regulation, molecular biological techniques, DNA-protein assays, steroid receptors and/or general transcription factors.

VIRAL DISEASES RESEARCH

This exciting two-year fellowship offers the opportunity to do cutting-edge work in the design of genetic selection methods for identifying and studying protein:protein interactions. If you have a background in genetics and molecular biology and an interest in structural biology, we encourage you to apply.

THROMBOSIS RESEARCH

Enhance your expertise as a member of our multidisciplinary Thrombosis Research group. This is an ideal opportunity for a motivated individual with experience in any of the following areas: platelet and/or endothelial cell biology, integrins and cell adhesion molecules, animal models of thrombosis.

GASTROINTESTINAL PHYSIOLOGY

Apply your expertise in gastrointestinal physiology contributing to a team assessing the barriers to gastrointestinal absorption of poorly absorbed compounds, including peptide analogs, as well as evaluating formulation or structural modification approaches to improving absorption. In vitro, in situ and in vivo models will be used. Proficiency in membrane transport, formulation, or absorption models is desired.

RENAL BIOLOGY

This fellowship is ideal for a highly motivated researcher trained in the area of renal biology or physiology. Expertise in cell isolation/culture, receptor-ligand binding, signal transduction pathways, gene expression and general molecular biological techniques is required. Experience in the renin-angiotensin system is strongly desired.

BIOLOGICAL MACROMOLECULAR/NMR

If you're interested in 2- (and more) dimensional NMR of biological macromolecules with emphasis on design and optimization of pulse sequences, data collection and reduction, assignments and computer programming, you owe it to yourself to explore this fellowship. Facilities include two 600 MHz and one 500 MHz spectrometers equipped for multi-channel, multi-nuclear experiments, networked workstations to SG4D280 and 4D480 servers. X-ray structure calculations and modelling software is available. Protein expression and isotopic labeling expertise is available.

ANALYTICAL RESEARCH & DEVELOPMENT

This fellowship in Analytical Research and Development is ideal for an individual who has a Ph.D. in Analytical Chemistry and experience in microcolumn HPLC, supercritical fluid chromatography, and capillary zone electrophoresis. Familiarity with coupling of the above techniques with mass spectrometry is desired.

NEUROSCIENCE

The following three positions are available in the CNS Diseases Research group to study the mechanism of action of novel therapeutic agents for the treatment of Alzheimer's disease or schizophrenia.

IN VITRO ELECTROPHYSIOLOGY

This is a challenging opportunity to study pre- and post-synaptic mechanisms modulating neurotransmitter release. To qualify, you must have experience recording electrical activity in slices from various brain regions using either single electrode voltage clamp or whole cell patch clamp techniques. Familiarity with personal computer-based data acquisition and analysis is desirable.

MOLECULAR NEUROBIOLOGY

This is an ideal opportunity for an individual with experience in cDNA cloning and a strong background in recombinant DNA technology. A background in expression cloning, molecular biology of receptors or membrane proteins, and/or neuroscience is desired.

PEPTIDE BIOCHEMISTRY/NEUROCHEMISTRY

Apply your expertise with in vivo dialysis to examine peptidergic systems. To qualify, you must have demonstrated surgical abilities and anatomic knowledge of rat brain. Research experience with HPLC, capillary electrophoresis or radio-enzymatic assays is desired.

For prompt confidential consideration, forward a CV and statement of research interests and career goals to: Dr. Lynn W. Enquist, Program Administrator, The Du Pont Merck Pharmaceutical Company, Dept. SCI-20, P.O. Box 80328, Wilmington, DE 19880-0328. EOE.

POSITIONS OPEN

BEHAVIORAL NEUROSCIENTIST

The University of Virginia (UVA), Department of Psychology, invites applications for a tenure-track, **ASSISTANT PROFESSOR** position in psychobiology and/or behavioral neuroscience to begin August 1992. We seek an individual with multidisciplinary approaches to the study of brain and behavior relationships. The successful applicant will join an active psychobiology group within the Department of Psychology and will also participate in the interdepartmental Neuroscience Graduate Program. Submit curriculum vitae, statement of research interests, selected reprints and three or more letters of recommendation to: **Dr. Peter Brunjes, Psychobiology Search Committee, Department of Psychology, 102 Gilmer Hall, University of Virginia, Charlottesville, VA 22903. FAX: 804-982-4766.** Review of applications will begin on 15 November 1991. UVA is an Equal Opportunity/Affirmative Action Employer. Applications from women and minorities are encouraged.

The Department of Biological Sciences at Indiana University at South Bend seeks candidates to fill a tenure-track **ASSISTANT PROFESSOR** position starting August 1992. Candidate responsible for teaching anatomy and physiology and upgrading the physiology laboratory in the nursing program. Teaching a course in developmental biology, and developing a research program involving undergraduates also required. Salary competitive, benefits excellent. Submit detailed résumé and have three letters of recommendation sent to: **Dr. Victor Riemenschneider, Indiana University at South Bend, P.O. Box 7111, South Bend, IN 46634** by 15 November 1991. Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR NEUROPHARMACOLOGY

Applications are invited for a tenure-track position available in 1992 at the assistant professor level in the Department of Pharmacology at the University of Rochester. We seek applicants who address fundamental questions in neuroscience and who have a special interest in neuropharmacology and neurodegenerative diseases. Applicants must have a Ph.D. or M.D. degree, or both, 2 years of postdoctoral experience, the potential to develop and maintain an independent research program, and an interest in professional and graduate education. Applicants should send their curriculum vitae, the names of at least three references, and a description of their present and future research interests to: **Search Committee, Department of Pharmacology, University of Rochester, 601 Elmwood Avenue, Rochester, NY 14642.** Applications will be received until 31 December 1991 or until the position is filled.

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

ASSISTANT PROFESSOR PLANT CELL BIOLOGY

The Department of Biology of Gonzaga University invites applications for a tenure-track position in plant cell biology beginning 1 June 1992. Gonzaga is a Jesuit comprehensive university in the inland Northwest. Applicants should have a Ph.D. in some area of plant biology and preferably have postdoctoral training. They should be broadly trained and committed to teaching in a traditional liberal arts setting. Research is also expected to be an integral part of our training opportunities. Thus, development of a research program complimentary to those already in place in protist and mammalian cell biology and suitable for involvement of undergraduates is expected. The biology and chemistry departments have a good base of shared research equipment, including fluorescent microscope, centrifuges, scintillation counter, tissue culture facilities and a new 300-MHz NMR. Moderate internal funds are available for initiating research programs, although programs are expected to compete for extramural funding. Teaching assignments will include involvement in the freshman introductory series, a sophomore level cell and developmental biology series and upper division courses appropriate to the interest of the applicant. Send curriculum vitae, statement of research and teaching interests, recent reprints and three letters of recommendation to: **Dr. Robert D. Prusch, Biology Department, Gonzaga University, Spokane, WA 99258.** Gonzaga is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

EASTERN KENTUCKY UNIVERSITY

GENETICIST—ASSISTANT PROFESSOR. The Department of Biological Sciences, Eastern Kentucky University, seeks applicants for a Ph.D. level, tenure-track position in genetics beginning August 1992. Teaching responsibilities will involve an undergraduate genetics course with laboratory as well as development of upper- and graduate-level courses in our M.S. program, and participation in a nonmajor human heredity course. The successful candidate will be expected to direct undergraduate and graduate research as well as conduct research in area of specialty. Send letter of application describing teaching philosophy and research goals, curriculum vitae, undergraduate and graduate transcripts, and three letters of references by 15 November 1991 to: **Dr. Robert Creek, Department of Biological Sciences, Eastern Kentucky University, Richmond, KY 40475.** Eastern Kentucky is an Equal Opportunity/Affirmative Action Employer. Employment eligibility verification required, Immigration Reform and Control Act of 1986.

NEUROBIOLOGIST

ALZHEIMER'S DISEASE RESEARCH

The Department of Pharmacology and Toxicology of the Medical College of Georgia invites applications for a tenure-track position (**ASSISTANT OR ASSOCIATE PROFESSOR**) for a neurobiologist with strong interests in Alzheimer's disease research. We seek an experienced investigator who will interact with both basic science and clinical investigators as part of an Alzheimer's Disease Research Center. The successful candidate will have a proven record of accomplishment. Substantial initial equipment and personnel support will be provided. The Alzheimer's Disease Research Center is a multidisciplinary approach to the study of this disease which includes active researchers from several basic and clinical departments. Programs include new therapeutic approaches, novel diagnostic procedures and basic studies of etiology. The Clinical Research Division provides access to human tissue and autopsy materials: the Animal Behavior Center utilizes animal models including non-human primates. The candidate will also be expected to develop an independent research program and participate in department teaching programs, including medical and graduate students. Candidates should send curriculum vitae, description of research activities and the names of three references to: **Dr. Jerry J. Buccafusco, Chairman, Search Committee, Department of Pharmacology and Toxicology, Medical College of Georgia, Augusta, GA 30912-2300.** Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR. Targeted areas of research: molecular biology and genetics of calcium and/or bone metabolism. Applicants must be an M.D. or Ph.D. Sufficient advanced research training needed to permit independent research. Extensive collaborative opportunities, new space, start-up support. Service commitment for M.D.s limited to allow establishment of active research. Send curriculum vitae, names of three references, statement of research interests to: **Hunter Heath III, M.D., Chief Division of Endocrinology/Metabolism, or Stephen M. Prescott, M.D., Director Human Molecular Biology and Genetics, University of Utah School of Medicine, 50 North Medical Drive, Salt Lake City, UT 84132.** Open until 31 October 1991 or until candidate is identified. University of Utah is an Equal Opportunity Employer. Inquiries from women and minority members encouraged.

The Department of Molecular Pathology, University of Texas M. D. Anderson Cancer Center, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. The M. D. Anderson Cancer Center, an internationally renowned facility, is located in the Texas Medical Center within southwestern Houston together with two medical schools, a graduate school and several other internationally recognized biomedical facilities. Applicants must hold a Ph.D., M.D., or M.D./Ph.D. degree and have at least 3 years of postdoctoral research training. Salaries/benefits and research start-up support are nationally competitive. Submit curriculum vitae, description of research interests, and names of three references to: **Dr. Ralph B. Arlinghaus, Chairman, Department of Molecular Pathology (Box 89), The University of Texas M. D. Anderson Cancer Center, Houston, TX 77030.** Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

PATHOLOGIST

THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF PATHOLOGY ANN ARBOR, MICHIGAN

The University of Michigan Medical School, Department of Pathology, seeks a Board-certified (or -eligible) pathologist with training and skills in anatomic and clinical pathology. This individual will participate in the service activities of the Clinical Laboratories as well as teaching of medical students.

This position will be at the level of **INSTRUCTOR/ASSISTANT PROFESSOR.** The University of Michigan is an Equal Opportunity Employer and welcomes applications from members of minority groups. Applications accompanied by curriculum vitae and names of three references should be directed to: **Peter A. Ward, M.D., Godfrey D. Stobbe Professor and Chairman, Department of Pathology, The University of Michigan Medical School, M5240 Medical Science I, 1301 Catherine, Ann Arbor, MI 48109-0602.**

A nondiscriminatory/Affirmative Action Employer.

Applications are invited for a tenure-track faculty appointment as **ASSISTANT PROFESSOR** in the Department of Microbiology and Immunology, School of Medicine, University of North Carolina at Chapel Hill, beginning summer 1992. We seek a candidate with the clear capability to establish and maintain an independent research program in any area of prokaryotic molecular biology, genetics, pathogenesis or physiology and who will participate in the teaching of graduate and medical students. A doctoral degree and relevant post-doctoral experience are required. Preference will be given to applicants who reply before 1 December 1991. Respond to: **Dr. Philip Bassford, Search Committee, Department of Microbiology and Immunology, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599,** including curriculum vitae, statement of research interests and future plans, representative reprints and names and addresses of at least three references. Women and minorities are encouraged to apply and to identify themselves. The University of North Carolina at Chapel Hill is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR, MOLECULAR NEUROPHARMACOLOGY, TENURE-TRACK POSITION in the Department of Pharmacology. Requirements: Ph.D. degree, postdoctoral experience and potential to obtain external funding. Duties include teaching medical and graduate pharmacology. Pharmacologically relevant independent and interest in collaborative research in central control of cardio- or cerebro-vascular functions applying molecular biological techniques preferred. Send curriculum vitae, representative publications, research plans and three reference letters by 22 November 1991 to: **Dr. Ezio Giacobini, Professor and Chairman, Department of Pharmacology, Southern Illinois University School of Medicine, P.O. Box 19230, Springfield, IL 62794-9230, or FAX: 217-524-0145.** Equal Opportunity/Affirmative Action Employer.

ASSISTANT OR ASSOCIATE PROFESSOR OF ANATOMY

Applications are invited for tenure-track positions at the assistant or associate professor level. Applicants at the assistant professor level should have a Ph.D., M.D., or equivalent, postdoctoral experience, an active research program with a high potential for attracting external support, and promise of ability as a teacher. Applicants at the associate professor level should have an ongoing externally funded research program, an established record of scholarship supported by substantial publications, teaching experience, and a record of successful direction of doctoral candidates. Specific research areas are open, although preference will be given to cellular and molecular biology. Areas of specific teaching expertise are also open, although experience in or ability to teach gross human anatomy is highly desirable. Women and minorities are encouraged to apply.

Send curriculum vitae, bibliography, a brief statement of research and teaching experience, plus names of three references to:

**Chair, Anatomy Faculty Search Committee
The University of Iowa College of Medicine
Iowa City, IA 52242**

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

National Institutes of Health ■ Public Health Service
Department of Health and Human Services

DEPUTY DIRECTOR Intramural Research

The National Institutes of Health (NIH) invites nominations and applications for the position of Deputy Director of the NIH for Intramural Research. This is a Civil Service position in the Senior Executive Service (SES), with a salary range of \$87,000 to \$108,300 per annum. The person selected may also be eligible for Physician's Comparability Allowance ranging from \$5,000 to \$20,000 per year. A one-year probationary period must be served if the individual selected is not currently in the Senior Executive Service. Members of the Commissioned Corps of the U.S. Public Health Service will be considered.

The Deputy Director administers, manages and oversees the Intramural scientific program for the NIH. S/he is the principal assistant to the Director, NIH, on the substance, quality and effectiveness of NIH Intramural science programs and research policies. The Deputy Director is responsible for strategic planning and identifying major areas of research. Incumbent serves as a liaison on intramural research programs with the media, special interest groups, high-ranking scientific and executive officials in other Public Health Service agencies, HHS, other Federal agencies, the academic and private sector, and with members or staff of the Congress.

For more information, contact Susan Haas at (301) 496-1443. The following forms are required: Application for Federal Employment (SF-171) accompanied by a current curriculum vitae and bibliography. These must be submitted to:

Susan Haas
National Institutes of Health
Staffing Management Branch
Building 31, Room 1C-35
9000 Rockville Pike
Bethesda, Maryland 20892



*Applications must be received by
November 29, 1991*

All qualified candidates will receive consideration without regard to race, religion, color, sex, age, national origin, lawful political affiliation, marital status, or physical or mental disability.

NIH is an Equal Opportunity Employer

Molecular Biologists Anticancer and Antibiotics Drug Discovery

The Upjohn Laboratories Division of The Upjohn Company has two immediate openings for research scientists to join the following two departments:

Cancer & Infectious Diseases Research

(Position Code 910197-074)

Working with a team of cell biologists, biochemists, and pharmacologists, the successful candidate will conduct independent research on selected molecular targets relevant to the discovery of novel agents for cancer treatment. This scientist will employ molecular biological approaches to studies of the mechanism of action of anti-tumor drugs such as novel DNA-interactive compounds or agents that inhibit tumor angiogenesis. The incumbent is expected to play a significant role in the selection of future molecular oncology-related areas of research focus for the cancer program and will carry out high-quality work warranting publication in peer-reviewed journals.

In addition to a Ph.D. degree in molecular biology, cell biology, biochemistry or related field, 3-5 years of independent research experience in recombinant DNA technology applied to a molecular oncology related field of investigation, such as growth factors, oncogenes, cell-cycle regulation or tumor suppressor genes is essential.

Molecular Biology Research

(Position Code 910596-075)

Working with our Infectious Diseases Research Group, the successful candidate will conduct independent research on replication, translation or transcription to study the mechanism of action of antibiotics of interest to our anti-bacterial program. This scientist will play a key role in identifying, designing and implementing mechanistic screens for specifically targeted anti-bacterial agents. Additionally, this scientist will collaborate with other researchers to provide support to heterologous gene expression in *E. coli*. The incumbent is expected to carry out high-quality work warranting publication in peer-reviewed journals.

In addition to a Ph.D. degree in microbiology, biochemistry, molecular biology, or cell biology, a minimum of 2 years of postdoctoral training and 3-5 years of independent research experience is required. Strong background in prokaryote genetics and molecular biology with proficiency in techniques required for experimentation in these areas is essential.

Upjohn offers a competitive salary and benefits package in addition to a stimulating, multi-disciplinary research environment. In 1990, Upjohn committed over \$400 million to research and development and we are currently increasing our research facilities by 50%. Qualified candidates are invited to send their curriculum vitae and cover letters to: THE UPJOHN COMPANY, CORP. RECRUITING, 7000 PORTAGE ROAD, KALAMAZOO, MI 49001, USA. Please refer to one of the above Position Codes in your correspondence. An Equal Opportunity Employer M/F.

Our Commitment to Scientific Excellence Continues...

Upjohn

UNIQUE CAREER CHANGE OPPORTUNITY

Ph.D.s & Doctoral Professionals

The College of Osteopathic Medicine and Surgery in Des Moines, Iowa, offers an accelerated three-year program leading to the Doctor of Osteopathy (D.O.) degree. Doctors of Osteopathy are fully licensed physicians who practice all aspects of medicine in every state.

Your doctoral degree in biological sciences or medical sciences qualifies you to be considered for admission to this accelerated program.

The Graduate Professional Education Program (GPEP) features:

- Three years of didactic and clinical training.
- Significant reduction in total tuition and living costs compared to standard four-year medical programs.
- Financial assistance to qualified students.
- Self-paced learning through independent study.

