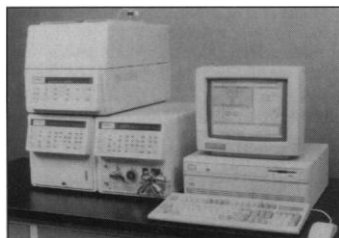


Inert Pump for Liquid Chromatography

The Inert 9010, which uses only titanium and polymer materials in the flow path, is a gradient high-performance liquid chromatogra-



phy pump that helps eliminate the loss of biological sample activity due to metal ions contaminating the solvent. Up to five methods can be built and stored in the stand-alone pump. The methods can be activated by a single key stroke. The pump's unique mechanical inlet valve and high-pressure mixing eliminate pump cavitation due to dissolved solvent gases. Neither vacuum degassing nor helium sparging is required for routine operation. Varian Associates. Circle 90.

Graphing Software Upgrade

SigmaPlot 5.0 is a three-dimensional (3-D) version of its popular graphing software. SigmaPlot includes a full range of scientific features such as automatic error bars, huge data-set handling, nonlinear curve fitting, axis breaks, multiple axes, regression lines, confidence intervals, quality control lines, and more. With Version 5.0 users can create mesh and scatter plots in 3-D. Graphs can be rotated interactively using a unique sparse matrix representation method that allows the user to see the graph as it is adjusted. Other 3-D options include hidden line removal, filled or unfilled polygons, frame lines, backplanes with color and grids, and drop lines for scatter plots. Three-dimensional graphs can be resized, edited, moved, and rescaled interactively by simply pointing and clicking

with the mouse or keyboard. The program requires an IBM-compatible computer, DOS 2.0 or higher, hard disk with 3 megabytes free, 535K conventional memory or 510K with extended memory, and a graphics adapter. Jandel Scientific. Circle 91.

Photodiode Array Detector

The Waters 996 Photodiode Array Detector provides the analyst with compound confirmation and peak identification. Its proprietary Threshold Contrast feature eliminates the corrupting effects of detector noise and separates the compound spectra from the base line, so users can distinguish between pure compounds and impurities. Other features include automatic review of the spectrum sample compounds, reporting of similarities and differences to ensure peak purity, isolation of any specified peak within a three-dimensional cube, and more. It is the first instrument compatible with the Millennium 2010 Chromatography Manager, which can handle data calculations and store thousands of samples. Waters Chromatography Division of Millipore. Circle 92.

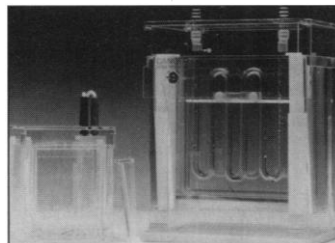
Nonisotopic Immunoassays

BIOTRAK is an expanded line of nonisotopic immunoassays for the measurement of cytokines, eicosanoids, and cyclic nucleotides. The assays make use of pre-coated, break-apart microtiter plates with 12 eight-well strips, plus color-coded reagents to ease pipetting and reduce errors. Assays for eicosanoids and cyclic nucleotides include: thromboxane β_2 , 6-keto-prostaglandin α , leukotriene β_4 , leukotriene c4/d4/e4,

cAMP, and cGMP. Twelve cytokine assays are offered: interleukin-1 α , interleukin-1 β , interleukin-2, interleukin-3, interleukin-4, interleukin-6, interleukin-7, interleukin-8, TNF α , TNF β , G-CSF, and GM-CSF. Amersham. Circle 93.

Large Vertical Gel Box

The Maxi 2-Gel device is a large format vertical gel box for running either one or two gels (13.5 cm by 15 cm by 1.5 mm) without clamps or screws. The wedge design makes cassette loading quick, easy, and leak-free. Sample wells are clearly visible for convenient, accurate loading, and an internal cooling system ensures smile-free results. Integrated Separation Systems. Circle 94.



One-Bottle Chromogens

One-bottle chromogens for protein immunoblots or enzyme-linked immunosorbent assays are available for either horseradish peroxidase (HRP) or alkaline phosphatase (AP) reactions. Both are stable at 4°C for more than a year. When used in protein immunoblots, the bands will not fade when dried, ensuring a permanent record of experiments. The HRP chromogen sensitivity is ten times greater than 4-chloro-1-naphthol-based reactions, according to the manufacturer. Both HRP and AP

chromogens are available in a spray-on format for protein immunoblots. Harlan Bioproducts for Science. Circle 95.

