

Technical Drawing Software

CoDraw 2.2 is a new version of a program to create high-quality technical drawings. CoDraw can create a wide variety of objects, including lines, arrows, splines, filled splines, circles, arcs, ellipses, markers, filled areas, Bézier lines, Bézier filled areas, and text. A new feature, called "Get," makes it easy to get information about the objects in a drawing, including the xy coordinates of a point; all the xy coordinates of an object; the distance between two points; the length of the path defined by a line, marker, filled area, or other object; the angle defined by any three points; and the area of an object. This feature makes it easy, for example, for an archeologist who has made a map of a dig site to determine the distances between various artifacts found at the site. Another mode, which allows the user to make measurements simply by moving the cursor, makes it possible to get information from a paper copy of a drawing by using a digitizer. For example, one could place a topographical map on a digitizer and get distance and area information from the map. The program runs on an IBM personal computer, PS/2, or compatible running DOS 2.0 or higher with 512K of random access memory and 700K of disk space. CoHort Software. **Circle 90.**

Photographic Copier

The OneStep Photographic Copier offers scientists and engineers a time- and cost-saving method of producing photographic enlargements up to 8 1/4 by 11 inches or reductions for analysis, reports, and publication. Virtually any instant or conventional color or black and white print or small object can be copied with the push of a button. Enlargements are ready in seconds. Color transparencies are ready in 2 to 4 min. The copier accepts originals as large as 11 by 17 inches and three-dimensional

objects as deep as 3/8 inch. Prints can be reduced or enlarged from 64 to 200% in increments of 1%. With no internal chemicals, there is nothing to replenish, spill, or clean up. Polaroid. **Circle 91.**

Protein Blotting Apparatus

This semidry blotting unit is designed for optimal transfer in protein blotting. The polyacrylamide



electrophoresis gels and hybridization membranes are sandwiched horizontally between layers of filter paper soaked in an electrode solution. Multiple gels can be processed by "stacking" the sandwiches. Electrodes are in direct contact with the sandwich, creating a homogeneous electric field that ensures even transfer. Fisher Scientific. **Circle 92.**

Chemical and Molecular Software

CSC ChemOffice/Plus combines three software products—CSC ChemDraw/Plus (a chemical structure drawing program), CSC ChemFinder (a chemical information program), and CSC Chem3D/Plus (a molecular modeling and visualization system)—into a complete desktop solution for drawing, modeling, and information management. ChemFinder integrates structural formulas, molecular models, and other information in a graphical spreadsheet format. ChemDraw is for use in the preparation of slides, reports, and papers. It provides

bond tools, templates, and symbols that make it easy to draw chemical notations. With Chem3D the user can create three-dimensional models of chemical structures, copy and paste structures drawn with ChemDraw, and import data from other molecular modeling software. Cambridge Scientific Computing. **Circle 93.**

Updated DNA and Protein Sequence Software

GeneWorks release 2.2 has a polymerase chain reaction (PCR) primer design function added to its nucleic acid and protein sequence analysis capabilities. The program lets the user visualize and manipulate sequence data to find the best possible PCR primer. GeneWorks can evaluate primers it designs as well as primers suggested by the user. The program also includes a new translated nucleic acid database search. Other functions of the program include true multiple sequence realignment, gel assembly, database searching, and dot matrix sequence similarity plots. The program requires a Macintosh SE, LC, or Mac II; System 6.0.3 or higher; 2 MB of random access memory; and a 20-MB hard disk. IntelliGenetics Inc. **Circle 94.**

Lymphocyte Subset Isolation

Dynabeads M-450 products with DETACHaBEAD are a powerful tool for high-yield isolation of pure lymphocyte subsets. Target cells bind to the antibody-coated superparamagnetic monosized polystyrene beads. The rosetted cells are then rapidly isolated and washed using a magnetic particle concentrator. By the addition of DETACHaBEAD product, the

isolated cells are released from the beads in minutes. DETACHaBEAD is a polyclonal antibody preparation that gently disturbs and blocks the interaction between the antibody-bound Dynabeads products and the antigenic determinant on the isolated cell. Dynal Inc. **Circle 95.**

Literature

Fully Automated Mercury Analysis System describes a system with a detection sensitivity of 1 part per thousand that works with virtually any kind of sample in a wide range of concentrations. LDC Analytical. **Circle 96.**

Membrane Separation Products is an 80-page catalog of products with applications that include concentrating and purifying proteins, peptides, enzymes, antibodies, immunoglobulins, and other biomolecules; buffer exchange; desalting; virus removal; depyrogenation; and cell harvesting. Filtron Technology Corp. **Circle 97.**

DB-VRX: Optimized for Accuracy, Productivity and Precision for the Analysis of Volatile Organic Compounds describes a capillary gas chromatography stationary phase instrument. J&W Scientific. **Circle 98.**

Tech Novations is a new publication that delivers information about the latest developments in Supelco's separation technologies and products. The current issue features new environmental glassware, a capillary column for chiral separations, an expanded line of adsorbent resins, and other items from Supelco's line of columns, standards, filtration products, and accessories. Supelco. **Circle 99.**

The Instrument Integration Workbook is a new publication for laboratory personnel interested in implementing laboratory automation applications such as integrating analytical instruments with computers. Koller Computer Technologies. **Circle 100.**

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

Science

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POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR—Department of Rheumatology at the Hospital for Joint Diseases/Orthopaedic Institute, affiliated with NYU School of Medicine, is seeking an M.D., Ph.D. or M.D./Ph.D. molecular biologist with an interest in signal transduction. Experience in area of chemoattractant receptors, GTP binding proteins or surface adhesion molecules desirable. Salary plus technical support included. Applicants send curriculum vitae and three references to: **Steven Abramson, M.D., Chairman, Department of Rheumatology, HJD, 301 East 17th Street, New York, NY 10003. An Equal Opportunity Employer.**

CELL/MOLECULAR PHYSIOLOGISTS

Applications are invited for tenure-track positions at the level of **ASSISTANT OR ASSOCIATE PROFESSOR OR PROFESSOR** in the Department of Physiology of The Ohio State University College of Medicine. Individuals with an established research program using cellular/molecular approaches complementing existing departmental programs are encouraged to apply. Departmental programs exist in: neurosciences, gastrointestinal system, cardiovascular control, epithelial transport and muscle physiology. Applications will be accepted until **March 1, 1993** or until suitable candidates are selected. Send curriculum vitae, a brief description of research interests, names of three referees and a record of grant funding to: **Jack A. Rall, Ph.D., Chairperson, Search Committee, Department of Physiology, 302 Hamilton Hall, 1645 Neil Avenue, Columbus, OH 43210-1218. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam-era veterans, disabled veterans and individuals with disabilities are encouraged to apply.**

FACULTY POSITION—IMMUNOBIOLOGY

Applications are invited for a full-time tenure-track position at the **ASSISTANT/ASSOCIATE PROFESSOR** level in the Department of Biological Sciences starting August 18, 1993. The candidate will be expected to develop a vigorous basic research program in immunobiology and to teach undergraduate/graduate-level immunology. Applicants utilizing cellular and molecular research approaches will be preferred. This position requires two years of postdoctoral training, a record of productive research, and the ability to interact collegially. Appointment at the Associate level requires a record of funded research activity and a currently funded research program. The Department of Biological Sciences has three new, state-of-the-art Core Facilities in Molecular Biology, Cell Culture, and Protein Analysis. Deadline for applications is March 15, 1993 or the first of the month until the position is filled. Applicants should submit curriculum vitae, reprints of key publications, a statement of current and future research plans, and three names of references to: **Chairperson, Immunobiologist Search Committee, Department of Biological Sciences, The Wichita State University, 1845 Fairmount, Wichita, KS 67260-0026.**

PLANT SYSTEMATIST

The Department of Botany and Plant Pathology, Michigan State University, invites applications for a tenure-track position as **ASSISTANT PROFESSOR AND DIRECTOR OF THE MICHIGAN STATE UNIVERSITY BEAL DARLINGTON HERBARIUM**. Position available beginning September 1, 1993. Responsibilities include teaching undergraduate and graduate courses in the systematics of vascular plants, maintaining an active research program in plant systematics, and directing operations of the Michigan State University Herbarium, a collection of over 500,000 specimens. The area of research expertise of the successful candidate is open but should involve modern approaches to research in plant systematics. A Ph.D. in botany is required and postdoctoral experience is desirable. The successful candidate must have a strong commitment to undergraduate and graduate education and to herbarium development. Applicant should send curriculum vitae, a statement of teaching interests, and current and long-term research goals, and the names of three references by March 1, 1993, to: **Dr. Frank Ewers, Chair, Plant Systematist Search Committee, Department of Botany and Plant Pathology, Michigan State University, East Lansing, MI 48824-1312.**

Michigan State University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR OF FOREST ECOLOGY SCHOOL OF FORESTRY THE UNIVERSITY OF MONTANA

The University of Montana's School of Forestry seeks applications for Assistant Professor of Forest Ecology. This tenure-track, academic-year appointment involves the traditional role of teaching, research and public service. Responsibilities include teaching an undergraduate course in Forest Ecology and additional courses in areas such as community and landscape ecology. The successful applicant will be expected to assume a leadership role in the developing field of ecosystem management in the inland west. The job description and application information may be obtained from:

**Chair, Forest Ecology Search Committee
 School of Forestry, The University of Montana
 Missoula, MT 59812
 Telephone: (406) 243-5522; FAX: (406) 243-4845**

Review of applications will begin March 1, 1993, and continue until an appointment is made. *The University of Montana is an Affirmative Action/Equal Opportunity Employer. Applications from women, minorities, and members of other protected classes are encouraged.*

NEUROSCIENTIST: The Anatomy Department, School of Veterinary Medicine, Purdue University, invites applications for a tenure track faculty position (**ASSISTANT/ASSOCIATE**) in neuroanatomy/neuroscience starting 1 July 1993. Applicants should have a strong commitment to teaching and research. Teaching responsibilities depend upon the applicant's experience but can include any of the anatomical disciplines in human or veterinary medicine. Evidence of successful extramural funding and established productive research expertise given preference. Rank commensurate with experience. Applicants should send curriculum vitae, a letter describing relevant experience and three letters of recommendation by March 1, 1993 to: **Edward Hinsman, D.V.M., Ph.D., Search Committee Chair, Department of Anatomy, School of Veterinary Medicine, Purdue University, West Lafayette, IN 47907-1242.** Closing date for this position is March 1, 1993 or until filled. *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

DEPARTMENT OF BIOCHEMISTRY VANDERBILT UNIVERSITY SCHOOL OF MEDICINE

Applications are invited for tenure-track positions at the **ASSISTANT PROFESSOR** level. While the general areas of enzyme mechanisms, developmental biology, signal transduction and gene expression are of interest, outstanding candidates in all areas of biochemistry are invited to apply. Preference will be given to individuals combining molecular genetics and biochemistry in their studies. Successful candidates will develop vigorous, externally-funded research programs and participate in training of medical and graduate students. Competitive salary, start-up funds and laboratory space are available. Applicants should forward a curriculum vitae, bibliography, summary of past research accomplishments, and a statement of plans for future research to:

**Biochemistry Search Committee
 Vanderbilt University School of Medicine
 607 Light Hall
 Nashville, TN 37232-0146**

Applicants should also arrange for three letters of reference to be sent to the same address.

Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR, TENURE-TRACK POSITION—Department of Pharmacology, University of New Mexico School of Medicine. Individuals with research programs utilizing cellular and molecular techniques in neuroscience, cardiovascular biology, matrix biology or biochemical pharmacology are of special interest. The successful applicant is expected to have extramural research support and to participate in medical and graduate teaching programs. Individuals with a Ph.D., M.D. or equivalent degree and strong postdoctoral research record should submit curriculum vitae, reprints and 3 letters of reference by April 1, 1993 to: **Dr. Linda J. McGuffee, Department of Pharmacology, University of New Mexico School of Medicine, Albuquerque, NM 87131-5316. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

THE UNIVERSITY OF CALGARY ION-CHANNEL MOLECULAR BIOLOGIST

The University of Calgary Faculty of Medicine invites applications for a full-time academic position as an Ion-Channel Molecular Biologist at the **ASSISTANT PROFESSOR** level or higher. This position offers an excellent opportunity to develop vigorous independent research programs and collaborative interactions within a multidisciplinary research environment. Duties will include teaching and graduate student supervision. Qualifications include an M.D., D.V.M., and/or Ph.D., and research expertise in one or more of the following: ion-channel structure-function, site-directed mutagenesis, regulation of genes encoding ion channels and molecular biology of channels, transporters or receptors. Academic appointment will be with an appropriate department in the Faculty of Medicine.

The selected candidate must compete successfully for salary funding from the Alberta Heritage Foundation for Medical Research and/or the Medical Research Council of Canada, and will have 75% of time protected for research.

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

Please submit curriculum vitae, a statement of aims and research interests, and the names and addresses of three referees by March 10, 1993, to:

Dr. Henry J. Duff
Faculty of Medicine
The University of Calgary
3330 Hospital Drive N.W.
Calgary, Alberta, CANADA T2N 4N1

NEUROSCIENTIST COLUMBIA UNIVERSITY

The Movement Disorder Division of the Department of Neurology, Columbia University, seeks a neuroscientist at the **ASSISTANT PROFESSOR** level, for a full-time tenure-track position to examine mechanisms of neuron death relevant to Parkinson's Disease. Candidates should have an established research interest in the cellular mechanisms of neurotoxin-induced injury to midbrain dopaminergic neurons or modification of such mechanisms by trophic factors. Expertise with *in vitro* systems is especially desirable. Preference given to candidates who have demonstrated ability or potential to obtain independent, extramural funding. Send curriculum vitae to: **Dr. Stanley Fahn, The Neurological Institute, 710 West 168th Street, New York, NY 10032.** *Columbia University is an Affirmative Action/Equal Opportunity Employer.*

CNS PHARMACOLOGIST

The expanding Department of Pharmacology at the Northeastern Ohio Universities College of Medicine (NEOUCOM) invites applications for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level. Applicants must hold a Ph.D. in Pharmacology, have completed no less than two years of postdoctoral training and have demonstrated ability to conduct independent research. The present department has an active research program with interests in central nervous system pharmacology. Initial funding for equipment, supplies and start-up costs will be made available to the successful applicant. Laboratory and office space are provided in this new facility located on 55 acres in close proximity to a wide variety of living styles. Many opportunities are available in the geographic area for academic and scientific interactions. Some teaching experience is desirable since the position requires participation in teaching of medical and graduate students. This position will be available as of July 1, 1993. Send curriculum vitae, including the names of three references, by 15 March 1993, to: **Dr. Martin D. Schechter, c/o the Office of Human Resources, Northeastern Ohio Universities College of Medicine, 4209 S.R. 44, P.O. Box 95, Rootstown, OH 44272-0095.** *NEOUCOM is an Equal Opportunity/Affirmative Action Employer.*

SCIENCE welcomes placement of line classified ads by FAX. Please include name and telephone number for our confirmation call when transmitting ad to:

FAX NUMBER: 202-682-0816

POSITIONS OPEN

MOLECULAR GENETICS, ASSISTANT PROFESSOR, ten-month, tenure-track appointment beginning August 15, 1993. Ph.D. in the Biological Sciences required. Teaching at the undergraduate level is the primary focus, but faculty are expected to actively pursue scholarly work. Send curriculum vitae, transcripts, and three letters of recommendation to: **Dr. Thomas W. Jones, Department of Biological Sciences, Salisbury State University, Salisbury, MD 21801-6837.** *Salisbury State University is an Affirmative Action/Equal Opportunity Employer. Women, minorities, and disabled persons are encouraged to apply.*

FACULTY POSITION IN PROTEIN CRYSTALLOGRAPHY

The Department of Biophysics, Boston University School of Medicine, is interested in expanding its research programs in structural biology to the field of protein crystallography. The Department will move to new research facilities (**Center for Advanced Biomedical Research**) in the fall of 1993. In addition to new general research laboratories, these new facilities will house a state-of-the-art X-ray diffraction laboratory and laboratories for structural electron microscopy, NMR and a computing center.

Applications are invited for a new faculty position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. Start-up funds are available. However, applicants must have a strong desire and ability to create an independent research program. Please send applications including curriculum vitae, bibliography, a brief statement of research interests and three letters of reference to: **Dr. David Atkinson, Biophysics Faculty Search Committee, Department of Biophysics, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118-2394.** *Boston University is an Affirmative Action/Equal Opportunity Employer.*

MOLECULAR BIOLOGIST AND POPULATION/COMMUNITY ECOLOGIST

Two tenure-track **ASSISTANT PROFESSOR** positions available August 1993. For each, postdoctoral experience is required and candidate is expected to develop an extramurally funded research program involving M.S. and Ph.D. students. **Molecular Biologist** research area is open; however, those with research/teaching interests in biochemistry and the molecular biology of membrane systems are particularly encouraged to apply. **Population/Community Ecologist** responsibilities include teaching undergraduate and graduate core courses in ecology. Preference given to ecologists with field or modeling experience complementing existing strengths in evolution and behavior. Send curriculum vitae, summary of research/teaching interests, reprints, and three letters of recommendation by March 15, 1993 to: **Dr. R.C. Woodruff, Chair, Department of Biological Sciences, Bowling Green State University, Bowling Green, OH 43403.** *Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR in quantum molecular modeling, **Département de Chimie, Université de Montréal et Centre de Recherche en Calcul Appliqué.** Experience in one of the following fields would be an asset: *quantum chemistry, (bio)molecular modeling, theory of solutions, molecular dynamics.* Develop a strong research program that can interact with Quebec industry. The candidate will be expected to teach in French within two years. Position available on June 1, 1993; other dates negotiable. Submit curriculum vitae, short research plan, and names of three referees as soon as possible to: **D.R. Salahub, Département de chimie, Université de Montréal, C.P. 6128, Succursale A, Montréal, Québec H3C 3J7, CANADA.** *In accordance with Canadian immigration laws, this advertisement is addressed in the first instance to citizens and permanent residents of Canada.*

POSTDOCTORAL POSITION available immediately to study cloned Na⁺-dependent glucose and amino acid transporters using recombinant DNA techniques (see *J. Biol. Chem.* 268:1509, 1993). Send curriculum vitae and names of three references to: **Dr. J. E. Lever, Department of Biochemistry and Molecular Biology, University of Texas Medical School, P.O. Box 20708, Houston, TX 77225.** *The University of Texas is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS

Two postdoctoral positions available immediately for research on tumor suppressor genes in human breast cancer and prostate cancer. Projects include regional location of new tumor suppressor loci, identification of genes involved, and determination of gene function. Projects are collaborative between Division of Molecular Cytometry, UCSF and Human Genome Center, Los Alamos National Laboratory. One position will be located at Los Alamos with emphasis on physical mapping, and the second position will be located at UCSF with emphasis on molecular cytometry. Candidates must have Ph.D. in molecular biology or molecular genetics with experience in gene cloning, PCR and/or DNA sequencing. Please send résumé to: **Dr. Ronald H. Jensen, Department of Laboratory Medicine, Box 0808, University of California, San Francisco, CA 94143-0808.** *The University of California is an Equal Opportunity/Affirmative Action Employer. Minorities, women, handicapped, and veteran candidates are encouraged to apply.*

CORONARY PHYSIOLOGY

POSTDOCTORAL POSITION to study adenosine and other mechanisms controlling coronary blood flow. Please send a letter of interest, curriculum vitae and references to:

Dr. Eric Feigl
or
Dr. Keith Kroll
Department of Physiology SJ-40
University of Washington
Seattle, WA 98195

Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL ASSISTANT (93CM3487). Position available immediately for cell and molecular biology studies on the role of lipolytic enzymes in lipid metabolism and cardiovascular diseases. Research project will focus on gene regulation and protein structure-function relationships. Candidates with demonstrated record of productivity and expertise in protein chemistry, molecular biology, tissue culture, and/or animal surgery skills are especially encouraged to apply. Please send complete curriculum vitae with names and telephone numbers of three referees to: **Dr. David Y. Hui, Ph.D. Department of Pathology, University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, OH 45267-0529.**

POSTDOCTORAL CANDIDATES are sought to investigate static and dynamic properties of organic molecular crystals using modern computer simulations. Access is available to a wide variety of state-of-the-art computers and related capabilities. Some experience in molecular simulations is highly desirable. U.S. citizenship is highly desired. Applicants must have received the Ph.D. degree no more than three years before date of appointment. Offers are made based upon a competitive lab-wide review. To apply, send curriculum vitae and three letters of reference, along with graduate and undergraduate transcripts (copies acceptable) to: **Dr. James P. Ritchie, Mail Stop B214, Los Alamos National Laboratory, Los Alamos, NM 87545.** For additional information, send e-mail to: **jpr@lanl.gov** or call Special Employment Services at (505) 667-4536. Los Alamos National Laboratory is operated by the University of California for the U.S. Department of Energy. *Affirmative Action/Equal Opportunity Employer.*

KAMAN SCIENCES CORPORATION

MICROBIOLOGIST, M.S./Ph.D. (3 to 5 years of experience) to conduct non-laboratory assessments relating to detection/destruction of biological agents for nonproliferation and arms control efforts. Training in molecular biology and immunology desired. Laboratory and project management experience a plus.

CHEMICAL ENGINEER, B.S./M.S. (3 to 5 years of experience) to conduct non-laboratory assessments of R&D and advanced technologies for process monitoring. Experience in detectors and integration of process monitoring systems required.

Candidates with strong written and oral communications skills and computer skills should send résumés to: **Technical Recruitment No. 93-32, Kaman Sciences Corp., 2560 Huntington Avenue, Alexandria, VA 22303-1410.** *Kaman Sciences is an Equal Opportunity Employer.*

NATIONAL CANCER INSTITUTE • NATIONAL INSTITUTES OF HEALTH
**CELLULAR BIOLOGIST AND VIRAL IMMUNOLOGIST
IN HIV AND HHV-6 RESEARCH**

The Laboratory of Tumor Cell Biology of the Division of Cancer Etiology, National Cancer Institute is accepting applications for a permanent position for a medical doctor with extensive research experience. The position will be at the GS-13 grade level with a salary range of \$46,210-\$60,070.