For more information and an application contact:

Admissions Office, GPEP Program
**University of Osteopathic Medicine
and Health Sciences**
3200 Grand Avenue
Des Moines, IA 50312-4198
(515) 271-1450 or 271-1614



ASSISTANT OR ASSOCIATE PROFESSOR RADIATION HEALTH

University of Pittsburgh

The Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, is a newly established department charged with providing mechanistic information necessary for the identification, assessment and reduction of health risks resulting from environmental and occupational exposures. In order to fulfill this mandate, the Department seeks to recruit at the Assistant or Associate Professor level (tenure stream) an individual with expertise in radiation health (Board Certification "ABHP" desirable).

The successful candidate is expected to develop a funded research program, teach graduate levels courses in basic radiation physics and applied health physics, supervise research projects of masters and doctoral students, participate in departmental service and academic administrative functions.

The position is available November 1, 1991, with a closing date for applications of October 21, 1991. Salary commensurate with experience.

Candidates with two or more years of post-doctoral experience and outstanding records of productivity are encouraged to submit a curriculum vitae, statement of interest and the names of at least three references to:

**Herbert S. Rosenkranz, Ph.D., Chairman,
Department of Environmental and Occu-
pational Health, Graduate School of Public
Health, University of Pittsburgh, 130
DeSoto Street, Pittsburgh, PA 15261.**

THE UNIVERSITY OF PITTSBURGH IS AN
AFFIRMATIVE ACTION/EQUAL OPPORTUNITY
EMPLOYER

POSITIONS OPEN

HARVARD UNIVERSITY DEPARTMENT OF CHEMISTRY ASSISTANT PROFESSOR OF ORGANIC CHEMISTRY

Applications are invited for an assistant professorship in any area of organic chemistry beginning in either the 1992/93 academic year or the 1993/94 academic year. Applicants should arrange to have three letters of recommendation sent independently and should provide curriculum vitae and brief descriptions of their future research plans. *Harvard University is an Affirmative Action, Equal Opportunity Employer. Applications from women and minority group members are welcome.* Applications and supporting materials should be sent no later than 1 November 1991, to: **Professor Stuart L. Schreiber, Department of Chemistry, Harvard University, 12 Oxford Street, Cambridge, MA 02138.**

ECOLOGIST

The Department of Biology of the University of North Carolina at Chapel Hill is seeking an **ASSISTANT PROFESSOR**, tenure-track appointment to commence July 1992 or later depending on applicant's availability. While all qualified individuals are encouraged to apply, special consideration will be given to candidates who have demonstrated excellence in research in population biology, evolutionary ecology, and/or physiological ecology. Send curriculum vitae, statement of research interests, and four letters of recommendation by 1 December 1991 to: **Ecology Search Committee, Department of Biology, CB#3280, Coker Hall, The University of North Carolina, Chapel Hill, NC 27599-3280.** An *Affirmative Action/Equal Opportunity Employer.*

FRESHWATER BIOLOGY

The expanding Program in Freshwater Biology at the University of Mississippi invites applications for tenure-track (9-month) positions to begin August 1992 (possibly January 1992). **FISH GENETICS, ASSISTANT PROFESSOR.** Duties include: conducting basic and applied research in fish genetics, using molecular techniques; developing an extramurally funded collaborative research program that incorporates use of the University of Mississippi Biological Field Station; participating in undergraduate and graduate teaching including a core genetics course, freshman biology, population biology, specialty courses. **AQUATIC TOXICOLOGY, ASSISTANT/ASSOCIATE/FULL PROFESSOR.** Duties include: Conducting basic and applied research in aquatic toxicology in biological specialty; developing an extramurally funded collaborative research program, incorporating use of the University of Mississippi Biological Field Station; participating in undergraduate and graduate teaching including courses in aquatic toxicology, freshman biology, and specialty courses. Area of biological specialization is open. **BIOLOGY EDUCATION/ENVIRONMENTAL EDUCATION, ASSISTANT PROFESSOR.** Duties include: engaging in basic and applied research and scholarship in biology education and environmental education; developing an extramurally funded program of published scholarship and demonstration incorporating use of the University of Mississippi Biological Field Station; participating in undergraduate and graduate teaching including responsibility for development and coordination of the nonmajor freshman biology lecture and laboratory experience. Special qualifications include interest and expertise in freshman laboratory teaching and environmental education. All positions will be involved in directing master's and doctoral students; participating in local and national professional service, and advising undergraduate students. Qualifications for all positions include: doctoral degree, publications, and research experience in appropriate area, evidence of a collaborative research orientation and ability to obtain extramural funding. Salaries open, depending on qualifications. Applications will be reviewed starting 31 October 1991. Position open until filled. Send letter of application, description of current and future research plans, complete curriculum vitae and the names, addresses and telephone numbers of three references to: **Dr. James Kushlan, Chair, Department of Biology, University of Mississippi, University, MS 38677.** The University of Mississippi is an *Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

DEPARTMENT OF BIOLOGY CASE WESTERN RESERVE UNIVERSITY

Tenure-track positions at the **ASSISTANT PROFESSOR** level are available in the areas of:

- (1) Cell, molecular biology. Applicants will be considered with research interests in plant or animal systems.
- (2) Population biology. Applicants should have a strong quantitative background, and will be considered with research interests in plant or animal systems.

Interested persons should submit curriculum vitae, statements of research and teaching experience and interests, and have three letters of recommendation sent to: **Dr. Norman B. Rushforth, Chair, Department of Biology, Case Western Reserve University (CWRU), Cleveland, OH 44106.**

CWRU is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR: ENVIRONMENTAL SCIENCE IN PLANNING. Ecological systems research and teaching interests must develop environmental science findings pertinent to planning human settlements, effects on natural environments, development and evaluation of public environmental policies; aquatic focus preferred. Education and experience sufficient to demonstrate scientific credentials and commitment to planning issues required, salary negotiable. Tenure-track position available 21 August 1992. Joint appointment with an environmental science department likely.

For full consideration send by 1 November 1991 curriculum vitae, two examples of your work (papers, course syllabi), and names, addresses, and telephone numbers of three references to: **Search Committee, Department of Urban and Regional Planning, University of Illinois at Urbana-Champaign, 907½ West Nevada, Urbana, IL 61801. Telephone: 217-244-5400.**

Equal Opportunity Employer.

Applications are being accepted for a **RESEARCH ASSISTANT PROFESSOR** position at the Fidia-Georgetown Institute for the Neurosciences to conduct studies on the regulation of neurotrophic factors in cultured neural cells. Candidates must have a Ph.D. and at least 4 years of research experience in the molecular biology of interleukins, including experience in DNA cloning, sequencing, gene transcription, and mammalian cell expression systems. Additional skills are required in cell culture, intracellular signal transduction, antibody production and enzyme immunoassays. Salary is \$30,000 per year. Send curriculum vitae by 25 October 1991 to: **Director, FGIN, Georgetown University Medical Center, 3900 Reservoir Road, N.W., Washington, DC 20007.**

EUKARYOTIC MOLECULAR BIOLOGY ASSOCIATE OR FULL PROFESSOR

The Department of Biology at the University of Michigan invites applications for a tenured position. We seek individuals who employ the techniques of molecular biology to investigate significant problems in plant or animal biology. The department has just completed a \$13-million building renovation, and the new faculty member will be housed in a modern laboratory. Excellent facilities for molecular analyses are present in the department and on the adjacent medical school campus. In addition, the Matthaei Botanical Gardens, a unit of the department, provides facilities for the growth of experimental plant material. The successful candidate will be expected to conduct an active research program and to participate in the graduate and undergraduate teaching programs of the department. Candidates will be contacted before references are sought, and all communications will be handled in strictest confidence. Application materials should include current curriculum vitae, a statement of research plans, a brief summary of teaching experience, a statement of current grant support and the names of four references. Submit materials to:

**Dr. Wesley M. Brown, Department Chair and
Chair, Eukaryotic Molecular Biology
Search Committee
Department of Biology
The University of Michigan
Ann Arbor, MI 48109-1048**

Deadline for applications is 1 December 1991. *The University of Michigan is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

NEUROPATHOLOGIST

ASSISTANT PROFESSOR, TENURE-TRACK POSITION available as of 1 November 1991 with joint appointment at University Hospitals of Cleveland-Case Western Reserve University and Veterans Administration Medical Center. The position includes diagnostic, teaching and research responsibilities. Board certification or eligibility in anatomic pathology and neuropathology is required; Ph.D. is preferable. Send curriculum vitae and names of three references to: Pierluigi Gambetti, M.D., Division of Neuropathology, Institute of Pathology, Case Western Reserve University, 2085 Adelbert Road, Cleveland, OH 44106. Both institutions are Equal Opportunity Employers.

PLANT MOLECULAR GENETICS INDIANA UNIVERSITY, BLOOMINGTON

The Department of Biology is searching for an **ASSISTANT PROFESSOR** working in the area of plant genetics or molecular biology. Individuals active in any aspect of these fields are encouraged to apply. The successful candidate will be expected to conduct a vigorous, independent research program and contribute to teaching. Applicants should have postdoctoral experience and demonstrated ability as creative scientists. Send curriculum vitae and a brief description of research interests, and arrange to have three letters of reference sent to: Plant Molecular Genetics Search Committee, Department of Biology, Indiana University, Bloomington, IN 47405. Applications received before 1 December 1991 will be assured of consideration.

Indiana University is an Affirmative Action/Equal Opportunity Employer.

Columbia University, Department of Psychology, anticipates making faculty appointments at the **ASSISTANT PROFESSOR** level in one or more of the following areas of specialization: developmental psychology, behavioral or cognitive neuroscience, social psychology, human cognition. For all positions, we seek recent Ph.D.'s who have demonstrated exceptional promise for excellence both as scholar-scientists and as teachers at the undergraduate and graduate levels. Applicants should submit their curriculum vitae and copies of recent publications, and have three letters of recommendation sent to: Personnel Search Committee, Department of Psychology, Schermerhorn Hall-Box 29, Columbia University, New York, NY 10027. The position for which application is being made should be indicated clearly. *Applications from members of minorities and from women are encouraged. Columbia University is an Affirmative Action/Equal Opportunity Employer.*

THE UNIVERSITY OF CALGARY ASSISTANT PROFESSOR IN ZOOLOGY

The University of Calgary Department of Biological Sciences invites applications for an assistant professor in zoology effective 1 July 1992. Qualifications include a Ph.D. with postdoctoral experience, a commitment to excellence in teaching at the undergraduate and graduate levels, and a demonstrated ability to conduct productive research of high quality. Individuals specializing in vertebrate (preferably nonmammalian) endocrinology or a closely related field in physiology are especially encouraged to apply. The successful applicant will collaborate in the presentation of physiology courses at the senior undergraduate level, coordinate a senior undergraduate/graduate course in endocrinology, and may participate in lower level zoology courses.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary has an Employment Equity Program and encourages applications from all qualified candidates, including women, aboriginal people, visible minorities and people with disabilities. The university offers a Dual Career Employment Assistance Program.

Applicants should send curriculum vitae, a concise outline of research directions and goals, and the names, addresses, and telephone numbers of three referees before 31 December 1991 to:

Dr. R. W. Davies, Head
Department of Biological Sciences
The University of Calgary
2500 University Drive N.W.
Biological Sciences 186(B)
Calgary, Alberta, T2N 1N4 Canada
Facsimile: 403-289-9311

PROTEIN BIOCHEMISTRY: STRUCTURE-FUNCTION STUDIES

DNX is an established leader in the emerging field of transgenic sciences, developing enhanced biological models and systems for use in drug discovery, chemical safety testing, transgenic pharmaceutical production, and livestock improvement. Career opportunities currently exist in our new research and development facilities in Princeton, New Jersey.

RESEARCH SCIENTIST

A Ph.D. level position is available for studies on the design of desirable properties in proteins of pharmaceutical interest expressed in transgenic animals. A background in molecular modeling, biophysical techniques, proteins purification or cross-linking is required. The successful candidate will have supervisory responsibilities and will interact with a team of molecular biologists and transgenic animal scientists dedicated to the discovery and development of pharmaceutical proteins using transgenic technology. 1-3 years post-doctoral experience, good publication record and excellent communication skills are essential.

RESEARCH ASSOCIATE

BS/MS with 1 or more years of experience in protein purification, structural studies or expression technology. Experience in transgenic animals is not essential.

DNX offers an excellent working environment and ideal location (midway between New York and Philadelphia), as well as competitive compensation and a superior benefits package. Individuals interested in a challenging opportunity at an exciting and rapidly growing company are invited to submit a curriculum vitae or resume and the names of three references to:



DNX Employment Manager
303B College Road East
Princeton, NJ 08540

Share Our Worldwide Commitment To Discovery

As one of the world's leading pharmaceutical companies, Eli Lilly and Company has a vision for tomorrow: to enhance the discovery of pharmaceuticals and expand our knowledge of medical research to benefit people the world over. We've had a direct presence abroad for more than 70 years, and today our products are available in more than 110 countries.

Supported by a research budget in excess of \$700 million, our 4,000 research scientists and technicians are pursuing a wide range of important research projects. We're developing innovative therapies for cancer; cardiovascular, pulmonary and skeletal diseases; diabetes; CNS conditions, and bacterial and viral infections.

We are seeking qualified scientists for our discovery research division. Applicants should have a MS or BS with research experience in biochemistry, pharmacology, physiology, behavioral pharmacology, neuroscience, cell biology, pathology or molecular biology.

If you share our vision for the future and our commitment to scientific excellence, we invite your inquiry. For prompt consideration, please forward your résumé to: Scientific Recruitment, Dept. S-1091, Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285. An equal opportunity employer.



POSITIONS OPEN

ASSISTANT PROFESSOR DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY DARTMOUTH MEDICAL SCHOOL

Applications are invited from qualified individuals possessing a Ph.D. or M.D. degree and relevant postdoctoral experience. Preference will be given to applicants in molecular pharmacology in such areas as gene therapy, cancer chemotherapy or neuropharmacology, although other areas will also be considered. The successful applicant will be expected to develop an active, externally funded research program. Responsibilities will include medical and graduate teaching in pharmacology and/or toxicology. Applicants should forward complete curriculum vitae including any teaching experience and grant support, an outline of future research plans, and three letters of reference to: **Chair, Department of Pharmacology and Toxicology, Dartmouth Medical School, Hanover, NH 03756.** Applications will be reviewed beginning 15 October 1991 and will continue until the position has been filled. *Women and minorities are urged to apply. Dartmouth College is an Equal Opportunity/Affirmative Action Employer.*

Grinnell College invites applicants for a tenure-track position in biology to begin August 1992. **ASSISTANT PROFESSOR** preferred, **ASSOCIATE PROFESSOR** possible. We seek an animal physiologist, preferably one who utilizes molecular/cellular techniques to understand physiological phenomena. The appointee's duties will be to teach a course in animal physiology, an intermediate course in cellular or molecular biology, and lecture-laboratory courses in introductory biology and/or general education courses. We seek candidates with a broad interest in biology who will conduct an active research program involving undergraduates. Start-up funds, excellent facilities, and modest continuing support for research are available. To be assured of consideration, send curriculum vitae, three letters of recommendation and all transcripts to: **Lenore T. Durkee, Department of Biology, Grinnell College, Grinnell, IO 50112-0806** by 15 December 1991. *Grinnell College is an Affirmative Action/Equal Opportunity Employer and especially seeks women and minority candidates.*

UNIVERSITY OF WISCONSIN-MILWAUKEE DEPARTMENT OF CHEMISTRY

The Department of Chemistry of the University of Wisconsin-Milwaukee expects the opening of a faculty position at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR** in the area of biochemistry. Fields of research specialization may include metallobiochemistry, chemical aspects of molecular biology or enzymology. Scientists in other areas of biochemistry are encouraged to apply. To apply, send curriculum vitae with a research plan and arrange for three letters of recommendation to be sent to: **Professor C. Frank Shaw III, Chair, Department of Chemistry, University of Wisconsin-Milwaukee, P.O. Box 413, Milwaukee, WI 53201.** Screening of applications will begin 1 November 1991. Applications will continue to be considered until 1 February 1992 if the position is not filled before this date.

The University of Wisconsin-Milwaukee is an Affirmative Action/Equal Opportunity Employer.

POSITIONS IN EXPERIMENTAL PSYCHOLOGY AT DUKE UNIVERSITY

Duke University is pleased to announce the formation of a new Department of Experimental Psychology. Research and teaching concentrations will be in human experimental, biological, developmental, cognitive, and computational approaches to the understanding of psychological issues. Interdisciplinary links are encouraged with other departments and schools in the university. Several appointments are planned over the next few years. Applications are now invited for two tenure-track positions in any of the above areas beginning in the fall 1992 at the **ASSISTANT PROFESSOR** or **ASSOCIATE PROFESSOR** level.

Duke University is an Affirmative Action/Equal Opportunity Employer.

Application, curriculum vitae, and references should be sent before 1 December 1991 to: **Chair, Department of Psychology—Experimental, Duke University, Durham, NC 27706.**

POSITIONS OPEN

COLUMBIA UNIVERSITY

The Department of Pharmacology invites applications for the position of **ASSISTANT** or **ASSOCIATE PROFESSOR** (both tenure track). Successful candidates are expected to establish an independent research program in the molecular analysis of receptor-mediated signal transduction. Requirements include a Ph.D. and/or M.D. degree and a minimum of 2 years of postdoctoral research in molecular biology or molecular genetics.

Candidates should submit their curriculum vitae, a brief statement of research interests and future plans, and the names of three references by 15 November 1991 to: **Dr. Steven Siegelbaum, Search Committee, Department of Pharmacology, Columbia University, 630 West 168th Street, New York, NY 10032.**

Columbia University is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION MICROBIAL PATHOGENESIS

Applications are invited for a tenure-track appointment at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level in the Department of Microbiology and Molecular Genetics, UMD-New Jersey Medical School. Applicants should have a Ph.D. (or equivalent degree) and research interest in the pathogenesis of microbial diseases. Successful candidates will be expected to establish a strong basic research program that is molecular in its approach and to participate in medical and graduate school teaching. The department is located in a large medical complex, has excellent facilities, and a vigorous interactive faculty. There are extensive opportunities for collaboration both within and outside the department.

Send curriculum vitae, statement of research interests and names and addresses of three references to: **Dr. Lynn S. Ripley, Faculty Search Committee, Department of Microbiology and Molecular Genetics (A), UMD-New Jersey Medical School, 185 South Orange Avenue, Newark, NJ 07103-2714.**

UMDNJ is an Affirmative Action/Equal Opportunity Employer, M/F/H/V, and is a member of the University Health System of New Jersey.

