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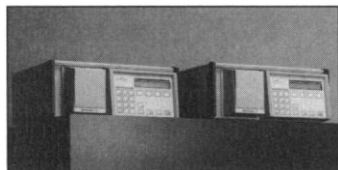
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tral data from a single injection. It can scan the entire wavelength range from 190 to 700 nm without manual interruption. **Gilson Medical Electronics. Circle 138.**

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A kit for the conversion of plasmid miniprep DNA into pure supercoiled DNA features a patent-pending membrane that efficiently binds protein and single-stranded DNA incorporated into a microcentrifuge cartridge, along with a new DNA-binding membrane. After obtaining plasmid miniprep DNA, the sample is heat-denatured in low salt buffer (supercoil is not denatured) and passed through the cartridge. All DNA and protein bind to the cartridge. The supercoiled DNA is then preferentially eluted with TE. The protocol is faster and easier than column procedures. **Advanced Genetic Technologies. Circle 139.**

Technical Graphing Software

EasyPlot for Windows (EPWin) is a graphing package that allows the user to quickly analyze, manipulate, and plot large amounts of data. EPWin includes a Text Toolbar for mathematical text editing, a new spreadsheet-like data editor, and a unique feature called Clipboard-plotting that

graphs data directly from the clipboard without first pasting into a local data table. It is designed for speed, especially when handling large data sets, and virtually eliminates the delays associated with Windows screen rewrites by anticipating screen updates and storing key accelerator information. The Windows version is completely compatible with the DOS version. EPWin, which runs under Microsoft Windows 3.1, requires 2 megabytes of random access memory and uses only 0.5 megabyte of hard disk space. **Spiral Software. Circle 140.**

Nucleotide Analogs

Fifteen nucleotide analogs are available for nonradiometric multi-color labeling for direct or hapten-mediated detection. The nonradioactive nucleotides, part of the manufacturer's growing "RENAISSANCE" line, include ribo-, deoxy-, and dideoxynucleotide analogs. The choice of nonradioactive labels includes biotin (dideoxynucleotides only), fluorescein, eosin, coumarin, tetramethylrhodamine, Texas Red, and Lissamine. **DuPont. Circle 141.**

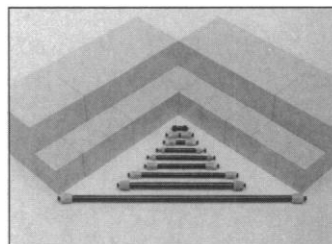
PCR Product Purification

A new kit for the rapid purification of polymerase chain reaction (PCR) products features a patent-pending membrane that efficiently binds proteins and primers at low to moderate salt concentrations incorporated into a microcentrifuge cartridge. This device will remove all primers, proteins, and many ghost bands from amplifications in a single 5-s elution step on a microcentrifuge. Binding efficiency for

protein and primers is greater than 99.9%. Double-stranded amplification products pass through the membrane and are separated from buffers and unincorporated nucleotides by rapid precipitation. Single-stranded amplification products greater than 90 base pairs can be separated from primers up to 30 nucleotides in high yield by selective elution in tris buffers. **Advanced Genetic Technologies. Circle 142.**

Biotechnology Columns

BioSep-DEAE-P and BioSep-PEI are both packing materials for high-performance liquid chromatography columns. They are both polymer-based weak anion exchange packings designed for protein and peptide separations. The inert polymer surface of the BioSep-DEAE-P packing provides higher recoveries of active proteins and is stable to extremes



of temperature and pH. The BioSep-PEI material offers similar chemical and thermal stability and is suited for rapid analysis. **Phenomenex. Circle 143.**

Quantitation Standards Kit

The Quantitation Standards Kit provides separate tubes containing 10 µg each of purified and quantified DNA fragments of 200, 500, and 1000 base pairs,

sufficient for more than 200 loadings. The kit can be used for quantifying polymerase chain reaction fragments in all common size ranges. The researcher can prepare custom standards by combining equal quantities of each fragment or placing different quantities of each fragment in the same sample well or can run them separately. **GenSura Laboratories. Circle 144.**

Literature

Software Guide for Balance and Scale Automation describes a number of laboratory and industrial applications. **Labtronics. Circle 145.**

The Source is a new quarterly reference newsletter for the cell culture researcher. The current edition discusses media used in mammalian cell culture. It offers a brief history on media development, summarizes the nutritional role of various medium components, and offers guidance in selecting an appropriate medium for specific applications. **Sigma Cell Culture. Circle 146.**

PHC-3 Thermal Cyclers: Heated Lid and Accessories is a brochure on an instrument that now offers a heated lid to help eliminate the need for mineral oil overlays. **Techne. Circle 147.**

Reagent Sourcebook is an expanded edition that lists electrophoresis and molecular biology reagents and details all the reagents from the biotechnology section of the general *Fisher Chemical Catalog 93/94*. **Fisher Scientific. Circle 148.**

Microfiltration Products Selection Guide: Mid Year 1993 features 76 pages of these products. **Poretics Corp. Circle 149.**

CES 1 Capillary Electrophoresis System is a brochure on a system with applications from ion analysis to biomolecular research. **Dionex. Circle 150.**

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

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POSITIONS OPEN

VETERINARY NUTRITIONIST

The Department of Anatomy and Physiology in the College of Veterinary Medicine invites applications for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level; appointment begins 1 January 1994. Teaching responsibilities (50%) include serving as course director for a veterinary nutrition course for first-year students and as coordinator of instruction for a third-year clinical nutrition course. Candidates should have an extramurally funded research program in veterinary nutrition or have an established research program with considerable potential for securing extramural funding. Preference will be given to candidates with demonstrated expertise or training in metabolism and/or physiological chemistry. Candidates with training and/or expertise in comparative veterinary nutrition are especially encouraged to apply. D.V.M. or equivalent degree, and a Ph.D. in veterinary nutrition required. Applicants must be diplomates of the American College of Veterinary Nutrition or be eligible for certification by the ACVN.

Applications should include current curriculum vitae, a statement of research and teaching interest, reprints of three representative publications, and the names and addresses of three (3) references. Applications will be received until October 15, 1993, or until a suitable candidate is found. Send applications to: **Dr. Jon D. Dunn, Professor & Department Head, Department of Anatomy & Physiology, Veterinary Medical Sciences Building, 1600 Denison Avenue, Kansas State University, Manhattan, KS 66506-5602. Kansas State University is an Equal Opportunity, Affirmative Action Employer and specifically invites and encourages applications from women and minorities.**

PLANT PHYSIOLOGIST AND DEVELOPMENTAL BIOLOGIST

Two tenure-track **ASSISTANT PROFESSORSHIPS** are available for fall 1994: (1) Plant Physiologist with strong background in botany; and (2) Animal Developmental Biologist (candidates in the area of Comparative Animal Physiology will also be considered). Candidates for both positions should be familiar with biochemical and molecular techniques, be able to supervise graduate students in the department's Environmental Biology Ph.D. program, and develop a strong, funded research program. Teaching at graduate and undergraduate levels expected and will include undergraduate courses in plant physiology (position #1) and vertebrate embryology (position #2). To apply, send curriculum vitae, statement of research plans, photocopies of transcripts, representative reprints, and addresses and telephone numbers of three or more references, to: **Chair (list position) Search Committee, Department of Biology, University of Louisville, Louisville, KY 40292.** Screening of completed applications will begin October 25, 1993. *The University of Louisville is an Equal Opportunity, Affirmative Action Employer. Women, African-Americans, and other minorities are encouraged to apply.*

ASSISTANT/ASSOCIATE GENETICS POSITIONS—University of Nebraska. The School of Biological Sciences invites applications for two tenure-track faculty positions at the **ASSISTANT/ASSOCIATE PROFESSOR** level in the following areas: **Population/Evolutionary Genetics.** Expertise in population genetics using molecular techniques to answer ecological or evolutionary mechanisms is expected. **Developmental Genetics.** Expertise in using a genetic approach to explore fundamental problems in cellular and/or developmental biology is sought. Candidates will be expected to develop vigorous research programs and assume teaching responsibilities in both undergraduate- and graduate-level courses in genetics and biology. Scientists with a Ph.D. and postdoctoral experience may apply by sending curriculum vitae, statement of research interest and arrange for three letters of reference to be sent by October 15, 1993, or until suitable candidate is found, to: **Population/Evolutionary or Developmental Genetics Search Chair, School of Biological Sciences, 348 Manter Hall, University of Nebraska—Lincoln, Lincoln, NE 68588-0118. The University of Nebraska—Lincoln is committed to a pluralistic campus community through Affirmative Action and Equal Opportunity and is responsive to the needs of dual career couples. If you require a reasonable accommodation in order to apply or interview for this position, please contact Dr. T. Jack Morris at the above address.**

POSITIONS OPEN

IMMUNOLOGIST

The Department of Microbiology at the University of Tennessee, Knoxville, invites applications for a tenure-track faculty appointment as **ASSISTANT PROFESSOR.** The University community and the nearby facilities of Oak Ridge National Laboratories offer unique opportunities for collaborative investigations. Preference will be given to applicants with a willingness to become part of this interacting network. The successful applicant must hold a doctoral degree with at least 2 years of postdoctoral experience in contemporary immunology, demonstrated research productivity, and evidence of potential for excellence in teaching. Responsibilities include graduate and undergraduate teaching in immunology, establishment of a productive, independent research program, and academic responsibilities normally associated with a tenure-track faculty position. The starting date is August 1994.

Applicants should submit a letter of interest accompanied by curriculum vitae, a description of research interests and career objectives, and the names, addresses and telephone numbers of three individuals who can evaluate the applicant's qualifications for the position. *Applications from women and minorities are especially invited.* All material should be sent to: **Dr. Robert N. Moore, Chair of Search Committee, Department of Microbiology, University of Tennessee, Knoxville, TN 37996-0845. Telephone: 615-974-4028** for additional information. Nominations should be made as soon as possible; evaluation of applications will begin in October 1993. *The University of Tennessee is an Equal Employment Opportunity/Affirmative Action/Title IX/Section 504/ADA Employer.*

MOLECULAR BIOLOGY

The Department of Zoology, University of Maryland, College Park, has available a tenure-track, **ASSISTANT PROFESSOR** position in **MOLECULAR BIOLOGY.** Applicants must have a Ph.D. and postdoctoral experience that demonstrates research excellence in both the manipulation of nucleic acids and the application of molecular techniques to some aspect of eukaryotic biology. The applicant selected must obtain external research funding, direct graduate student research and participate in both undergraduate and graduate teaching. Please forward curriculum vitae, a brief description of research goals and teaching interests, and the names, addresses, telephone and FAX numbers of at least 3 references to: **Molecular Biology Search Committee, Department of Zoology, University of Maryland, College Park, MD 20742, by October 15, 1993, for best consideration.** *The University of Maryland is an Equal Opportunity/Affirmative Action Employer.*

MACALESTER COLLEGE VERTEBRATE PHYSIOLOGIST

Applicants are invited to apply for a tenure-track position at the **ASSISTANT PROFESSOR** level. The primary teaching area will be in vertebrate physiology, and additional expertise in marine biology is desirable. The successful applicant will be strongly committed to teaching in a liberal arts setting and will be expected to develop an active research program that involves undergraduate students. Send curriculum vitae, a statement of research goals and teaching philosophy, and names of three references by October 15, 1993, to: **Dr. Mark A. Davis, Department of Biology, Macalester College, 1600 Grand Avenue, St. Paul, MN 55105-1899. An Affirmative Action/Equal Opportunity Employer.**

ASSISTANT PROFESSORS—Department of Biochemistry and Molecular Biology, University of South Dakota School of Medicine. One and possibly two 12-month, tenure-track Assistant or beginning Associate Professor-level positions. All areas of expertise in eukaryotic molecular biology or biochemistry will be considered. Successful candidates must develop a competitive, independent research program and participate in the teaching of medical, graduate and undergraduate students. Competitive state-supported salary and start-up funds. Rank commensurate with experience. Send curriculum vitae, statement of research plans and names of three references to: **Dr. Ronald Lindahl, Chair, Department of Biochemistry and Molecular Biology, University of South Dakota School of Medicine, Vermillion, SD 57069.** Consideration of applications will begin October 1, 1993. *USD is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR: Applications are invited for a position at the level of assistant professor (tenure-track) in the Department of Chemistry at Stanford University, with primary research and teaching interests in the general area of either organic or physical chemistry. This appointment would commence on September 1, 1994, and is subject to final approval. 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 Robert Pecora, 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 November 1, 1993.

CORNELL FACULTY POSITION Department of Physiology and Biophysics Cornell University Medical College, New York City

The Department of Physiology and Biophysics seeks applicants with an M.D. or Ph.D. degree for a tenure-track **ASSISTANT PROFESSORSHIP**. Ample resources and a stimulating and challenging environment are provided. Applicants must demonstrate a capacity for significant independent research in cell physiology, using modern techniques of molecular or cell biology, electrophysiology, biochemistry, structural biology or biophysics. Specific research interests may include cell signalling, protein phosphorylation, membrane channel protein function, and the relationship between molecular structure and biological function. Participation in teaching of medical and graduate students is expected. Send curriculum vitae to: **E. E. Windhager, M.D., Chairman of Search Committee and of the Department of Physiology and Biophysics, Cornell University Medical College, New York, NY 10021.** *Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

TENURE-TRACK FACULTY POSITION Department of Pharmacology, Loyola University Chicago, Stritch School of Medicine

The Department of Pharmacology, Loyola University Chicago, Stritch School of Medicine, is seeking to fill a tenure-track **ASSISTANT PROFESSOR** or **ASSOCIATE PROFESSOR** position. The candidate should have a Ph.D. and/or M.D. degree, postdoctoral experience, and a strong commitment to excellence in research and teaching. Evidence of originality, scientific accomplishment, and promise of ability to develop a productive, independent research program, is essential.