The successful candidate will be expected to:

1. Conduct original research in the area of AIDS pathogenesis with particular emphasis on the role of viral cofactors which may accelerate the progression of the disease, such as the lymphotropic herpesvirus, HHV-6. Extensive experience of the interactions between HIV and other viruses is critical.
2. Serve as Principal Investigator for experimental infection studies in animal models for AIDS, with particular emphasis on studies of coinfection and viral interaction.
3. Provide expert consultation to the Research Program of the laboratory in matters involving the study of AIDS pathogenesis and the potential role of lymphotropic herpesviruses as cofactors in AIDS.

Candidates with the following qualifications will be given preference:

1. M.D. with background in immunology, oncology, virology and cell biology, whose training was focused on HIV infection and lymphotropic herpesviruses.
2. Post-doctoral research experience in viral immunology with particular emphasis on lymphotropic herpesviruses.
3. Strong interest and experience in the development of a research program which utilizes techniques of cellular biology, virology and immunology to impact the areas of human retroviruses, particularly HIV-1, and the mechanisms of viral interaction, including phenotypic mixing, receptor regulation and transactivation.
4. Broad knowledge of the principal mechanisms of virus-cell interaction, virus-to-virus interaction and T-cell, B-cell and NK-cell immunology.
5. Extensive experience in fluorocytometry.
6. Ability to effectively communicate in English both orally and in writing.
7. Relevant publications in top scientific journals.

**Applicants must be found to be eligible on a Civil Service Register.
If interested, please send a curriculum vitae by February 26, 1993 to:**

**Ms. Ethlyn Howard or
Dr. Howard Z. Streicher
National Institutes of Health
Building 37, Room 6A09
9000 Rockville Pike**

*U.S. Citizenship Required
NIH is an Equal Opportunity Employer*



DNAX Research Institute

MOLECULAR BIOLOGIST / BIOCHEMIST

DNAX research Institute is seeking a staff scientist to join our research staff. Candidates should hold either a Ph. D. or M.D. and have completed post-doctoral training.

The institute conducts basic research in a variety of areas in molecular and cellular biology with an emphasis on growth factors and cytokines which regulate the immune system or hemopoietic cells. At this time we seek an individual with an established background in cell cycle control or intracellular signaling mechanisms who could develop an interactive research program with other researchers studying growth factor receptors and signal transduction. We invite applicants whose research interests could take advantage of our considerable strengths in lymphocyte and hemopoietic cell biology.

Successful candidates will have the opportunity to conduct basic research in the absence of teaching and grant writing responsibilities. Institute scientists may work with post-doctoral fellows and are free to communicate their scientific findings in an open manner. Located near Stanford University, DNAX carries out basic research in an open, academic environment. We are looking for candidates who can contribute to our enthusiastic and productive research program.

Interested applicants should send a curriculum vitae and the names of three references to the Human Resources Department, DNAX Research Institute of Molecular and Cellular Biology, 901 California Avenue, Palo Alto, CA 94304-1104 EOE.

EMBEX, INC. is a world leading biotechnology company which develops and markets in ovo products to increase the productivity and profitability of the poultry industry. We have an immediate opening in our Embryology section to investigate gene and cell transfer to embryos via in ovo injection.

SENIOR RESEARCH MOLECULAR BIOLOGIST

Qualifications to include:

- Ph.D. Molecular Biology
- 2 years post-doc or industrial experience
- A knowledge of cloning, DNA manipulation and PCR
- Expression and analysis of target proteins
- Tissue Culture and Transfection
- Supervisory experience a plus.

Compensation commensurate with experience.
Resumes may be sent in confidence to:

embrex inc.

**SRMB
P.O. Box 13989
RTP, NC 27709**

An Equal Opportunity Employer

SCIENTIFIC PROGRAM DIRECTOR

New & Challenging Program

The Charles A. Dana Foundation in association with Cold Spring Harbor Laboratory, Johns Hopkins University Medical School, and Stanford University Medical School is working to establish a consortium to promote research on manic-depressive illness, particularly a genetic approach. This new program at Cold Spring Harbor Laboratory will accomplish this by establishing a database containing information on all aspects of manic-depressive illness (including research materials, pedigrees, published and unpublished data) that will act as a central facility for research on manic-depressive illness.

We are currently seeking a Scientific Director to assume responsibility for this program. This position would be suitable for a geneticist or genetic epidemiologist, preferably with experience of research on mental disorders or other complex, polygenic diseases. Applicants must have a special interest in informatics and experience with computer databases. The Center will also promote research through organizing meetings and workshops. An important component of the Center's activities will be an examination of the social, legal, and ethical implications of genetic research on manic-depressive illness, including the development of an educational program for healthcare professionals, the media, and the public. Good interpersonal skills, good writing skills, and an enthusiasm for communicating science to others are essential qualifications.

We offer a competitive salary, commensurate with experience, excellent benefits and a beautiful working environment, located on Long Island Sound, 35 miles from NY City. For immediate consideration, please send resume, cover letter and list of three professional recommendations to: Marilyn Simkins, Personnel Manager, Cold Spring Harbor Laboratory, P.O. Box 100, Cold Spring Harbor, New York 11724-2215.

Equal Opportunity Employer M/F



ASSISTANT OR ASSOCIATE PROFESSOR ENVIRONMENTAL/OCCUPATIONAL TOXICOLOGY

UNIVERSITY OF MINNESOTA SCHOOL OF PUBLIC HEALTH DIVISION OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH

A toxicologist is sought for a tenured or tenure-track, 12-month faculty position in a graduate degree program offering MS, MPH, and PhD degrees with a major in environmental health. The Division conducts health-related research in industrial hygiene, air quality, environmental chemistry, epidemiology, injury prevention and safety, microbiology, radiation, occupational health nursing and occupational medicine. Responsibilities include research, teaching, advising, service, and administration as a member of a multidisciplinary faculty. Candidates must have a doctoral degree and ability to interact and collaborate with other environmental health professionals, including physical and biological scientists, epidemiologists, and policy makers. Two years of post-doctoral experience in environmental/occupational toxicology is required for appointment to assistant professor, and five years of post-doctoral experience in environmental/occupational toxicology is required for associate professor. Excellent communication skills are essential and administrative aptitude is important. Salary will be commensurate with qualifications and experience. Starting date is no later than January 1, 1994.

Applicants should send a curriculum vitae, bibliography, names of three references, and a brief statement of interest by April 30, 1993 to:

Dr. Donald E. Barber
Chair, Toxicology Search Committee
Division of Environmental and Occupational Health
Box 807 UMHC
420 Delaware Street S.E.
Minneapolis, MN 55455.
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THE AARON DIAMOND FOUNDATION POSTDOCTORAL RESEARCH FELLOWSHIPS *in the Biomedical and Social Sciences*

In 1993, The Aaron Diamond Foundation will support 25 postdoctoral research fellowships—to encourage excellence in research addressing the problems of AIDS and drug abuse and to increase the number of biomedical and social scientists working in New York City on these problems. The fellowship program is administered by the New York State Health Research Council, aided by a panel of distinguished scientists comprising the Fellowship Selection Committee.

The fellowship application is co-developed by the potential fellow and a mentor at a New York City institution. A list of nearly 200 established scientists interested in serving as mentors is included in the application materials, although applicants may apply with any qualified New York City scientist.

Support is provided for two years; a third fellowship year may be awarded upon subsequent application. The annual stipend is \$36,000 in the first year; the mentor's institution receives \$30,000 per year to cover costs associated with the fellow's research.

Preference is given to: (1) those with doctoral degrees awarded after 1986 (generally MDs must have completed their residency, while applicants with non-medical degrees may initiate the fellowship immediately after graduation); (2) applicants early in their careers, with three or fewer years of postdoctoral research experience; (3) those who are relocating to New York City; and (4) U.S. citizens or permanent residents. Women and members of minority groups are especially encouraged to apply.

APPLICATION DEADLINE: JULY 30, 1993

FURTHER INFORMATION:

Margaret Brown, Ph.D., Program Director
The Aaron Diamond Foundation Postdoctoral Research
Fellowship Program
5 Penn Plaza, Room 308
New York, NY 10001
(212) 613-2525

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ULTIMISSIME NOTIZIE NOTICIA DE ULTIMA HORA

MOLECULAR AND CELLULAR BIOLOGIST IN HIV-1 GENE REGULATION AND ANTIVIRAL AND GENE THERAPY RESEARCH

The Laboratory of Tumor Cell Biology of the Division of Cancer Etiology, National Cancer Institute is accepting applications for a permanent position to conduct research on antiviral therapy. The candidate should have a Ph.D. or M.D. degree and research experience in molecular and cell biology. The position will be at the GS-13 grade level with a salary range of \$46,210 - \$60,070.

The successful candidate will be expected to:

1. Conduct original research in the area of gene therapy and antisense oligonucleotides therapy to AIDS and AIDS-associated malignancies.
2. Serve as Project Officer for extramural contracts and CRADAs to test the effectiveness of the use of genes and antisense oligonucleotides in studying the replication of HIV-1.
3. Provide expert consultation to programs involving molecular biology and gene regulation.

Candidates with the following qualifications will be given preference:

1. Ph.D. or M.D. degree with background of molecular and cell biology of the hematopoietic cells
2. Post-doctoral research experience in HIV-1 gene regulation and in gene therapy.
3. Strong interest in developing research programs utilizing cellular and molecular biology for AIDS therapy.
4. Broad knowledge of HIV-1 gene function and regulation.
5. Ability to communicate effectively both orally and in writing.
6. A record of significant research achievement and relevant publications in scientific journals.

Applicants must be found to be eligible on a Civil Service Register.

If interested, please send a curriculum vitae by February 26, 1993 to:

**Ms. Ethlyn Howard
or Dr. Howard Z. Streicher
National Institutes of Health
Building 37, Room 6A09
9000 Rockville Pike
Bethesda, MD 20892**

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MEETING ANNOUNCEMENT

BASIC AND APPLIED CANCER RESEARCH

April 1 - 3, 1993

São Paulo - Brazil

INTERNATIONAL SYMPOSIUM ON HUMAN PAPILLOMAVIRUS

April 4 - 6, 1993

Cancer Inheritance; Biochemistry of the Transformed Phenotype; Tumor Immunology and Metastases; Etiology, Diagnosis and Epidemiology; Transformation, Immune Responses and Epidemiology of H.P.V.

Speakers:

HU Bernard, W Bodmer, R Brentani, L Brinton, A Burgess, JC Cerottini, R. Chammas, J. Cuzick, JW Dennis, N Dyson, EL Franco, M Fukuda, P Garin-Chesa, G Hart, J. Huibregtse, S Jenison, L Koutsky, I Magrath, J Malejczyk, M Manos, K Munger, N Muñoz, J Pietenpol, M Schiffman, V. Schirmmacher, E Solomon, LL Villa, K Vousden, M Waterfield

Registration and

**Abstract Deadline
March 1st., 1993**

Contact

Dr. Luisa L. Villa or Libeca M. Ward
Instituto Ludwig de Pesquisa sobre o Câncer
r. Prof. Antonio Prudente #109, 4th floor
CEP 01509-010
Phone: (011)270-4922 Fax: (011)270-7001
São Paulo SP - BRAZIL

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Postdoctoral Fellow in Molecular Hematopoiesis

As a postdoctoral fellow with a recent Ph D in Molecular/Cellular Biology, you will be involved in an interactive program studying the molecular regulation of hematopoietic stem cell migration, proliferation and differentiation. ■ You must have experience in cDNA cloning, PCR, and other molecular biology analytical skills. Some cell culture experience and an interest in hematopoiesis is desirable.