INFECTIOUS DISEASES FACULTY POSITION IN BASIC AIDS RESEARCH OR RETROVIROLOGY

The University of California, Los Angeles (UCLA), Division of Infectious Diseases, Department of Medicine, at the UCLA Center for the Health Sciences in Westwood is recruiting a tenure-track faculty member at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. The state-funded (hard money) position includes independent laboratory space and equipment, start-up funds, and protected time for research. The applicant must be Board-certified in internal medicine and Board-eligible or -certified in infectious diseases and have at least 3 years of basic research experience. The applicant will establish an independent research program in retrovirology or basic AIDS research. UCLA provides an excellent climate for an individual interested in AIDS research. UCLA has a state-supported AIDS clinical research center which can provide small grants and the state of California through the University of California AIDS Task Force supports AIDS research directly. Outside the Department of Medicine, there are groups working on AIDS in the Department of Microbiology and Immunology, Neurology, Pediatrics, and the Molecular Biology Institute. For appropriate candidates there is also a possibility for a joint appointment in the Department of Microbiology and Immunology and this would provide access to the department's graduate program. Several AIDS-related NIH training grants are available to support postdoctoral fellows. Since the UCLA Medical School is located on the general campus, collaborations outside the Medical School can easily be established. *The UCLA School of Medicine is an Equal Opportunity/Affirmative Action Employer.* Interested candidates should send curriculum vitae, copies of papers, manuscripts and a list of three references to:

**Felix O. Wettstein, Ph.D.
Professor and Vice Chair
Department of Microbiology and Immunology
Chair Search Committee
UCLA School of Medicine
10833 Le Conte Avenue
Los Angeles, CA 90024-1747**

POSITIONS OPEN

The Department of Anatomical Sciences has two tenure-track positions available at the **ASSISTANT/ASSOCIATE PROFESSOR** level for appointment beginning 1 July 1992. Applications are invited from individuals with a Ph.D., M.D. or equivalent degree and at least 2 years of postdoctoral training. Preference will be given to individuals whose research focuses on cell biology, cellular/molecular aspects of developmental biology or neurobiology. Each candidate is expected to establish an independent research program. Teaching responsibilities will be in either gross anatomy or histology to professional and graduate students. Candidates should submit curriculum vitae, a summary of past and proposed research interest and names of at least three references to:

**Raymond E. Papka, Ph.D.
Chairman of Search Committee
Department of Anatomical Sciences
University of Oklahoma Health Sciences Center
Post Office Box 26901
Oklahoma City, OK 73190**

Closing date for applications is 31 December 1991. *Equal Opportunity/Affirmative Action Employer.*

DEPARTMENT OF ENVIRONMENTAL TOXICOLOGY UNIVERSITY OF CALIFORNIA, DAVIS

ENVIRONMENTAL TOXICOLOGIST, ASSISTANT PROFESSOR of Environmental Toxicology and Assistant Environmental Toxicologist in the Agricultural Experiment Station, College of Agricultural and Environmental Sciences. Eleven-month, teaching and research, tenure-track appointment. Traditionally strong in analysis of environmental toxicants, their fate, and health consequences of exposure, we anticipate several appointments in these areas in due course. Areas of special interest include (but are not limited to) ecotoxicology, exposure analysis, toxicant fate, cellular targets and molecular mechanisms. The successful candidate will have a Ph.D. and postdoctoral experience; a solid background in environmental science, chemistry, biochemistry, molecular biology or cell biology; an excellent record of research accomplishment; and an aptitude for undergraduate and graduate teaching. The candidate will be expected to establish an independent, competitive research program in an area of toxicological importance complementing programs of existing faculty; to teach a core course in the undergraduate toxicology curriculum; to develop a graduate course in his or her area of specialization; and to advise and supervise both undergraduate and graduate students. Send résumé, transcripts (official transcripts are required if the Ph.D. was granted in the past 5 years), list of publications, short statement of research and teaching interests, and names and addresses of three references to: **Recruitment Committee, Department of Environmental Toxicology, University of California, Davis, CA 95616-8588.** The position will remain open until filled; however, to assure consideration, applicants should apply by 1 November 1991. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

Ph.D.—Emory University Department of Pathology, through its affiliated hospitals, has a position available for a doctoral scientist with training in microbiology and serology at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. The incumbent will have shown evidence of clinical or basic research productivity. The position requires a strong clinical commitment to service relating to a large population of patients many of whom have infectious disease and require serological diagnosis. Closing date for receipt of letters of inquiry is 1 November 1991. Please send your curriculum vitae plus names of four references to: **Kenneth W. Sell, M.D., Ph.D., Professor and Chairman, Department of Pathology, Room 701 WMB, Emory University, Atlanta, GA 30032.** *Emory University is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT/ASSOCIATE/FULL PROFESSOR. The Department of Psychiatry of the Uniformed Services University of the Health Sciences is seeking to fill a tenure-track research and teaching position with an individual with research interests to complement ongoing neuroscience research. Send curriculum vitae, a description of current and anticipated research interests, and the names of three references to: **Uniformed Services University of the Health Sciences, Attention CPO: Joan Ball, 4301 Jones Bridge Road, Bethesda, MD 20814-4799.** *Equal Opportunity Employer.*

Research Opportunities At The National Institute On Alcohol Abuse And Alcoholism/ADAMHA.

The National Institute on Alcohol Abuse and Alcoholism (NIAAA), located at the National Institutes of Health campus, offers an environment of unparalleled academic opportunity. Four positions are immediately available for Staff Fellows and Senior Staff Fellows with NIAAA:

Staff Fellow or Senior Staff Fellow position available now for animal behavioral geneticist to focus on the neurogenetics of serotonin function. The position is in the laboratory of Dr. David Goldman, Section on Genetic Studies, Laboratory of Clinical Studies. Salary range is \$24,000 to \$52,825, depending upon qualifications and experience. Applicants should have a PhD or MD and training in animal behavior, genetics, and/or neurobiology.

Staff Fellow or Senior Staff Fellow position available now to investigate genetic variation and molecular mechanisms controlling expression of genes involved in serotonergic neurotransmission. The position is in the laboratory of Dr. David Goldman, Section on Genetic Studies, Laboratory of Clinical Science. Salary range is

\$24,000 to \$52,825, depending upon qualifications and experience. Applicants should have a PhD or MD and training in molecular biology, recombinant DNA technology, or neurobiology.

The Section of Analytical Chemistry, Laboratory of Clinical Studies, invites qualified individuals to apply for a fellowship for the study of Phospholipid Metabolism and Remodeling in neuronal tissues. The Section specializes in the study of polyunsaturated phospholipids in relation to their membrane function and metabolism. A unique opportunity exists for the successful applicant to participate in basic studies involving general elements of lipid biochemistry and clinical studies involving the biological basis of alcohol action in conjunction with our interdisciplinary group using mass spectrometry extensively. A background in either lipid biochemistry or biomedical mass spectrometry is appropriate for this position. Applicants should have less than three years postdoctoral experience.

The Section of Clinical Biochemistry and Pharmacology, Laboratory of Clinical Studies

invites qualified individuals to apply for a fellowship to study the effects of ethanol withdrawal on drug-metabolizing enzymes.

The Section focuses on the alteration of drug-metabolizing activity as the result of alcohol consumption. A unique opportunity exists for the successful applicant to participate in basic studies of enzyme activity and clinical studies involving altered pharmacokinetics of therapeutic agents. A background in biochemistry or pharmacology and experience with *in vitro* enzyme assays and/or HPLC is appropriate for this position. Applicants should have less than three years postdoctoral experience.

Each of these fellowship opportunities represents the chance to work side-by-side with some of the most cited physicians and scientists in the world, in one of the world's foremost biomedical research facilities. To apply for these positions, please send your CV, three letters of reference (or names of three references), and a one page description of relevant research interests to Mr. Michael Yuter, Personnel Management Branch, NIAAA, ADAMHA.

**National Institute On Alcohol Abuse
And Alcoholism**

Alcohol, Drug Abuse, And Mental Health Administration

Building 31, Room 1B54, 9000 Rockville Pike, Bethesda, Maryland 20892

Equal Opportunity Employer

POSITIONS OPEN

FACULTY POSITION IN PHARMACOLOGY

Applications are invited for a tenure-track faculty position at the level of **ASSISTANT PROFESSOR**. Candidates should have at least 2 years of postdoctoral training with research interests emphasizing the cellular and molecular mechanisms regulating cardiovascular function. In addition to performing high quality, independent research, other responsibilities include participation in the teaching of professional and graduate students. The applicant should submit his/her curriculum vitae and a statement of research objectives by 1 December 1991 to: **Dr. Charlotte A. Tate, Chair, Search Committee, Department of Pharmacology, College of Pharmacy, University of Houston, Houston, TX 77204-5515.** *The University of Houston is an Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITIONS IN CELL, MOLECULAR, AND STRUCTURAL BIOLOGY

Applications are invited for tenure-track positions in the Department of Cell, Molecular, and Structural Biology at Northwestern University Medical School. **ASSISTANT TO FULL PROFESSOR** applicants must have a Ph.D., M.D., or equivalent degree, with research experience in cell, molecular, or structural biology. Applicants will be screened with respect to their ability to carry on vigorous independent research and to participate in the various teaching programs administered by the department. Candidates whose research interests include developmental biology, biochemistry, and structural biology are encouraged to apply, although outstanding applicants with research interests in other areas of molecular biology will be considered. Send complete curriculum vitae and a brief description of research interests to: **Dr. Robert D. Goldman, Chairman, Department of Cell, Molecular, and Structural Biology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611.**

Northwestern University is an Equal Opportunity/Affirmative Action Educator and Employer and invites applications from all qualified individuals. Applications from women and minorities are especially sought.

PSYCHIATRIST-IN-CHIEF CHILDREN'S HOSPITAL AND HEALTH CENTER (CHHC)

DIRECTOR, DIVISION OF CHILD AND ADOLESCENT PSYCHIATRY UNIVERSITY OF CALIFORNIA SAN DIEGO (UCSD)

Candidates are being sought for the combined position of Psychiatrist-in-Chief, Children's Hospital and Health Center, and Director, Division of Child and Adolescent Psychiatry, University of California, San Diego. Applicants must be Board-certified or -eligible in child psychiatry, California medical license, and have documented clinical, teaching, and research skills and experience (ten plus years) in child and adolescent psychiatry. Candidates must qualify for a tenured position at the **ASSOCIATE** or **FULL PROFESSOR** level at UCSD, which requires a very strong track record as an independent clinical or basic research scholar. Preference will be given to candidates with proven skills and experience in clinical and educational program development and management in child and adolescent psychiatry. Salary will be at UCSD pay scales.

The opportunities and resources are present for an academic child psychiatrist with vision and leadership to build an outstanding scientific, academic and clinical division of child psychiatry which will serve as an integral component of the major tertiary care pediatric hospital in the San Diego region.

Send curriculum vitae by 30 October 1991 to: **Search Committee A, Department of Psychiatry, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0603.** *UCSD and CHHC are an Equal Opportunity/Affirmative Action Employer.*

BIOLOGY PROFESSOR. Full-time January 1992. M.S. degree with at least 18 graduate hours in biology from an accredited institution required. Base salary: \$25,000. Send letter of interest, résumé and graduate transcript to: **Collin County Community College District (CCCCD), Human Resources 2800 East Spring Creek Parkway, Plano, TX 75074.** *CCCCD does not discriminate on the basis of race, color, religion, sex, national origin, age, handicap or veteran status.*

POSITIONS OPEN

JUNIOR/SENIOR FACULTY POSITION IN MACROMOLECULAR STRUCTURE

The Department of Biochemistry and Molecular Biology at Indiana University School of Medicine is seeking applicants for one full-time, tenure-track position at the **ASSISTANT, ASSOCIATE** or **FULL PROFESSOR** level. Applicants should have a Ph.D., M.D. or equivalent degree and postdoctoral experience in a relevant area. The new faculty member will be expected to develop an independent research program. Significant space and start-up funds are available. Supporting facilities include high resolution NMR, x-ray crystallography and molecular graphics. Core facilities are also available for DNA and peptide synthesis and sequencing. Faculty are involved in both graduate and medical education. Applicants should submit their curriculum vitae, a description of research plans, and the names of three references. We are seeking to recruit one person with broad interests in the determination of protein or nucleic acid structure, particularly by x-ray crystallography, NMR or mass spectroscopy. Individuals with such expertise are encouraged to apply to **Dr. William F. Bosron** at the address below:

Department of Biochemistry and
Molecular Biology
Indiana University School of Medicine
Indianapolis, IN 46202-5122
Telephone: 317-274-7151
FAX: 317-274-4686

Indiana University is an Equal Opportunity, Affirmative Action Educator, Employer and Contractor.

FACULTY POSITION IN MICROBIOLOGY AND IMMUNOLOGY

The Department of Microbiology and Immunology, University of Health Sciences/The Chicago Medical School, invites applications for tenure-track faculty position at the rank of **ASSISTANT, ASSOCIATE** OR **FULL PROFESSOR**. Applicants must have a Ph.D. and/or M.D. degree with solid training, research experiences, and interests in medical virology, molecular biology or immunogenetics. The successful candidate will be expected to develop and maintain strong independent research in the field of molecular virology/immunology and to participate in teaching medical and graduate students. The department has established strength in the areas of molecular biology and immunology. The salary will be commensurate with qualifications and a negotiable starting date. Applicants should send curriculum vitae, a brief outline of current and future research plans, and the names of at least three references to: **Yoon Berm Kim, M.D., Ph.D., Professor and Chairman, Department of Microbiology and Immunology, University of Health Sciences/The Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064.** *An Affirmative Action/Equal Opportunity Employer.*

CHAIRPERSON, BIOLOGICAL SCIENCE UNIVERSITY OF TULSA

Nominations and applications are invited for the position of Chairperson of the Faculty of Biological Science. The University of Tulsa is an independent, comprehensive institution of 5000 students. The Faculty of Biological Science is a 16-member department with 125 undergraduate majors and 15 students enrolled in the M.S. and Ph.D. programs. Research interests within the department encompass diverse areas of biology from molecular genetics to population ecology. We seek an individual with expertise in any biological specialty who will lead the department in the continued development of undergraduate and graduate programs, including the hiring of additional faculty members. Candidates are expected to have an outstanding record of accomplishment in research and undergraduate and/or graduate teaching experience. Prior administrative experience is desirable. Salary and start-up funds will be competitive. The appointment will commence 1 September 1992. Screening of applicants will begin 1 December 1991. Send curriculum vitae, statements of research interests and educational and administrative perspectives, and names and addresses of at least three references to: **Chair Screening Committee, Faculty of Biological Science, University of Tulsa, Tulsa, OK 74104.** *The University of Tulsa is committed to diversifying its faculty and staff. Members of underrepresented groups (people of color, people with disabilities, women, veterans, etc.) are strongly encouraged to apply. The University of Tulsa is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

HEAD AND PROFESSOR OF PLANT PATHOLOGY. Department of Plant Pathology, Pennsylvania State University, University Park, Pennsylvania. Qualifications: Candidate should possess a Ph.D. in plant pathology or a closely related field; a significant period of professional and/or academic experience in plant pathology; understanding of the Land-Grant University system; experience or in-depth knowledge of university research, teaching, and extension functions; and experience in or strong evidence of potential for program and administrative leadership. Individuals wishing to apply for the position should send curriculum vitae, with names, addresses, and telephone numbers of five references to: **Dr. Donald D. Davis, Chair, Search Committee, Department of Plant Pathology, 210 Buckhout Laboratory, Box S, Pennsylvania State University, University Park, PA 16802-4507.** Applications for this position will be accepted until 15 December 1991, or until a suitable applicant has been selected. For more information, contact the preceding address. *An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

CANCER RESEARCH CENTER UNIVERSITY OF HAWAII MOLECULAR ONCOLOGY PROGRAM DIRECTOR

RESEARCHER AND PROFESSOR, tenure-track, position #85906. Senior cell and molecular scientist with an outstanding record of research accomplishments including supervision of independent research laboratory and direct generation of research funding. Molecular biologist, biochemist or pharmacologist with cancer-oriented research program. Applicant's research interests should coordinate with current program focus on cell transformation and regulation of cell growth. Research interests fostering potential collaborations with investigators in the center's established epidemiology program and its developing clinical and community outreach program would be especially desirable. Selectee would be expected to establish a research laboratory in the center's modern research facility and serve as administrative leader of the center's Molecular Oncology Program. Salary will be commensurate with experience and accomplishments. To apply send complete curriculum vitae and names of four references to: **Dr. Tom Humphreys, Chairman, Molecular Oncology Program Director Search Committee, Cancer Research Center, University of Hawaii, 1236 Lauhala Street, Honolulu, HI 96813.** Inquiries: 808-548-8538. Closing date: 30 December 1991 or until position is filled. *An Equal Employment Opportunity/Affirmative Action Employer.*

CHAIR DEPARTMENT OF APPLIED SCIENCE UNIVERSITY OF CALIFORNIA, DAVIS

Applications are invited for the position of Chair, Department of Applied Science, College of Engineering. The position is an appointment with the University of California, Davis, to administer the department which has branches on the main campus and on a site adjacent to Lawrence Livermore National Laboratory.

The Department of Applied Science offers a graduate program in broad aspects of applied science leading to degrees of Master of Science and Doctor of Philosophy. The program is strongly focused in the physical and chemical sciences but also involves computational sciences and nearly all other aspects of applied science. Many faculty and students of the department have access to the unique facilities of Lawrence Livermore National Laboratory where a variety of research programs are sponsored. Other research activities have strong extramural support.

The chair must be qualified for the rank of professor in an area of applied science. A strong sense of intellectual leadership, broad academic experience including excellent research and teaching credentials, a commitment to graduate student education, and management and organizational skills are necessary.

Send résumé and references to: **Professor Richard Christensen, Chair, Search Committee, Department of Applied Science, University of California, Davis, P.O. Box 808, L-794, Hertz Hall, Livermore, CA 94550.** A decision for filling the position will be made after 1 March 1992. Applications will be accepted until such a decision is made. *U.S. citizenship is required. The University of California is an Equal Opportunity, Affirmative Action Employer.*

MIT DIVISION OF TOXICOLOGY AND DIVISION OF
COMPARATIVE MEDICINE
WHITAKER COLLEGE OF HEALTH SCIENCES AND
TECHNOLOGY

Faculty Position

Applications are invited for a tenure-track faculty position at the Assistant Professor or non-tenured Associate Professor level. Candidates should have doctoral education in microbiology, biology, biochemistry, chemistry, or toxicology. Research interests should encompass molecular pathogenesis of infectious diseases; focus on molecular and genetic aspects of microbial pathophysiology and carcinogenesis is desirable, e.g., relationships between microbial infections and chemical exposures in carcinogenesis. Areas of research experience and interests should be appropriate to facilitate interactions with other components of current programs, the goals of which are to elucidate at cellular and molecular levels mechanisms through which chemicals and physical agents in the environment induce pathogenesis in humans as well as experimental systems, with the objective of elucidating origins of genetically-linked diseases. Responsibilities of the position include conduct of an active independent research program and participation in the teaching program of the Division.