This position is available July 1, 1994. Salary is competitive, and based on experience and qualifications. Start-up support will be provided for early development. Candidates should send curriculum vitae, three letters of recommendation, representative reprints, and a synopsis of their current and future research interests to: **Dr. Israel Hanin, Chairman, Department of Pharmacology, Loyola University Chicago, Stritch School of Medicine, 2160 South First Avenue, Maywood, IL 60153.** Telephone: 708-216-3261.

FACULTY POSITION AVAILABLE

Bacterial Pathogenesis: The Department of Microbiology at Washington State University (WSU) invites applications for a 9-month, tenure-track faculty position at the **ASSISTANT PROFESSOR** level. Preference will be given to individuals with research interests and experience in the molecular basis of bacterial pathogenesis. Applicants must have postdoctoral training. The successful candidate will be expected to establish an active, externally funded research program and participate in graduate and undergraduate teaching in the areas of general and pathogenic microbiology. Send curriculum vitae, statement of research interests and professional objectives, and at least three letters of reference to: **Dr. Kemet D. Spence, Search Committee Chairman, Department of Microbiology, Washington State University, Pullman, WA 99164-4233.** Review of applications begins November 15, 1993, and continues until the position is filled. *WSU is an Equal Opportunity/Affirmative Action Educator and Employer. Protected group members are encouraged to apply.*

POSITIONS OPEN

NEUROSCIENTIST

The Department of Cell Biology, Neurobiology and Anatomy at Loyola University Chicago is seeking a Neurobiologist to fill a tenure-track position at the **ASSOCIATE PROFESSOR** level. Applicants should have established an independent research program supported by extramural funding, although some financial assistance will be available for relocating a laboratory. Individuals utilizing molecular approaches in the field of neuronal regeneration are encouraged to apply. Teaching responsibilities include medical gross anatomy and embryology. Applicants should submit a letter indicating qualifications and research goals, curriculum vitae and the names of three references by October 1, 1993, to: **John Clancy, Jr., Ph.D., Department of Cell Biology, Neurobiology and Anatomy, Loyola University Chicago, 2160 South First Avenue, Maywood, IL 60153.** *Loyola University is an Equal Opportunity Employer.*

MRC SCHOLAR IN MEDICAL GENETICS

The University of British Columbia (UBC): The Department of Medical Genetics wishes to sponsor an individual for a Medical Research Council Scholarship. Appointment at the rank of **ASSISTANT PROFESSOR** on the grant tenure track will be contingent upon successfully obtaining MRC Scholarship or equivalent funding for salary support.

Candidates for this position must have a doctoral degree, a minimum of two years of postdoctoral experience, and demonstration of outstanding research abilities in the area of Medical Genetics. The successful candidate will be expected to develop a vigorous, independent research program in an interactive environment, and should be an enthusiastic teacher. The deadline for applications is August 31, 1993 (to allow for September application to the MRC). Anticipated start date is January or July 1994. Applications including curriculum vitae, selected reprints, a statement of research interests and present research activities, and the names of three referees should be sent to: **Dr. J.M. Friedman, Head, Department of Medical Genetics, The University of British Columbia, Room 226-6174 University Boulevard, Vancouver, B.C. CANADA V6T 1Z3.** *In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. UBC welcomes all qualified applicants, especially women, aboriginal people, visible minorities, and persons with disabilities.*

BIOTECH/PHARMACEUTICS OPPORTUNITIES. PH.D. DIRECTOR, ORGANIC CHEMISTRY small molecule synthesis—New England. **PH.D. NUCLEOTIDE PURIFICATION MANAGER** with HPLC and GMP experience—California. Many other positions for B.S., M.S. and Ph.D.'s in Biochemistry, Cell and Molecular Biology, Proteins, Peptides, Synthesis, Analysis and Scale-up. All fees company paid. Contact: **Lybrook Associates, P.O. Box 572, Newport, RI 02840.** Telephone: 401/683-6990. FAX: 401/683-6355.

EXECUTIVE STAFF POSITION

This position reports directly to the Chief Executive Officer of a privately owned European Specialty Pharmaceutical Company with world wide sales. The senior person selected will head a five person group responsible for coordination of clinical and registration of new pharmaceutical products in markets around the world. Project timetables and budgets will be coordinated with the individual country managements. Your experience in clinical and/or pharmaceutical development and European regulations as well as project management will be needed to offer guidance to the various departments doing the work in countries.

You will need a M.D./Ph.D. degree with experience in project management and ten years in the pharmaceutical industry. Experience in peptides and their unique delivery systems is helpful. Interpersonal skills in dealing with both internal and external collaborators essential. Speaking knowledge of French is useful. The position is based in Paris France.

Please send curriculum vitae and salary history with names of three referees to: **SCIENCE Classified Advertising Box 39, 1333 H Street, NW, Washington, DC 20005.**

POSITIONS OPEN

DIRECTOR, BONE MARROW TRANSPLANT LABORATORY

EXPERIMENTAL HEMATOPOIESIS. The University of Louisville Department of Medicine is seeking an **INSTRUCTOR/ASSISTANT PROFESSOR** of Medicine. Successful candidate will have a Ph.D. in biochemistry, biology, immunology or related field. He or she should have experience in the basic science of hematopoiesis and marrow transplantation. He or she will be responsible for the development of a research program in conjunction with an active clinical BMT program, in such areas as stem cell expansion and gene therapy. Respond with reference to **PCN 01387** by sending a letter of interest and curriculum vitae to: **Don A. Stevens, M.D., Director, Adult BMT Program, Department of Medicine, University of Louisville, Louisville, KY 40292.** *The University of Louisville is an Equal Employment Opportunity/Affirmative Action Institution.*

CHAIR, DEPARTMENT OF OPHTHALMOLOGY

THE COLLEGE OF MEDICINE AT THE UNIVERSITY OF FLORIDA is searching for an individual to serve as Professor and Chair for the Department of Ophthalmology and to provide academic and administrative leadership in programs of patient care, teaching and research. Minimum qualifications include an M.D. degree and a distinguished record of performance in teaching, clinical care and/or research with abilities to lead a highly productive academic department. The deadline for receipt of applications is October 1, 1993. The anticipated starting date is July 1, 1994. Reply by sending current curriculum vitae to: **Dwight L. Evans, M.D., Chair, Ophthalmology Search Committee, Department of Psychiatry, University of Florida, Box 100256, Gainesville, FL 32610-0256.** *Affirmative Action/Equal Opportunity Employer. Women and minority applicants are encouraged to apply and voluntarily identify themselves.*

LABORATORY TECHNICIAN III. B.S. OF SCIENCE. Immuno- and double labelling, growth curve, tissue culture, DNA/RNA extraction; Southern, Northern, Western blotting; serum independence. Feeding, counting, scraping, plating, subculture of cells. Coating dishes. Retinal and brain cell line. 3H-Thymidine incorporation, retinal pigmented and human epithelium, CDC fibroblast, olynus. Transforming, platelet-derived and fibroblast growth factor.

Documented knowledge of: cell thawing; maintenance and culture; IEC-Centra 7 centrifuge machine; FITC Fluorescein microscope; Filling liquid nitrogen tank; Medium preparations; making solutions; animal surgery; identification, culture and isolation of bacteria. Slide technique. \$23,504 per year.

Send résumé to: **Georgia Department of Labor, Job Order: #GA 5640864, 2636-14 Martin Luther King, Jr. Drive, Atlanta, GA 30311;** or to the nearest Georgia Job Service Center.

DEPARTMENT HEAD

Food Science and Technology

The College of Agriculture and Life Sciences at Virginia Polytechnic Institute and State University (Virginia Tech) is seeking candidates for the position of professor and head for the Department of Food Science and Technology. Candidates must have an earned doctorate in Food Science and Technology, or closely related field, as well as nationally recognized professional accomplishments in, and appreciation for, teaching, research and/or extension. A strong commitment to professional development of faculty, staff and students is highly desirable as well as evidence of effective interaction with industry and government agencies. Candidates should provide a letter of application, curriculum vitae, and names, addresses and telephone numbers of three references qualified to comment on the applicant's qualifications. Completed applications will be considered beginning October 1, 1993, until the position is filled. Applications should be sent to: **Dr. L. A. Swiger, Interim Dean, College of Agriculture and Life Sciences, Virginia Tech, Blacksburg, VA 24061-0402.** Individuals with disabilities desiring accommodations in the application process should notify **Dr. L. A. Swiger (703) 231-4152** by the application deadline. *Virginia Tech has a strong commitment to the principle of diversity and, in that spirit, seeks a broad spectrum of candidates including women, people of color, and people with disabilities.*



Public Announcement Regarding New Research and Development Projects on International Clean Energy Network Using Hydrogen Conversion (WE-NET)

Announced by the New Energy and Industrial Technology Development Organization on August 20th, 1993

In order to promote new energy technology, the New Energy and Industrial Technology Development Organization (NEDO) would like to inform all interested companies and research organizations regarding the research and development projects described below.

Theme of the Research and Development Projects and Outline of the Research and Development Work to be Entrusted.

International Clean Energy Network Using Hydrogen Conversion
(World Energy Network: WE-NET)

The WE-NET project is a massive, long-term international project whose ultimate target is to establish technologies to construct a global clean energy system using hydrogen, in which with renewable energy such as hydraulic, solar, and so on, hydrogen is produced. After its conversion into a substance suitable for transportation, it can be transported, stored, and eventually utilized as fuel for power generation and transportation on a global scale.

In phase I (FY1993-1996), basic technologies related to hydrogen production, transportation, storage and utilization will be established. Information needed for the optimum total system design will be obtained, and technologies needed for design and construction of small-scale plants will be established, by conducting basic research on elementary technologies and other necessary investigation.

Procedures for Application

(1) Qualification Criteria

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

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

(2) Explanatory Meeting

An explanatory meeting will be held on the date shown below in order for NEDO to fully explain the details of the project's research and development work to be entrusted and application documents to be submitted. Japanese will be the only language used during the meeting.

Date: Tuesday, August 31st, 1993

Times: 14:00 to 15:30

Place: NEDO's Head Office

Sunshine 60 Building, 28th Floor, Room 28-11

1-1, Higashi-Ikebukuro 3-Chome.

Toshima-ku, Tokyo, 170

(3) Further Information

For further information regarding the research and development work to be entrusted under the above projects, please contact NEDO in Japanese by telefax as follows: New Energy and Industrial Technology Development Organization

Contract Division, Accounting Department

Sunshine 60 Building, 28th Floor, Room 28-11

1-1, Higashi-Ikebukuro 3-Chome

Toshima-ku, Tokyo, 170, Japan

Telefax: 03-5992-1184



Offering for Public Subscription of Entrusted Works toward "Technical Development of Photovoltaic Power Generation To Be Put Into Practical Use (the implemented research and development of peripheral equipment and application systems for photovoltaic power generation)"

[(20th August 1993) New Energy and Industrial Technology Development Organization]

As part of its 1993 programs to promote the development of new energy sources which will substitute for petroleum, the New Energy and Industrial Technology Development Organization intends to offer for public subscription entrusted research and development works concerning new energy, subject to required official proceedings, inviting business firms and other organizations to accept and apply in accordance with conditions mentioned below.

1. Subject for research and development.

Development of compact power conditioner for photovoltaic power generation system which is connected to the utility grid.

2. Outline of the research and development.

For use as peripherals of a private house-use photovoltaic power generation system, less expensive but more compact and efficient equipment is required to be developed for effecting simplification of the system as a whole; this will follow from integration in the system of a number of necessary functions, including inverter and utility interface, so that it meets various regulations such as "the Guidelines Of Technical Requirements For A System Connected To The Utility Grid Which Allow Reverse Power Flow."

In the development work are targeted:

- Conversion efficiency at 95% (for the rated output), and
- Volume and weight, not more than 0.019m³ and 18kg respectively.

3. For application

(1) Qualification

Any business firms and other organizations are invited to accept our offering, singly or jointly, if they meet every and all of the requirements set forth below from a to d, namely, they are required to:

- a. Have some proved experience with technical research and development of or relating to such equipment as intended by the subject of the entrusted works to be offered by us as well as be well-organized, well-staffed, and well-equipped enough to undertake our entrusted R&D works.
- b. To be financially well-established enough for smooth operation of our entrusted works and capable of fully controlling funds, installations, and other resources required for such operation.
- c. To be well-prepared for quick systematic implementation of pertinent measures to be taken at the time our entrusted works are undertaken, and
- d. To attend the meeting set forth below in (2), with the provision that a non-Japanese business firm or other organization may, if prevented from attending by some justifiable reason, be represented by an agent or any other person who can properly and correctly convey the results of the meeting.

(2) A meeting for explanation to be held

- a. A meeting will be held for the explanation of detailed works to be entrusted, specific procedures required for application, necessary documents for applicants to submit, and so on, and desired attendants are required to attend it by sending anyone who understands our explanation.
- b. Explanation is to be given in Japanese.
- c. Date and place of meeting

Date: 2nd September, 1993; 2:00 p.m. through 4:00 p.m.