Mass Spectral Analysis Service

Multiple Peptide Systems now offers a mass spectral analysis service for peptides synthesized by researchers. The company uses a BIOION 20 Time-of-Flight Mass Analyzer to verify the exact molecular weight, including an extremely high mass range. Turn-around time is 48 hours. Multiple Peptide Systems. Circle 96.

Literature

UltraTechniques is a 60-page collection of protocols and rotor-matching information for NALGENE UltraPlus centrifuge ware. The "how-to" guide covers 25 common centrifuge techniques in uses involving nucleic acids, lipoproteins, glycoproteins, viruses, and subcellular organelles. Uses are cross-referenced by rotor type: vertical, fixed-angle, or swinging-bucket. Nalge Co. Circle 97.

EnviroGuide is a comprehensive catalog of the material needed for environmental testing via the official Environmental Protection Agency methods. The guide shows, test by test, the standards, reagents, equipment, accessories, and supplies required. Fisher Scientific. Circle 98.

Castaloy is a catalog covering nearly 100 clamps and supports for holding everything from fragile capillary tubes in biotechnology and medical research to large-scale cylinders and flasks in chemical and pharmaceutical facilities. Fisher Scientific. Circle 99.

ABT is a catalog of recombinant proteins, monoclonal antibodies, polyclonal antibodies, capture enzyme-linked immunosorbent assay kits, and peptides, including many new cytokine-related products. American Bio-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.

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POSITIONS OPEN

ASSISTANT PROFESSOR TENURE-TRACK MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) DEPARTMENT OF CHEMISTRY

The Department of Chemistry invites applications for a tenure-track position in organic chemistry. While the preferred level of appointment is at the rank of Assistant Professor, applications for appointment at more senior levels are also welcome. Outstanding individuals with a strong commitment to research and teaching are encouraged to apply by arranging to have curriculum vitae, a brief description of research plans, and three letters of recommendation sent to: **Professor Robert J. Silbey, Department of Chemistry, 18-399, Massachusetts Institute of Technology, Cambridge, MA 02139-4307** by 15 October 1992.

MIT is an Equal Opportunity/Affirmative Action Employer and encourages applications from minorities and women.

The Division of Endocrinology and Metabolism at the UNIVERSITY OF CALIFORNIA, IRVINE (UCI), invites applications and nominations for a tenure-track **FACULTY POSITION** at the **ASSISTANT PROFESSOR** level. Candidates should have expertise in molecular and cellular approaches to study aspects related to the endocrine system. Applicants must have an M.D. or M.D./Ph.D. degree, and have a strong record of research accomplishments, with the potential to develop an independent research program. The Division is committed to excellence in endocrinology while providing a fertile environment for interactive research at UCI and affiliated institutions.

Interested applicants should send their curriculum vitae, a statement of research interest, and names and addresses of at least three references to: **Dr. Murray Korc, Chief, Division of Endocrinology and Metabolism, Department of Medicine, UCI Medical Center, P.O. Box 14091, Orange, CA 92613-1491.** UCI is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSISTANT PROFESSOR

Candidates are sought for an assistant professor of pharmacology (non-tenure research appointment) to supervise a research team investigating the role of protein phosphorylation and turnover in carcinogenesis. Responsibilities will include research protocol development and implementation and supervision of personnel. No teaching or departmental administrative responsibilities are involved. Successful candidates will have experience with cell culture, protein purification, HPLC, and elicitation and technical applications of antibodies. Familiarity with the application of molecular biology techniques to study protein function in situ is also preferred. Applicants must have a Ph.D., appropriate postdoctoral training, and a publication record demonstrating their productivity and expertise. Applicants should send curriculum vitae, names of three individuals who may be contacted for references, and a summary (not to exceed three pages) of their research accomplishments to: **Mari K. Haddox, Ph.D., Department of Pharmacology, The 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.

STAFF POSITIONS IN IMMUNOLOGY SUPPORTED BY THE LUCILLE P. MARKEY CHARITABLE TRUST

A tenure-track position at the **ASSISTANT PROFESSOR** level is available in the Division of Immunology of the Department of Pathology at New York University School of Medicine (NYU).

We are most interested in an applicant with a research program in antigen processing, T cell functions, and tolerance mechanisms. However, we will consider an outstanding applicant in other areas of immunology. The position provides a 5-year support package, which includes the salaries of the investigator and a postdoctoral fellow, as well as funds for equipment and supplies.