At Amgen, we invest our employees with the freedom to manage their affairs, regulate the quality of work, and make decisions within company goals. And we back this freedom with meaningful challenge and responsibility, as well as a compensation and benefits package that reflects the level of our commitment. ■ Submit your resume for confidential consideration to: **Amgen Inc., Staffing, MS 10-1-A-411, Job Code S-505, Amgen Center, Thousand Oaks, CA 91320-1789.** We are an Equal Opportunity Employer M/F/D/V.

POSITIONS OPEN

CHAIR DEPARTMENT OF BIOLOGICAL STRUCTURE

The University of Washington invites applications for Professor and Chair of the Department of Biological Structure. Candidates should be recognized scientific leaders with a vision for advancing programs in experimental and clinical Biological Structure who are committed to basic research, clinical training and graduate education in an academic setting. Applications (which should include curriculum vitae and the names of three references) should be sent to: **Dr. Paul E. Strandjord, Chair, Biological Search Committee, Department of Laboratory Medicine, SB-10, University of Washington, Seattle, WA 98195.**

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

BIOLOGY LAB COORDINATOR/INSTRUCTOR PENN STATE

The Biology Department at Penn State University invites applications for a non-tenure-track full-time position to manage our physiology and anatomy laboratories. Candidates should have an M.S. in the biological sciences, initiative to work independently, exceptional organizational abilities, and knowledge of equipment and material needed to set up and manage anatomy and physiology laboratory classes. Duties will include developing lab exercises in conjunction with faculty, coordinating teaching assistants, and general responsibility for instrumentation and running of laboratories. Send résumé, transcripts, a cover letter detailing the applicant's technical expertise and experience in this area and two letters of reference to: **Dr. Linda Maxson, Head, Department of Biology, Box C, 208 Mueller Laboratory, University Park, PA 16802.** Starting date will be July 1993. Application will be evaluated starting February 15, 1993, and will continue until a suitable candidate is identified.

An Affirmative Action/Equal Opportunity Employer; women and minorities encouraged to apply.

POSTDOCTORAL POSITION. Available immediately, to study *in vitro* signal transduction mechanisms and regulation of collagen/cytokine gene expression and mitogenesis associated with liver cell activation. Experience in molecular biology techniques highly desirable. Send curriculum vitae and names of three references to: **Dr. Bernard H. Davis, University of Chicago, Department of Medicine, 5841 South Maryland Avenue, M/C 4076, Chicago, IL 60637.** Telephone: (312) 702-1467. FAX: (312) 702-2182.

Two **POSTDOCTORAL NIH TRAINING GRANT FELLOWSHIPS**, available immediately. Fellowship 1, focusing on regulation of gene expression in animal models of obesity, requires molecular biology experience. Fellowship 2 focuses on omega-3-fatty acids and lipoprotein metabolism in humans/animal models. *U.S. citizenship/permanent residency required.* Send curriculum vitae, names/telephone numbers of 3 references to: **Dr. B. Horwitz, Animal Physiology, UC Davis, CA 95616.** Telephone: (916) 752-2559, FAX: (916) 752-5582 (Position 1) or **Dr. S. Kasim, Division Clinical Nutrition, UC Davis, CA 95616.** Telephone: (916) 752-6778, FAX: (916) 752-3470 (Position 2).

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POSTDOCTORAL POSITIONS

Postdoctoral positions are currently available in the Department of Microbiology and Immunology at the Pennsylvania State University College of Medicine. The areas of research focus on the structure of the human MHC and the function of the class II genes of the mouse. Interested and qualified Ph.D.'s and M.D.'s who have experience in either molecular biology or immunology research are asked to send curriculum vitae and the names and addresses of three references to: **Dr. Michael J. Chorney, Departments of Microbiology and Immunology and Pediatrics, The Pennsylvania State University College of Medicine, Post Office Box 850, Department 50, Hershey, PA 17033.** The Pennsylvania State University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSITIONS OPEN

Colorado College invites applications for a 1-year **NON-TENURE-TRACK POSITION** in botany and ecology to begin August 1993, with a possible reappointment for a second year. Professional responsibilities include teaching undergraduate classes in introductory botany, ecology and evolution along with directing undergraduate research. Ph.D. required. The college and department encourage women and members of minority groups to participate in science and welcome applications from individuals with an interest in innovative teaching who can address these concerns. Colorado College is a selective, private, undergraduate liberal arts school with an enrollment of 1900 students. It is an equal opportunity employer that does not discriminate on the basis of race, color, age, religion, sex, national origin, sexual orientation or physical handicap in its education programs, activities or employment policies. To apply, send curriculum vitae, official transcripts, a cover letter describing philosophy of teaching, academic experience and research interests, with at least 3 letters of recommendation to: **Richard Storey, Chair, Department of Biology, Colorado College, Colorado Springs, CO 80903;** prior to February 26, 1993.

ADMINISTRATOR for program and committee support in scientific society in Philadelphia. Five years work experience desired. Requires detail-oriented person with excellent writing skills, versatility, and computer literacy. Graduate degree preferred. Science background or association management experience valuable. Send resume, covering letter, desired salary, and writing sample to: **AJ, P.O. Box 54335, Philadelphia, PA 19105.**

1993 M.D.

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- 2.) Assistant Director Clinical—Phase I for unique dosage forms. Ph.D. Salary: \$70,000 to \$90,000 per year.
- 3.) Support protocol design and learn nonmem. Salary: \$45,000 to \$55,000 per year.

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For further information call or send résumé to: **Guy Andrew, CENTRAL CLEARING, INC., 10031 West Roosevelt Road, Westchester, IL 60154.** Telephone: (708); 450-2660; FAX: (708) 450-2676.

FISHERIES ECOLOGIST

The College of William & Mary
Virginia Institute of Marine Science

A tenure-eligible **FACULTY POSITION** is available to manage a major stock assessment program in lower Chesapeake Bay and its tributaries. The program emphasizes the generation of recruitment indices and population modeling of recreationally and commercially valuable finfish and shellfish to aid in fisheries management, habitat evaluation, and ecological investigations. The successful applicant will also be expected to conduct scholarly research in fisheries science, advise graduate students, and interact with state and regional fishery management agencies. There may be opportunities to teach graduate courses.

Applicants must have a Ph.D. in fisheries, marine ecology or a related field; demonstrated knowledge of stock assessment and quantitative ecological methods; field experience with finfish; and, management skills. Postdoctoral experience, particularly with fisheries models, is preferred. Salary is negotiable depending upon qualifications and experience. To be assured of full consideration, applications (accompanied by the names, addresses and phone numbers of three referees) should be sent to: **Dr. Ronald N. Lipcius, Chair, Fisheries Search Committee, Department of Fisheries Science, Virginia Institute of Marine Science, The College of William & Mary, Gloucester Point, VA 23062** by 12 March 1993. *The College of William & Mary is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

MANAGING DIRECTOR of Macromolecular Sequencing/Synthesis Core Facility. Responsible for day-to-day operation of core facility which provides protein sequencing, peptide synthesis, peptide purification, DNA synthesis, and DNA sequencing. M.S. or Ph.D. degree in a scientific discipline plus 3 years of experience in protein sequencing/peptide synthesis required. Experience with operation of core equipment essential. Send or FAX résumé and three letters of reference to: **Dr. Carolyn Hurley, S109 Lombardi Cancer Research Center, Georgetown University School of Medicine, 3800 Reservoir Road NW, Washington, D.C. 20007;** FAX: 202-687-7505.

DIRECTOR OF HIGH FIELD PROTEIN NMR FACILITY

Candidates must have postdoctoral experience in high field NMR studies of proteins to oversee the operation, data accumulation, and data analyses for a high field NMR facility being established in the Department of Biochemistry at Kansas State University (KSU). This is a non-tenure-track position; the facility will operate on a fees-for-service basis. The Agricultural Experiment Station and College of Arts and Sciences are providing a salary for a continuous 9-month academic-year appointment and a summer appointment in the first two years; subsequently, the summer salary will need to be covered by facility fees. Facility equipment: a 500 MHz NMR with 3-channel system and 3D heteronuclear capability, separate work station, molecular graphics computer. It is anticipated that this appointment will begin in August 1993. Candidates should send their résumé, including the names and addresses of three individuals who can supply reference letters, to: **Dr. Thomas E. Roche, Head, Department of Biochemistry, Willard Hall, Kansas State University, Manhattan, KS 66506.** KSU is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION, MOLECULAR RETROVIROLOGY. Available immediately to participate in ongoing research project on simian immunodeficiency virus (SIV) and human immunodeficiency virus (HIV). Current project focuses on a variety of virus-host interactions including molecular mechanisms of virus cell tropism and neuropathogenesis. Applicants should have experience in recombinant DNA technology and/or virology. Interested individuals are encouraged to send a letter of research interest, curriculum vitae, and three references to: **Dr. Toshiaki Kodama, Division of Primate Medicine, Oregon Regional Primate Research Center, 505 NW 185th Avenue, Beaverton, OR 97006.** Telephone: (503) 690-5284; FAX: (503) 690-5563. *The ORPRC is an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR PARASITOLOGIST

A postdoctoral position is available to join a large, multidisciplinary malaria vaccine development program. Projects involve identification, cloning, and expression of candidate pre-erythrocytic stage malaria vaccine antigens, development of a transfection system for *Plasmodium*, and inhibition of gene expression using anti-sense oligonucleotides. Candidates should have a strong background in molecular biology. Contact: **Dr. Stephen L. Hoffman, Malaria Program, Naval Medical Research Institute, 12300 Washington Avenue, Rockville, MD 20852.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITION in Cell and Molecular Biology of Aging. Available July 1, 1993. Project to investigate the molecular basis for changes in proliferation and differentiated function gene expression in human adrenocortical cells over their *in vitro* "life span" and over their life span *in vivo*. Salary negotiable, dependent on experience. Please send curriculum vitae to: **Peter Hornsby, Ph.D., Huffington Center on Aging, Baylor College of Medicine, One Baylor Plaza, M320, Houston, TX 77030-3498.** Telephone: 713-798-7334. E-Mail: phornsby@bcm.tmc.edu. *Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.*

New England Eye Center/Tufts University Medical School. POSTDOCTORAL POSITION. Applications are invited for a postdoctoral position to study Biochemistry of Corneal Wound Healing and Infections. Applicants should have background in molecular biology and/or experience with signal transduction events/protein kinases and phosphatases. Send curriculum vitae and names of three references to: **Dr. N. Panjwani, Department of Ophthalmology, Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111.**

Postdoctoral Opportunities In The Biomedical Sciences.

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

Adipocyte Biology **Constantine Londos, PhD**

Adipocyte metabolism in normal and pathophysiological states is being studied and specific areas of concentration include: cloning, expression, and function of genes and proteins involved in lipid metabolism; hormone signalling; and enzyme trafficking. Background in molecular biology and protein biochemistry is desirable and applicants should have no more than five years of postdoctoral experience. Laboratory of Cellular and Developmental Biology (OE-27), NIDDK, Building 6, Room B1-15.

DNA Replication **Nancy G. Nossal, PhD**

The mechanism of DNA replication is being investigated using a multi-enzyme system of purified bacteriophage T4 proteins. Current studies focus on identifying the enzymatic reactions and the protein-protein and protein-DNA interactions that govern the coordinated synthesis of the leading and lagging strands at a replication fork. Previous experience in biochemistry or molecular biology is required. Laboratory of Molecular and Cellular Biology (OE-27), NIDDK, Building 8, Room 2A19.