Place: New Energy and Industrial Technology Development Organization
(Special Conference Room, 28th Floor of Sunshine 60)

(3) Contact

For further information regarding the research and development work to be entrusted as above, please contact NEDO in Japanese as follows:

Contract Section, Accounting Division
New Energy and Industrial Technology Development Organization
Sunshine 60 (28th floor), 1-1, 3-chome,
Higashi-Ikebukuro, Toshima-ku, Tokyo 170, Japan
Phone: 03(3987)9322

Offering for Public Subscription of Entrusted Works toward "Technical Development of Photovoltaic Power Generation To Be Put into Practical Use (the implemented research and development of peripheral equipment and application systems for photovoltaic power generation)"

[(20th August 1993) New Energy and Industrial Technology Development Organization]

As part of its 1993 programs to promote the development of new energy sources which will substitute for petroleum, the New Energy and Industrial Technology Development Organization intends to offer for public subscription entrusted research and development works concerning new energy, subject to required official proceedings, inviting business firms and other organizations to accept and apply in accordance with conditions mentioned below.

1. Subject for research and development

Research and development of photovoltaic modules integrated with the following construction materials:

- (1) Roofing materials
- (2) Wall materials
- (3) Unspecified construction materials

2. Outline of the research and development

(1) Research and development of photovoltaic modules integrated with a roofing material

Research and investigation concerning photovoltaic modules integrated with a construction material suitable for the roofing of private houses etc., is to be undertaken, as well as an investigation into inter-module connection, installation and anchoring methods which take into consideration maintainability involving repair, replacement, etc., thereby developing high-reliability low-cost photovoltaic modules with a demonstration test conducted.

(2) Research and development of photovoltaic modules integrated with a wall material.

Research and investigation concerning photovoltaic modules integrated with a construction material suitable for use as part of a wall in private house, low to high-rise buildings, etc., is to be undertaken, as well as an investigation into inter-module connection, installation and anchoring methods which take into consideration maintainability involving repair, replacement, etc., thereby developing high-reliability low-cost photovoltaic modules with a demonstration test conducted.

(3) Research and development of flexible photovoltaic modules applicable for a construction material with an unspecific purpose

Research and investigation concerning flexible photovoltaic modules suitable for use as part of a roof, wall etc., in private houses etc., is to be undertaken, as well as an investigation into flexible high-weatherability materials and inter-module connection, installation and anchoring methods which take into consideration maintainability involving repair, replacement, etc., thereby developing high-reliability low-cost photovoltaic modules with a demonstration test conducted.

3. For application

(1) Qualification

Any business firms and other organizations are invited to accept our offering, singly or jointly, if they meet every and all of the requirements set forth below from a to d, namely, they are required to:

- a. Have some proved experience with technical research and development of or relating to such equipment as intended by the subject of the entrusted works to be offered by us as well as be well-organized, well-staffed, and well-equipped enough to undertake our entrusted R & D works, with a sound knowledge of Japanese laws, regulations, codes and standards relating to buildings.
- b. To be financially well-established enough for smooth operation of our entrusted works and capable of fully controlling funds, installations, and other resources required for such operation.
- c. To be well-prepared for quick systematic implementation of pertinent measures to be taken at the time our entrusted works are undertaken, and
- d. To attend the meeting set forth below in (2), with the provision that a non-Japanese business firm or other organization may, if prevented from attending by some justifiable reason, be represented by an agent or any other person who can properly and correctly convey the results of the meeting.

(2) A meeting for explanation to be held

- a. A meeting will be held for the explanation of detailed works to be entrusted, specific procedures required for application, necessary documents for applicants to submit, and so on, and desired attendants are required to attend it by sending anyone who understands our explanation.
- b. Explanation is to be given in Japanese.
- c. Date and place of meeting
Date: 2nd September, 1993; 4:00 p.m., through 5:30 p.m.
Place: New Energy and Industrial Technology Development Organization
(Special Conference Room, 28th floor of Sunshine 60)

(3) Contact

For further information regarding the research and development work to be entrusted as above, please contact NEDO in Japanese as follows:

Contract Section, Accounting Division
New Energy and Industrial Technology Development Organization
Sunshine 60 (28th floor), 1-1, 3-chome,
Higashi-Ikebukuro, Toshima-ku, Tokyo 170, Japan
Phone: 03(3987)9322



LANDSCAPE/WATERSHED ECOLOGISTS

The Appalachian Environmental Laboratory (AEL) of the University of Maryland System's (UMS) Center for Environmental and Estuarine Studies seeks to fill the first two of five faculty positions for a new program in Landscape and Restoration Ecology and to expand studies of the Chesapeake Bay watershed. A third position is available pending funding. Positions require capability in landscape ecology with applications in watershed and restoration ecology, demonstrated potential for externally-funded research, and experience in collaborative research. Regional research is expected; opportunities for international studies exist. Positions are primarily research; graduate teaching and supervision at several UMS campuses is encouraged. Positions (in priority order):

1. **LANDSCAPE ECOLOGIST** (Open Acad. Rank). Interest in delineation of large-scale landscape structure and function; quantitative skills such as spatial statistics, remote sensing, and GIS.
2. **HYDROLOGIST** (Asst./Assoc. Prof. Rank). Interests in surface or groundwater quality/chemistry related to land use, particularly terrestrial/aquatic interfaces.
3. **ATMOSPHERIC/ENVIRONMENTAL SCIENTIST** (Asst./Assoc. Prof. Rank). Interest in landscape-atmospheric interactions, especially global and regional atmospheric influence on terrestrial or aquatic system processes.

Send application letter, CV, relevant reprints, statement of research interests and goals, and four references (name, address, telephone and FAX numbers) by 15 October to Dr. Steven W. Seagle, Co-Chair, Landscape/Watershed Ecology Search, Position: (indicate position applying for), AEL, Gunter Hall, Frostburg, MD 21532. The University of Maryland System is an AA/EEOE. Women and minorities are especially encouraged to apply.

DIRECTOR

The Search Committee of the Woods Hole Oceanographic Institution invites nominations and applications for the position of Director.

The world's largest independent oceanographic research and educational laboratory, the Institution has a scientific and technical staff of 250, a total personnel complement of 850, and a current operating budget of \$7 million dollars. It operates a fleet of research vessels engaged in world-wide oceanographic activities. Research includes all aspects of ocean-related work, geology, geophysics, physical oceanography, biology, marine chemistry and geochemistry, engineering and marine policy. A Graduate Program in Oceanography/Oceanographic Engineering is offered jointly with the Massachusetts Institute of Technology.

The Director is the chief executive officer of the Institution and is accountable to the Board of Trustees. The Director is generally responsible for all Institution scientific, fiscal and operating activities. He/she will ensure positive relationships with various Federal funding agencies. The Director is also responsible for and, for the next few years, must be prepared to devote a great amount of time and effort to fund raising activities in the private sector.

The Search Committee expects that candidates will have distinguished records of scientific accomplishment or scientific administrative experience in research and/or academic institutions. A strong and demonstrated commitment to the furtherance of research in the oceans is desirable.

Address confidential communications to:

**Professor Robert M. Solow, Chair
Search Committee**



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POSITIONS OPEN

GENETIC EPIDEMIOLOGIST to develop new statistical methods for gene mapping studies of complex oral/craniofacial disorders. Positions available at **SENIOR STAFF FELLOW** (assistant professor equivalent) through **SECTION CHIEF** levels (\$40,000 to \$73,000) commensurate with experience. Send curriculum vitae to: **Dr. Scott Diehl, Chief, Molecular Epidemiology and Disease Indicators Branch, NIDR, NIH, 718 Westwood Building, Bethesda, MD 20892. Telephone: 301-594-7657. NIH is an Equal Opportunity Employer.**

MOLECULAR—CELLULAR BIOLOGY TENURE-TRACK POSITIONS

The Department of Psychiatry at the University of Mississippi Medical Center invites applications to fill tenure-track positions in molecular-cellular biology in its newly established laboratories. Candidates should hold a M.D. or Ph.D. degree with at least two years of post-doctoral experience. Experience in cloning is highly desirable. Candidates will be expected to have demonstrated ability to develop independent research programs and to compete successfully for extramural funding. Joint appointments to basic science departments are possible. Teaching responsibilities are not excessive. Faculty rank and salary commensurate with degree and level of experience. Applicants should send curriculum vitae, an outline of research interests and the names of three individuals who have agreed to provide letters of recommendation to: **Dr. Angelos Halaris, Professor and Chairman, Department of Psychiatry and Human Behavior, The University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505. Applications will be accepted through November 1, 1993. Equal Opportunity Employer, M/F/D/V.**

The Division of Biology, California Institute of Technology, seeks a **JUNIOR FACULTY MEMBER** in the area of Immunology for a tenure-track position. Successful applicants are expected to generate creative and productive research programs that will interface with the diverse scientific interests represented in the Biology Division. Applicants should send curriculum vitae, list of publications, and a brief statement of research interests and plans. In addition, the candidate should arrange to have three letters of reference sent directly to the search committee. Applications and letters of reference should be sent to: **Ms. Joyce Kato, Immunology Search Committee, Division of Biology 147-75, California Institute of Technology, Pasadena, CA 91125. The deadline for receiving applications and letters of reference is December 15, 1993. The California Institute of Technology is an Equal Opportunity/Affirmative Action Employer and encourages the applications of qualified women and minorities.**

BIostatistician

The Department of Biometry and Epidemiology of the Medical University of South Carolina (MUSC) is seeking a candidate for a **FACULTY POSITION** in biostatistics. Responsibilities include graduate teaching and research in the area of environmental health risk assessment. Evidence of published research in the area of quantitative risk assessment is required. Salary and rank will be dependent upon qualifications.

Send curriculum vitae and three references to: **Dr. David G. Hoel, Professor and Chairman, Department of Biometry and Epidemiology, MUSC, 171 Ashley Avenue, Charleston, SC 29425-2503.**

Closing date for receipt of applications is October 1, 1993, or until position is filled. *The Medical University of South Carolina is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION: The Department of Neurology, Southern Illinois University School of Medicine, has one position in the neuropharmacology laboratory to work on drug development. Ph.D. with or desiring postgraduate training with experience in pharmacology/neurochemistry/toxicology is desired. Experience in HPLC and animal handling is desirable. Salary and fringe benefits depending on qualifications. Send curriculum vitae to: **Bala V. Manyam, M.D., Professor, Department of Neurology, SIU School of Medicine, P.O. Box 19230, Springfield, IL 62794-9230. SIU is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

UNIVERSITY OF MICHIGAN MEDICAL CENTER

The University of Michigan, Department of Surgery seeks Ph.D. candidates for a Research Track **FACULTY POSITION** in Neurosurgery. Applicants should have Ph.D. in Biomedical Sciences; Pharmacology, Biochemistry, Cellular or Molecular Biology, Physiology, Immunology, etc., preferably with postdoctoral training/experience. Appointment level will be determined by credentials. Ability to conduct independent and collaborative research in brain tumors. Collaborate with clinical investigators. The position requires skills for supervising and directing research personnel in the laboratory; learn to perform cell culture, enzyme assays, gel electrophoresis, immunocytochemistry, complex molecular biological techniques, protein purification, radioimmunoassay and data analysis. Applicant must have a good record of scientific publication and ability to write grants independently and in cooperation with clinical staff involved in the laboratory, good interpersonal skills to maintain and develop collaborative efforts. Position is available September 1993. Interested candidates, please send curriculum vitae to: **Julian T. Hoff, M.D., Professor and Head of Neurosurgery, University of Michigan Medical Center, 1500 East Medical Center Drive, Ann Arbor, MI 48109-0338. The University of Michigan is a Non-Discriminatory/Affirmative Action Employer and strongly encourages females and minorities to apply.**

FACULTY POSITION IN THE PHARMACEUTICAL SCIENCES. The Department of Pharmaceutical Sciences at the Idaho State University (ISU) College of Pharmacy has a vacancy for a 9-month, tenure-track position. This appointment is intended to be at the junior level, but more senior applicants will be considered. Applicants are sought with expertise in biopharmaceutics, drug delivery systems, physical pharmacy, or a closely related area. Candidate should have either a Ph.D. degree with postdoctoral research training or a Pharm.D. degree with sufficient research experience. He/she must have a strong commitment to teaching and the ability to communicate effectively. In addition to instructing Pharm.D. and Ph.D. students, the successful candidate will be expected to develop an active and extramurally funded research program, and participate in College, University, and professional activities. The position is available immediately, and the search will remain open until the position is filled. Interested candidates are invited to send curriculum vitae, three letters of reference, and statements of their research interests to: **Dana L. Diedrich, Ph.D., Professor and Chair, Department of Pharmaceutical Sciences, Idaho State University College of Pharmacy, Pocatello, ID 83209-8334.**

ISU is an Affirmative Action/Equal Opportunity Employer and encourages applications from women, minorities, and members of underrepresented groups.



**GENELABS
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POSTDOCTORAL POSITION

Postdoctoral candidates are sought for our exciting DNA-binding drug program. The postdoctoral research projects will be dedicated to investigating the molecular basis of sequence-specific interactions between DNA-binding molecules and DNA. Candidates should have ample experience in molecular biology, specifically studies directed toward DNA:protein interactions or DNA:small molecule interactions. A background in biochemistry is also desirable. Interested applicants should forward curriculum vitae to: **Genelabs Technologies, Inc., 505 Penobscot Drive, Redwood City, CA 94063. We are an Equal Opportunity Employer.**

POSTDOCTORAL POSITION, COMPARATIVE GENE MAPPING. A position is available to compare bovine genome organization with the human and mouse. Experience with molecular biology is required. Responsibilities include bovine genetic marker development and linkage analysis. The position is available for two years. Send curriculum vitae and 3 letters of reference to: **Dr. Brian Kirkpatrick, University of Wisconsin, 646 Animal Sciences, 1675 Observatory Drive, Madison, WI 53706. FAX: (608) 262-5157.**

PURE SCIENCE

Genentech's focused approach to science has resulted in the richest product pipeline in our industry. Genentech's human therapeutics are rapidly moving to market. Which means we're continually seeking top professionals to get these therapies into the hands of people who need them.