Applications should send a curriculum vitae, summary of proposed research, and arrange to have letters sent from three scientists who can provide an evaluation of qualifications of the candidate with respect to previous accomplishments as well as potential for research and teaching. Applications should be sent to:

Gerald N. Wogan
Chairman, Toxicology Search Committee
Division of Toxicology
Room 16-333
Massachusetts Institute of Technology
Cambridge, MA 02139

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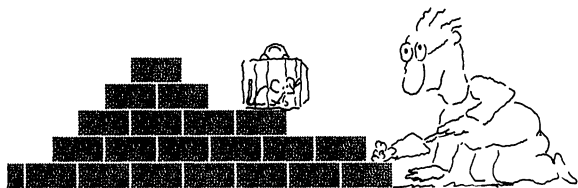
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ASSISTANT OR ASSOCIATE PROFESSOR INDUSTRIAL HYGIENE

University of Pittsburgh

The Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, is a newly established department charged with providing mechanistic information necessary for the identification, assessment and reduction of health risks resulting from environmental and occupational exposures. In order to fulfill this mandate, the Department seeks to recruit at the Assistant or Associate Professor level an individual with expertise in Industrial Hygiene.

The successful candidate is expected to develop and manage graduate teaching programs at the graduate level, Industrial Hygiene professional level, and of physicians in the Occupational Medicine graduate program, and other graduate students in the School and research programs in those fields intrinsic to Industrial Hygiene, as well as provide support (e.g., Exposure Assessment) relevant to other research programs. Responsibilities will include actively integrating ongoing and future teaching and research activities with other faculty, with particular e.g., in molecular toxicology, individual and population based risk assessment, epidemiology, etc. Provide professional Industrial Hygiene consultation and advice necessitated by health protection needs extant in the general industrial community in addition to those of a large University Health Center.

The position is available immediately with a closing date for applications of November 30, 1991. Salary commensurate with experience.

Candidates with two or more years of post-doctoral experience and outstanding records of productivity are encouraged to submit a curriculum vitae, statement of interest and the names of at least three references to: **Bertram D. Dinman, M.D., Search Committee Chair, Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, 130 DeSoto Street, Pittsburgh, PA 15261.**

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ACTION/EQUAL OPPORTUNITY EMPLOYER**

POSITIONS OPEN

DIRECTOR INSTITUTE FOR BIOMEDICAL COMPUTING WASHINGTON UNIVERSITY

The institute is an academic unit attached to both the School of Medicine and the School of Engineering and Applied Science. It is composed of several laboratories and groups (Biomedical Computer Laboratory, Center for Molecular Design, Medical Informatics Group, and Sensory Biophysics Laboratory) which carry out broad interdisciplinary research programs in biomedical computing, quantitative imaging, bioengineering, biophysics, medical informatics, and computational chemistry. Close collaborative interactions are with faculty of schools of medicine and engineering, research professionals, and students, both at Washington University and elsewhere. Graduate training and ties with biomedical engineering are especially important.

The director works with the leaders of the institute components and with a Governing Board (prominent faculty and administrators from both schools) to maintain a stimulating environment for the institute's research programs. In addition to carrying out a personal research agenda, the institute director is responsible for coordinating research programs, developing new research directions, overseeing personnel and budget matters, and coordinating institute programs with other research and teaching programs at both schools.

Qualifications include an M.D. and/or Ph.D. in bio-science or a Ph.D. in an engineering discipline, at least 5 years of significant research and administrative experience, demonstrated leadership abilities, and excellence in intellectual and academic performance. Candidates should submit a résumé, a publication list, and at least three references to: **Dr. James McKelvey, Department of Chemical Engineering, Campus Box 1198, Washington University, One Brookings Drive, St. Louis, MO 63130.** *Washington University is an Affirmative Action/Equal Opportunity Employer.*

DIRECTOR OF RESEARCH

The University of Texas Health Science Center at San Antonio School of Nursing invites nominations and applications for the position of director of research. A unique opportunity exists to develop a research plan in a major academic health center. The School of Nursing is NLN-accredited with baccalaureate, masters and doctoral programs in nursing. Candidates must have an ongoing program of research and be interested in working with faculty and students to develop research ideas. Candidates must have an earned doctorate and substantial experience in grantsmanship and publication. Send nominations or résumé to: **Dr. J. Taylor Harden, Chairman, Search Committee, The University of Texas Health Science Center at San Antonio School of Nursing, 7703 Floyd Curl Drive, San Antonio, TX 78284-7948.** Telephone: 512-567-5896. The position will remain open until filled. *An Equal Opportunity, Affirmative Action Employer.*

HEALTH SCIENTIST/ PHYSICAL SCIENTIST/ BIOLOGICAL SCIENTIST/ LIFE SCIENTIST

The National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control, Division of Biomedical and Behavioral Science (DBBS), in Cincinnati, Ohio, is seeking an **ASSISTANT DIRECTOR FOR SCIENCE**. The successful candidate will work with the director/deputy director in developing program objectives and priorities in a division engaged in laboratory research, worksite studies and methods development activities. The program involves interdisciplinary research addressing concepts of toxicology, behavioral/motivational factors, stress, ergonomics, biological monitoring and physical agents which are relevant to worker health and well-being. Candidates should have research expertise and publications in one or more of these areas as well as experience in research program development and management. The position may be filled as a Commissioned Officer in the PHS or in the Career Civil Service (GM-14 or GM-15, salary range \$52,406 to \$80,138, depending on qualifications). Interested candidates should send an application (U.S. Standard Form 171) and curriculum vitae to: **Ms. Nancy Bryant, NIOSH/DBBS, M-S C-22, 4676 Columbia Parkway, Cincinnati, OH 45226,** telephone: 513-533-8463. *NIOSH is an Equal Opportunity Employer and offers a smoke-free environment.*

POSITIONS OPEN

DIRECTOR STORED-PRODUCT INSECTS RESEARCH AND DEVELOPMENT LABORATORY SAVANNAH, GEORGIA

The USDA Agricultural Research Service is seeking an entomologist with knowledge of stored-product entomology to lead and focus a research team, conduct personal research, and manage the fiscal and other resources of the laboratory. The mission of the laboratory is to develop new knowledge and technology to prevent or reduce insect damage and contamination of agricultural products after harvest through storage, transport, and processing to consumption. The position is to be filled at the GM-14 or -15 level. Potential applicants should contact **Ms. Libby Williams, USDA, ARS, Personnel Division, 6305 Ivy Lane, Room 343, Greenbelt, MD 20770-1435.** Telephone: 301-344-1927.

Equal Opportunity Employer.

ASSISTANT DIRECTOR FOR MEMBERSHIP DEVELOPMENT

The University of Texas Health Science Center at San Antonio (UTHSCSA) has a position available for an Assistant Director for Membership Development, Industry-University Cooperative Research Center (IUCRC). Candidates should have an M.S. or Ph.D. in a scientific discipline, or possess equivalent practical experience. Extensive experience in a business setting related to pharmaceutical, chemical, or biotechnology industries and strong interpersonal skills are necessary for this position. Responsibilities include identifying strategic research capabilities at UTHSCSA and related industry interests; marketing UTHSCSA research to appropriate industries; developing and maintaining IUCRC industry membership; and assisting with development of UTHSCSA intellectual property.

Please refer to NC-001 when submitting résumé and letter of interest to:

**Director, Office of Human Resources
The University of Texas
Health Science Center at San Antonio
7703 Floyd Curl Drive
San Antonio, TX 78284-7972**

An Equal Opportunity/Affirmative Action Employer.

LABORATORY MANAGER. Scientific and administrative matters connected to research on purification of monoclonal antibodies for therapeutic use according to GMP and related FDA guidelines. Requires Ph.D. in chemistry plus 2 years in job offered or 2 years as a research fellow and pharmaceutical production/quality control manager. Experience must include substantial work with monoclonal antibody research and experience managing laboratory and production facilities. Salary: \$39,000 per year; 9:00 a.m. to 5:00 p.m., 40 hours per week. Send résumé to: **Job Order #4430306, Philadelphia Job Bank, 444 North 3rd Street, 3rd Floor, Philadelphia, PA 19123.**

National Science Foundation's (NSF) Divisions of Cellular and Molecular Biosciences are seeking qualified applicants to serve as **PROGRAM OFFICERS** under the provisions of NSF's Visiting Scientist Program. Since responsibilities include research proposal evaluation, budget development and scientific planning, broad knowledge and specific research accomplishment are key qualifications. The positions are excepted from the competitive civil service and are filled on a 1- or 2-year rotational/temporary basis. The positions become available periodically and will be filled beginning in the summer or fall 1992.

The per annum salary ranges and qualifications are as follows: **ASSOCIATE PROGRAM DIRECTOR—\$44,348 to \$69,863;** Ph.D. or equivalent experience plus four or more years of research experience beyond the Ph.D.

PROGRAM DIRECTOR—\$52,406 to \$82,650; Ph.D. or equivalent experience plus six or more years of research experience beyond the Ph.D. In **CELLULAR BIOSCIENCES**, there are openings in: (1) cell biology, (2) development biology, (3) cellular biochemistry, and (4) physiological processes. In **MOLECULAR BIOSCIENCES**, there are openings in: (1) chemistry, (2) biophysics, and (3) genetics.

For further information, call **Dr. Bruce Umminger, Cellular Biosciences,** telephone: 202-357-7905 or **Dr. James H. Brown, Molecular Biosciences,** telephone: 202-357-9400. *NSF is an Equal Opportunity Employer.*

POSITIONS OPEN

PROGRAM DIRECTOR NATIONAL RESEARCH INITIATIVE COMPETITIVE GRANTS PROGRAM UNITED STATES DEPARTMENT OF AGRICULTURE (USDA)

The National Research Initiative Competitive Grants Program, U.S. Department of Agriculture, seeks a qualified scientist to serve as a program director for grant review and administration in the area of animal disease research. Candidates must have a D.V.M., Ph.D. or other degree with major study in microbiology, veterinary science or a related discipline of biological science. In addition candidates must have specialized experience.

Closing date is 4 November 1991. For further information on this full-time, permanent position, contact **Dr. Rosemary R. Grady, NRICGP, Room 323G Aerospace Building, 901 D Street, S.W., Washington, DC 20250-2200.** Telephone: 202-401-6234. For information on application procedures/forms, contact **Ms. Kathy Armussen, Personnel Staff Specialist,** telephone: 202-475-4811. *USDA is an Equal Opportunity Employer.*

PROJECT PLANNING MANAGER—PHARMACOLOGY. To oversee all aspects of drug development projects. Interface with research scientists and team leaders to determine project goals and strategies, and with directors in the United States and overseas to allocate financial and manpower commitments. Coordinate implementation of antibiotic, toxicology and oncology projects between United States and overseas facilities including research, development, safety testing, modification and marketing. M.Sci. degree in pharmacy plus 3 years of experience as Project Manager—Pharmacology required. Previous experience must include 2 years of hands-on experience overseeing drug-safety studies, overseeing projects involving development of antitumor agents and antibiotics, as well as 1 year of combined research experience in toxicology, pharmacokinetics and the metabolism of medicines. Frequent and prolonged travel to company's overseas branch required. Forty hours per week, Monday through Friday, 8:30 a.m. to 5:00 p.m., \$65,000 per year. Send résumés to: **Ms. Linda Stewart, Rhone-Poulenc Rorer Central Research, 640 Allendale Road, King of Prussia, PA 19406.** *Equal Opportunity Employer.*

CELL AND MOLECULAR BIOLOGY NEUROSCIENCE

The Department of Anatomy at the University of Nebraska Medical Center invites applications for **TWO TENURE-LEADING, FULL-TIME FACULTY POSITIONS** at ranks commensurate with qualifications and experience. Individuals with interests in, but not limited to, cell and molecular biology or neurosciences are sought. Teaching responsibilities will include participation in an integrated first-year course for medical students and specialized courses for graduate students in the basic medical sciences. A vigorous research program and a record of extramural funding are expected. Salary and research incentives are highly competitive. The University of Nebraska Medical Center is a dynamic and expanding facility that ranks high in national measurements of faculty productivity and academic atmosphere. The Omaha metropolitan statistical area includes about 700,000 residents, and usually is ranked among the top ten U.S. cities for indices of the quality of urban life. Send curriculum vitae and the names of three references to: **Dr. David Crouse, Vice-Chairman, Department of Anatomy, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-6395.**

The University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer; minorities and women are encouraged to apply.

FACULTY POSITION—BIOLOGIST, Ph.D. King College, a Christian 4-year liberal arts college in the Presbyterian tradition, is seeking a biologist, permanent position beginning fall 1992. Teaching responsibilities involve molecular genetics, microbiology, and introductory biology. Start-up funds are available for student-directed research. *King College is an Equal Opportunity Employer.* Send curriculum vitae and statement of teaching and research interests by 1 December 1991 to: **Dr. Gregory D. Jordan, Dean of the Faculty, King College, 1350 King College Road, Bristol, TN 37620-2699.**

SCIENTISTS IMMUNODIAGNOSTICS

Technicon Instruments Corporation, a leading manufacturer of automated clinical laboratory instruments, is expanding its Immunomethod R&D Department.

A variety of openings exist, ranging from Technologists to Scientists, at all degree levels.

Our interest focuses on the development of new immunochemical reagents and corresponding automated immunoassays. We are seeking candidates with strong educational background in analytical and protein biochemistry, immunochemistry and bio-organic chemistry. Background in infectious diseases testing will be helpful.

Areas of interest include assays for hormones, tumor markers, infectious diseases, anemia, and drugs. Tasks phases comprise feasibility R&D, preparation/modification of immunological reagents, their formulation, performance optimization and commercialization. Industrial experience is desirable.

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Manager, Human Resources - R&D

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SCIENTISTS IMMUNODIAGNOSTICS

POSITIONS OPEN

FACULTY POSITION. Department of Microbiology and Immunology, the University of California, San Francisco, School of Medicine, is seeking an outstanding candidate to fill a tenure-track or tenure position. In addition to departmental affiliation the position includes membership in the Program in Biological Sciences, the excellent campus-wide graduate program. The search will consider candidates with demonstrated creativity and productivity in one of the following two areas: (1) molecular mechanisms of basic processes in prokaryotes or (2) molecular mechanisms of bacterial pathogenesis. Rank will be commensurate with level of experience. Interested candidates should send curriculum vitae and a statement of future research plans, and have three letters of recommendation sent by 1 December 1991 to: **Microbiology Search Committee, c/o Mary Jo Kelley, Department of Microbiology and Immunology, Box 0502, University of California, San Francisco (UCSF), San Francisco, CA 94143.** UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

INSTRUCTOR POSITIONS

Two instructor positions are available immediately in the research area of cellular and molecular characterization of hematopoietic tumor cells. The main areas of concentration will be in leukemia and lymphoma. The successful applicants will be expected to direct research in this area in collaboration with the other members of our group, write publications, and participate in obtaining grant funding. It is essential that applicants have a strong background in PCR, DNA and RNA in situ hybridization, design of oligo-probes and phenotyping. It is also desirable that the applicant have experience in technology development for diagnostic purposes. Send curriculum vitae and two letters of recommendation to: **Dr. Karel Dicke, Oncology/Hematology, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-1210.** An Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION MOLECULAR APPROACHES TO BIOLOGICAL TIMING

TENURE-TRACK POSITIONS are now available in a newly established NSF Science and Technology Center for Biological Timing. The center seeks individuals with research interests in the generation and control of endocrine, neural and circadian rhythms. Investigators will hold primary appointments in the Department of Medicine or in the Department of Biology. Interested candidates should send curriculum vitae, statement of research interests and three letters of reference by 30 November 1991 to:

**Search Committee
Center for Biological Timing
Gilmer Hall
University of Virginia
Charlottesville, VA 22901**

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

NASA SPACE LIFE SCIENCES TRAINING PROGRAM GRADUATE STUDENT LEVEL TEMPORARY POSITIONS

Applications are being accepted for four temporary staff positions (January through August 1992) at the Kennedy Space Center supporting design, development and implementation of laboratory research projects. Projects will be major part of NASA, intensive-study, summer, educational curriculum for 48 undergraduates (including 18 international students). Positions will provide unique on-the-job experience in space life science operations and research while under supervision of resident and visiting scientists and engineers. Graduate student level persons with teaching and research experience in general biology, human physiology (cardiovascular, muscle or exercise), plant physiology, embryology, microbiology, bioengineering, ecology, or combinations of the above are especially encouraged to apply. For more information contact: **Dr. Ronald Biro at 407-867-2521.** Submit letter of interest, curriculum vitae and three references by 15 November 1991 to: **Personnel, The Bionetics Corporation, Mail Code BIO-1, Kennedy Space Center, FL 32899.** Equal Opportunity Employer, M/F/V/H.

POSITIONS OPEN

FACULTY POSITIONS

The Faculty of Biological Science, University of Tulsa, invites applications for two tenure-track positions beginning fall term 1992. The University of Tulsa is a comprehensive, private university that emphasizes excellence in teaching and research. The Faculty of Biological Science consists of 16 members with diverse research interests; degrees are offered at the B.S., M.S., and Ph.D. levels.

COMMUNITY ECOLOGIST: Rank open. The successful candidate will have a Ph.D., an active and established research profile with an emphasis on quantitative methods, will be expected to teach at graduate and undergraduate levels, and will develop the department's role in an interdisciplinary program on environmental studies.

ORGANISMIC BIOLOGIST (botanist or zoologist): **ASSISTANT PROFESSOR.** The successful candidate will have a Ph.D., a commitment to undergraduate and graduate teaching, and a publication record indicative of the ability to establish an independent research program.