Molecular Analysis of Inflammation **Philip M. Murphy, MD**

The molecular mechanisms mediating phagocytic cell activation are being studied. Emphasis is on the molecular biology, signal transduction, and regulation of G protein-coupled receptors (e.g., formyl peptide and interleukin-8 receptors) of human neutrophils and macrophages. Experience in molecular biology, cell biology or receptor biochemistry and less than two years postdoctoral experience is required. Laboratory of Host Defenses (OE-27), NIAID, Building 10, Room 11N113.

Molecular Endocrinology **S. Stoney Simons, Jr., PhD**

The mechanism of action of steroid hormones, especially glucocorticoids, is being studied. Emphasis is on DNA-receptor and steroid-receptor interactions, actions of antigluccorticoids, activation of receptor-steroid complexes, and modulation of steroid regulated gene transcription. A background in the control of gene transcription, protein-protein interactions, or intracellular communication is preferred. Laboratory of Molecular and Cellular Biology (OE-27), NIDDK, Building 8, Room B2A7.

Pharmacology and Molecular Biology **Kenneth A. Jacobson, PhD**

The structure and function of adenosine receptors are being investigated using a variety of novel and selective ligands which have been synthesized by our laboratory. Future studies will utilize mo-

lecular biological techniques combined with molecular modeling to identify receptor domains that are important for ligand binding and G-protein coupling. Applicants must have less than five years postdoctoral experience. Laboratory of Bioorganic Chemistry (OE-27), NIDDK, Building 8A, Room B1A17.

Regulation of Transcription **Deborah M. Hinton, PhD**

Mechanisms for regulating transcription are being studied using bacteriophage T4 genes that are expressed after phage-encoded factors alter the specificity of the host RNA polymerase. Current studies focus on the T4 transcriptional activator MotA and its interaction with specific T4 promoters and phage-modified RNA polymerase. Previous experience with RNA and *in vitro* transcription is preferred. Laboratory of Molecular and Cellular Biology (OE-27), NIDDK, Building 8, Room 2A13.

Signal Transduction **Lee S. Weinstein, MD**

Defects of G protein-coupled signalling pathways in disease states are being investigated using biochemical, cell biological, and molecular biological techniques. Candidates should have a background in molecular biology with no more than five years of postdoctoral experience. Molecular Pathophysiology Branch (OE-27), NIDDK, Building 10, Room 8C101.

Additional Postdoctoral Fellowship Opportunities

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

A catalog describing NIH research opportunities may be accessed via the network-based (Internet) Gopher Information System. Configure your software to point to the Internet address "gopher.nih.gov" and port "70" to access NIH Gopher and then choose *NIH Information* to reveal the *NIH Office of Education* directory. Those interested in receiving information on other postdoctoral opportunities, clinical training opportunities, or accessing Gopher may contact the Office of Education, Building 10, Room 1C129. Phone: 301-496-2427.

To Apply

If you hold a graduate doctoral degree (e.g., PhD, MD/PhD) or a professional degree (e.g., MD, DO, DDS, or DVM) accompanied by previous laboratory research experience and would like to be considered for one of these positions, please send a cover letter, *curriculum vitae*, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



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ASSISTANT/ASSOCIATE PROFESSOR

UNIVERSITY OF MINNESOTA

DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY

BIOMEDICAL ENGINEERING GRADUATE PROGRAM

BIOMEDICAL ENGINEERING CENTER

A faculty position is available, at the rank of assistant professor (tenure track) or associate professor (tenured) depending on qualifications, in the Department of Laboratory Medicine and Pathology. Minimum requirements are Ph.D. in engineering, polymer or materials science or polymer chemistry with a minimum of three years postdoctoral experience in medical device development, tissue engineering or implant retrieval. Knowledge of FDA regulatory procedures, medical device industry and pre-clinical and clinical testing of devices is also required. Candidates for assistant professor must have demonstrated involvement in quality research accepted or published in peer reviewed journals, documentation of teaching experience and skill; those for associate professor must have professional distinction in research and writing and demonstrated effectiveness in teaching and advising. Responsibilities include: Teaching of graduate students, residents and medical students especially as related to medical device development. Participating in medical device development using peptide growth factors developed within the Biomedical Engineering Center as well as new implant retrieval program being initiated. Developing or continuing an independent on-going basis research program in medical device development (ophthalmic, orthopedic, vascular, neural) and participating in technology transfer activities. Applicants should send curriculum vitae, a brief synopsis of recent research and teaching activity plus three letters of reference to:

BMEC Assistant/Associate Professor Search Committee

c/o Marilyn Green, Box 198 UMHC

420 Delaware St. S.E.

Minneapolis, MN 55455

Deadline for receipt of applications is July 1, 1993. Position to begin approximately December 1, 1993. The University of Minnesota is an equal opportunity educator and employer.

Medical

Director, Health Science Policy

The Institute of Medicine of the National Academy of Sciences is seeking a director for its Division of Health Sciences Policy to be responsible for planning and managing the division's program, supporting the Board on Health Sciences Policy, and providing advice to the IOM President and Executive Officer on major policy and operational matters. Duties include program development, fund raising, proposal preparation, recruitment and supervision of staff, and assuring the quality of committee and staff products. Requires a Ph.D., M.D., or equivalent in a biological or health science area and at least seven years experience in health sciences research with some practical experience in program management; experience in policy analysis desired. Also requires excellent written and oral communication skills; report preparation experience; program management skills; ability to evaluate scientific literature, to develop contacts in public and private sectors, and to deal effectively with committees comprised of leaders in the health science field. Please send resume in confidence to: **NAS/IOM, (SB-NAS 326), 2101 Constitution Avenue, N.W., Washington, D.C. 20418.** EOE.

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Neuroscience Product Manager

Fuji Medical Systems USA, Inc., a pioneer in high performance imaging technologies for biological research, has an opportunity for an individual with strong research experience in neurophysiology, cell and molecular biology. Experience in ion channel imaging and use of voltage sensitive dyes is extremely helpful.

Responsibilities will include research on product applications, product enhancement, technical support, organization/direction of seminars and focus groups and production of technical documentation. This individual will be directly involved in market research and business planning.

A Ph.D. with 1-2 yrs postdoctoral research or research equivalent and knowledge of U.S. neuroscience markets is desired. Extensive U.S. travel is required.

Several positions for highly qualified sales people are also available.

Fuji offers an excellent compensation and benefits package. Respond in writing to: Director, Bio-Imaging Group, Fuji Medical Systems USA, Inc. P.O. 120035 Stamford, CT 06902.



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Study Director Undergraduate Science Education

The National Research Council is seeking a Study Director for an Undergraduate Science Education study. Responsibilities include implementing committee initiatives; identifying new committee members; working with the undergraduate science community in various university/college settings; recruiting and directing staff activity; fiscal management; maintaining currency of science education reform efforts at undergraduate institutions; and assuming effective NRC working relationships. Requires Ph.D. or equivalent in physical or biological sciences, at least 7 years relevant experience, knowledge of undergraduate education differences among institutions, undergraduate teaching experience, knowledge of regional and national educational and scientific organizations and familiarity with educational initiatives in federal agencies; writing, organizational and management skills, and ability to deal with diverse audiences. Please submit a resume, salary requirements, and three references to: **NRC/CPSMA (NAS 285-NM), 2101 Constitution Avenue, N.W., Washington, DC 20418.** EOE.

**NATIONAL RESEARCH
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NATIONAL CANCER INSTITUTE
NATIONAL INSTITUTES OF HEALTH
**CELLULAR AND MOLECULAR BIOLOGIST
IN T-LYMPHOTROPIC VIRUSES
AND IN HEMATOPOIETIC STEM CELL BIOLOGY**

The Laboratory of Tumor Cell Biology of the Division of Cancer Etiology, National Cancer Institute is accepting applications for a permanent position for a medical doctor with extensive research experience. The position will be at the GS-13 grade level with a salary range of \$46,210-\$60,070.

The successful candidate will be expected to:

1. Conduct original research in the area of viral etiology of tumorigenesis and human disease with particular emphasis on the role played by human T-lymphotropic viruses, eg. human T-lymphotropic virus type I (HTLV-I) and human herpes viruses 6 and 7 (HHV-6, HHV-7), using techniques of cellular and molecular biology.
2. Serve as principal investigator in hematopoietic stem cell biology, with particular emphasis on transducing human hematopoietic stem cells with constructs developed for gene therapy of AIDS. The candidate will also be expected to develop an independent basic research program regarding proliferation and differentiation of human hematopoietic stem cells.

Candidates with the following qualifications will be given preference:

1. M.D. (M.D., Ph.D. are preferred) with background in hematology, immunology, oncology, cellular biology and molecular biology, whose training was focused on hematopoiesis.
2. Post-doctoral research experience in hematopoiesis, particularly short-term and long-term bone marrow cultures, and in T-lymphotropic viruses, particularly HTLV-I, HHV-6 and HHV-7.
3. Strong interest and experience in developing a research program which utilizes techniques of cellular and molecular biology to impact the areas of the role and of T-lymphotropic viruses in the pathogenesis of human tumors and severe human disease.
4. Broad knowledge of HTLV-I, of human lymphotropic herpesviruses, and of hematopoiesis.
5. Ability to communicate effectively both orally and in writing.
6. Relevant publications in related scientific journals.

Applicants must be found to be eligible on a Civil Service Register.

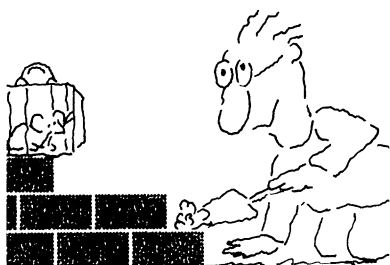
If interested, please send a curriculum vitae by February 26, 1993 to:

Ms. Ethlyn Howard
or Dr. Howard Z. Streicher
National Institutes of Health
Building 37, Room 6A09
9000 Rockville Pike
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DEAN COLLEGE OF DENTISTRY University of Florida

Applications and nominations are invited for the position of Dean of the University of Florida College of Dentistry. The College of Dentistry is one of six professional colleges located in the Health Science Center. The College serves as a statewide resource for dental education and patient care and ranks among national leaders in research. The position offers an exciting and challenging leadership opportunity in a research-oriented university environment, and an opportunity to shape the prominence of the College into the 21st century. The dean will be responsible for administering the educational, research and service program of the College and its components which include the DMD program; postdoctoral programs (graduate, postgraduate and continuing education); the faculty practice program, and community service programs. Qualifications: earned doctorate degree in dentistry (DDS/DMD) or related science, extensive experience in dental education including significant prior experience in administration, clinical practice and research and evidence of scholarly achievements. Salary for this position, which will become available on October 1, 1993, is commensurate with qualifications.

Applications (with CV) or nominations should be sent by May 15, 1993 to:

R.R. Gutekunst, Ph.D.
Chairman, Search Committee
UF Health Science Center
P.O. Box 100185
Gainesville, Florida 32610-0185

The University of Florida is an Equal Opportunity Affirmative Action Employer. The selection process will be conducted under the provisions of Florida's "Government in the Sunshine" and Public Records laws.