Applicants should send curriculum vitae, a short statement of research interests, and names of three references to: **Victor Nussenzweig, Division of Immunology, Department of Pathology, NYU Medical Center, 550 First Avenue, New York, NY 10016.**

POSITIONS OPEN

TRUDEAU INSTITUTE, INC. BASIC RESEARCH SCIENTISTS INFECTIOUS DISEASES IMMUNOLOGIST

A vacancy exists at the **ASSISTANT PROFESSOR LEVEL** for an immunologist interested in employing modern immunological techniques to analyze immunity to infections with microbial pathogens. The successful applicant will be supplied the resources to develop his/her independent research program within the overall infectious disease program of the Trudeau Institute. Persons interested in developing models of immunity to intracellular pathogens are encouraged to apply. The Trudeau Institute is a not-for-profit, basic research institute. Salaries and benefits are competitive, and working conditions are conducive to a productive research career. Applications consisting of curriculum vitae, the names and addresses of three references, and a brief description of research interests, should be addressed to:

**Dr. Robert J. North, Director
Trudeau Institute, Inc.
P.O. Box 59
Saranac Lake, NY 12983**

The Minnesota Dental Research Center for Biomaterials and Biomechanics invites applications for a non-tenure-track **ASSISTANT PROFESSOR** position (up to 3-year term starting fall 1992) to conduct research in new formulations and structure-property relationships of resin-based composites. Candidates must have a Ph.D. in chemistry or materials science, at least 1 year of postdoctoral research experience, and peer-reviewed scholarly publications. Research interest in biomimetics and organic matrix-mediated mineralization advantageous. Some teaching to undergraduate/graduate students required. Establishment of own sponsored major research program expected. Applicants should submit curriculum vitae, copies of relevant publications, statement of research and career goals, and names and addresses of three references to: **Dr. William H. Douglas, 16-212 Moos Tower, Department of Oral Science, University of Minnesota School of Dentistry, 515 Delaware Street, SE, Minneapolis, MN 55455.** Deadline: 15 July 1992. The University of Minnesota is an Equal Opportunity Educator and Employer.

ASSISTANT PROFESSOR OF GENETICS

Department of Biology at Long Island University's Brooklyn Campus seeks assistant professor of genetics. Tenure track. Teach graduate and undergraduate courses. Research interests in areas of mammalian genetics and eukaryotic cytology. Doctorate and teaching experience required. Send letter of application, résumé, and three letters of recommendation to: **Search Committee, c/o Dr. Dennis Curley, Biology Department, Long Island University, University Plaza, Brooklyn, NY 11201.** Deadline for filing: 26 June 1992. Salary commensurate with experience. An Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR CELLULAR AND MOLECULAR BIOLOGY

A tenure-track position is available in the Laboratory for Cancer Research, Department of Chemical Biology and Pharmacognosy, in the College of Pharmacy at Rutgers University. Candidates with outstanding research and teaching ability in areas dealing with the molecular and cellular biology of the cancer cell are encouraged to apply. Areas of particular interest include mechanisms of carcinogenesis, factors influencing the stability of the cancer cell phenotype, factors influencing the conversion of cancer cells to a normal phenotype, regulation of oncogenes, suppressor genes and growth factors, the influence of normal cells on cancer cells, and/or the regulation of cell differentiation. Members of the department have strong interests in the areas of chemoprevention of cancer, mutagenesis, chemical carcinogenesis, cytochrome P450 regulation and function, mechanisms of retroviral evolution, SV40 interaction with cellular targets and commitment to differentiation. Applicants should include curriculum vitae, three representative reprints, three letters of recommendation, and a summary of current research activities and future research plans. Please send applications to: **Dr. Allan H. Conney, Director, Laboratory for Cancer Research, College of Pharmacy, Rutgers University, P.O. Box 789, Piscataway, NJ 08855-0789.** An Affirmative Action/Equal Opportunity Employer.

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Recently appointed national laboratory status by President Bush, the National Renewable Energy Laboratory (NREL) formerly SERI, is entering a new era of energy research. This elevated role has created

an unparalleled environment for our work and our people. It's a perfect opportunity to join an innovative team committed to the development of cleaner, safer and renewable energy resources.