Image Cytometry Expert

You will take a leading role in applying our state-of-the-art equipment to challenging applications in image and flow cytometry. From the bioengineering of cells for drug discovery to basic research in cell biology, the Cytometry Laboratory is dedicated to advancing the discipline of analytical cytology. You must have an expertise in the operation of image cytometers with a strong working knowledge of the application of such technology for the measurement of cell physiologic features (e.g. ionized calcium, pH, membrane potential, etc.). You should have the capability to collaborate effectively with scientists and researchers in a multiuser setting.

Job Code: NS/KB



Research Engineer/Scientist

In this high-level position, you will collaborate with the Process Sciences, Manufacturing, Engineering, Quality and Regulatory groups to identify and improve the processes used to make our human pharmaceuticals. Requires a PhD in Chemical Engineering, Biochemistry or equivalent coupled with an extensive background in process engineering, protein separations, and protein purification & characterization. Exceptional leadership and communication skills are a must. Job Code: TS/BB

Research Assistant/Associates

Aerosol Delivery

Working in the Aerosol Delivery Group within the Pharmaceutical Research and Development Department, you will develop protein and peptide aerosols. Requires a BS/MS in Pharmacy, Chemistry, Chemical Engineering or related fields and skills in basic methods of chemical and biochemical analysis. The successful candidate will find challenging opportunities to develop state-of-the-art inhalation delivery of human recombinant proteins. Job Code: TS/AC

Synthesis & Purification

You will be responsible for synthesis and purification of peptides or peptidomimetic compounds. You will initiate and develop new procedures for these processes. You must have a relevant BS/MS with strong organic chemistry background. Job Code: TS/SK

Dosage Forms/Delivery Systems

We have two positions open to conduct laboratory studies in support of research and development of dosage forms/delivery systems. One is for biopolymers and the second is for small molecules, peptides and proteins. Both involve physiochemical and chemical characterization with regard to compatibility with pharmaceutical excipients and container/closure systems. You will also develop stability indicating assays and assess stability of final dosage forms. You must have 2+ years' related experience and knowledge of analytical biochemistry and familiarity with lab techniques such as HPLC, ELISA, SDS Page. A BS/MS in Chemistry, Biochemistry or related field is a must. PhD's should not apply. Job Code: TS/SS

Purification Processes

You will be responsible for the development and scale-up of purification processes for the purification of recombinant proteins as well as participate in the large-scale GMP production of these proteins and perform associated process monitoring. The ability to independently design and perform experiments relevant to process development as a member of a group is of primary importance. You should have a BS/MS in Biochemistry, Biology, Chemistry or Chemical Engineering and 3+ years' lab/process experience. Experience in either protein chemistry, chemical engineering, or process development is required. Relevant skills should include several of the following: column chromatography (experience at several scales is desirable), HPLC, electrophoresis, analytical protein chemistry, and process engineering. Job Code: TS/GB

Genentech offers an exceptional benefits package which includes fully paid dental/medical/vision coverage for you and your dependents, child care facilities, free health club membership and a generous relocation package. For immediate consideration, please send your resume indicating appropriate Job Code to: Genentech, Inc., Human Resources, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We promote and actively support affirmative action and equal employment opportunity.

Genentech, Inc.

Opportunities for Senior Scientists in Multi-disciplinary Research Program

The U.S. Environmental Protection Agency (EPA) is seeking two senior (S/T) research scientists with expertise in monitoring and assessment to lead exploratory research activities for the national Environmental Monitoring and Assessment Program (EMAP). EMAP is an innovative, multi-agency program designed to estimate status and trends in the condition of our nation's ecological resources. Applicants should possess technical proficiency in terrestrial, freshwater, marine, and/or landscape ecology. Experience with ecological indicators, monitoring at regional and national scales, and/or multiple-resource integration is highly desirable.

Positions for exemplary scientists may be located at any one of the following Office of Research and Development (ORD) laboratories depending on the compatibility of the incumbent's background with the mission of the particular laboratory: Atmospheric Research and Exposure Assessment Laboratory-Research Triangle Park, Environmental Monitoring Systems Laboratory-Las Vegas, Environmental Research Laboratory-Narragansett, Environmental Research Laboratory-Gulf Breeze, Environmental Research Laboratory-Duluth, Environmental Research Laboratory-Corvallis, or Environmental Research Laboratory-Athens.

Applicants must submit an original and three (3) copies of: (1) an SF-171, Application for Federal Employment; (2) a narrative statement specifically addressing their accomplishments and/or potential to provide leadership in the technical factors; and (3) the "EPA Applicant Race and National Origin Identification" form (optional). Applications WITHOUT documents 1 and 2 will be considered INCOMPLETE and will not receive consideration for this position. Application material must be received or postmarked by September 15, 1993, and should be sent to:

Chaunta A. Gladney
U.S. Environmental Protection Agency
OARM/OHRM/Executive Resources & Special Programs Division
401 M Street, S.W., Room 3910E, PM-224
Washington, DC 20460
ATTN: S/T-EMAP

Human Resources Contact: Chaunta A. Gladney, (202) 260-3336

Technical Contact: Thomas L. Baugh, (202) 260-5776

NOTE: APPLICANTS WILL BE DISQUALIFIED IF ALL SPECIFIED APPLICATION MATERIALS ARE NOT SUBMITTED. PLEASE SUBMIT ORIGINAL AND THREE (3) COPIES OF ALL APPLICATION MATERIALS.

RESUMES ARE NOT ACCEPTABLE AS APPLICATIONS.

THE U.S. EPA IS AN EQUAL OPPORTUNITY EMPLOYER.

SCHOOL OF POLICY STUDIES QUEEN'S UNIVERSITY AT KINGSTON

CHAIR IN ENVIRONMENTAL POLICY

Queen's University invites applications for a Chair in Environmental Policy.

The University is seeking a leader in the field of environmental policy. The Chairholder will develop a major research program, serve as director of a new Environmental Policy Centre within the School of Policy Studies, and contribute to teaching in the field.

Applicants should have an outstanding record of research and teaching, and an ability to work with researchers in both the social and natural sciences. They should also have a demonstrated capacity to provide leadership, and to contribute to wider public debates about environmental policy.

This position carries a tenured or tenure-stream appointment. Substantial funding for the Chair and the associated research program is being provided by contributions from the private sector and the federal government's Green Plan. Further information about the position is available from the School of Policy Studies.

Queen's University has an employment equity program, welcomes diversity in the workplace and encourages applications from all qualified candidates, including women, aboriginal peoples, people with disabilities and visible minorities.

Closing date for applications is October 7, 1993. Please send curriculum vitae and the names of three referees to:



Director
School of Policy Studies
Queen's University
Kingston Ontario Canada K7L 3N6
Tel (613) 545-6555 Fax (613) 545-6606

The University of Zürich and the Federal Institute of Technology of Zürich

invite applications for the tenured position of a PROFESSOR OF THEORETICAL NEUROINFORMATICS

who will be the head of the Section of Theoretical Neuroinformatics in a new Institute of Neuroinformatics which is jointly established by the University of Zürich and the Federal Institute of Technology in Zürich (ETHZ). The new Institute will consist initially of the Section of Theoretical Neuroinformatics, and will be later supplemented by the Section of Technical Neuroinformatics. The research will focus on information processing in real and artificial neural networks, and on the study of interfaces between electronic and neuronal substrates. The Section of Theoretical Neuroinformatics will investigate information processing in biological neural networks and in artificial systems that are related to the structure and function of the brain. A main focus will be the study of highly parallel processes to gain insights into brain functions. Of particular interest are adaptive systems exhibiting features of self-organization; algorithms for pattern recognition, motor control, learning and memory; and the analysis of non-linear systems that are relevant for the neurosciences.

The Professor of Theoretical Neuroinformatics will be appointed jointly by the University and the ETHZ and will be expected to conduct innovative, high-standard research in his/her specific area, in close collaboration with the other Sections of the Institute. The teaching duties will include courses on the graduate and postgraduate level (non-German speaking candidates will be expected to acquire sufficient language skills within a reasonable time period). Candidates with an outstanding research record are invited to send their application before 30 September 1993 to the *Chairman of the Search Committee, Prof. A. Borbély, Institute of Pharmacology, University of Zürich, Gloriastrasse 32, CH-8006 Zürich, Switzerland; FAX +41-1-261-5684 (after 18 Sept. +41-1-257-5707)*. Material to be submitted: C.V., list of publications (those published in peer-reviewed journals listed separately) and 5-10 reprints.

The University of Zürich and the Federal Institute of Technology of Zürich

invite applications for the tenured position of a PROFESSOR OF SYSTEMS NEUROPHYSIOLOGY

who will be the head of the Section of Systems Neurophysiology in a new Institute of Neuroinformatics which is jointly established by the University of Zürich and the Federal Institute of Technology in Zürich (ETHZ). The new Institute will consist initially of the Section of Theoretical Neuroinformatics, and will be later supplemented by the Section of Technical Neuroinformatics. The research will focus on information processing in real and artificial neural networks, and on the study of interfaces between electronic and neuronal substrates. The Section of Systems Neurophysiology will investigate the relationship between higher nervous functions and behavior. Integrative higher brain functions related to vigilance, perception, learning, memory and sensor-motor coordination will constitute a main focus of research.

The Professor of Systems Neurophysiology will be appointed jointly by the University and the ETHZ and will be expected to conduct innovative, high-standard research in his/her specific area, in close collaboration with the other Sections of the Institute. The teaching duties will include courses on the graduate and postgraduate level (non-German speaking candidates will be expected to acquire sufficient language skills within a reasonable time period).

Candidates with an outstanding research record are invited to send their application before 30 September 1993 to the *Chairman of the Search Committee, Prof. A. Borbély, Institute of Pharmacology, University of Zürich, Gloriastrasse 32, CH-8006 Zürich, Switzerland; FAX +41-1-261-5684 (after 18 Sept. +41-1-257-5707)*. Material to be submitted: C.V., list of publications (those published in peer-reviewed journals listed separately) and 5-10 reprints.

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It takes a lot of money to fund significant work in Pharmaceutical R&D. At Schering-Plough, the commercial success we have achieved around the world, with a diverse line of both pharmaceuticals and health care products, has enabled us to spend over \$500 million annually on R&D. In addition, our success has allowed us to build a one million square foot drug discovery facility—the largest pharmaceutical research facility in the nation.

Success like this could mean an important opportunity for talented professionals.

PRINCIPAL SCIENTIST

CNS Pharmacology

As an integral part of our CNS Pharmacology Group, you will participate in the research into the roles of the muscarinic cholinergic system in cognitive enhancement. Within this dynamic environment, you will determine the in vitro and in vivo biochemical responses of agents interacting with muscarinic receptors. To qualify for this highly visible opportunity, you must have a PhD in the Biological Sciences along with 5-8 years of relevant post-doctoral experience. Also important is a thorough

knowledge of muscarinic cholinergic pharmacology, to include experience in HPLC, receptor binding, molecular biology and microdialysis techniques. Supervisory experience is essential, preferably with management of PhD-level scientists. Strong oral and written communication skills are important. Please refer to position DD93-13.

ASSISTANT SCIENTIST

Cardiovascular Pharmacology

As an Assistant Scientist, you will participate in the discovery of novel therapeutic agents. You must have a Master's degree in Biochemistry/Biochemical Pharmacology with 0-2 years of relevant experience OR a Bachelor's degree in Biochemistry with 2-4 years of relevant experience. Knowledge of, and expertise in, protein purification and characterization is essential, as is knowledge of concepts and methods of receptor theory and radio-labeled ligand binding assays, signal transduction and regulation of enzyme function. Please refer to position DD93-12.

We offer salaries commensurate with the importance of these positions, a generous benefits package, and the opportunity to join an internationally acclaimed pharmaceutical company with a demonstrated commitment to R&D. For confidential consideration, please send your resume, indicating salary history/requirements and the code for your position of interest, to: Mr. George Czuba, Human Resources, Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, New Jersey 07033. We are an equal opportunity employer.

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**Schering-Plough
Research Institute**

HEAD OF THE GENETICS DIVISION MRC RADIOBIOLOGY UNIT

The MRC wishes to appoint a scientist with a distinguished record of research in mammalian molecular genetics to the position of joint Head of the Genetics Division at the MRC Radiobiology Unit, Harwell, Oxfordshire. The current Head of Division is Dr B M Cattanach FRS, and the current Director of the Radiobiology Unit is Professor G E Adams. Council has decided that on the retirement of Professor Adams in 1995, the Genetics Division, which is one of the foremost mouse genetics laboratories in the world and houses a unique resource of mutations, will become a free standing MRC Unit. The successful candidate would be the director elect for the new unit.

The appointee will be responsible initially for setting up a new research team to spearhead molecular genetics research, exploiting the mutant resource available and, subsequently, provide leadership and strategic direction for the new Unit. He/she will be responsible to MRC for the allocation and control of Unit resources, for the management of Unit's staff and attached workers, and for ensuring that the Unit's research programme contributes to MRC corporate strategy. A key role will be to foster and extend links with other local and national genetics research developments, and in particular to extend existing and develop

new collaborations with major teams in the University of Oxford.

The creation of this new Unit provides an exciting opportunity to set up a cohesive programme of mammalian genetics research at an establishment with an excellent track record and first class facilities for mammalian genetics.