Opportunities for Senior Scientists in Multi-disciplinary Research Program

The U.S. Environmental Protection Agency (EPA) is seeking senior (GS-11/14) scientists with expertise in ecological 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.

Contracts management responsibilities constitute approximately 25% of the work in these positions. U.S. citizenship is required.

Positions for exemplary scientists will be located at EMAP's technical center in the Research Triangle Park area of North Carolina. EMAP-Center provides a stimulating research environment with many opportunities for scientists:

- Access to area research universities and science facilities
- Interaction with the national and international scientific community
- Research support that allows senior scientists to remain active in their research fields
- Leadership role in an innovative ecological research, monitoring and assessment program
- Competitive salary

Applications will be accepted through March 18, 1993. Please request applications from:

U.S. Environmental Protection Agency
Human Resources Management Division (MD-29)
Research Triangle Park, NC 27711
Attn: Dorothy Carr - EMAP
(919)541-3014

The U.S. EPA is an Equal Opportunity Employer.

DNAX Research Institute

POSTDOCTORAL FELLOWSHIPS

DNAX Research Institute, located near Stanford University, carries out basic research in Immunology and Molecular Biology in an open, academic environment. We are looking for several individuals to work as Postdoctoral Fellows for a period of 2-3 years, who can contribute to our enthusiastic and productive research program.

Post-doctoral positions are available for research in the following areas:

- ▲ Molecular biology of novel cytokines and their receptors.
- ▲ Analysis of the structural basis and biological consequences of cytokine-cytokine receptor interactions.
- ▲ Characterization of the interleukin-10 receptor.
- ▲ Structure and function of interleukin-13 and interleukin-13 receptor.
- ▲ Biochemical characterization and cloning of proteins involved in cytokine receptor signal transduction.
- ▲ Analysis of RAF and MAP family of protein kinases in intracellular signal transduction.
- ▲ Isolation of regulatory genes controlling the development of hemopoietic stem cells.
- ▲ Regulation of cytokine gene expression in T cells and differential expression of T subset specific genes.
- ▲ Immunohistochemical analysis of cytokine gene expression during development.

Qualified applicants should send a curriculum vitae, statement of research interests, and the names of three references to **DNAX Research Institute of Molecular and Cellular Biology, 901 California Avenue, Palo Alto, CA 94304-1104** An equal opportunity employer, m/f/h.

The Department of Biochemistry at the University of Missouri-Columbia invites applications for tenure track faculty positions at the assistant professor level. Candidates should have an excellent academic background with postdoctoral experience, and will be expected to develop a vigorous research program and to participate in undergraduate and graduate teaching. The University has undertaken the development of a program in protein and nucleic acid structure. Preference for these positions will be given to individuals with experience in X-ray crystallography, NMR spectroscopy or other biophysical methods. The Biochemistry Department has new laboratory facilities to house faculty studying macromolecular structure and can provide excellent start up support with which to initiate competitive research programs. Applicants should send a curriculum vitae, a research plan, and have three letters of reference sent to:

**Department of Biochemistry
117 Schweitzer Hall
University of Missouri
Columbia, MO 65211
Attention: Dr. Milton Feather,
Chair Search Committee**

Applications will be accepted until suitable candidates are identified.

The University of Missouri is an Equal Opportunity/Affirmative Action Employer and specifically invites and encourages applications from qualified women and minorities.

UNIVERSITY OF MASSACHUSETTS Department of Veterinary and Animal Science

Applications are invited to fill the following ASSISTANT/ASSOCIATE PROFESSOR, tenure track positions beginning Fall Semester 1993. Successful candidates will participate in a departmental biotechnology program by establishing a strong research program, funded in part by external grants. Teaching responsibilities include an undergraduate course, a graduate course in the applicant's specialty and participation in a biotechnology laboratory methods course. Candidates must be interested in the application of biotechnology to domestic animals. Postdoctoral experience is preferable but not essential. Salary commensurate with experience and education.

Virologist/Microbiologist—Qualifications: interest in molecular approaches to viral/bacterial pathogenesis in domestic animals. A Ph.D. degree in microbiology or virology with a D.V.M. degree preferable, but not essential.

Gene Expression/Developmental Genetics—Qualifications: a Ph.D. degree and experience in the application of new, advanced molecular biology as applied to gene expression/regulation and/or developmental genetics.

Immunologist—Qualifications: a Ph.D. degree and an interest in immunology as applied to domestic animals. A D.V.M. degree is preferable, but not essential. Applicants should have experience in the application of new, advanced techniques used in molecular biology.

Interested applicants should submit a curriculum vitae, a statement of research interests, transcripts, and the names of four references by March 31, 1993 to: **Dr. Donald L. Black, Head, Veterinary and Animal Sciences, 313 Paige Laboratory, University of Massachusetts, Amherst, MA 01003.** Women and minorities are particularly encouraged to apply. *The University of Massachusetts is an Affirmative Action/Equal Opportunity Employer.*

ATTENTION SCIENCE ADVERTISERS... **\$50 SPECIAL**

Place your classified ad in any January-March 1993 issue of *Science* and get double exposure. We'll display the same position announcement at the **Employment Exchange** during the **AAAS Annual Meeting** for only \$50 more.

When you place your classified ad in *Science*, simply let us know that you want to take advantage of the \$50 Special and we'll do the rest.

The Employment Exchange will take place at the **AAAS Annual Meeting, 11-16 February 1993, at the Hynes Convention Center in Boston, Massachusetts.**

Thousands of scientists in various disciplines have been invited to participate. Act fast and you can reach this unique pool of candidates.

For more information on how you can interview candidates on-site please refer to the 13 November 1992 issue of *Science*, or contact **Jacquelyn Roberts at (202) 326-6737, Fax: (202) 842-1065.**

ROCHE

ROCHE INSTITUTE OF MOLECULAR BIOLOGY

The Roche Institute of Molecular Biology (RIMB) is seeking to recruit outstanding scientists to its faculty. Successful applicants will develop an independent research program that complements and expands current strengths. In particular, scientists investigating the molecular basis of signal transduction in the context of Developmental Biology, Neuroscience and Transcriptional Regulation are invited to apply. Applications from junior investigators are especially encouraged, although more senior appointments can also be made.

The Institute, which was founded by Hoffmann-La Roche Inc. in 1967, offers a unique and well-funded basic research environment. Faculty positions are fully supported for a minimum of 5 years. Institute scientists are not required to apply for research grants. Complete funding is provided for equipment, animal resources and supplies. Competitive salaries and benefits are provided for the investigator, support personnel, and postdoctoral fellows. RIMB faculty also participate in a joint graduate program with the Biology Department of Columbia University. Scientists at RIMB enjoy complete academic freedom and independence in the choice and pursuit of research problems.

Current staff and areas of research interest are:

Albert, Vivian, Ph.D. Analysis of cell-specific neuronal gene expression using catecholamine neurons as a model.
Brot, Nathan, Ph.D. Regulation of gene expression; ribosomal proteins in systemic lupus erythematosus; heat shock proteins.
Connor, John A., Ph.D. High resolution imaging of fluorescent indicators to examine 2nd messenger actions in neurons.
Curran, Tom, Ph.D. Regulation of gene expression by Fos and Jun in normal and transformed cells.
Dalton, Stephen, Ph.D. Yeast cell cycle transcription, analysis of protein-protein interactions in cell cycle control.
DePamphilis, Melvin L., Ph.D. Replication of viral and cellular chromosomes in embryonic and differentiated vertebrate cells.
Ennis, Herbert L., Ph.D. Transcriptional regulation of developmentally important genes in *Dictyostelium discoideum*.
Gridley, Thomas, Ph.D. Molecular and genetic analysis of post implantation mouse development.
Howard, Kenneth R., Ph.D. Genetics and cell biology of germ cells in *Drosophila*.
Margolis, Frank, Ph.D. Molecular analysis of olfactory neuron gene expression; chemoreception, neuroplasticity and neurogenesis.
Margolske, Robert, M.D., Ph.D. Molecular biology and biochemistry of sensory transduction in vertebrate taste.

Morgan, James I., Ph.D. Molecular biology of neurodevelopment. Cellular immediate-early genes and signal transduction.
Nelson, Nathan, Ph.D. Structure, function, biogenesis and assembly of protein complexes in biological membranes.
Nuss, Donald L., Ph.D. Signal transduction in the context of viral and fungal pathogenesis.
Ofengand, E. James, Ph.D. Structure and function of the ribosome; mutagenesis and post-transcriptional modification.
Reeves, John, Ph.D. Mechanisms of Ca(2+) transport in cardiac cell membranes.
Rushlow, Christine, Ph.D. Molecular mechanisms underlying early development in *Drosophila*.
Sato, Thomas N., Ph.D. Molecular characterization of factors that modulate endothelial cell development and function in CNS.
Stewart, Colin L., Ph.D. Control of growth and differentiation during mouse development and in embryonic stem cells.
Udenfriend, Sidney, Ph.D. Molecular biology of membrane proteins.
Wasserman, Paul, Ph.D. Cellular and molecular mechanisms during early mammalian development.
Weissbach, Herbert, Ph.D. Regulation of gene expression; heat shock proteins.
Woychik, Nancy, Ph.D. Genetic and biochemical analysis of RNA polymerase II subunits.

RIMB is located within 10 miles of Manhattan in suburban New Jersey. Candidates should submit a curriculum vitae, three letters of reference, and a brief outline of future research directions to the Head of the Search Committee, Dr. Tom Curran, Roche Institute of Molecular Biology, Nutley, NJ 07110-1199. We are an equal opportunity employer.

ROCHE

Hoffmann-La Roche

National Institutes of Health



Senior Postdoctoral Fellow (Molecular and Cell Biologist)

The Laboratory of Developmental Biology, National Institute of Dental Research seeks an outstanding candidate with graduate education in molecular biology for a senior postdoctoral fellowship position. Applicants should have at least 4-5 years postdoctoral training and experience in molecular and cell biology of extracellular matrix, and will join a long-term project determining the mechanism of action of fibronectin in cell adhesion using molecular biology approaches. The applicant should be expert in site-directed mutagenesis and bacterial expression systems, as well as other recombinant DNA techniques such as cDNA cloning, PCR techniques, and construction of mutant and chimeric molecules. Expertise is also needed in the following areas: purification and assay of extracellular matrix molecules; immunological techniques including monoclonal antibody production, antibody affinity chromatography, and ELISA; protein and peptide purification using HPLC and FPLC; cell culture, preferably including cell adhesion assays; and experience in computer programming preferably using UNIX for the analysis of molecular biology and biophysical data. A substantial record of publications of original work in these areas is required. Additional expertise in cell surface receptor biology or genetics would be preferred. Starting salary will be \$36,500-\$40,500 commensurate with qualifications and experience. Interested candidates should submit a curriculum vitae, several reprints, summary of research interests, and names of three references no later than March 12, 1993 to:

Faye M. Harbrant
Personnel Management Specialist
National Institute of Dental Research
National Institutes of Health
Building 31, Room 2C23
9000 Rockville Pike
Bethesda, Maryland 20892

NIH is an Equal Opportunity Employer

CONSIGLIO NAZIONALE DELLE RICERCHE Special Project

Advanced research for Innovations in the Agricultural System

RAISA

RESEARCH FELLOWSHIPS IN AGRICULTURAL SCIENCES

RAISA, a five year broad spectrum research project by the National Research Council of Italy, re-affirming the scientific interest of the former Scheme, has the pleasure to offer senior scientist from abroad the opportunity to work, for a period of 3 - 11 months, in any Italian Institution affiliated to the project.