Salaries and start-up funds will be commensurate with experience. Applicants should submit curriculum vitae, a statement of teaching and research interests, recent reprints, and three letters of reference to the **Ecologist Search Committee** or the **Organismic Biologist Search Committee** at: **Faculty of Biological Science, University of Tulsa, 600 South College Avenue, Tulsa, OK 74104.** Review of applications will begin on 1 December 1991.

The University of Tulsa is committed to diversifying its faculty and staff. Members of underrepresented groups (people of color, people with disabilities, women, veterans, etc.) are encouraged to apply. The university is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION, Chemistry Department, University of Florida. Applications from candidates at any level are invited for a faculty position, which is one of several in the basic, engineering, and life sciences that are to be filled at the University of Florida as part of the program of the U.S. National High Magnetic Field Laboratory (NHMFL). Research areas should be related to the NMR developmental activities of the NHMFL, and preference may be given to areas of biological significance. The applicant should have experience in current techniques of pulse and multidimensional NMR spectroscopy. The University of Florida will have available 500- and 600-MHz spectrometers in Gainesville, and opportunity will be provided for use of spectrometers operating at 750 MHz and higher frequencies as they are brought into operation at the NHMFL. Applications, including the names and addresses of three or more references, should be submitted by November 15 1991 to: **Wallace S. Brey, Chair Search Committee, Department of Chemistry, University of Florida, Gainesville, FL 32611-2046.** The University of Florida is an Affirmative Action/Equal Opportunity Employer and applications from minorities and women are encouraged.

ORAL PATHOLOGY

Oregon. **TENURE-TRACK FACULTY POSITION** available, Department of Oral Pathology, Oregon Health Sciences University, School of Dentistry. Duties include teaching general pathology as the course coordinator, service activities (biopsy and oral medicine) and scholarly research. Special consideration will be given to those with at least 3 years of teaching experience in the area of general pathology and to those who have funded research. Direct inquiries to: **Dr. M. H. Bartley, Department of Oral Pathology, School of Dentistry, Oregon Health Sciences University, 611 Southwest Campus Drive, Portland, OR 97201-3097.** Oregon Health Sciences University is an Equal Opportunity Employer.

POSTDOCTORAL POSITION. Available immediately for the study of mechanisms of enzymatic catalysis employing and developing a novel transient-state technique [J. Biol. Chem. 263, 11704, (1988)]. Experience and interest in transient and steady-state kinetics is desirable. Send curriculum vitae to or call: **Dr. Harvey F. Fisher, University of Kansas at VA Medical Center, 4801 Linwood Boulevard, Kansas City, MO 64128; telephone: 816-861-4700, extension 3455.** An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

INVERTEBRATE BIOMECHANICS

The Department of Environmental, Population, and Organismic Biology invites applications for a **TENURE-TRACK FACULTY POSITION** in invertebrate biomechanics. Preference will be given to candidates at the assistant professor level, but all levels will be considered. Research interests may include any aspect of biomechanics or functional morphology. Development of strong research and teaching programs in invertebrate biology with an evolutionary, ecological, or physiological component consistent with the broad themes of this department will be required. To apply, send curriculum vitae, statements of research and teaching interests, and the names and addresses of four references to: **Dr. Steven C. Hand, Search Committee Chair, Department of EPO Biology, University of Colorado, Boulder, CO 80309-0334.** Applications should be postmarked no later than 15 November 1991. The University of Colorado at Boulder has a strong institutional commitment to the principle of diversity in all areas. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities and disabled individuals.

POSTDOCTORAL POSITION EXPERIMENTAL HEMATOLOGY

Position is available to study genetic regulation of hematopoietic stem cell proliferation and differentiation in embryo aggregated chimeric mice and in mice engrafted intraplastically as fetuses. Experience with embryo manipulation and/or retroviral stem cell marking desirable. Extensive use of flow cytometry is made in preparation of grafts and analysis of engraftment. Salary open. Please send curriculum vitae, a summary of your research experience and names of three references to: **Dr. Gary Van Zant, Department of Cell Biology and Anatomy, Texas Tech University Health Sciences Center, Lubbock, TX 79430.** Equal Employment Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS IN MOLECULAR NEUROBIOLOGY UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Two postdoctoral positions will be available in the spring of 1992 to study (1) the function and regulation of submembrane proteins involved in clustering of nicotinic acetylcholine receptors and postsynaptic membrane structure, or (2) expression and localization of presynaptic calcium channels during neuromuscular synaptogenesis. Experience in molecular biology and/or membrane biochemistry is desirable.

For more information, send curriculum vitae and the names of three references to: **Dr. Stanley C. Froehner, Department of Biochemistry, Dartmouth Medical School, Hanover, NH 03756.** Telephone: 603-646-7624. After 1 January 1992, please direct correspondence to: **Department of Physiology, University of North Carolina, Chapel Hill, NC 27599.**

An Affirmative Action/Equal Opportunity Employer.

YALE UNIVERSITY SCHOOL OF MEDICINE POSTDOCTORAL POSITIONS IN IMMUNOBIOLOGY

Postdoctoral positions are available in the Section of Immunobiology to study the role of specific genes believed to be involved in immune function utilizing homologous recombination and embryonic stem cell technology. Applicants who have experience in molecular biology and cell culture should send curriculum vitae and three letters of recommendation to: **Dr. Richard A. Flavell, Chairman, Section of Immunobiology, Yale University School of Medicine, 310 Cedar Street, 424 FMB, Box 3333, New Haven, CT 06510.** Yale University is an Equal Opportunity Employer.

POSTDOCTORAL POSITION

Available to study isozymes of human aldehyde dehydrogenase. Recent graduates with experience in protein chemistry and/or enzymology or in cDNA cloning are encouraged to apply. Salary commensurate with experience.

Submit curriculum vitae and letters of reference to: **Dr. Regina Pietruszko, Center of Alcohol Studies, Rutgers University, Busch Campus, Piscataway, NJ 08855-0969.**

Equal Opportunity/Affirmative Action Employer.

1992 PROGRAMS OF THE CENTER FOR BIOLOGICAL TIMING

.....
*A National Science
Foundation
Science and
Technology Center*



UNIVERSITY OF VIRGINIA
NORTHWESTERN UNIVERSITY
ROCKEFELLER UNIVERSITY

The Center for Biological Timing (CBT) combines the investigative efforts from the University of Virginia, Northwestern University and Rockefeller University to increase our knowledge of biological timing.

Annual Research Symposium, January 18, 1992

- Focus on molecular basis of biological timing
- Open to faculty, students and postdoctoral researchers
- Registration required

Industrial Symposium, February 9-10, 1992

- Lectures on relevance of biological timing to shift work, pharmaceuticals, transportation, agriculture and health-care industries
- Round table discussions among industrial, governmental and Center investigators
- Held at Center for Innovative Technology, near Dulles International Airport
- Registration required

Biological Rhythms Course, July 15-August 14, 1992

- Quantitative and topological analysis of biological oscillations
- Molecular, cellular and systems-level properties in biological timekeeping
- Open to undergraduates, graduates and postdoctoral researchers

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

Graduate and Postdoctoral Training

- Fellowships available for graduate and postdoctoral training in Center laboratories
- Laboratory rotation program for specialized training

Summer Fellowships

- Ten week program with each fellow working on a specific project under guidance of Center investigator
- Graduate and undergraduate fellowships available on competitive basis

Industrial Fellowships

- Fellowships allow industrial scientists to learn more about Center research programs

Traveling Lecture Series

- General interest scientific lectures by Center faculty at colleges and universities not part of the Center

For more information about the Center for Biological Timing and its programs, contact:

**The Center for Biological Timing
Gilmer Hall**

**University of Virginia
Charlottesville, VA 22901**

Phone: (804) 982-5225 FAX: (804) 982-5626

E-Mail: clock@virginia.edu

National Institutes of Health
National Institute of Environmental Health Sciences
Research Triangle Park, North Carolina

BIOCHEMIST/MOLECULAR BIOLOGIST

A post-doctoral is available in the Eicosanoid Biochemistry Workgroup of the Laboratory of Molecular Biophysics which studies arachidonic acid and linoleic acid metabolism by prostaglandin H synthase and lipoxygenases. The laboratory's primary focus is the study of the importance of lipid modulators in growth factor dependent mitogenesis. The research involves the application of biochemistry, chemistry, and molecular biology to the study of the structure, function and expression of these enzymes. Knowledge and experience in the biosynthesis of prostaglandins and related lipids. Expertise in molecular biology techniques is highly desirable. General Requirements: Applicants must have a Ph.D. or equivalent degree in Biochemistry, Cell Biology, Molecular Biology, Physiology, Pharmacology, or closely related field, and show evidence of ability to carry out independent research. Candidates with up to three years of postdoctoral research experience will be considered. For more information, contact: **Dr. Thomas E. Eling at (919) 541-3911.**

For prompt consideration, send cover letter indicating area of interest, Curriculum Vitae, and three letters of reference by October 25, 1991 to:

**Ms. Carole Gregory (Code HNV40)
NIEHS Personnel Office
P. O. Box 12233
Research Triangle Park, NC 27709**

NIH is an Equal Opportunity Employer

SEARCH EXTENDED!

TUFTS UNIVERSITY

DIRECTOR OF THE DUDLEY WRIGHT SCIENCE EDUCATION PROGRAM

Tufts University is seeking applicants for Director of the Dudley Wright Program for Innovation in Science Education to start September, 1992. The Director will oversee the development of a program dedicated to the improvement of teaching of science and mathematics to young people and will also teach and mentor Tufts graduate students pursuing a career in science education. The position can be a joint faculty position in the Education Department, tenure track or not, depending on the qualifications and desires of the successful candidate. The faculty rank would be commensurate with the applicant's teaching and research experience.

The Director will be guided by internal and external advisory councils and will be charged with establishing and guiding science teacher workshops, with the selection of Wright Fellows, with the administration of all aspects of the Wright Center, and with coordinating all science education programs in the University. In the future, the Director will be expected to expand the Program to all levels of education, pre-school through college as well as to other sectors of society where the learning and re-learning of science and mathematics are important.

The position requires a person with a significant recognized record of publication in science or mathematics education. Some preference will be given to persons whose original career trajectory was in the natural sciences or mathematics and who have an earned doctoral degree in one of those fields. Send curriculum vitae and the names of three references to Dean Robert P. Guertin, Graduate School of Arts and Sciences, 120 Packard Avenue, Tufts University, Medford, MA 02155. Deadline for receipt of application letter is December 1, 1991.

Tufts University is an equal opportunity/affirmative action employer and urges minorities and women to apply.

POSITIONS OPEN

POSTDOCTORAL POSITION DEVELOPMENTAL BIOLOGY

Applications are invited for a postdoctoral scientist to work as an **ASSOCIATE** on a *Drosophila* neurobiology project in the Institute for Molecular Genetics at Baylor College of Medicine. Research projects will involve studying essential genes that have been identified with P-element-mediated enhancer detection [*BioEssay* 12, 199 (1990) and *G & D* 3, 1288 and 1301 (1989)] and that are expressed in the peripheral and central nervous system of embryos or larva. Candidates should possess a Ph.D. in molecular biology, genetics, or biochemistry. Please forward your curriculum vitae and three letters of recommendation to: **Dr. Hugo Bellen, Institute for Molecular Genetics, One Baylor Plaza, Baylor College of Medicine, Houston, TX 77030. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION. (1) Molecular cloning of opioid receptor genes, using expression cloning, PCR and receptor isolation. (2) Mutational analysis of muscarinic cholinergic receptors; structure and function of G protein-coupled receptors. Background in recombinant DNA technology, protein isolation, and/or neurobiology (G protein-coupled receptors). Supported by NIDA and NIGMS; available immediately. Résumé and names of three references to: **Dr. W. Sadée, School of Pharmacy, University of California, San Francisco (UCSF), CA 94143. Telephone: 415-476-1947. UCSF is an Equal Opportunity Employer.**

POSTDOCTORAL POSITION. To develop amplification detection methods for multiplex determination of trypanosome and other blood-borne viral and parasitic diseases important to developing countries and adapt detection methodologies to clinical analysis. Experience with techniques of molecular biology desirable. Send curriculum vitae and letters of reference to: **Dr. Larry Simpson, Department of Biology, University of California, Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024. Telephone: 213-825-4215. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION IN MOLECULAR AND CELLULAR NEUROBIOLOGY. A position is available to study the molecular and cellular biology of mammalian brain potassium channels (KChs). Research in the laboratory involves using multidisciplinary approaches to determine which domains of KChs are required for the proper distribution, maintenance, and function of these channels in membranes. Experience in the techniques of molecular biology and biochemistry is preferred, but other applicants will also be considered. Send curriculum vitae and the names and telephone numbers of three references to: **Dr. William B. Thornhill, Department of Physiology and Biophysics, Box 1218, THE MOUNT SINAI MEDICAL CENTER, One Gustave L. Levy Place, New York, NY 10029-6574. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately to study translocations and suppressor genes involved in human leukemias. Experience in molecular biology required. Send curriculum vitae and telephone numbers of two or three references to: **Dr. Eli Canaani, Cancer Center and Department of Microbiology, Thomas Jefferson University, Bluemle Building, 233 South 10th Street, Philadelphia, PA 19107. We are committed to a smoke-free environment. Equal Opportunity Employer.**

TWO POSTDOCTORAL POSITIONS

Available starting January 1992 at the California Parkinson's Foundation. Applicants must have experience with tissue cultures and/or molecular biology techniques related to DNA/RNA analysis, including PCR, sequencing, Southern and Northern blotting. Research projects are aimed at investigating the mechanisms of action of neurotoxicants and elucidating the molecular basis of neurodegenerative processes. Interested applicants are invited to send their curriculum vitae and names of three references to: **Dr. Donato Di Monte, California Parkinson's Foundation, 2444 Moorpark Avenue, Suite 316, San Jose, CA 95128.**

POSITIONS OPEN

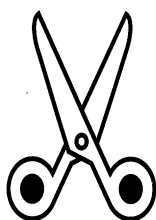
POSTDOCTORAL POSITION, DEPARTMENT OF MEDICINE, Harvard Medical School. Opening available for postdoctoral fellow with strong background in molecular biology and/or molecular immunology to study the transcriptional regulation of gene expression. Funding available for *U.S. citizens or permanent residents*. Send curriculum vitae, three letters of recommendation and a statement of research interest to: **Dr. Patricia Finn, Enders Research Building, Room 126, 320 Longwood Avenue, Boston, MA 02115. FAX: 617-730-0422.**

TWO POSTDOCTORAL POSITIONS IN EUKARYOTIC TRANSCRIPTION immediately available to study initiation and regulation mechanisms of ribosomal and 5S RNA expression. Experience in gene cloning and protein purification desired. Send résumé and three letters of recommendation to: **Marvin Paule, Department of Biochemistry, Colorado State University (CSU), Fort Collins, CO 80523. Telephone: 303-491-5576; FAX: 303-491-0494. CSU is an Equal Employment Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION

Available to study the role of multiple protein kinases and protein phosphorylation in neutrophil activation. Experience in biochemistry, cell biology, or molecular biology is required. Please send curriculum vitae and names of three references to: **Dr. Chi-Kuang Huang, Department of Pathology, University of Connecticut Health Center, Farmington, CT 06030.**

POSTDOCTORAL POSITION. Available immediately for a molecular biologist to develop novel approaches to large scale DNA cloning and sequencing. An interdisciplinary research environment combining chemistry, biochemistry, instrumentation, and molecular biology supports the development of new technologies for gene analysis. Interested candidates should send curriculum vitae and two letters of reference to: **Dr. David Mead and Dr. Lloyd Smith, Department of Chemistry, 1101 University Avenue, University of Wisconsin, Madison, WI 53706. An Equal Opportunity Employer. Women and minorities are encouraged to apply.**



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RESEARCH SCIENTIST

Merck Sharp and Dohme Research Laboratories has an immediate opening for a biochemist/cell biologist in the cardiovascular pharmacology division.

A B.S./M.S. in biochemistry/cell biology or equivalent is required with at least 2-3 years experience. A background in contractile mechanisms, vascular cell biology and/or growth factors would be advantageous.

Excellent salary and benefit programs accompany this position at our modern research facilities located 25 miles northwest of Philadelphia.

Please send curriculum vitae with references, transcripts and cover letter to:

**Personnel Manager
Ad #D-36**

**Research Personnel, WP42-2
Merck Sharp & Dohme
Research Laboratories
West Point, PA 19486**

EEO/AA/VH/Employer



Merck & Co., Inc.

Sr. Research Assistant

Molecular Immunology

To carry on studies in mouse molecular genetics and immunology. The ideal candidate should have an MS or equivalent experience with basic understanding of molecular biology, genetics and immunology. Techniques desired: (1) basic molecular biological techniques including DNA isolation, purification and cloning, Southern blot analysis and PCR; (2) tissue culture of lymphocytes.

Postdoctoral Position

Cellular and Molecular Immunology

To carry on research into the genetics and immunobiology of non-H-2 histocompatibility genes and antigens. A strong background in immunology and molecular biology is highly desirable.

Send inquiries to: Dr. Derry Roopenian, Ph.D., c/o Harold Wheeler, Employment Manager, The Jackson Laboratory, 600 Main St., Bar Harbor, ME 04609.

The Jackson Laboratory, located on the coast of Maine adjacent to scenic Acadia National Park, is a world-renowned center for mammalian genetics.

The Jackson Laboratory



RESEARCH SCIENTISTS

Bristol-Myers Squibb Pharmaceutical Research Institute, a world leader in the pharmaceutical industry, has challenging opportunities for Research Scientists in the Molecular Biology Department.

TISSUE CULTURE - Work on the role of neurotrophin receptors via the growth and survival of neurons and their involvement in neurodegenerative diseases. Extensive experience in basic tissue culture techniques is necessary. Additional experience in neuronal cell cultures is preferred. Reply to Dept. # 247A - BM.

MOLECULAR BIOLOGY - Hands-on experience in cloning and expression of genes in bacterial as well as in mammalian cells is necessary along with familiarity with basic molecular procedures such as subcloning, nucleotide sequencing, PCR and expression vectors. Additional experience in basic protein purification techniques will be considered an asset. Reply to Dept. # 247B - BM.

GENE TARGETING - Responsibilities include maintenance and cultivation of mouse embryonic stem cells, electroporation and cloning. Experience in embryonic stem cell technology and other cell culture techniques is necessary. Previous training in DNA recombinant techniques is also desired but not essential. Reply to Dept. # 247C - BM.