The salary is negotiable within the Council's Special Appointments Grade (equivalent to University Professorial Grade). Requests for assistance with relocation expenses will be sympathetically considered.

A job description and other additional information may be obtained from Dr Rob Bennett, MRC Headquarters Office, 20 Park Crescent, London W1N 4AL (telephone: 071 636 5422 ext 6236).

Applications should include a brief outline of the applicants' plans for the strategic direction of the new Genetics Unit and brief future proposals for his/her personal research, together with a curriculum vitae, and up-to-date publications list and the names of three referees. These should be sent, no later than 22nd October 1993 to Sir Dai Rees, Secretary of the Council, at the above address.

MRC
Medical Research Council

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**DIRECTOR
UTAH SUPERCOMPUTING INSTITUTE
AND
SPECIAL ASSISTANT TO THE PRESIDENT FOR INFORMATION
SCIENCES**

Applications and nominations are invited for the dual position of Director of the Utah Supercomputing Institute and Special Assistant to the President for Information Sciences at the University of Utah. A candidate is sought with the highest credentials in high performance computing, who will direct the Institute, collaborate with faculty in obtaining extramural support, and develop industrial partnerships and applications in high performance computing. The successful candidate will supervise a staff dedicated to forging collaborative interaction with and providing support to faculty and students with high performance computing and communications needs. The Director will report to the Vice President for Research. In the capacity of Special Assistant to the President, the successful candidate will advise the President on coordination of campus computing activities. This charge is interpreted broadly to include the operation of networks, the increasingly close relationship between computing and telecommunications, instructional computing, administrative data processing, etc., in order to ensure maximum attention to the computing and communications needs of the faculty, staff, and students, at reasonable costs. It is anticipated that the successful candidate will qualify for a concurrent faculty appointment in one or more academic departments. A Ph.D. degree or equivalency in a science or engineering discipline is required, with expertise in computational science. Applicants should have at least 5 years experience in organized research, in addition to a demonstrated record of leadership and administrative experience. Familiarity with national supercomputer centers and funding agencies is highly desirable.

Past and present employers will be contacted unless otherwise requested in writing.

The University is an AA/EEO employer and encourages applications from women and minorities, and provides reasonable accommodation to the known disabilities of applicants and employees.

A letter of application, a current curriculum vitae, and three to five letters of recommendation should be submitted to:

USI Director and Special Assistant to the President
for Information Sciences Search Committee
c/o Office of the Vice President for Research (PB-2693)
210 Park Building
University of Utah
Salt Lake City, UT 84112

Applications will be accepted until the position is filled

SCIENTIFIC OFFICERS I AND II

SCIENTIFIC OFFICER I – A position for a director of a molecular biology division in a large hospital laboratory is available immediately. Institutional funds are available to provide technical support, equipment and supplies. This individual will be expected to establish his or her own research program, and also to serve as a consultant to the Department of Laboratories.

Applicant should have a Ph.D. or equivalent degree with experience in molecular biology.

SCIENTIFIC OFFICERS II –

Positions are available for individuals possessing a Ph.D. degree in the biological sciences to serve as director or clinical laboratory sections.

Duties of these positions include monitoring proficiency testing, quality control, supervision of laboratory personnel, training of pathology residents, and financial management of their section.

Send resumes to:

Chairman, Department of Pathology
and Laboratory Medicine
Cook County Hospital
1835 W. Harrison Street
Chicago, IL 60612
or fax 312/633-3364



Equal Opportunity Employer

**MRC DIRECTOR OF
MRC VIROLOGY
UNIT AND CHAIR OF VIROLOGY**

The University of Glasgow and the Medical Research Council wish to appoint a successor to Professor John Subak-Sharpe as Head of the University Department of Virology and Director of the MRC Virology Unit following his retirement in September, 1994. The MRC Unit and the Virology Department together form the Institute of Virology, which is one of the leading centres in the UK for virology research and training.

The Institute is engaged in research on the structure, function and genetic information content of viruses and is well equipped for state-of-the-art molecular virology research. Scientific staff collaborate in research with other departments in the University and elsewhere and there are well-developed links with industry. The MRC Unit is a major part of the MRC's investment in the virology field and the new Director will play a key role in the development of the scientific strategy of the Unit.

The Department makes a major contribution to teaching of science and medical undergraduates. In addition to funding provided by MRC and the University, the Institute has substantial income from external grants and contracts.

Applicants should have an outstanding record of achievement in research and will be highly skilled in leadership and management.

Additional information may be obtained from the Director of Personnel Services, University of Glasgow, Glasgow G12 8QQ (tel: 041-339 8855, Ext: 4205) or from Dr. Sara Trevitt, MRC Headquarters Office, 20 Park Crescent, London W1N 4AL (tel: 071-636 5422).

Applications should consist of a brief account of the applicant's views on the most important areas for future developments in virological research together with a curriculum vitae, an up-to-date publications list and the names and addresses of three referees. These should be sent no later than 15th October, 1993 to Sir Dai Rees, Secretary of the MRC at the above address.

The University of Glasgow and the MRC are equal opportunity employers.



UNIVERSITY
of
GLASGOW

**ASSISTANT PROFESSOR,
CONTROLLED ENVIRONMENT
HORTICULTURE, COLLEGE OF
AGRICULTURAL SCIENCES,
PENN STATE**

(A higher rank can be considered for an appropriately qualified candidate.) A twelve month, tenure track, 70% research/30% extension education position is available. The individual will be expected to develop and maintain an innovative program of basic research and education focused on nutrient and water management in the production and use of floricultural crops. While the focus is to be floriculture, the research is expected to provide knowledge/technology that might also aid the production and use of other horticultural plants. The research will address plant responses in controlled environment systems and may include plant-environment interactions or the genetic control of factors which determine plant performance in controlled environments. The successful candidate will be expected to develop a program to maximize the efficient use of water and nutrients in contemporary growing systems. The extension responsibility will be to work as part of a team of educators, focusing on nutrient/water-management with respect to water quality protection vis-a-vis new methods and regulations. The advising of graduate students, interdisciplinary collaboration with other faculty members, development of program support, and relevance to elements of Pennsylvania's horticulture industry will also be important. A Ph.D. in Horticulture or closely related plant science discipline is required. The salary and rank is competitive, commensurate with background and experience. An attractive benefits package is available. Applicants should submit a letter of application, resume, academic transcripts and the names and addresses of three professional references to: Stephen J. Wallner, Department of Horticulture, Tyson Building, Box E, the Pennsylvania State University, University Park, PA 16802 (Phone: 814-865-2571; FAX: 814-863-6139). Applications will be accepted until November 1, 1993. An Affirmative Action/Equal Opportunity Employer. Women and Minorities Encouraged to Apply.

SKIRBALL INSTITUTE OF BIOMOLECULAR MEDICINE

The Skirball Institute of Biomolecular Medicine at New York University Medical Center School of Medicine will open in September 1993. This institute will focus on molecular neurobiology, developmental genetics and molecular pathogenesis. Each program will comprise 1-2 groups at the professorial level and 8-9 junior groups at the assistant professor level. In addition, several groups will be recruited in structural biology encompassing x-ray crystallography, NMR, electron microscopy as well as protein and DNA chemistry. The structural biology groups will be integrated within the 3 major research programs. A total of 40 research groups will be recruited during the next year. All group leaders will receive tenured or tenure track appointments in the existing basic science or clinical departments of New York University School of Medicine to achieve optimal interaction between existing departments and the Skirball Institute.

If you would like to join us in this unique opportunity to build an exceptional research environment, send your curriculum vitae, bibliography, a short research proposal and a list of reference to: Dr. Lennart Philipson, NYU Medical Center, 550 First Ave., New York, NY 10016 or to FAX # (212) 263-8951. If you need additional information, please call (212) 263-8950. EOE, M/F.

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Medical
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FACULTY POSITIONS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY THE UNIVERSITY OF CHICAGO

The Department of Biochemistry and Molecular Biology at The University of Chicago invites applications and nominations for two tenure-track faculty positions. We seek candidates with a record of outstanding research. Applications should include a complete *Curriculum Vitae*, a full list of publications, a summary of past research, a plan for future research, and letters of references from at least three individuals who know the candidate's work well. We would appreciate receiving applications and nominations by November 1, 1993. Please communicate with:

Kan Agarwal, Chair
Department of Biochemistry and
Molecular Biology
The University of Chicago
920 East 58th Street
Chicago, IL 60637

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Applications are invited for tenure-track positions in the Department of Molecular Genetics at the Assistant or Associate Professor levels. Successful candidates who join this expanding department will develop independent and interactive research programs to investigate the molecular and genetic basis of eukaryotic cellular functions.

Apply before October 15, 1993, by sending curriculum vitae, a concise description of research interest, and names and telephone numbers of three references:

Benoit de Crombrughe, M.D.,
Professor and Chairman
Department of Molecular Genetics—Box 11
The University of Texas
M. D. Anderson Cancer Center
1515 Holcombe Boulevard
Houston, TX 77030

The University of Texas M. D. Anderson Cancer Center is an Equal Opportunity/Affirmative Action Employer. Smoke-free Environment.

PROFESSOR AND HEAD—Department of Plant Pathology. Kansas State University is seeking nominations and applications for a person to serve as Head, Department of Plant Pathology. Administrative responsibilities include personnel, physical facilities, and budgets for teaching, research, and extension programs. The Head maintains liaisons with clientele groups, provides leadership, and promotes professional development of departmental personnel. Continuation of an active teaching or research program is possible. Plant Pathology has 18 faculty and about 70 support staff. Applicants must have a Ph.D. in Plant Pathology or a closely related field and national recognition in research, teaching, or extension. Please submit a letter of application, including a statement of leadership philosophy and curriculum vitae, and arrange for three reference letters to be sent to: **Jan E. Leach, Department of Plant Pathology, Throckmorton Hall, Kansas State University, Manhattan, KS 66506-5502, Telephone: 913-532-6176, FAX: 913-532-5692.** Applications are due October 15, 1993, and the position is available December 1, 1993. *Kansas State University is an Affirmative Action/Equal Opportunity Employer.*

DEAN, COLLEGE OF NATURAL SCIENCES AND MATHEMATICS

The University of Central Arkansas invites applications and nominations for Dean of the newly created College of Natural Sciences and Mathematics, which includes the departments of biology, chemistry, mathematics and computer science, and physics.

Candidates must have an earned doctorate from an accredited institution in one of the disciplines within the college, substantial administrative experience, and a record of teaching and scholarship commensurate with appointment to the rank of associate professor or professor. The candidate should have demonstrated skills in the recruitment, supervision, development, and evaluation of faculty; program development and evaluation; seeking external funding and monitoring budgets; data collection and analysis; and collaboration with internal and external constituencies. Salary and benefits for this position will be competitive.

Founded in 1907, the University of Central Arkansas is an accredited public institution that awards Bachelor's, Master's, and specialist's degrees. The university has grown rapidly in recent years and has an enrollment of 9,500 students, a faculty of almost 400, and a record of innovation and achievement. Conway, a prosperous community of 30,000, has three institutions of higher education and an excellent public school system. It is located thirty miles northwest of Little Rock.

Please send a letter of application, curriculum vitae, and the names, addresses, and telephone numbers of three professional references by September 1, 1993. Review of applications will begin on that date and will continue until the position is filled. Preferred starting date for the position is January 1, 1994. Applications and nominations should be sent to: **Dean, College of Natural Sciences and Mathematics Search Committee, University of Central Arkansas, Administration Building 120, 201 Donaghey Avenue, Conway, AR 72035-0001.** *The University of Central Arkansas is an Equal Opportunity, Affirmative Action Employer. Minorities and women are encouraged to apply.*

POSITIONS OPEN

POSTDOCTORAL POSITION

The Sleep Disorders Center of Greater Cincinnati invites applications for a postdoctoral fellowship for two years to study behavioral treatments of insomnia, dream formation and function, and to do follow-up studies in sleep apnea and insomnia.