RAISA activities are carried out by some hundred research teams, structured into four Subprojects:

- SP1 agricultural systems and environment;
- SP2 biotechnologies in crop production;
- SP3 biotechnologies in livestock production;
- SP4 biotechnologies in agricultural produce and by-product processing.

The main goal is to acquire the basic knowledge to foster the evolution of the Integrated Agricultural System toward a more equitable farmers' income, more sustainable exploitation of resources, better fulfillment of consumers' preference and nutritional demand.

A list of research trusts and teams is available upon request.

The gross salary is from Lit. 2,500,000 per month, according to the qualification, plus economy return ticket from home Institution to Italy.

Applicants should present a research proposal of about 3 pages, with their application, CV, and a letter of acceptance from a RAISA host team, to: C.N.R. P.F. RAISA, Fellowship Program, Via Tiburtina 770, I 00159 Rome, Italy. Facsimile (+39 6) 4075883.

Deadline for receipt of applications is March 20th, and successful candidates will be notified in April; they are expected to start their research in Italy within 1993.

POSITIONS OPEN

POSTDOCTORAL RESEARCH POSITION MEMBRANE SYNTHESIS DURING THE CELL CYCLE

A position is available to study the mechanisms of membrane biogenesis in a macrophage cell line. The ongoing research is focused on the biochemical signals that stimulate the genetic expression of phosphocholine cytidyltransferase, the enzyme which regulates membrane phosphatidylcholine synthesis, and cell cycle control of the posttranslational modification of cytidyltransferase activity. Techniques routinely used include tissue culture, Northern, Southern and Western blots, DNA sequencing, library screening, protein expression using baculovirus vectors, PCR-mediated mutagenesis, metabolic labelling, enzymology, and immunoprecipitation. Interested candidates with a recent Ph.D. degree should send curriculum vitae to: **Dr. Suzanne Jackowski, Biochemistry Department, St. Jude Children's Research Hospital, 322 North Lauderdale, Memphis, TN 38101. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE position available immediately for self-motivated Ph.D./M.D. to study neuropeptide receptors and second messengers, and to investigate the efficacy of our synthetic peptide analogs on various *in vitro* models on an NIH-funded project. Experience in radioreceptor assay, second messengers and/or cell culture is desirable. Initial one-year appointment can be renewed for three more years. Salary commensurate with experience. Send curriculum vitae, and addresses and telephone numbers of three references by March 1, 1993 to: **A. Balasubramaniam, Ph.D., Department of Surgery, University of Cincinnati Medical Center, Cincinnati, OH 45267-0558.**

ASSISTANT PROFESSOR, Molecular or Structural Biology, Center for Pharmaceutical Biotechnology (search extended). Applications invited for tenure-track position, available September 1993. Interest related to protein or genetic engineering or pharmaceutical biotechnology product formulation preferred; related areas considered. Ph.D. and postdoctoral experience required. Responsibilities include developing a strong externally funded research program, and teaching in the graduate and professional programs. The Center provides an interdisciplinary environment with strong collaborative potential and excellent facilities. Curriculum vitae, research interest statement, and three letters of reference should be forwarded by 5 March 1993 to: **Dr. Michael E. Johnson, Interim Director, Center for Pharmaceutical Biotechnology (m/c 874), University of Illinois at Chicago, P.O. Box 6998, Chicago, IL 60680-6998. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION In Ecological Modeling. Incumbent will assist team of researchers from the U.S. Forest Service, the U.S. EPA and Oregon State University in modeling the ecological effects of global climate change. Must have excellent computer coding skills in Fortran (C desirable) with demonstrated expertise in ecological modeling. The research will involve linking a process-based biogeography model with various ecosystem productivity and nutrient cycling models for prediction of vegetation change at landscape to continental scales. Pending funding, position will be available April 1, 1993 for up to 3 years. Annual salary approximately \$30,000. Send curriculum vitae, a research interest statement and three letters of reference by February 25, 1993 to: **Beth Kemp, Program Coordinator, Global Environmental Protection Program, USDA Forest Service, Forestry Sciences Laboratory, 3200 Jefferson Way, Corvallis, OR 97331.** For further information call 503-750-7429.

POSTDOCTORAL POSITION: M.D./Ph.D. with expertise in molecular biology and experience in receptor structure-function studies needed to conduct basic research in development of neointimal hyperplasia. Training in homologous recombination and antisense/gene transfer technology desirable but not required. Position available immediately with competitive salary. Send curriculum vitae to: **E. L. Chaikof, M.D., Ph.D., Department of Surgery, Box M-11 Emory University Hospital, 1364 Clifton Road, N.E., Atlanta, GA 30322. Emory University is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

MOLECULAR VIROLOGY AND ONCOLOGY

POSTDOCTORAL POSITIONS available to investigate the role of **Topoisomerases** in integration and replication of Hepatitis B viruses and to study the **molecular genetics of hepatocellular carcinoma** in hepadnavirus carriers. Applicants should have Ph.D. with training in Molecular Biology and/or Virology. Albert Einstein College of Medicine is located in a quiet, residential neighborhood of the North Bronx with easy access to Manhattan or suburban Westchester County. Send curriculum vitae and names of three references to: **Dr. Charles E. Rogler, Department of Medicine, Marion Bessin Liver Research Center, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION is available immediately to study the structure and function of P-type ATPase's. The project involves site-directed mutagenesis, chimeric fusions, and saturation mutagenesis in order to characterize the molecular mechanism of the SR Ca^{2+} -ATPase and a newly discovered prokaryotic Ca^{2+} -ATPase (Gambel, A.M., Desrosiers, M., and Menick, D.R. *J. Biol. Chem.* 267:15923-15931, 1992). Background in protein chemistry and/or molecular biology preferred.

Please send curriculum vitae and names of three references to: **Dr. Donald R. Menick, Division of Cardiology, Department of Medicine, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425. Equal Opportunity Employer/M/F/V/D.**

POSTDOCTORAL CHEMIST to conduct multidisciplinary research in the development of new radiopharmaceuticals for PET and SPECT imaging. Job requires a Ph.D. degree in organic or medicinal chemistry, strong background in synthesis; working knowledge of pharmacology and experience in radioisotope handling helpful but not necessary. Excellent opportunity for chemists to apply synthetic techniques to the *in vivo* diagnostic imaging field. Please send résumé and curriculum vitae to: **Dr. Hank F. Kung, Department of Radiology and Pharmacology, University of Pennsylvania, Room 305, 3700 Market Street, Philadelphia, PA 19104.**

POSTDOCTORAL FELLOW

A position is available immediately to study steroid metabolism and to isolate and characterize related enzymes. Knowledge of instrumental analysis and organic synthesis is desirable. An M.D., Ph.D. or equivalent degree is required. Please send curriculum vitae and the names and addresses of three references to: **Dr. Carl Monder, The Population Council, Center for Biomedical Research, 1230 York Avenue, New York, NY 10021.**

POSTDOCTORAL FELLOW: NIH-supported training opportunities with an interdepartmental, multidisciplinary orientation. Research areas include glycoprotein synthesis and role in implantation, cell-cell interactions in androgen-regulated gene expression, steroid hormones and carcinogenesis, neuroendocrine control of gonadal function, protein transitions in spermatogenesis and reproductive toxicology, control of placental blood flow and fetal cardiac output, mechanisms controlling gene activity and Ca^{2+} in testis and uterus, cell interactions during fertilization and early development, Sertoli cell function and regulation of testicular functions, control of corpus luteum function, role of growth factors and oncogenes in growth and differentiation, genetics of gonadal gene expression. U.S. citizen or permanent resident. Contact: **Dr. B. Sanborn, Department of Biochemistry and Molecular Biology, University of Texas Medical School, Houston, P.O. Box 20708, Houston, TX 77225. The University of Texas is an Equal Opportunity Employer. Women and minorities are encouraged to apply.**

RESEARCH ASSOCIATE: To study the programming of activation and cell death in thymocytes by genetic approaches. A highly motivated, self-starting person is sought for a funded postdoctoral position. Must have a current background in modern molecular biology and mammalian cell culture, with significant hands-on experience; a background in immunology is desirable. Address résumé and references to: **Dr. Mark Boothby, Department of Microbiology/Immunology, Vanderbilt University, Nashville, TN 37232-2363; (FAX: 615-343-7392).**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS

Multidisciplinary research program addressing role of actin and actin-related proteins in cell and organ function. Projects available employing cell biological, biochemical, or molecular genetic (including transgenic) technology. Inquire: **Division of Experimental Medicine, Brigham and Women's Hospital (affiliate of Harvard Medical School), 221 Longwood Avenue, Boston, MA 02115. Candidates must be U.S. citizens or permanent residents. Minority candidates encouraged to apply. Brigham and Women's Hospital is an Equal Opportunity/Affirmative Action employer.**

POSTDOCTORAL FELLOWSHIPS in Molecular Neuroimmunology and Neuroimmunomodulation at the University of Alabama at Birmingham (UAB) are available July 1, 1993, supported by an NIH Training Grant for basic scientists or clinicians to conduct research on the molecular basis of neuroimmunology, neuroimmunomodulation and the bidirectional communication between the nervous and immune systems. Applicants must be U.S. citizens or permanent residents of the U.S. Preceptors and areas of interest are as follows: S.R. Barnum, Ph.D. (production and regulation of complement components); E.N. Benveniste, Ph.D. (cytokines and glia); J.E. Blalock, Ph.D. (neuroimmunomodulation: lymphocyte derived hormones); E.J. Dropcho, M.D. (paraneoplastic neurological disorders); M.L. Egan, Ph.D. (immunoregulation and natural killer cells); G.Y. Gillespie, Ph.D. (immune response to glial tumors); R.D. LeBoeuf, Ph.D. (molecular biology of the immune network); J.D. Neill, Ph.D. (neuro-endocrinology); D.A. Weigent, Ph.D. (growth hormone and the immune system); and J.N. Whitaker, M.D. (immunochemistry and degradation of myelin basic protein). Interested applicants should submit a letter stating their specific interests, curriculum vitae and names of three references by April 2, 1993 to: **John N. Whitaker, M.D., Department of Neurology, University of Alabama at Birmingham, Birmingham, AL 35294 (Telephone: 205/934-2402). UAB is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP available immediately for a molecular biologist to study the role of neural crest in heart development. The Fellow will join a multidisciplinary group studying several aspects of chick cardiogenesis. Please send curriculum vitae and the names of three references to: **Margaret L. Kirby, Ph.D., Heart Development Group, Department of Cellular Biology and Anatomy, Medical College of Georgia, Augusta, GA 30912-2000, FAX: 706/721-6839. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL ASSOCIATE

Position available immediately in the laboratory of Dr. Joseph Testa for project involving karyotypic analysis of human tumor cell lines, gene mapping by FISH and microdissection of chromosome bands. Interested candidates please send curriculum vitae and names of three references to: **Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE POSITION is available immediately to study cell cycle regulation of mammalian DNA topoisomerase II or alterations in topo II associated with resistance to drugs. Training and experience in molecular biology and recombinant DNA techniques will be favored. Position is available for up to three years with competitive salary and benefits. Submit curriculum vitae and names of three references to: **D. Parker Suttle, Department of Biochemical and Clinical Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101. An Equal Opportunity/Affirmative Action Employer.**

PATHOLOGY SCIENTIST

Doctoral (PHD) position in pathology available immediately to join a six member pathology group in southern Puerto Rico. Spanish a must. Position includes involvement in laboratory duties, research and teaching medical students and residents. Experience not necessary. Send curriculum vitae and three references to: **Pathology Scientist, P.O. Box 10729, Ponce, PR 00732.**

THE CHINESE UNIVERSITY OF HONG KONG

Faculty of Medicine

Applications are invited for the following teaching position in the Department of Anatomy, tenable from mid-August 1993:

Senior Lecturer/Lecturer in Anatomy

Applicants should possess a relevant higher degree, preferably a Ph.D., or its equivalent, or a medical qualification, preferably registrable with the Hong Kong Medical Council. Teaching experience in one or more of the following topics will be an advantage: histology, embryology, neuroanatomy and topographical anatomy. The Department of Anatomy is currently active in research programmes involving tissue culture techniques, immunocytochemistry, and transmission and scanning electron microscopy.