BACULOVIRUS EXPRESSION - Experience in using Baculovirus expression vector systems for the expression of large quantities of mammalian proteins is necessary. Responsibilities include cultivation, freezing and storage of insect cells, cloning genes into AcMNPV transfer vectors, transfection of Sf9 cells and isolation of recombinant viruses. Additional experience in purification of proteins by HPLC and other chromatographic methods preferred. Reply to Dept. # 247D - BM.

FLOW CYTOMETRY - The qualified candidate will be a flow cytometry "specialist" and head the departmental flow cytometry facility. The facility is equipped with Coulter Epics and Coulter Profile flow cytometers. Experience in flow systems and familiarity with computers are necessary. Reply to Dept. # 247E - BM.

Candidates should possess a BS or MS degree in a relevant discipline along with several years of experience.

Please forward your resume (including Dept. #) to: **Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources Department, P.O. Box 4000, Princeton, NJ 08543.** Equal Opportunity Employer, M/F/H/V.



Bristol-Myers Squibb Company

MATHEMATICAL ECOLOGIST ASSISTANT, ASSOCIATE OR SENIOR SCIENTIST

The Biology Department of the Woods Hole Oceanographic Institution seeks applicants for a tenure-track faculty position to conduct fundamental research in mathematical ecology of marine systems. Areas of possible research interest include population dynamics and life histories, recruitment, nonlinear dynamics, coupled physical-biological interactions, food web structure and dynamics, and behavioral ecology. Will be encouraged to participate in the graduate education program and expected to develop a vigorous research program and to obtain significant external funding. Ph.D. required, post-doctoral experience preferred.

Send resume with names of three professional references to:

Personnel Office
Box 54PAO



WOODS HOLE OCEANOGRAPHIC INSTITUTION

Woods Hole, MA 02543

An equal opportunity/affirmative action employer.

WELLCOME FELLOWSHIPS IN MEDICAL SCIENCE

Wellcome Trust Senior Research Fellowships in Medical Science in Australia and New Zealand
APPLICATIONS FOR 1993

The Trustees invite applications for two five-year senior research fellowships to be held in biomedical science in Australia and one five-year senior research fellowship to be held in biomedical science in New Zealand, to commence in 1993. The Australian fellowships continue the scheme which has provided funding for sixteen outstanding Australian biomedical researchers since 1984. Last year the Trustees were pleased to offer for the first time a separate New Zealand award, to be administered in parallel with the Australian awards.

Australian or New Zealand nationals who are either medically qualified or science graduates, with recognised post-doctoral achievements, seeking to establish a career in their own country and undertake research in an Australian or New Zealand academic institution are eligible to apply whether or not they are currently working in that country. Direct personal enquiries by possible candidates are welcome but formal applications must be submitted by the Head of Department in the University where the candidate will work.

The salary offered will be according to age and experience and on appropriate Australian or New Zealand academic scales with up to A\$20,000 per annum ancillary support.

Nominations must be submitted on the appropriate application form. Closing date for the award is 29 November 1991. For information and application forms please contact:

Professor Peter Brooks

The Royal Australasian College of Physicians

145 Macquarie Street

SYDNEY NSW 2000, AUSTRALIA

Telephone: 61 2 256 5444

Fax: 61 2 231 3120

NJA912904

POSITIONS OPEN

POSTDOCTORAL POSITION. MOLECULAR BIOLOGY OF INTERLEUKIN-1. The successful candidate will have the opportunity to engage in molecular studies on the regulation of IL-1 synthesis or mechanism of action. An NIH training grant is available to support this position. Send curriculum vitae and names of three references to: **Dr. Steven B. Mizel, Department of Microbiology and Immunology, Bowman Gray School of Medicine of Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157-1064.** *Wake Forest University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION

Available January 1992 or later to study the electrophysiological mechanisms of atrial latent pacemaker cells. Techniques include single cell isolation and patch/voltage clamp recordings. Send curriculum vitae and names of two references to: **Stephen L. Lipsius, Ph.D., Department of Physiology, Loyola University Medical Center, Maywood, IL 60153.**

POSTDOCTORAL POSITIONS. Available for investigating the cellular and molecular biology of dopamine receptors. Cell biology projects include studying mechanisms of receptor-effector coupling, G protein interactions, and receptor regulation in clonal cell lines. Molecular biology projects involve cloning novel receptor subtype cDNAs/genes, analysis and characterization of gene structure and regulation of gene expression. Please send curriculum vitae and at least two letters of recommendation to: **Dr. David R. Sibley, National Institutes of Health, Building 10, Room 5C-108, 9000 Rockville Pike, Bethesda, MD 20892.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION

Funded position immediately available for doctoral degree recipient in molecular biology, molecular genetics, biochemistry or a related discipline. Research involves studies on molecular and cellular mechanisms of human intestinal peptide receptor. Submit curriculum vitae and names and addresses of three references to: **Dr. Mitchell B. Cohen, Division of Pediatric Gastroenterology, Children's Hospital Medical Center, 3250 Elland Avenue, Cincinnati, OH 45229.** Telephone: 513-559-4415.

Ph.D./POSTDOCTORAL FELLOW. Needed to work on research project; requiring experience/training in molecular biology, especially PCR technology. Prospects exist for future faculty appointment. Salary negotiable. Within 14 days, send curriculum vitae with two references to: **Dr. Prem Kumar, Chief, Section of Allergy/Clinical Immunology, Department of Medicine, Louisiana State University (LSU) School of Medicine, 1542 Tulane Avenue, New Orleans, LA 70112-2822.** *LSU is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW. Position available immediately to study the pathobiology of intrahepatic biliary epithelial cells in cystic fibrosis and/or cystic liver disease. These studies involve the use of molecular, cellular and physiological techniques. Experience in one or more of these areas is desirable. Send curriculum vitae and three references with telephone numbers to: **Dr. Douglas M. Jefferson, Department of Physiology, Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111.** FAX: 617-956-0445.

POSTDOCTORAL FELLOWS (TWO POSITIONS)

Available immediately. (1) To study mechanisms of virulence in rodent malaria parasites and host cell-mediated responses to these parasites. Areas of interest include cytokine responses, antigen processing of malarial antigens, and macrophage function. A malarial antigen expressed on the erythrocyte membrane is being studied as a model vaccine candidate.

(2) To study mechanisms of protection against malaria in transgenic mice carrying β^s (sickle) hemoglobin, including cytoadherence, role of cytokines and splenic function.

Experience in cell-mediated immunity and/or molecular biology required. *U.S. citizens or permanent residents preferred.* Please submit curriculum vitae and three letters of reference to: **Dr. Hannah L. Shear, Department of Medical and Molecular Parasitology, New York University Medical Center, 341 East 25 Street, New York, NY 10010.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS AT THE SCRIPPS INSTITUTION OF OCEANOGRAPHY (SIO)

Applications are invited for postdoctoral awards from new or recent Ph.D.'s in all major areas of research conducted at SIO, including physical, chemical, and biological oceanography; marine geology, geochemistry and geophysics; marine chemistry; marine biology; ocean engineering. Specific areas of interest might include continental margins and coastal sciences, marine meteorology and air/sea interaction, global climate change, atmospheric chemistry, large-scale ocean circulation, marine microbiology, isotope geochemistry, remote sensing, and satellite oceanography. Awards are competitive with major emphasis on potential for independent, creative research. Awards are for 1 year with stipends commensurate with experience, plus benefits, and a small budget for publications, travel, etc. Renewals for a second year, depending upon performance, are possible. Applications should include complete graduate transcripts, curriculum vitae, addresses and telephone numbers of at least three references, and a concise synopsis of the applicant's (1) doctoral research, and (2) research interests to be pursued at SIO. All application materials must be received by 1 December 1991. Awards will be announced in February 1992. Application and questions should be addressed to: **University of California, San Diego, Graduate Department Chair, Scripps Institution of Oceanography-0208, 9500 Gilman Drive, La Jolla, CA 92093-0208.** *The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer.*

SOUTHERN METHODIST UNIVERSITY

The Southern Methodist University (SMU) Department of Biological Sciences is seeking a **POSTDOCTORAL FELLOW** to participate in structure function studies of the *E. coli* F_1F_0 ATP synthase. This position requires a master's degree or a Ph.D. and training in molecular biology and/or protein biochemistry. Submit cover letter, résumé, names of three references postmarked by 11 November 1991 to: **Dr. Steven B. Vik, Department of Biological Sciences, SMU, Dallas, TX 75275.** *SMU is an Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIPS DRUG DISCOVERY

The Center for Drug Discovery, University of Florida, has an immediate availability of two NIH-funded postdoctorate positions for *American citizens or U.S. permanent residents*. Individuals would study the chemistry, pharmacokinetics and/or pharmacology of brain-specific drug delivery systems, as part of a large group of senior scientists, postdoctoral fellows and graduate students. The Center for Drug Discovery has 5 years of funding from the NIH for a program of delivery of drugs to the brain for the treatment of Alzheimer's disease. Send curriculum vitae and three letters of reference to: **Ms. Laurie Johnston, Box 100497, JHMHC, University of Florida, Gainesville, FL 32610.**

The Division of Geological and Planetary Sciences at the California Institute of Technology expects to offer **POSTDOCTORAL RESEARCH FELLOWSHIPS** in one or more of the following areas: geology, geophysics, geochemistry, cosmochemistry, and planetary sciences. Interested persons are asked to send their résumés to: **Professor D. J. Stevenson, Chairman, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, CA 91125.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATE HUMAN ELECTROPHYSIOLOGY

Position available in Reed Neuromagnetism Laboratory and Subdural Grid Cortical Mapping Laboratory for study of human functional anatomy, focusing on hand sensorimotor cortex and dorsolateral neocortical epileptogenic zones. Two years of experience in electrophysiological recordings, multivariate statistics, numerical methods, and programming required. Previous experience in magnetoencephalography desirable. Send curriculum vitae, description of research interests, and names and telephone numbers of three references to: **Dr. William Sutherling, Reed Neurological Research Center, 710 Westwood Plaza, Los Angeles, CA 90024.** *Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL FELLOW/RESEARCH FELLOW IN ECOSYSTEM DYNAMICS. The Australian National University, Research School of Biological Sciences. A research position is available in the Ecosystem Dynamics Group to study the ecology of the herbaceous understorey community of eucalypt forests. The Ecosystem Dynamics Group consists of three tenured and up to four nontenured academic staff who work collaboratively on various aspects of Australian biota. A particular area of concentration is the local eucalypt forests. Studies of life histories, species interactions, and responses to environmental variation are of interest to the group as they relate to theories of population and community dynamics in variable environments. A Ph.D. is required, with appropriate experience in community ecology. The position is available immediately. Enquiries to: **Dr. Peter Chesson or Dr. Ian Noble, Ecosystem Dynamics, RSBS, Australian National University, P.O. Box 475, Canberra, ACT 2601, Australia.** Telephone: 06-249-4020; FAX 06-249-5095. Closing date: 15 November 1991. Reference BS 10.9.1. Salary: postdoctoral fellow Grade 1 (fixed point), \$28,792 to \$32,762 per annum; research fellow, \$33,163 to \$43,096 per annum (salaries to be adjusted in light of recent Australian Industrial Relations Commission decision.) Appointment: Research fellow up to 3 years, possibility of extension to 5 years; postdoctoral fellow up to 2 years, possibility of extension to 3 years.

Applications should be submitted in duplicate to the Registrar, The Australian National University, GPO Box 4, Canberra, ACT 2601, quoting reference number and including curriculum vitae, list of publications and names of at least three referees. The university reserves the right not to make an appointment or to appoint by invitation at any time. Further information is available from the registrar.

The University is an Equal Opportunity Employer.

POSTDOCTORAL RESEARCH SCIENTIST

Position available for Ph.D. structural biochemist to assist in studies on signal transduction in the soluble CD4 receptor. Fragments and site-specific mutants of CD4 will be used to study the structural linkage between ligand-induced conformational changes and domain communication. Project funded by NIH grant. Knowledge of or experience with one or more of the following techniques is desirable: protein spectroscopy (CD, fluorescence, NMR), protein folding, molecular modeling. Send résumé and reference list to: **Southern Research Institute, Department 500, Human Resources, P.O. Box 55305, Birmingham, AL 35255.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATE position available fall 1991 to conduct research on low frequency (60 Hz) electromagnetic field effects on cultured cells. Projects involve intracellular calcium measurements, electro-physiological characterization of calcium channel activity, and biochemical analysis of changes in growth and phenotypic expression. Send curriculum vitae and names of three references to: **Dr. Kenneth J. McLeod, Musculo-Skeletal Research Laboratory, HSC T18-030, State University of New York, Stony Brook, NY 11794-8181.** *SUNY is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATE IN MOLECULAR ENDOCRINOLOGY. Research in molecular aspects of hormone glycosylation, assembly, and function. Experience in molecular biology and/or biochemistry, to study peptide recognition by hormone-specific glycosyltransferases, receptor characteristics and function, molecular biology of glycosyltransferases, targeting role of unique oligosaccharide structures. Excellent research and training environment. Contact: **Dr. Jacques U. Baenziger, Pathology Department, Box 8118, Washington University, St. Louis, MO 63110.** FAX: 314-362-8888.

POSTDOCTORAL/RESEARCH ASSOCIATE

Investigation of transmitter receptors in vertebrate retina using patch-clamp recording from slices. Position open 1 January 1992. Must have previous experience either with retina or with single-cell electrophysiology. Salary \$26,000 plus health. Send curriculum vitae and three references to: **Professor Gordon L. Fain, Departments of Ophthalmology and Physiological Science, Jules Stein Eye Institute, University of California Los Angeles School of Medicine, Los Angeles, CA 90024.** FAX: 213-825-0841.

STERLING RESEARCH GROUP

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Drug Metabolism & Pharmacokinetics Principal Research Investigator

Responsibilities include providing leadership and direction in Bioanalysis; ensuring development of valid bioanalytical methods to support drug development and discovery, and prompt reporting of all related materials. This position will manage a team of 5-6 bioanalysts.

Qualified candidates will possess a Ph.D. in pharmaceutical or analytical chemistry and a minimum of 4 years' related experience beyond postdoctoral training. Experience in assay development using HPLC/GC methodologies, demonstrable management skills and familiarity with LIMS and LAS systems and worldwide GLP regulations required.

You will discover that we offer a competitive salary and benefits package. Sterling Research Group will be relocating to Upper Providence Township, Pennsylvania, in approximately 1993, and invites you to share in the opportunities now and in the future. Interested candidates, please send resume to: **Sterling Research Group, RS-58-91, 81 Columbia Turnpike, Rensselaer, New York 12144.** Equal Opportunity Employer M/F/D/V.



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RESEARCH SCIENTIST

CARDIOVASCULAR PHARMACOLOGIST

SmithKline Beecham, a world leader in pharmaceutical research, has an opportunity available for a Ph.D. Research Scientist to join its Cardiovascular Pharmacology Department. The selected candidate will establish and conduct independent research programs to explore cardiac function, mechanisms of coronary thrombosis and myocardial infarction in relevant *in vivo* models, and collaborate with intra- and extramural scientists to evaluate new pharmacological strategies for cardiac thrombotic diseases.

In addition he/she will integrate pharmacologic, physiologic, biochemical, and cell biology methodologies to develop new therapeutic strategies for cardiac/thrombotic diseases, as well as analyze, report and present scientific data in intramural and extramural forums, including national and international conferences.

Qualified candidates will have a Ph.D. in Pharmacology/Physiology or a related discipline with at least two years of postdoctoral training in cardiac research. Candidates must also have proficiency in computerized systems including utilization of computers for data acquisition analysis, statistics and word processing, and a strong record of scientific publications in referred professional journals in the field of cardiac/cardiovascular research. High proficiency in techniques for monitoring regional and systemic hemodynamic variables, regional cardiac function and the coronary circulation; experience in blood cell (platelets, leukocytes) biology, cell adhesion molecules and oxygen radical biology is desired.

SmithKline Beecham Pharmaceuticals offers a stimulating and challenging scientific environment in which to grow and excel. We offer a competitive compensation/benefits/relocation package. For confidential consideration, please submit your C.V. along with the names of three references to: Nancy Hasson, Employment Administrator, #H0187, SmithKline Beecham, P.O. Box 1539, King of Prussia, PA 19406. We are an Equal Opportunity Employer, M/F/H/V.



SmithKline Beecham
Pharmaceuticals

The George Washington University

WASHINGTON DC

DEAN OF ARTS AND SCIENCES

The George Washington University invites applications and nominations for the position of Dean of Arts and Sciences. The Dean is the educational leader and chief administrative officer for undergraduate and graduate programs in the arts, humanities, social sciences and biomedical, physical and mathematical sciences.

With a full-time faculty of 375 and a student body of nearly 5,000, Arts and Sciences is the largest academic unit in a research university which also has schools of Business and Public Management, Education and Human Development, Engineering, Law, Medicine, and International Affairs. The University, founded in 1821 as The Columbian College, is located on an attractive campus in the heart of Washington, D.C.

The University seeks applicants with the vision, energy and capabilities to build on our tradition of excellence. The person selected must be able to enhance the unique advantages afforded by our location in the nation's capital in the continuing development of education and research programs responsive to the needs of this country and the world community.