Candidates should have completed their M.D. or Ph.D. with special interest in research in sleep and dreams. Please submit a letter of interest and curriculum vitae to:

Milton Kramer, M.D., Director
Sleep Disorders Center of Greater Cincinnati
Bethesda Oak Hospital
619 Oak Street
Cincinnati, OH 45206

POSTDOCTORAL POSITION available to study mechanisms of induction of cytochrome P450 3A isozymes. Molecular biology experience required. Please send curriculum vitae, brief statement of research interests, and three references by October 15, 1993, to: **Dr. Paul Thomas, Laboratory for Cancer Research, College of Pharmacy, P.O. Box 789, Rutgers University, Piscataway, NJ 08855-0789.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION PROTEIN-DNA RECOGNITION

Position available immediately to study the physical basis of DNA binding by anti-DNA autoantibodies derived from lupus patients. Applicants should possess prior experience in characterizing protein-DNA interactions and should have a strong background in biochemistry and molecular biology. This position is available for up to three years and the stipend will follow NIH fellowship guidelines. Interested individuals should submit curriculum vitae and names of three references to:

Dr. Gary D. Glick
Department of Chemistry
University of Michigan
930 North University Avenue
Ann Arbor, MI 48109-1055

POSTDOCTORAL POSITION to study cellular and molecular mechanisms underlying sensitivity of olfactory receptor neurons to mixtures. Our research group is interested in mechanisms of detection and discrimination of odorant mixtures by peripheral olfactory systems, using the spiny lobster as a model system. Approaches of the applicant to this problem will include patch clamp electrophysiological experiments on odor-activated conductances in olfactory receptor neurons or molecular biological identification and characterization of genes for transduction elements of olfactory neurons. Salary from \$20,000 to \$24,000. Position will remain open until filled. Send curriculum vitae and names and telephone numbers of 3 references to: **Charles Derby, Department of Biology, Georgia State University, P.O. Box 4010, Atlanta, GA 30303-4010. FAX: 404-651-2509.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS for work on aging, lymphocyte development and signal transduction. One project involves studies of lymphokine production by T cell subsets. The other explores calcium and protein kinase signals in early T cell activation. A strong background in cell biology and/or molecular immunology is required. Send curriculum vitae, a brief statement of research interests, and names and telephone numbers of three references to: **Richard Miller, University of Michigan, Box 2007, 300 North Ingalls Street, Ann Arbor, MI 48109.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS in Molecular Cardipulmonary Pharmacology available for recent Ph.D. in pharmacology, physiology or biochemistry. Project related to molecular pharmacology of purine receptors and the involvement of second messenger systems in smooth muscle, epithelial and endothelial cells. Salary NIH level. Experience in related field preferred. Send curriculum vitae and 3 letters of recommendation by September 30, 1993, to: **Dr. S. Jamal Mustafa, Department of Pharmacology, East Carolina University, Greenville, NC 27858.** *Federal law requires proper documentation of identity and employability at the time of employment. Affirmative Action/Equal Employment Opportunity.*

POSITIONS OPEN

TWO POSTDOCTORAL POSITIONS. Project 1:

The genetic basis for lipopolysaccharide (LPS) microheterogeneity in *S. enteritidis*. Ph.D. in microbial genetics and/or molecular biology required; experience in carbohydrate chemistry desirable. **Project 2.** Structure and biosynthesis of rhizobial LPS. Ph.D. in biochemistry/microbiology and experience in carbohydrate analysis required. Please send curriculum vitae, names of three references, and a cover letter indicating which position applying for to: **Dr. Russell W. Carlson, Complex Carbohydrate Research Center, University of Georgia, 220 Riverbend Road, Athens, GA 30602.** *An Affirmative Action/Equal Employment Opportunity Institution. Salary based on experience. Deadline: September 30, 1993.*

POSTDOCTORAL POSITION available to study regulation of extracellular matrix turnover by coagulation and fibrinolytic factors. Of particular interest are the roles of thrombin, plasminogen activators and plasminogen activator inhibitors. An individual is sought with experience/training in cellular and molecular biology. Please send curriculum vitae, addresses and telephone numbers of three references, and statement of research interests and experience to: **William F. Glass II, M.D., Ph.D., Department of Pathology, University of Virginia Health Sciences Center, Box 214, Charlottesville, VA 22908.**

POSTDOCTORAL SCIENTIFIC RESEARCH OPPORTUNITIES IN INDIA.

Three- to twelve-month fellowships in India awarded to U.S. citizens in 1993-4. For information, contact: **Jeanine Marie Greene, Academy for Educational Development, 1255 23rd Street, NW, Washington, DC 20037.**

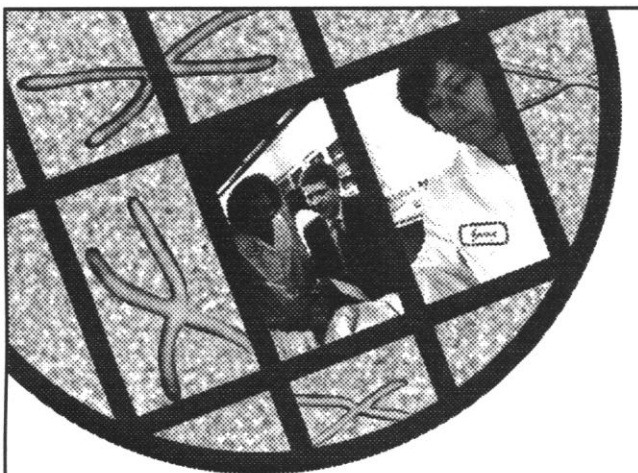
POSTDOCTORAL POSITION IN GENETIC EPIDEMIOLOGY. Immediate opening in the Population Genetics Laboratory for an individual with a strong background in statistical genetics to work under the direction of **Drs. Jean MacCluer and John Blangero.** The successful candidate will join a large and highly interactive group to work on projects aimed at detecting single gene effects on complex diseases and their risk factors. A Ph.D., M.D. or other doctorate is required. Experience with methods of complex segregation analysis and linkage analysis preferred. Annual salary between \$23,691 and \$33,280 commensurate with relevant experience. Interested individuals should send curriculum vitae, brief statement of research interest, and names, addresses, and telephone numbers of three references to: **Personnel Manager (347), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78228-0147.**

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POSTDOCTORAL POSITION available January 1994 to study neuroanatomical and behavioral aspects of mammalian sexual differentiation. Please send curriculum vitae, reprints, and names of three references to: **Dr. Michael J. Baum, Department of Biology, Boston University, 5 Cummington Street, Boston, MA 02215.**

U.S. Government Department of Health and Human Services Food and Drug Administration

STAFF FELLOW POSITION available to study multi-drug resistance, signal transduction pathways and molecular mechanisms of prostate cancer cell growth/differentiation. The position will be filled under the FDA Service Fellowship Program. *Candidates must be either U.S. citizens or permanent residents.* **EDUCATION AND EXPERIENCE:** Highly Desirable: Ph.D. with experience in biochemical and molecular approaches. Candidates must meet the minimum requirements in the OPM X-118 Qualifications Handbook. **SALARY RANGE:** \$33,623 to \$52,385 depending on qualifications and experience. Submit current curriculum vitae or "Application for Federal Employment SF-171" with copies of three publications to: **Food and Drug Administration, Center for Drug Evaluation and Research, Office of Research Resources (HFD-400), Room 13B-16, 5600 Fishers Lane, Rockville, MD 20857. Attention: Frederic J. Geissel.** *An Equal Opportunity Employer—FDA is a Smoke-Free Environment.*



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PHARMACOLOGISTS/BIOCHEMISTS

Searle is looking for creative scientists to conduct research in our Cardiovascular Diseases Research group. Positions require a PhD in Pharmacology, Biochemistry or related discipline, with at least two years of relevant experience. We are seeking individuals to fill the following positions:

Coagulation Biochemist/Molecular Pharmacologist

Conduct research in the areas of coagulation, biochemistry and platelet adhesion to identify novel molecules with therapeutic potential. Responsibilities include assay development and planning and performing studies designed to assess the mode of action of diverse agents. Experience in cell biology or protein biochemistry is required. Expertise in the study of enzyme kinetics, receptor-ligand interactions and/or signal transduction is desirable.

Pharmacologist

Conduct biomedical research to identify new therapeutic agents to treat cardiovascular diseases, including diabetes, atherosclerosis, and vascular restenosis. Also responsible to conduct basic research in the area of vascular endothelial cell damage to identify new therapeutic targets and develop relevant animal models for testing new agents. Knowledge of diabetes, atherosclerosis or vascular injury and restenosis is required.

Lipoprotein Physiologist

Design and conduct research to identify new hypolipidemic agents for treating atherosclerosis and related cardiovascular diseases. Particular emphasis will be on basic and directed research into the cellular and whole animal processes involved in metabolism of HDL and LDL cholesterol. A strong background in lipoprotein biochemistry and physiology is required.

Pharmacologist

Conduct and supervise biomedical research on animal models to identify new therapeutic agents for the treatment of cardiovascular diseases, including thrombosis and vascular restenosis. Also responsible for conducting and supervising animal studies to support antiplatelet compounds and other agents in development. Ability to develop relevant animal models in the areas of thrombosis, sepsis, vascular injury and arterial restenosis is required.

The successful candidates for these positions will desire to work in a fast-paced, team oriented environment. These positions are located in the midwest, at multi-disciplinary research campuses which conducts both fundamental and applied research in developing novel human health care products. Searle offers a competitive salary and benefits package and excellent career opportunities.

Please submit current curriculum vitae, including three professional references, to: **Cardiovascular Scientists, Searle Human Resources, Mail Zone BB5E, SEARLE c/o Monsanto Company, 700 Chesterfield Parkway, St. Louis, MO 63198.** An Equal Opportunity Employer M/F/D/V.

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PROFESSOR and CHAIRPERSON

Department of Pathology and
Laboratory Medicine

The UMD-New Jersey Medical School invites nominations and applications for the position of Professor and Chairperson for its Department of Pathology and Laboratory Medicine. The successful candidate will have a nationally recognized record of achievement in research and a strong interest in the development of effective teaching and clinical laboratory programs. Candidates must be board certified or equivalent, have experience in Anatomic and Clinical Pathology and must be qualified for an appointment as Professor of Pathology and Laboratory Medicine at the New Jersey Medical School. For further information or to apply please send your curriculum vitae to John H. Siegel, M.D., Chairman, Pathology & Laboratory Medicine Search Committee, ATTENTION: Linda C. Reich, Office of the Dean UMDNJ-New Jersey Medical School, University Heights, 185 South Orange Avenue-MSB C662, Newark, NJ 07103-2714

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SENIOR SCIENTIST Pulmonary Inflammation Group PHARMACOLOGY DEPARTMENT

This individual will have a Ph.D. with post-doctoral experience in Immunology, Molecular Biology, Pathology, Pharmacology or a related biological science and have a proven record of scientific achievement as evidenced by publication in major scientific journals and presentations at international meetings.

A minimum of 2 years experience in pharmaceutical research is desirable and experience in one or more of the following areas is essential: Leukocyte Adhesion Molecules; Lymphocyte Subset, Activation, and Identification (B-, T-, NK, CD4, Th1, Th2, CD25, etc.); Cell Transfer & Depletion; FACS & Immunohistochemistry; PCR for cytokines and/

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Boehringer Ingelheim is located on a campus-like setting in a beautiful area of Western Connecticut. Boehringer offers a competitive salary and benefits package including relocation assistance for qualified candidates. To apply, send resume and salary history to: Dept. MH-322-1SA, Boehringer Ingelheim Pharmaceuticals, Inc., 900 Ridgebury Rd., P.O. Box 368, Ridgefield, CT 06877. We are an equal opportunity employer m/f/d/v. As a progressive healthcare company, we have a non-smoking environment.



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Candidates should have an MS or PhD in analytical chemistry or a related discipline with at least five years hands-on experience with HPLC and/or solid phase extraction. The ideal candidate will also have experience developing a variety of chromatographic methods, excellent oral and written communication skills, and be willing to travel.

J.T. Baker offers a competitive salary and comprehensive benefits package including incentive, savings, dental and tuition reimbursement plans. In confidence, interested candidates should send their resume and salary requirements, along with a cover letter which is responsive to each requirement to: **Corporate Human Resources, J.T. BAKER INC., 222 Red School Lane, Phillipsburg, NJ 08865.**

Direct Applicants Only - No Telephone Calls. We will respond only to candidates in whom we have interest. Resume must be received by September 7, 1993. Equal Opportunity Employer M/F.



GENENCOR INTERNATIONAL, a world leader in the use of biotechnology for research, development and manufacture of industrial enzymes and fine specialty chemicals has two immediate openings in the **SAN FRANCISCO BAY AREA**.

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As part of a project team, this individual will be responsible for development of formulation for products and process intermediates, performing biochemical characterization of process streams in support of process design, optimization and scale-up efforts. Requires a PhD or equivalent in Biochemistry including course work in microbiology and/or biochemical engineering and up to 3 years' experience in process development and scale-up. Experience in formulation chemistry, chromatography, electrophoresis, enzymology and other wet biochemical characterization techniques required. Familiarity with fermentation processes is a plus. Willingness to travel is essential. (SSF-18)

DEVELOPMENT ENGINEER

Working with a project team, this individual will design, analyze and perform experiments to develop the engineering bases for process design, optimization and scale-up. Requires at least a BS in Biochemical Engineering with coursework in Microbiology and Biochemistry and up to 3 years experience in process development and scale-up. Familiarity with fermentation processes and the recovery and purification of biomolecules required. Must be willing to travel. (SSF-19)

We offer a challenging and rewarding work environment, combined with a competitive compensation and benefits package. To apply, please send or FAX your resume, indicating the appropriate department code, to: Genencor International, Inc., Attn: HR Department-S, 180 Kimball Way, South San Francisco, CA 94080. FAX: (415) 583-8269. EOE M/F/D/V. Women and minorities are encouraged to apply.