Annual Salary and Fringe Benefits

Senior Lecturer: HK\$534,000 - 717,360 by 8 increments
Lecturer: HK\$343,680 - 389,880 by 2 increments BAR
HK\$413,040 - 574,140 by 7 increments

(approx. exchange rate: US\$1 = HK\$7.8; £1 = HK\$12)

Starting salary and grade will be commensurate with qualifications and experience.

The University offers a competitive remuneration package. Superannuable appointment benefits include leave with full pay, medical and dental care, education allowances for children, and where appropriate housing benefit (with appointee contributing 7.5% of salary towards such provision) and leave passage benefit for eligible appointees and dependents. Appointment may also be made on fixed term contract carrying equivalent benefits including where applicable a contract-end gratuity (15% of basic salary). The University may also consider more flexible terms for suitable candidates subject to mutual agreement.

Application Procedure

Send full resume on duplicate, with copies of academic credentials (in duplicate) and recent publications, and arrange to have at least three letters of reference sent directly to the Personnel Office, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong (Fax: 852)603 5026) before February 20, 1993. Quote reference number 121/509/2/92 and mark "Recruitment" on cover.

"MINORITIES IN SCIENCE...

A SEARCH FOR SOLUTIONS"

SCIENCE 10 November Reprint

In a first-time cover story, the 10 November issue of **SCIENCE** explores the complex problems and obstacles facing minorities as they work and compete in the scientific community.

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LIMNOLOGIST UNIVERSITY OF MINNESOTA MPLS/ST. PAUL

The Gray Freshwater Biological Institute (GFBI) invites applications for a tenure track position in limnology at the assistant or associate professor level for Fall 1993.

The successful applicant must have a Ph.D. at the time of appointment with research interests in limnology, aquatic biogeochemistry, aquatic microbiology, or aquatic chemistry. Postdoctoral experience is desirable. The candidate will be expected to develop an active, well-funded field and laboratory research program in collaboration with existing and new aquatic science programs, and contribute to teaching in the limnological curriculum at the undergraduate and graduate level.

The GFBI, part of the College of Biological Sciences, is located 23 miles west of the Minneapolis campus on scenic Lake Minnetonka, and houses expansive and modern research laboratories. The mission of the GFBI is to perform basic and applied research in aquatic sciences with an emphasis on biological-chemical interactions.

Applicants should submit a resume, a brief statement of research interests, and names of three references (addresses, telephone, and fax numbers) to Professor S. J. Eisenreich, Search Committee Chair, Gray Freshwater Biological Institute, University of Minnesota, Box 100, Navarre, MN 55392 (612-471-8476; Fax 612-471-9070). Deadline for receipt of applications is March 15, 1993.

The University of Minnesota is an Affirmative Action/Equal Opportunity employer.

UNIVERSITY OF MINNESOTA

CHAIR DEPARTMENT OF CELL BIOLOGY AND PHYSIOLOGY UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE

Nominations and applications are requested for this newly created faculty position in the School of Medicine. The ideal candidate will be engaged in an active laboratory research program in cell biology, physiology, or biophysics and will have the requisite academic background to ensure vigorous departmental growth. This twelve-month tenured professor position will have a salary commensurate with the experience of the individual and can be occupied as soon as possible. To ensure full consideration, we should receive applications by March 1, 1993, although late applications will be evaluated until a successful candidate has been identified (anticipated starting date September 1, 1993).

Interested candidates should submit a letter of intent and their curricula vitae to: Search Committee, c/o Carol Larson-Edwards, Department of Pharmacology, University of Pittsburgh School of Medicine, E1340 Biomedical Science Tower, Pittsburgh, PA 15261.

Women and minorities are encouraged to apply. The University of Pittsburgh is an equal opportunity/affirmative action employer.

CONSERVATION BIOLOGIST

The Department of Biology at the University of Northern Iowa invites applications from individuals with the Ph.D. degree for a tenure-track assistant professor position in conservation biology. Possible areas of interest include species diversity, conservation genetics, rare and endangered species, species recovery, bioremediation, habitat analysis and preservation, or others. The applicant will teach conservation, an advanced course in his/her specialty, and participate in the general biology or general education program. The person selected will develop a research program designed to attract participation of graduate (M.A.) and undergraduate (B.A. and B.S.) students. Teaching experience and/or post-doctoral research is preferred. Applicants should submit a curriculum vitae, transcripts, statement of interests and goals in both teaching and research, relevant reprints, and three letters of recommendation. The department encouraged applications from women, minority persons, Vietnam era veterans and disabled persons. For full consideration, all application materials should be postmarked no later than March 5, 1993. Send a detailed letter of application to:

Dr. George R. Hoffman
Professor and Chair Search Committee
Department of Biology
University of Northern Iowa
Cedar Falls, IA 50614-0421
(Fax No.: 319-273-2893)

THE UNIVERSITY OF NORTHERN IOWA IS AN EQUAL OPPORTUNITY EDUCATOR AND EMPLOYER WITH A COMPREHENSIVE PLAN FOR AFFIRMATIVE ACTION.

POSITIONS OPEN

MOLECULAR BIOLOGIST

The Department of Biology of City College of the City University of New York seeks to fill a **TENURE-TRACK POSITION** for a molecular biologist with interests in gene regulation that include, but are not necessarily limited to, control of oncogenes, signal transduction, DNA repair or cell-cell interactions. New core facilities including an automated DNA sequencer and a fluorescence activated cell sorter are available. The candidate will join an NIH-sponsored research center in cell and molecular biology involving 25 faculty from several departments. A successful candidate will be expected to participate in teaching at both the undergraduate and graduate (M.A. and Ph.D.) levels, as well as mount a strong externally funded research program, which would include undergraduate and graduate students. Competitive start-up funds are available. Rank and salary are open and depend upon experience and qualifications. Please send detailed curriculum vitae, including research plans and the names, addresses and telephone numbers of four references by March 8, 1993 to: **Dr. Sharon D. Cosloy, Chair of Search Committee, Department of Biology, City College of New York, Convent Avenue and 138th Street, New York, NY 10031. An Affirmative Action/Equal Opportunity Employer, M/F.**

PROGRAM ANALYST

The Howard Hughes Medical Institute (HHMI) supports scientific research in laboratories affiliated with leading academic medical centers throughout the United States. We currently have a position available for a Program Analyst in the grants department at our Chevy Chase headquarters.

Candidates will work with the Program Officer in the administration of Predoctoral Fellowships in the Biological Sciences program. Responsibilities include assisting in the development and implementation of fellowship program policies; publicizing fellowships; preparations for annual application, review, and award cycles; organization of an annual meeting of fellows; and development of follow-up surveys. Additional fellowship program duties include review of annual progress reports, preparation of reports summarizing the fellowship programs, background research relevant to fellowship program activities and serving as a liaison with the National Research Council.

Qualifications include a Master's degree in biological sciences, with training in cell or molecular biology, or equivalent. Strong organizational and communication skills are required. Laboratory research experience and knowledge of the university research environment is a plus. Strong computer skills and at least two years work experience, is desirable.

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VERTEBRATE BIOLOGIST

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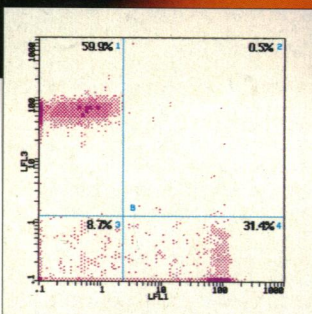
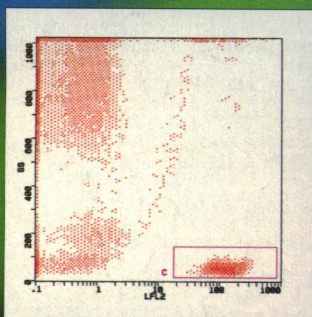
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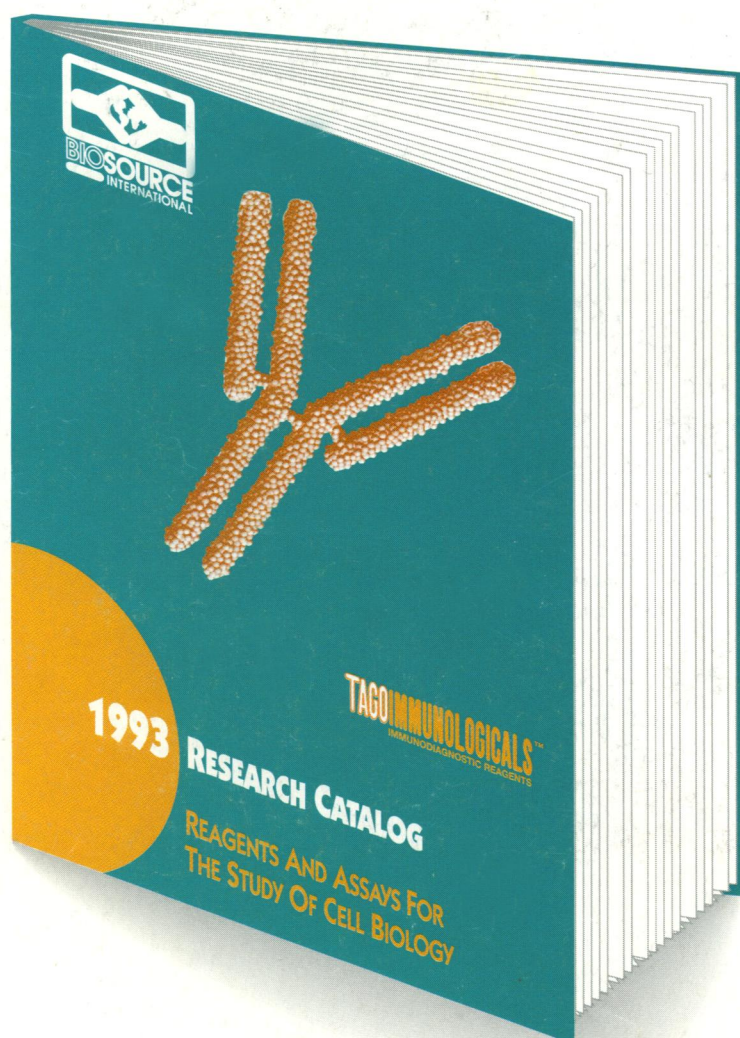
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