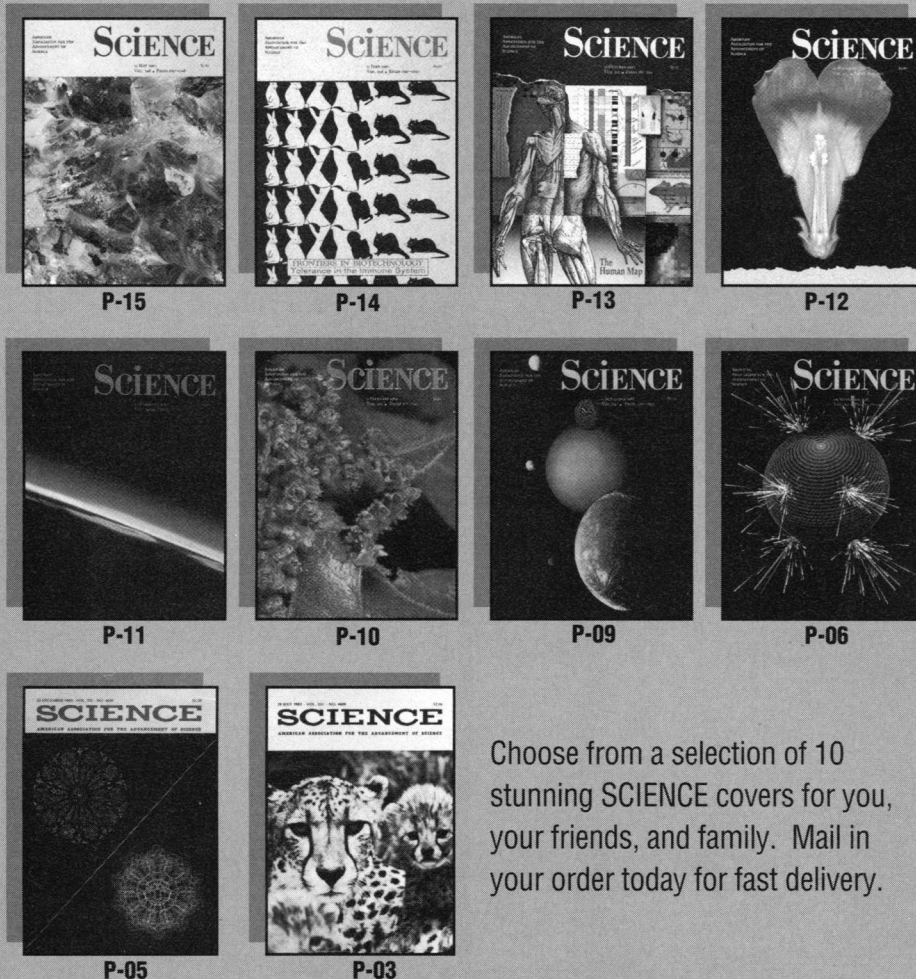
Applicants must have a Ph.D. and a distinguished record of scholarship and teaching that warrants senior appointment in a department or program within arts and sciences. Competitive applicants will have a record of substantial leadership and administrative experience in an institution with graduate and undergraduate programs, although they might currently hold positions in research, educational, cultural or artistic institutions. Fund raising experience with foundations and/or federal agencies is also desirable.

Applications and nominations will be reviewed commencing November 15, 1991 and will continue until the position is filled. Preferred start date: July 1, 1992. Salary will be commensurate with experience and qualifications.

Send nomination or application, resume, and a short statement of personal educational goals and philosophy to:

Arts and Sciences Search Committee
Attention: Ms. Barbara Marshall
Rice Hall, Room 813
The George Washington University
Washington, D.C. 20052

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ANALYTICAL/PURIFICATION BIOCHEMIST

For our Product Development Group, we seek a Ph.D.-level (or equivalent) individual with 2-4 years' industrial experience, preferably in the diagnostics field. Preferred skills include low pressure chromatography, gel electrophoresis, spectrophotometry, enzyme analysis, ELISA, and surface chemistry. Responsibilities will include analyzing reagents, purifying proteins and other biochemicals, and participating in the development of immunologically-based diagnostic products.

RESEARCH ASSOCIATE

For our Natural Products Chemistry Group, we seek an experienced Research Associate to design and execute research and development experiments supporting new vaccines for human and animal use. Responsibilities include purification of adjuvants, vaccine formulation and testing with recombinant antigens and purified adjuvants.

Qualifications: M.S. or equivalent in chemistry, biochemistry or a similar scientific discipline with 2-5+ years of related research experience, thorough knowledge of purification by chromatographic techniques, analysis by HPLC, thin layer chromatography, and spectroscopy (including UV, fluorescence and IR). Knowledge of organic and protein chemistry helpful.

Cambridge Biotech offers excellent compensation and benefits, including tuition reimbursement, an employee stock purchase program, and a 401(k) plan with a generous company match.

Please send your resume in confidence to: **Cambridge Biotech Corporation, Human Resources Department, 365 Plantation Street, Box SCI, Worcester, MA 01605. EOE.**



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CHAIRMAN, DEPARTMENT OF BIOCHEMISTRY



UNIVERSITY OF KENTUCKY

COLLEGE OF MEDICINE

(SEARCH CONTINUED)

Nominations and applications are invited for the position of Professor and Chair of the Department of Biochemistry at the University of Kentucky, College of Medicine. The Department currently includes 15 full-time faculty positions with teaching responsibilities for the M.D. degree program of the Medical School and the Ph.D. degree program in Biochemistry offered through the Graduate School. This is an exceptional opportunity to assume the leadership of a department which is well funded and equipped and has a vigorous graduate program while still providing opportunities for new development owing to current and future vacancies, a new research building, and a strong commitment to research in cancer and aging. We are seeking candidates with an M.D. or Ph.D. degree (or equivalent degree), an outstanding record of achievement in the fields of biochemistry and/or molecular biology, experience in or potential for academic administration and an ability to provide strong leadership. Candidates should submit a curriculum vitae and the names of references to:

Alan M. Kaplan, Ph.D., Chair

Biochemistry Chairman Search Committee

Department of Microbiology and Immunology

University of Kentucky,

College of Medicine,

Room MS 411

Lexington, Kentucky 40536-0084

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

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Genetics Institute is at the forefront of the discovery and development of biopharmaceuticals.

Our accomplishments have been recognized internationally as major medical breakthroughs. We are producing biopharmaceuticals designed to enhance the treatment of seriously ill patients and improve their quality of life.

Through worldwide partnerships we have reached the Japanese and European markets with our first product and have two additional products pending U.S. market approval. We are constantly developing new and innovative protein therapeutics to build on these accomplishments.

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Post Doctoral Fellowships

Hematology/Immunology

This position involves the development of in-vivo and in-vitro models for the evaluation of biological efficacy and mechanisms of action of novel hematopoietic cytokines. Knowledge of hematology and/or immunology and demonstrated experience with myelosuppressed disease models is desirable. Experience with in-vivo models is ideal. A Ph.D. in a scientific discipline or an M.D. is required, with 0-1 year of experience. (5116)

Infectious Disease Models

A unique opportunity to investigate the potential therapeutic effects of cytokines in infectious disease is available in our Pre-Clinical Biology group. The successful candidate will have major research responsibility for this project area and will interact with both internal and external collaborators. Position requires a Ph.D., with experience in developing in-vivo models, preferably in infectious disease and cytokine biology. (5117)

Genetics Institute offers competitive salaries and benefits, including comprehensive medical, three weeks' paid vacation, 401(k) and stock purchase programs, tuition assistance, on-site exercise facility and free parking or T-pass.

Please send resume, specifying Department of interest, to: Human Resource Department, Genetics Institute, Inc., 87 CambridgePark Drive, Cambridge, MA 02140. Genetics Institute is committed to diversity through Affirmative Action and Equal Opportunity Employment.

Genetics Institute Inc.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

The Department of Biochemistry has a position available for a postdoctoral research associate to study mechanisms of mammalian B₁₂-dependent enzymes.

Qualifications include a Ph.D. degree in chemistry, biochemistry, or a related area. Experience in protein purification, enzyme kinetics and/or EPR spectroscopy is highly desirable.

Interested individuals should send applications, current curriculum vitae, a statement of research interest and three letters of recommendation to: **Dr. Ruma V. Banerjee**, University of Nebraska-Lincoln, Department of Biochemistry, 310 BCh, East Campus, Lincoln, NE 68583-0718. Telephone: 402-472-2932; FAX: 402-472-7842.

POSTDOCTORAL/RESEARCH ASSOCIATE

McGill University/Lady Davis Institute for Medical Research of the Sir Mortimer B. Davis Jewish General Hospital.

Research laboratory interested in molecular and cellular aspects of energy metabolism and hormone action is looking for individual at postdoctoral/research associate level to work on gene expression regulation by thyroid hormone and catecholamines. Candidates must have interest in the field and exposure to techniques of molecular and cell biology. Please send letter stating career goals and résumé.

Please send résumés to: **J. Enrique Silva, M.D.**, Attention: **Thérèse Davila**, Lady Davis Institute for Medical Research, Sir Mortimer B. Davis—Jewish General Hospital, 3755 Côte Ste-Catherine Road, Montreal, Quebec, H3T 1E2, Canada.

RESEARCH ASSOCIATE to work with the design and synthesis of peptidomimetics as modulators of dopamine receptors. Requires a Ph.D. in medicinal chemistry. Through either education or experience must have: 2 years of experience in the synthesis of novel amino acid derivatives and peptidomimetics, 1 year of experience in 1D and 2D NMR spectroscopy, 6 months of experience in molecular modeling on UNIX-based systems, and 1 year of experience in MPLC and HPLC chromatography (may be concurrent). Salary is \$28,063 annually. Résumés to: **Dick Hewetson (#1-224)**, Minnesota Job Service, 390 North Robert, St. Paul, MN 55101.

RESEARCH ASSOCIATE. To work on the immunopathogenesis of AIDS. Must have M.D. and/or Ph.D. degree. Experience in working with biohazardous materials including HIV-infected cells and collection of clinical samples from AIDS patients. Background in molecular biology and immunology with minimum of 3 years of postdoctoral experience. Position to begin July 1992. Send curriculum vitae and names and addresses of three references to: **Stanley A. Schwartz, M.D., Ph.D.**, Director, Immunology Section, The University of Michigan, 109 South Observatory, Room 3073 SPH-I, Ann Arbor, MI 48109-2029. Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE: NEUROPHYSIOLOGY. Position available for Ph.D. or M.D. with experience in electrophysiology, to join ongoing studies on ionic mechanisms of anoxic injury in CNS. Experience in electrophysiology is essential. Prior experience with computers, or with optical imaging, would be helpful. Excellent opportunities for collaboration with workers in other disciplines, including ultrastructure, freeze-fracture, immunocytochemistry, computer simulation, membrane biophysics, and pharmacology. Send curriculum vitae, three letters of reference, and statement of interest to: **Bruce R. Ransom, M.D., Ph.D.**, or **Stephen G. Waxman, M.D., Ph.D.**, Department of Neurology, LCI 702, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.

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SENIOR RESEARCH ASSOCIATE to provide long-term source of expertise in electron microscopy and ancillary services. Requires a Ph.D. in physics or materials science and 3 years of experience in position offered. Must also have experience in TEM (transmission electron microscopy) sample preparation, TEM techniques, and computer processing of images. Ability to conduct scientific research must be evidenced by publication in scientific journals. Salary is \$45,000 annually. Résumés to: **Dick Hewetson (#1-186)**, Minnesota Job Service, 390 North Robert, St. Paul, MN 55101.

POSITIONS OPEN

CENTER FOR ENGINEERING PLANTS FOR RESISTANCE AGAINST PATHOGENS (CEPRAP)

RESEARCH GROUP MANAGER

CEPRAP, an NSF Science and Technology Center at the University of California, Davis, seeks a Ph.D. scientist to participate in research in the resistance genes group focused on the genes and molecules involved in plant-pathogen recognition, primarily in tomato. The appointee will also manage the Resistance Genes Laboratory at the CEPRAP facility. Applicants should preferably have at least 2 years of postdoctoral experience, and optimally expertise in (1) molecular genetics, particularly genomic libraries, and (2) plant genetics. Some experience with linkage analysis and laboratory management will be desirable. Appointment will be as an **ASSISTANT RESEARCH GENETICIST**, 11 months, 80% time. Option for a further 20% time on independent research in plant-microbe interactions, contingent on obtaining outside funding. Starting date is 1 February 1992 or as soon as possible thereafter. Send curriculum vitae, transcripts, list of publications, statement of research interests, and names and addresses of three referees by 4 December 1991 to: **Dr. Richard Michelmore**, Resistance Genes Group, CEPRAP, University of California, Davis, CA 95616. The University of California is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE VASCULAR CELL BIOLOGY AND ATHEROSCLEROSIS.

Medical Care Center and Research Facility in Cleveland, Ohio. Study pathogenesis, prevention and treatment of atherosclerosis. (1) Test agonist/antagonists of monocyte adhesion in cell cultures of rat aortic endothelial cells. Use results to establish an in vivo model (rat) to study events in atherosclerosis. Anaesthetize and operate on rats; conduct fine dissection of blood vessels and microvascular dissection of the endothelial-medial interface, for en-face study. Develop system and test ways to inhibit this phenomenon. (2) Study effect of alpha-tocopherol on protein kinase C, with respect to its role in monocyte-endothelial interactions in human umbilical vein endothelial cells. (3) Study effect of different harvesting methods of saphenous veins for coronary artery bypass grafts, on the morphology of endothelial cells and their ability to grow in culture. Use criteria in study of long-term patency of grafts. M.D. or Ph.D. in vascular cell biology. One year of experience in job offered or one year of experience as postdoctoral research fellow/clinician dealing with atherosclerotic disease. Related occupation experience must include research in vascular cell biology or vascular surgery. Forty hours per week, 9:00 a.m. to 5:00 p.m., Monday to Friday; \$26,000 per year. Must have proof of legal authority to work permanently in the United States. Send résumé in duplicate (no calls) to: **R. Lechler, JO#1255775**, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

ASSISTANT RESEARCHER. To conduct clinical and epidemiological studies of HTLV-1 sequences in patients; use new technologies to develop diagnostic and prognostic markers to follow clonality progression of HTLV-1 in infected individuals; teach molecular technologies to medical students and residents; responsible for daily research activities and laboratory management. Minimum qualifications: M.D. degree with not less than 3 years of postdoctoral hands-on research experience in molecular and cell biology, familiar with retrovirology, PCR, cell culture, cell fragmentation and procedures handling biohazardous specimens. Annual salary: \$37,680. Send curriculum vitae and three letters of recommendation to: **Max G. Botticelli, M.D., Professor and Chairman**, Department of Medicine, University of Hawaii John A. Burns School of Medicine, 1356 Lusitana Street, 7th Floor, Honolulu, HI 96813. Affirmative Action/Equal Opportunity Employer.

ASSISTANT RESEARCHER. The University of California, San Diego (UCSD), has a position available to work in areas of signal transduction involving calcium and phosphoinositides. Ph.D. or equivalent required. Research experience in the area of signal transduction is desirable. Salary based on established UCSD salary schedules. Reply by 31 October 1991 to: **Dr. Stephen Pandol**, VA Medical Center, Department of Medicine, 3350 La Jolla Village Drive, San Diego, CA 92161. UCSD is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT CANCER RESEARCH SCIENTIST

A position is immediately available for an individual to conduct research into the structure and function of naturally occurring antisense RNA. Evidence of scholarly research, good communication skills and molecular biology experience are essential. The applicant should be highly motivated, have a Ph.D. and experience cloning and characterizing RNA. Salary is approximately \$33,000 per year. Send applications to:

Dr. Bruce Dolnick
Grace Cancer Drug Center
Department of Experimental Therapeutics
Roswell Park Cancer Institute
Elm and Carlton Streets
Buffalo, NY 14263
FAX: 716-845-8857

Roswell Park is an Affirmative Action Employer.

The Anatomy Department of the Medical College of Ohio has openings for **NEUROBIOLOGISTS** studying neural organization at the molecular, cellular, or system level. Appointments may be either tenured or tenure track. Applicants for assistant professorship should have demonstrated the ability to establish an independent and funded research program. Applicants for more senior appointments should have ongoing and funded programs. The Medical College and the Department of Anatomy offer excellent core facilities, very competitive salaries, and generous start-up funds. New faculty will join a neuroscience group which has expanded substantially over the past 3 years, and which will continue to expand over the next few years. Forward curriculum vitae and the names of three references to: **Dr. John T. Wall**, Faculty Search Committee, Department of Anatomy, Medical College of Ohio, Toledo, OH 43699-0008. Equal Opportunity Employer.

STATISTICIAN. Design and evaluate clinical studies for pharmaceutical product, principally in the area of HIV inhibitor through statistical analysis. This position utilizes nonnull models for ranks statistics in bivariate, two-sample and analysis-of-variance problems. Write the computer software programs using validated SAS procedures to perform statistical analyses of clinical data on IBM computer. Collaborate with clinical research associate and jointly develop technical reports for submission of new drug application by summarizing and evaluating clinical data. Ph.D. in statistics and 1 year of experience as statistician or 1 year of experience as actuarial assistant and/or research assistant required. Applicants must have conducted research in the area of molecular biology and evolution to write computer programs which analyze nucleotide sequences of HIV inhibitors. Additionally, applicants must have conducted statistical research in the use of ranks statistics in bivariate, two-sample and analysis-of-variance problem, the results of which have been accepted for publication in at least one scientific journal. Forty hours, 8:00 a.m. to 5:00 p.m., \$42,000 per year. Must have proof of legal authority to work permanently in the United States. Send résumés to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605**, Attention: **Maxine Counts**, Reference #V-IL-3856-C. No calls. An employer-paid ad.

MOLECULAR BIOLOGIST. A position is available immediately for an individual with a Ph.D. in molecular biology or a related discipline in the Alcohol Research Center at the Department of Veterans Affairs Medical Center (VAMC) in Omaha, Nebraska. The successful candidate will supervise the Molecular Biology Core Laboratory and initiate a research program in alcohol-induced cellular toxicity. Postdoctoral training is preferred with experience in recombinant DNA technology, molecular cloning, PCR and gene expression. Excellent salary and benefit program are available. Please send résumé by close of business 1 November 1991 to:

Karen Rowe, Personnel Service (05)
Department of Veterans Affairs Medical Center
4101 Woolworth Avenue
Omaha, NE 68105

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POSITIONS OPEN

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CYTOGENETICIST

The George Washington University Medical Center has an opening for Director of the Reproductive Genetics Cytogenetics Laboratory. Candidate must have Ph.D. and be Board-certified-eligible by the American Board of Medical Genetics. Current laboratory activity emphasizes amniotic fluid and chorionic villi specimens. Successful candidate should be prepared to expand into DNA diagnostics. Duties include teaching in graduate programs and medical school. Faculty rank in full-time nontenure track to be commensurate with training and experience. Review of applications will begin 8 September 1991 and continue until the position is filled.

The George Washington University is an Equal Opportunity Employer.

Contact: John W. Larsen, M.D., Department of Obstetrics and Gynecology, The Wilson Genetics Center, The George Washington University, 2300 Eye Street, N.W., Room 455, Washington, DC 20037. Telephone: 202-994-4096.

RESEARCH SCIENTIST. Research and development of new latex binders to form films without coalescent. Research of architectural coatings of latex emulsions applying expertise in polymer interdiffusion in complex media, e.g. gels. Apply techniques involving process technology polymers including injection and extrusion molding and pilot-scale operations for characterization of polymers by advanced techniques. Requirements: Ph.D. physical chemistry and 3 years of experience as researcher including process technology of polymers including injection and extrusion molding and pilot-scale operations to characterize polymers by advanced analytical techniques such as NMR, EPR, dynamic light scattering and forced Rayleigh scattering. Strong educational background in polymer chemistry involving study of polymer diffusion in complex media. Forty hours per week; \$962 per week; résumé or curriculum vitae to: Philadelphia Job Bank, 444 North 3rd Street, Philadelphia, PA 19123, JO#4383554. Must have proof of legal authority to work in the United States.