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All scientists who are interested in participating should respond by requesting a Candidate Information Form. Since the expanded file is based solely on positive responses, your response is needed even if you are already a consultant or are a member of a Reviewer's Reserve. This file is independent of other consultant files. Your request should be sent to:

**NIH Consultant File
7101 Wisconsin Ave., Suite 1125, Box 71A
Bethesda, MD 20814**

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POSITIONS OPEN

POSTDOCTORAL POSITIONS to begin as early as December 1, 1993, in studies of catalytic RNA's and regulatory RNA's. Various molecular approaches, including the use of solvent-based chemistries and photochemical crosslinking reagents, are used to study the folded conformation of Ribonuclease P enzymes from ciliated protozoa and the HIV-I rev-responsive element RNA *in vitro* and *in vivo*. Experience in nucleic acid biochemistry and molecular biology preferred. Send curriculum vitae and three letters of reference to: **Daniel Celandier, Ph.D., Department of Microbiology, University of Illinois, 407 South Goodwin Avenue, Room 131, Urbana, IL 61801.** *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW. Position open for Postdoctoral Fellow to study insulin sensitivity, cardiovascular effects of diabetes mellitus and insulin's interaction with membrane transport mechanisms relative to obesity. Ph.D. in physiology or pharmacology required. This position is for two years of support. Salary is negotiable. Closing date September 30, 1993. Submit curriculum vitae to: **Angelina Trujillo, M.D., University of South Dakota School of Medicine, P.O. Box 5046, Sioux Falls, SD 57117-5046.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIPS for training in Immunology and Virology at the University of Massachusetts Medical Center. Cellular Immunology: **Robert Humphreys, M.D., Ph.D.; Lawrence Jung, M.D.; Carol Miller, Ph.D.; David C. Parker, Ph.D.; Paul L. Romain, M.D.; Robert T. Woodland, Ph.D.** Molecular Immunology: **Janet Stavnezer, Ph.D.** Viral Immunology: **Neil R. Blacklow, M.D.; Francis A. Ennis, M.D.; John E. Herrmann, Ph.D.; Ichiro Kurane, M.D.; John L. Sullivan, M.D.; Raymond M. Welsh, Ph.D.** Molecular Virology: **Trudy G. Morrison, Ph.D.; Carel Mulder, D.Phil.; Ronald M. Iorio, Ph.D.; Harriet L. Robinson, Ph.D.** Experimental Diabetes: **Arthur A. Like, M.D.; Aldo A. Rossini, M.D.; Dr. Dale Greiner, Ph.D.** Candidates interested in joining this active, multidisciplinary, NIH-supported training program should send a résumé, the names of three references, and a letter stating their research interests and the laboratories in which they would be interested in undertaking training to: **Dr. Harriet L. Robinson, Department of Pathology, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester, MA 01655.** *The University of Massachusetts Medical Center is an Affirmative Action Employer.*

RESEARCH ASSOCIATE/POSTDOCTORAL FELLOW. To study: (1) Molecular biological/biochemical questions in the eye as it is affected by aging, nutrition, protease, and/or antioxidant function. (2) Mechanisms of life extension via dietary caloric restriction. List of projects available. *Must be eligible to work in the United States.* Send résumé and 3 letters of reference to: **Dr. Taylor, USDA-Tufts Human Nutrition Research Center, 711 Washington Street, Boston, MA 02111.** Indicate date you are available. *Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH POSITION Washington University School of Medicine

Postdoctoral position is available to study protein targeting and turnover, using mammalian systems with combined cellular biological, biochemical and molecular approaches (see *J. Biol. Chem.* 268, 13002, 1993; *Am. J. Physiol.* 264, C93, 1993). Candidates familiar with cell and molecular biology and an interest in these areas, send curriculum vitae and names of two references to: **Alan L. Schwartz, Ph.D., M.D., Box 8116, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, MO 63110, (FAX: 314-454-2685).**

Washington University is an Equal Opportunity/Affirmative Action Employer, M/F/D/V.

ENZYME EVOLUTION. POSTDOCTORAL RESEARCH to develop enzymes for non-natural environments. Experience with protein expression, mutagenesis, protein chemistry and Ph.D. in molecular biology preferred. Send résumé and names of three references to: **Professor F. H. Arnold, Division of Chemistry and Chemical Engineering 210-41, California Institute of Technology, Pasadena, CA 91125.** *Caltech is an Equal Opportunity/Affirmative Action Employer. Applications from qualified women and minority candidates welcomed.*

POSITIONS OPEN

The Center for Indoor Air Research POSTDOCTORAL FELLOWSHIP PROGRAM

The Center for Indoor Air Research (CIAR) is accepting applications for the CIAR Postdoctoral Fellowship Program. The purpose of this program is to further develop the scientific productivity of outstanding young men and women pursuing careers in indoor air research and to stimulate interest in entering the field of indoor air research among individuals with strong backgrounds in related or allied sciences. For details and application brochure, write or call: **Center for Indoor Air Research, Postdoctoral Fellowship Program, 1099 Winterson Road, Suite 280, Linthicum, MD 21090.** Telephone: (410) 684-3777; FAX: (410) 684-3729. Deadline for receipt of applications: October 31, 1993.

FELLOWSHIP IN CARDIOVASCULAR BIOLOGY

POSTDOCTORAL POSITIONS: available immediately to continue studies on the development of ribozyme and antisense technologies for inactivation of cardiovascularly relevant genes. Applicants should hold a doctoral degree and have expertise in molecular biology, and, preferably, in working with mRNA. Applicants should be prepared to join my current laboratory in the United States for 3 to 4 months before moving to a new institute in Sydney, Australia. Send résumé and names of three references to: **Doctor Robert M. Graham, Chairman, Department of Cardiovascular Biology, Cleveland Clinic Foundation/FF30, 9500 Euclid Avenue, Cleveland, OH 44195.**

The Program in Genetic Therapy for Human Diseases, Duke University Medical Center, Durham, North Carolina

We are interested in hiring a **RESEARCH ASSOCIATE** or **RESEARCH SCIENTIST** for translational development of gene therapy for human carcinomas and viral infections. Applicants should have expertise in recombinant DNA technology, Southern, Northern and Western analysis, and PCR techniques for the evaluation of DNA and messenger RNA. Tissue culture experience is also required. This individual must be well-suited for interactions with basic scientists and clinicians in developing preclinical studies for the treatment of malignancies and viral infections by gene transfer. Contact: **Dr. H. Kim Lyster at (919) 681-8350.** *Duke University is an Equal Opportunity Employer.*

PRODUCT DEVELOPMENT BIOCHEMIST

Experience in protein purification including affinity chromatography, HPLC, SDS-PAGE and Western blot analysis required. Master's with 5 years of diagnostic test kit development expertise or Ph.D. with 2 years of postdoctoral experience. Full benefits package and highly desirable Pacific Northwest location. Send résumé to: **BIOCONTROL SYSTEMS, INC., 19805 North Creek Parkway, Bothell, WA 98011.**

RESEARCH ASSOCIATE CARBOHYDRATE CHEMISTRY

Glycomed, which emphasizes the development of carbohydrates for pharmaceutical application, is seeking a Research Associate with experience in carbohydrate chemistry research at the graduate academic and/or industrial level. The successful candidate will be involved in the multi-step synthesis of oligosaccharides of biological importance. Minimum requirements include a Bachelor of Science degree with a major in Chemistry and 2 years of experience in synthetic organic chemistry, particularly in synthesis of bioactive carbohydrates and glycosaminoglycan oligosaccharides. Hands-on experience with various spectroscopic techniques, including NMR and IR spectroscopy is also required. The annual salary for this position is \$39,900.

Glycomed, located in the San Francisco Bay Area, offers a competitive employee benefits package, including stock options. Résumés must include detailed descriptions to document experience in the research areas required for this position and must be postmarked no later than September 7, 1993, in order to be considered. *Candidates must be able to show that they have the legal right to work in the United States.*

Please send your résumé and three detailed written references to: **Manager of Human Resources, Glycomed, 860 Atlantic Avenue, Alameda, CA 94501.** *Equal Opportunity Employer.*

POSITIONS OPEN

Duties include: (1) Participate in research investigating the physiology and neuropathology of brain tumors in animal models utilizing magnetic resonance spectroscopy and imaging, immunohistochemistry, electron microscopy, quantitative microscopic morphology and molecular techniques; (2) Teach courses related to these activities; (3) Assist in planning approaches to research projects; (4) Perform data collection and analysis; and (5) Be responsible for ensuring that laboratory equipment and supplies are properly maintained.

Salary and rank will be commensurate with experience and education. Minimum educational requirements: Master's degree in a biological science for rank of **RESEARCH FELLOW**; Ph.D. in biological science for rank of **RESEARCH ASSOCIATE**. A minimum of two years of research experience including animal preparation techniques and interpretation of histology and immunohistochemistry is required. Experience in tissue culturing, electron microscopy, and magnetic resonance imaging and spectroscopy is desirable, but not required. The appointment is date-specific and annually renewable, depending upon performance and availability of funding. Applications will be accepted through September 30, 1993. Interested individuals should send curriculum vitae and 3 letters of recommendation to:

**Dr. Michael Garwood, Chair
Search Committee—Research Fellow
Center for Magnetic Resonance Research
University of Minnesota
385 East River Road
Minneapolis, MN 55455**

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

POSTDOCTORAL RESEARCH SCIENTIST/ASSOCIATE RESEARCH SCIENTIST

Several positions available immediately to study (a) the molecular and cellular biology of radiation damage to living systems or (b) mathematical models describing this radiation damage. Ph.D. in an appropriate physical or biological science is required. Send curriculum vitae and the names and addresses of three references to: **Dr. Eric Hall, Center for Radiological Research, Columbia University, 630 West 168th Street, New York, NY 10032.** *We are an Equal Opportunity/Affirmative Action Employer.*

APHIOS

We are interested in a **SENIOR SCIENTIST** to lead and develop an applied research viral inactivation group of 12 to 15 scientists and engineers.

Ph.D. in Virology, Microbiology or Cell Biology. Extensive experience in mammalian cell culture; broad background in viral infectivity assays required. Experience in process validation desirable.

Ph.D. in Biology or Biochemistry. Extensive experience in protein purification and characterization required. Experience working with serum proteins and enzymes desirable. Knowledge of good laboratory and clinical practices desirable.

Send résumé to: **Dr. Trevor P. Castor, APHIOS, 3-E Gill Street, Woburn, MA 01801.** No calls.

ENVIRONMENTAL SCIENTIST/MODELLER.

AECL Research, Canada's leading agency for environmental research related to nuclear energy, seeks a researcher to join a program in environmental transfer modelling. The position also involves field and laboratory studies of radionuclide transport, participation in international programs on uncertainty and model validation, and application of the models to dose assessments. Applicants should have a Ph.D. or equivalent experience in quantitative radioecological research, including modelling and experimental studies of radionuclide behaviour in the environment. Applicants must have a strong publication record and the leadership skills to develop an independent research program in a multidisciplinary environment. Applicants should send curriculum vitae and the names of three references by September 30, 1993, by FAX: (613-584-1221) or mail to: **Dr. R. J. Cornett, Environmental Research Branch, Chalk River Laboratories, Chalk River, Ontario, K0J 1J0 Canada.** *AECL Research has an active Employment Equity Program.*

ASSISTANT PROFESSOR: One established and experienced individual is being sought for a tenure track position to direct the Transplant Immunology Laboratory in the Division of Surgical Sciences of the Department of Surgery at the University of Minnesota. Applicant must have a Ph.D. in Pathobiology and a minimum of 5 years postdoctoral experience in human clinical histocompatibility testing and human clinical transplant immunology research. Applicant must have expertise in cellular immunology research. Applicant must have expertise in cellular and molecular immunology including posttransplant monitoring of organ recipients to identify reactivity to donor disparate antigens using homozygous typing cells and to identify allogeneic microchimerism. Applicant must have experience in directing a laboratory, directing the research studies of other investigators including graduate students and medical fellows, and coordinating multidisciplinary experimental studies. The applicant must be director-qualified according to the Standards of the American Society of Histocompatibility and Immunogenetics. Individual must have demonstrated involvement in quality research accepted or published in peer-reviewed journals.

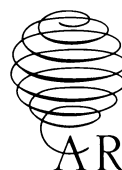
Job duties will include:

- (1) Directing the Transplant Immunology Laboratory which includes studies on
 - (a) human tolerance induction
 - (b) immune monitoring of transplant recipients
 - (c) cellular basis of xenographic responses
- (2) Directing the research studies of other investigators including graduate students and medical fellows
- (3) Coordinating multidisciplinary experimental studies
- (4) Evaluate new diagnostic techniques with regard to relevance to transplantation immunology
- (5) Establish independent research and grant support

Start date January 1, 1994.

Please send curriculum vitae by October 15, 1993 to Rosalie Cihlar, Executive Secretary, Surgery Department, University of Minnesota, Box 195 UMHC, Minneapolis, MN 55455.

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



ARIAD

SENIOR RESEARCH SCIENTIST Pharmacokinetics/Drug Metabolism

ARIAD Pharmaceuticals, Inc. is seeking a highly motivated and creative Senior Research Scientist to perform pharmacokinetic and drug metabolism studies on a new generation of small molecule drugs designed to target intracellular signaling and protein trafficking pathways which may alter the course of immune, inflammatory and pulmonary diseases. The position involves extensive interactions with the company's chemists, biologists and pharmacologists with a focus on the evaluation of the ADME profiles of lead compounds following various routes of administration.

Applicants should have a Ph.D. in pharmacology, biochemistry or related biochemical science and 3 to 5 years of experience in the development and validation of procedures for determination of drug/metabolite concentrations in biologic specimens to support preclinical drug disposition studies. Qualified candidates will possess experience with state-of-the-art detection methods—including, HPLC, mass spectroscopy, fluorescence, electrochemistry, and radioactivity—for the trace analysis of organic molecules in biologic matrices. Excellent oral and written communication skills are required.

ARIAD offers an excellent salary and benefits package, incentive stock participation and the opportunity to contribute to a new and exciting area of drug discovery. Please respond to: ARIAD Pharmaceuticals, Inc., Human Resources Office, Department: P/DM, 26 Landsdowne Street, Cambridge, MA 02139.

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Transgenics Research Microinjection Scientist/Supervisor

Supervise the Embryo Microinjection Lab, which is responsible for the design and preparation of constructs for early transgene detection, microinjection of embryos, culture and biopsy of injected embryos, and identification of transgenic embryos. Requires a Ph.D. Molecular Embryologist with 2-5 years of research experience in transgenic mouse production. Working knowledge of preimplantation gene expression and supervisory experience are required. Code ST1

Molecular Biologist

Design and prepare constructs for high efficiency expression in the mammary gland of transgenic mice. Candidates must have a Ph.D. in Molecular Biology and at least 5 years of experience in library screening, cloning, and design of DNA constructs for high efficiency expression. Experience with large DNA constructs as well as supervisory experience would be helpful. Code ST2

Genzyme rewards success with an excellent compensation and benefits package, including 3 weeks' paid vacation, a 401(k) plan with a company match, extensive insurance benefits and an Employee Stock Purchase Plan. Please forward your resume indicating job code to: Human Resources Department, S820, Genzyme Corporation, One Mountain Rd., Framingham, MA 01701. An equal opportunity employer.