RESEARCH SCIENTIST T-CV SURGERY

Faculty position for M.D. or Ph.D. to develop and direct research laboratory dedicated to a broad range of problems in cardiothoracic surgery. Involves close working relationship with group of academic surgeons, whose research interests include: animal models of complex congenital heart disease, myocardial protection, ventricular assist devices, skeletal muscle, cardiac assist, and cardiac and pulmonary transplantation. Requires strong background in cardiovascular physiology and experience with small and large animals. Inquiries with curriculum vitae and name of three references to: Chairman, Department of Surgery, University of Louisville, Louisville, KY 40292. An Affirmative/Action Equal Opportunity Employer. Cut off date is 18 October 1991.

SCIENTIST

MICROBIOLOGY R&D

Difco Laboratories, a world leader in products for the microbiology laboratory, has a position open for a creative, results-oriented scientist with fundamental training in bacteriology. The position requires a Ph.D. in microbiology or closely related field with hands-on experience in enzymology, binding assays, immunology/immunochimistry, and cell culture. Experience in bacterial enzyme purification and process scale up is a plus. Interested candidates should submit résumé to:

D. S. Kerschbaum
Difco R&D Center
1180 Ellsworth Road
Ann Arbor, MI 48108

Equal Opportunity Employer, M/F.

4 OCTOBER 1991

Antiviral Enzymologist Scientists

The Antiviral Enzymology Group in the Department of Biological Chemistry of Merck Sharp & Dohme Research Laboratories invite applications for positions at the level of senior research biochemist/biophysicist, postdoctoral fellow and research technician. The positions will involve mechanistic and biophysical studies of enzymes and proteins involved in the replication, infectivity or pathogenicity of human viruses. Identification of potential drugs and development of approaches to inhibition of target enzymes are focuses of our efforts.

Applicants for the first position (Senior Research Biochemist/Biophysicist) must have postdoctoral experience. Applicants for the second position (Postdoctoral Fellow) should be a recent Ph.D. graduate or someone anticipating to graduate within the next 6 months. For either position, the candidate must hold strong background in chemistry and biochemistry. Expertise in protein chemistry, kinetics, and enzyme structure-function analysis are prerequisites. Experience in subcloning and mutagenesis is useful but not required.

Applicants for the third position (Research Technician) should hold either a B.S. or M.S. degree in chemistry or biochemistry, preferably with 1-2 years experience in protein purification and general biochemistry lab training. Experience in enzyme kinetics is highly desirable.

Excellent salary and benefit programs accompany these positions at our modern research facilities located 25 miles northwest of Philadelphia.

Please send curriculum vitae with references, transcripts and cover letter to:

Personnel Manager

Ad #D-37, Research Personnel, WP42-2
Merck Sharp & Dohme Research Laboratories
West Point, PA 19486

EEO/AA/VH/Employer



Merck & Co., Inc.

PHARMACOLOGIST

Join Wyeth-Ayerst Laboratories, a major division of Fortune 100 American Home Products Corporation. Now is your opportunity to become an integral member of our fast-paced, innovative research team at our modern research facility in Princeton, NJ.

This position will be primarily responsible for developing and maintaining cell lines, undertaking basic research projects involving cell growth and proliferation, as well as identifying and developing novel cardiovascular pharmaceutical agents. We seek a BS/MS with extensive experience in cell biology including tissue culture, monoclonal antibody production and Northern blot analysis. Experience in Molecular Biology desired.

We offer excellent compensation, benefits and career advancement. Our research laboratory is just minutes away from Princeton University and convenient to many other cultural, educational and leisure activities. Please forward resume with salary requirements to: **WYETH-AYERST RESEARCH, Personnel Manager, CN 8000, Position #404, Princeton, NJ 08543-8000.** An equal opportunity employer, M/F/H/V.

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POSITIONS OPEN

ASSISTANT MEMBER (Biostatistician) to serve as collaborative studies biostatistician for a national cancer preventive research study investigating the effectiveness of work site programs for cessation of smoking, adopting a low fat, high fiber diet and improving occupational health. Will work with an interdisciplinary team including physicians, psychologists, biochemists, sociologists, nutritionists and epidemiologists. Will develop new methodologies to improve the design and analysis of group randomized studies and direct data analysis and quality assurance for the data. Will write results in publishable form for refereed journals.

Must have Ph.D. in statistics, biostatistics or biometry. Must have 1 year of experience in the job offered or 2 years of experience in statistical data analysis. Must have: (1) bachelor's level or equivalent experience in sociology or a biological science; (2) coursework at graduate level in, or research record that demonstrates a knowledge of, components of variance and sampling techniques; (3) conducted research work on the theoretical aspects of the "bootstrap" technique and its application; (4) 6 months of experience using SAS (Statistical Analysis System) and a computer language such as FORTRAN, PASCAL or GAUSS. Experience requirements may be concurrent. Must be first author on two articles published in a refereed journal. Salary range of \$43,000 to \$45,000 per annum depending upon experience and qualifications. *Must have proof of legal authority to work in the United States.* Positions located in Seattle, Washington. *An Equal Opportunity Employer.* Please send résumé by 4 November 1991 to: Employment Security Department, B.S. Division, Attention: Job #270477-F, Olympia, WA 98504.

FISH NUTRITIONIST/AQUACULTURIST

The U.S. Fish and Wildlife Service, Longview, Washington, seeks a specialist in fish nutrition and aquaculture to perform research and development work on feeds and culturing methods for anadromous fishes. The incumbent also serves as the Assistant Director of a facility which produces 1.5 million Pacific salmon smolts each year. Salary range: \$37,294 to \$48,481. Call: Julie Swanberg at 503-231-6136 for application procedures. Application period: 1 October 1991 to 31 October 1991.

FLOW CYTOMETRY

Position available to manage, operate and develop the Flow Cytometric facility at Fred Hutchinson Cancer Research Center. Several years of research experience using flow cytometry, a working knowledge of a broad range of flow cytometric methodologies and computer data analysis techniques; extensive experience using instrumentation including optics, lasers, computers; and knowledge of the principles of instrument operation and experience in instrument problem-solving required. Excellent communication, teaching, leadership and managerial skills are necessary. Ph.D. required. Excellent benefit package and a smoke-free environment. FAX résumé to: 206-667-4051, apply in person, or send résumé to:

Fred Hutchinson Cancer Research Center
Human Resources Office #HN-2267
1124 Columbia Street, MP900
Seattle, WA 98104

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PHARMACEUTICAL RESEARCH SCIENTIST. Recommendation, development and evaluation of new drug products, pharmaceutical dosage forms, packaging and manufacturing processes; planning, designing, initiating, conducting and coordinating product development preformulation and formulation strategies and studies. Position requires at least 4 years of college education in pharmacy and a Ph.D. in pharmaceutical sciences. Prior academic and/or industrial research experience in the development and evaluation of topical (ophthalmic or dermatological) drug delivery systems, and a training in industrial pharmacy including knowledge of processes and equipment used in the manufacture of solid, semi-solid and liquid dosage forms are required. Background in pharmacokinetics, physical and analytical chemistry. Salary: \$4166 per month. Place of employment and interview: Irvine, California. Send this ad and your résumé or letter of qualifications to: Job #WS 12344, P.O. Box 9560, Sacramento, CA 95823-0560, not later than 26 October 1991.

POSITIONS OPEN

RESEARCH SCIENTIST

Saint Francis Hospital and Medical Center, located in Hartford, Connecticut, is seeking a candidate to join our department of Research and Heart Institute to establish a new program in vascular biology. Candidates should have completed a doctorate degree and a postdoctorate fellowship and have prior experience in molecular aspects of vascular cells. Candidates will be eligible for an appointment at the University of Connecticut School of Medicine. Interested candidates 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 Employer.*

TOXICOLOGIST/RISK ASSESSOR. The Maryland Department of the Environment is seeking two qualified individuals to conduct health risk assessments and address environmental toxicology issues; one position will also function as the Chief of Environmental Toxicology/Risk Assessment Division. Applicants should have a master's or Ph.D. in environmental or related health sciences and 2 to 3 years of experience in regulatory toxicology and writing risk assessments. Send curriculum vitae to: Dr. Boon Lim, Maryland Department of the Environment, 2500 Broening Highway, Baltimore, MD 21224. For more information call 301-631-3851. *Equal Opportunity Employer/Affirmative Action.*

ANNOUNCEMENTS

RESEARCH INQUIRIES INVITED

The Smokeless Tobacco Research Council, Inc. invites inquiries regarding grant applications.

The Council sponsors independent research into questions of smokeless tobacco and health. Research support is through a program of grants-in-aid.

Grant applications are evaluated by the Scientific Advisory Board to the Council and will be judged solely on the basis of scientific merit and relevance.

Deadlines for submission of grant applications are 31 December for 1 July funding and 30 June for 1 January funding. Address inquiries or requests for applications to: The Smokeless Tobacco Research Council, Inc., 420 Lexington Avenue, New York, NY 10170. Telephone: 212-697-3485.

COURSES AND TRAINING

GRADUATE STUDIES IN BIOLOGY. The Department of Biology at Northeastern University invites applications for graduate study leading to M.S. or Ph.D. degrees with concentration in biochemistry, botany, ecology, marine biology, microbiology, molecular and cellular biology, physiology or vertebrate biology. Teaching assistantships (including tuition waiver) are available for qualified applicants beginning September 1992. For information contact: Graduate Coordinator, Department of Biology, Northeastern University, Boston, MA 02115. *Northeastern University is an Equal Opportunity, Affirmative Action, Title IX Employer.*

POSTDOCTORAL TRAINING PROGRAM IN MEDICAL GENETICS

The Interdepartmental Medical Genetics Program at Stanford University School of Medicine provides advanced clinical and/or research training related to human inherited disease. Areas of the program represented among the 28 training faculty include: the molecular basis of heritable disorders including polygenic and multi-factorial diseases; chromosome structure and function; genome and gene mapping; development of methods to manipulate and study large fragments of DNA; developing animal models and new treatment modalities of human genetic disease by homologous recombination.

Individuals with an M.D., Ph.D. or equivalent degree are eligible for this 3-year program which includes an extended period of research training and the opportunity to pursue applied training in clinical genetics, clinical cytogenetics, or molecular genetics in an American Board of Medical Genetics-accredited setting. The program is supported in part by an NIH training grant. *Applications from minority individuals are especially encouraged.* Information and application forms are available from: Uta Francke, M.D., Training Program Director, Departments of Genetics and Pediatrics, Howard Hughes Medical Institute, Stanford, CA 94305-5428.

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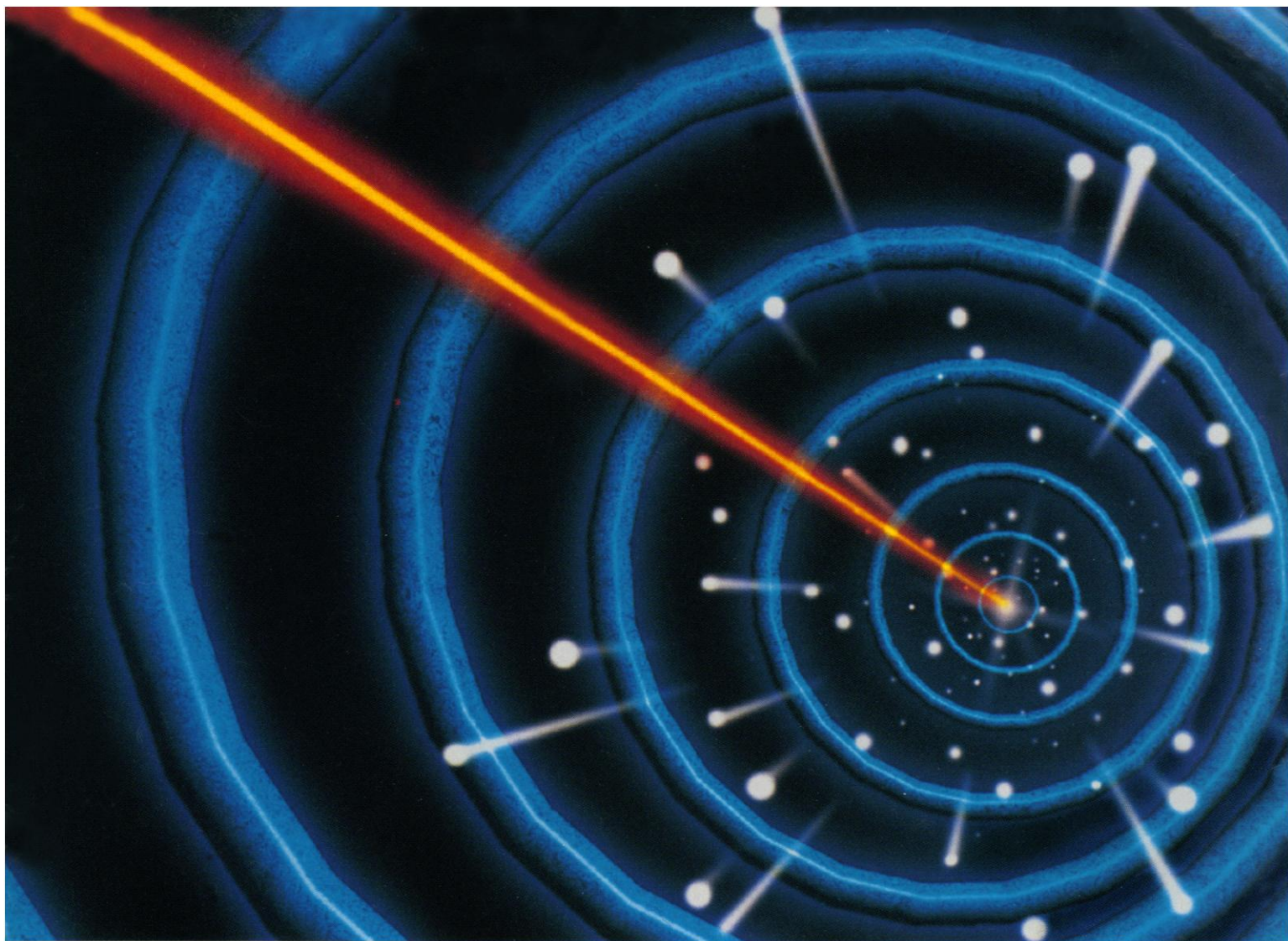
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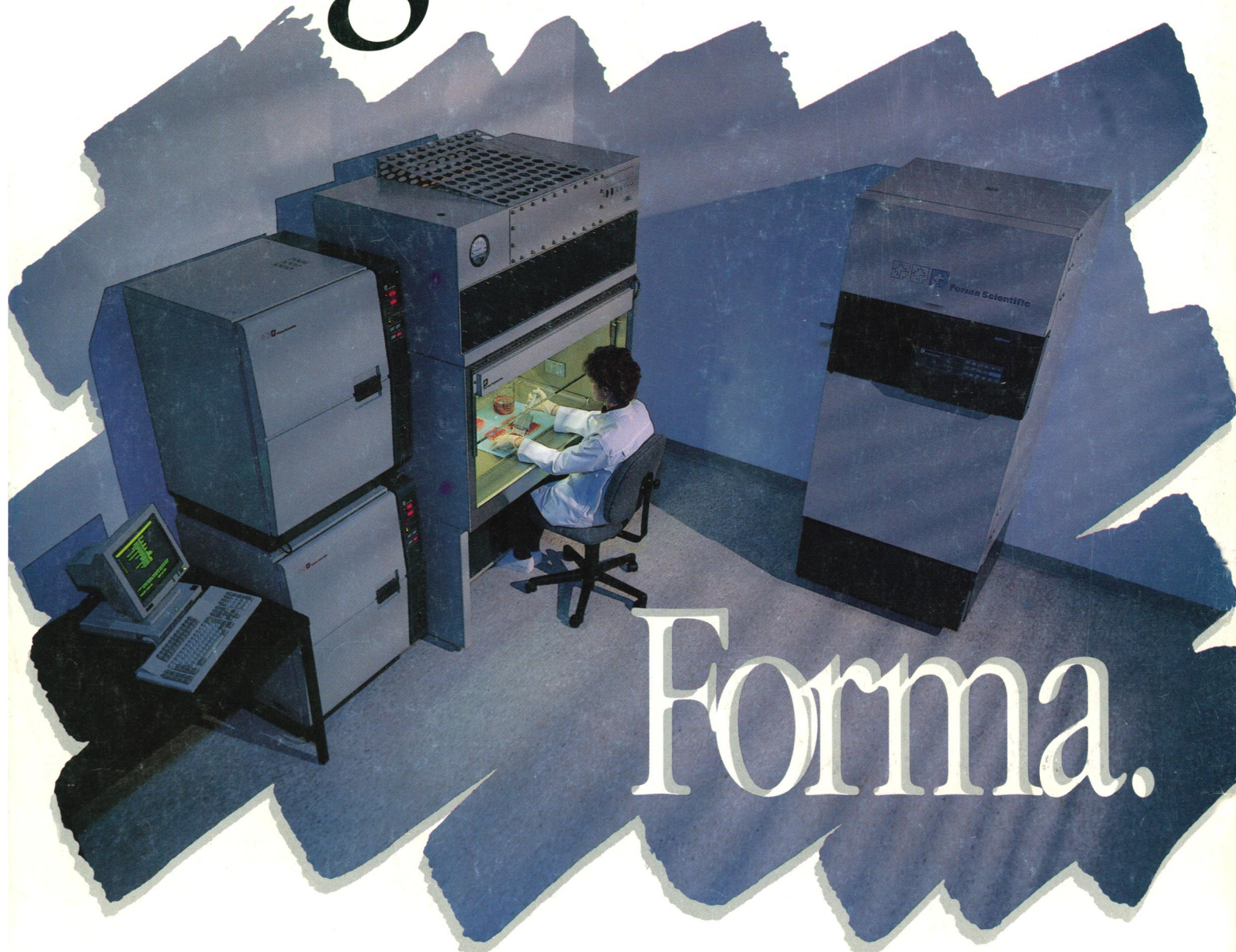
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