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The San Francisco U.S. Environmental Protection Agency invites applications from Toxicologists to work with a team of environmental personnel dedicated to implementing a fast track cleanup program at military bases that are slated for closure. Toxicologists will make risk assessments on the environmental impact of pollutants as they relate to human health effects and cleanup decisions.

BENEFITS: EPA offers a comprehensive benefits package including Federal retirement coverage, health/life insurance, tax deferred retirement/savings plan, generous leave benefits, compressed work schedules, on-site fitness facility, child care facility and many other quality of work life programs.

QUALIFICATION REQUIREMENTS: Applicants must satisfy the basic qualification requirements and meet the experience and/or education requirements listed in the vacancy announcement. Experience in applied risk assessment is desirable. Applicants must be U.S. citizens.

HOW TO APPLY: To request copy of Announcement EPAR9-93-25, call (415) 744-1300. Submit application packages to: U.S. Environmental Protection Agency, Human Resources Management Branch, Attn: EPAR9-93-25, 75 Hawthorne Street, San Francisco, CA 94105. Applications must be received or postmarked by September 13, 1993. EOE.

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Searle is looking for a creative scientist to conduct research in our Inflammatory Diseases Research group.

This Research Scientist will develop and maintain small animal models of inflammatory diseases for the functional and pharmacodynamic evaluation of novel anti-inflammatory agents. The incumbent candidate will have the opportunity to supervise 1-2 technical staff members to support this effort, but will be expected to participate full-time in laboratory studies.

Persons interested in being considered for this position must have a Ph.D. in Pharmacology or a related discipline and experience with small animal pharmacology and inflammation models or biochemistry of eicosanoids. Post-doctoral training and industrial experience in these areas is preferred.

The successful candidate for this position will desire to work in a fast-paced, team oriented environment. This position is located at a multi-disciplinary research campus in suburban St. Louis, which conducts both fundamental and applied research in developing novel human health care products. Searle offers a competitive salary and benefits package and excellent career opportunities.

For consideration, please submit current curriculum vitae, including three professional references, to: Inflammatory Diseases Research Scientist, Searle Human Resources, Mail Zone BB5E, SEARLE c/o Monsanto Company, 700 Chesterfield Parkway, St. Louis, MO 63198. An Equal Opportunity Employer M/F/D/V.

SEARLE

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ASSISTANT PROFESSOR AND EXTENSION HORTICULTURIST ENVIRONMENTAL HORTICULTURE UNIVERSITY OF MINNESOTA

The Department of Horticultural Science invites applications for a 12-month tenure-track position in environmental horticulture at the rank of Assistant Professor and Extension Horticulturist beginning January 1, 1994. This position, which will be located at the Minnesota Landscape Arboretum, is primarily an extension education position with an integrated research component. The person holding this position will be part of a faculty team charged with developing, coordinating, and implementing a statewide educational program and delivery system for amateurs and professionals in environmental horticulture. Coordination responsibilities will include the Master Gardener program and the training of county extension educators in the use of paraprofessionals, as well as other educational programs directed toward horticulture professionals and the general public. The person holding this position will be expected to advise graduate students, engage in scholarly activity in an appropriate research area, which could include sustainable horticultural practices in the urban and community environment or other topics in environmental horticulture.

Minimum qualifications include a Ph.D. in some aspect of environmental horticulture or a related field; expertise in some aspect of plant materials; one year of experience in developing and delivering horticultural programs to consumer audiences in environmental horticulture or related areas; and evidence of effective speaking and writing abilities. Desired qualifications include a broad range of course work in biological, physical, and social sciences; evidence of disciplinary and interdisciplinary collaboration; demonstrated ability to conduct research; publications or evidence of other mass media distribution of information on horticulture or related subject areas; and evidence of effective personnel management skills.

Applicants should submit curriculum vitae, a statement of teaching, research, and outreach interests as related to this position, and the names, addresses, and telephone numbers of three references to Chair, Environmental Horticulture Search Committee, Department of Horticultural Science, University of Minnesota, 305 Alderman Hall, St. Paul, MN 55108. Application materials must be received by September 30, 1993. The University of Minnesota is an Equal Opportunity Educator and Employer.

Scientist

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THE UNIVERSITY OF MICHIGAN Museum of Zoology Department of Biology

Avian Biologist

Molluscan Biologist

Applications are invited for the above tenure-track positions as Assistant Curator/Assistant Professors, beginning as early as September 1994. Outstanding candidates at levels higher than Assistant Professor may also be considered. Appointees must have the Ph.D., a demonstrated commitment to research in one of the indicated areas, and a strong interest in teaching. Postdoctoral experience is necessary.

The Museum of Zoology seeks comparative biologists with research in such areas as ecological or evolutionary genetics, behavior or behavioral ecology, morphology, physiology, developmental biology, or molecular biology, within a systematic context. The applicant is expected to develop a strong program of extramurally funded research and to help curate a large ornithological or malacological collection.

Faculty members are also expected to participate effectively in teaching an undergraduate course, and to teach a graduate-level course in the appropriate area of their training. The Department of Biology has a large diverse program with strengths in cellular and molecular biology, developmental biology of plants and the nervous system, molecular evolution, population biology, and the environmental sciences.

Applications should include a current CV, copies of up to three relevant reprints, a brief statement of past research interests and future plans. Applicants should have three letters of reference sent to the address below on or before October 15, 1993.

Search Committee
Museum of Zoology
The University of Michigan
Ann Arbor, Michigan 48109-1079

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POSTDOCTORAL POSITION

Actin binding protein gene

Saint Francis Hospital & Medical Center

(A Teaching Hospital with University
of Connecticut School of Medicine)

A postdoctoral position will be available, beginning **October 1993**, to study the regulation of an actin binding protein gene. Applicants should have a recent Ph.D. in biochemistry or molecular biology. Background in molecular cloning is desirable.

Please send a curriculum vitae, selected publications and names of three references to:

Samuel Varghese, Ph.D.,
Department of Research, Saint
Francis Hospital & Medical
Center, 114 Woodland Street,
Hartford, CT 06105-1299.



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The Human BrainMap Database (BrainMap) has been in limited off-site beta testing since December 1992. Upon release of version 2.0, BrainMap will be ready for an expanded test base. BrainMap's user interface runs on Macintosh System 7. The BrainMap database will be served over the Internet using TCP/IP.

Workshop II will be held December 4 - 6, 1993, in San Antonio, Texas.

Co-organizers: Peter T. Fox, M.D. and Jack L. Lancaster, Ph.D.

Attendance will be limited. Preference will be given to scientists active in this field. Participants will receive BrainMap software for beta testing. Applications must be received by September 15, 1993. Accepted applicants must register by October 15.

To apply, contact: Sally Faulk, BrainMap Workshop II, Research Imaging Center, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio TX 78284-6240, 210-567-8070 (voice), faulk@uthscsa.edu (e-mail), 210-567-8074 (fax).

Fax 210-567-8074 for Workshop II
application form.

THE ROBERT A. WELCH FOUNDATION 37TH CONFERENCE ON CHEMICAL RESEARCH 40 YEARS OF THE DNA DOUBLE HELIX October 25-26, 1993 Westin Oaks Hotel, Houston, Texas

MONDAY, OCTOBER 25

RICHARD J.V. JOHNSON, President, Welcoming of Guests
PETER B. DERVAN, Introductory Remarks

SESSION I

JAMES D. WATSON, Presiding Chair

FRANCIS S. COLLINS, "Molecular Medicine and the Human Genome Project"

WALTER GILBERT, "Introns, Exons, and the Evolution of Genes"

STEPHEN P.A. FODOR, "DNA Sequence Analysis Using Oligonucleotide Arrays"

ALEXANDER RICH, "DNA in Non-Traditional Conformations"

SESSION II

FRANCIS CRICK, Presiding Chair

DONALD M. CROTHERS, "DNA Bends and Bendability"

STEPHEN J. LIPPARD, "Structural and Biological Consequences of Platinum Anticancer Drug Binding to DNA"

PAUL B. SIGLER, "The Surprising Chemistry of Specific Protein-DNA Interfaces"

ROBERT TJIAN, "Mechanisms of Transcriptional Regulation: The Activator-TAF Connection"

TUESDAY, OCTOBER 26

SESSION III

PAUL BERG, Presiding Chair

THOMAS R. CECHE, "Mechanism and Structure of a Catalytic RNA Molecule"

OLKE C. UHLENBECK, "Using in vitro Evolution to Find New RNA Catalysts"

DINO MORAS, "The Two Classes of Aminoacyl-tRNA Synthetases: Structural and Functional Aspects, Evolutionary Implications"

JOAN A. STEITZ, "Anatomy of the Mammalian Spliceosome"

1993 WELCH AWARD IN CHEMISTRY LUNCHEON

GILBERT STORK, "Adventures in Selectivity"

SESSION IV

PETER B. DERVAN, Presiding Chair

JACQUELINE K. BARTON, "Photoinduced Electron Transfer Through the Double Helix: Is DNA a Wire?"

JACK W. SZOSTAK, "Searching RNA Sequence Space for Substrate Binding Sites and Catalytic Activities"

ALBERT ESCHENMOSER, "Towards a Chemical Etiology of the Natural Nucleic Acid's Structure"

ADVANCE REGISTRATION FORM

_____ I will attend the conference. _____ I will attend the luncheon.

Dr. Mr.
Mrs. Ms.

(Last)

(First)

(Middle)

Position _____

Organization _____

Department _____

Address _____

The conference is open to all and there is no registration fee regardless of what state or country the registrant is from. Advance registration will be acknowledged and accepted in order of receipt, to within the capacity of the available space. Prior to October 11, 1993 make your hotel reservations directly with The Westin Oaks Hotel. Their telephone nos. are 800-228-3000 or 713-960-8100.

Return the above form by October 11 to:

The Robert A. Welch Foundation
4605 Post Oak Place, Suite 200
Houston, Texas 77027

POSITIONS OPEN

STAFF SCIENTIST

The Life Sciences Division at Lawrence Berkeley Laboratory seeks applicants to direct the high resolution genetic mapping component of the LBL Human Genome Center or develop an independent biology project in the human genome program. Appointment will be at the Staff Scientist 2 or 3 level depending upon the qualifications of the selected candidate. Applicants should have a broad background in molecular biology, biochemistry, or molecular genetics research with expertise in *in vitro* manipulations of nucleic acids and enzymes that operate on nucleic acids, and a working knowledge of the practices and principles of genome analysis, including DNA sequencing, polymerase chain reaction, and QTL genetics. Send curriculum vitae, short synopsis of research interests, a list of publications, and names of three references to: Dr. Sylvia Spengler, c/o Lawrence Berkeley Laboratory, Staffing Office, Box #JSC11323, One Cyclotron Road, Building 938A, Berkeley, CA 94720. An Equal Opportunity Employer.



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MYRIAD GENETICS, INC. is a biotechnology company focused on the isolation and clinical testing of human genes that cause disease. We have an immediate opening for a **SENIOR LABORATORY TECHNOLOGIST/TECHNICIAN** to participate in the setup, performance and analysis of DNA probe-based clinical tests. Five years of experience required in a molecular biology laboratory, as well as supervisory experience and familiarity with clinical laboratory regulations. Background in DNA sequencing, DNA amplification methods and gel electrophoresis necessary. Medical technologist license desirable. Salary commensurate with experience. Please send curriculum vitae and names of three professional references to: Frank K. Fujimura, Ph.D., Myriad Genetics, Inc., 421 Wakara Way, Suite 201, Salt Lake City, UT 84108.

ANNOUNCEMENTS



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HUGO Travel Award Program

HUGO's new program of Travel Awards is intended for junior investigators who wish to transfer technology or conduct collaborative research among laboratories involved in the analysis of the human genome. The awards are intended to cover travel costs only, up to a level of 1,500 US\$, and are designed to stimulate research by supporting short-term laboratory visits; they are not travel awards for meetings. Further information about the awards can be obtained from the HUGO Europe and HUGO American offices.

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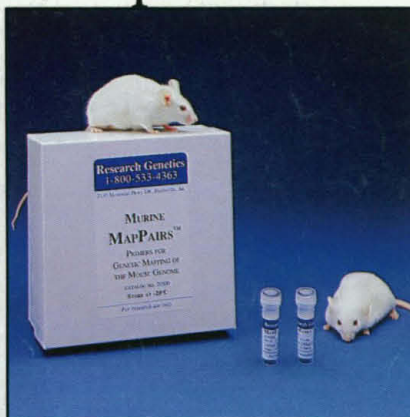
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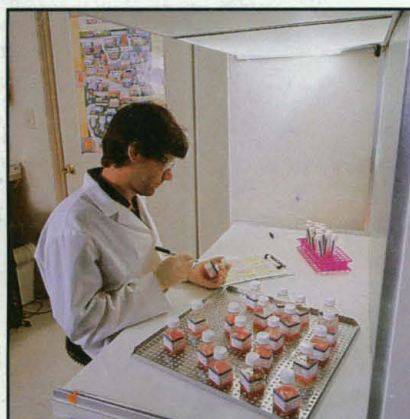
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