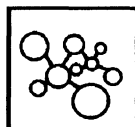


Senior/Staff Genetics Scientist

Lead genetics research to develop novel microorganisms for production of enzymes, fuels, chemicals, and materials. Oversee activities in areas such as mutagenesis and metabolic pathway engineering, maintain state-of-the-art capabilities, and interact with the professional community.



Requires a PhD in molecular biology, biochemistry, microbiology, or equivalent training with demonstrated experience in classical and recombinant genetics technology applied to fermentation or enzyme producing microorganisms, and the ability to lead a team in application of the latest technology in the field. Preferred is 5 or more years relevant experience and an established scientific reputation. **Ref. #E4220-1025**



Associate Genetics Scientist

Provide technical assistance and support a team of genetics scientists using mutageneses, recombinant DNA, and other techniques to enhance the production of enzymes, fuels, chemicals, and materials from biomass.



Requires a Bachelor's degree in molecular biology, biochemistry, or microbiology with emphasis in genetics or equivalent relevant experience, demonstrated experience using classical genetics and recombinant DNA technology including DNA isolation and purification, analytical and preparative electrophoresis, ligation, transforma-

tion restriction mapping and plate screening. Preferred is 1-2 years experience in genetic modification and screening techniques including experience in both radioactive and non-radioactive methodologies, cloning bacterial cellulase and/or work on expression vectors. **Ref. #E4220-1026**

Biochemical Research Technician

You will assist in the preparation of fermentation experiments using bench-scale apparatus, be responsible for running and maintaining equipment and associated instrumentation, and assist in the analysis of samples using chemical and biochemical techniques.

Requires an Associate's or technical degree or equivalent relevant experience as well as demonstrated knowledge of mathematics, and experience as a chemical electronics, or mechanical technician. Three - 5 years experience preferred along with demonstrated experience in the chemical, biotechnology or food processing industries. Familiarity with the operation and repair of laboratory equipment and instrumentation is also desired. **Ref. #E4210-1001**

We offer an excellent compensation and benefits package. For immediate consideration, please send your resume, indicating appropriate Reference Number, to: **Human Resources Office, National Renewable Energy Laboratory, 1617 Cole Blvd., Golden, CO 80401.**



For information regarding current job opportunities at NREL, contact JOB LINE (303) 231-1192

Women and minorities are encouraged to apply. We are an equal opportunity employer.

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Associate Director

NATIONAL SCIENCE RESOURCES CENTER

National Academy of Sciences & Smithsonian Institution

The National Science Resource Center (NSRC) is seeking an associate director to manage the NSRC outreach and information dissemination program. Responsibilities include managing a program of leadership development activities for educators and scientists; developing mechanisms to provide technical assistance to school systems; disseminating information about effective K-12 science teaching resources and sources of assistance through resource collections, computer databases, and published resource guides; and developing a nationwide database and telecommunications network of regional, state, and local leaders working to improve the teaching of science in the schools. Position requires Ph.D. or equivalent in a scientific or technical field, preferably related to pre-college science education, and at least 4 years of directly related experience and interaction with external and internal executives, leaders in science education reform, scientists and engineers, and representatives from business, industry, and private foundations. We offer a salary commensurate with experience and an exceptional benefits package. Please send resume in confidence to: Deputy Director NSRC, Smithsonian Institution MRC-403, Arts and Industries Building, Room 1201, Washington, DC 20560. EOE.

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Using innovation to improve the efficiency of molecular biology research products has been the cornerstone of Stratagene's development since our founding in 1984. With more than 200 employees and 500 products, Stratagene is now seeking two Postdoctoral Scientists to work at our beautiful La Jolla (San Diego) headquarters.

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One candidate should have experience in cloning and expression of thermostable enzymes and extensive knowledge and practical experience in nucleic acid enzymology and general molecular biology techniques. Preference will be given to motivated candidates with a high level of proficiency in recombinant DNA technology with training in nucleic acid modifying enzyme biochemistry.

The other candidate should have experience in Bacterial Genetics and/or Microbiology and be available by August 1, 1992 or earlier.

We offer a competitive salary, incentive and benefits program. Please send your resume and a letter of interest to:
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POSITIONS OPEN

The University of Nebraska College of Medicine, Department of Pediatrics, is seeking an **ASSISTANT PROFESSOR** of clinical toxicology. This appointment will have a joint faculty appointment in pharmacological sciences. Responsibilities will be to develop research in toxicology of metals. We seek an individual with a Ph.D. and at least 1 year of postdoctoral achievement as an innovative investigator. Candidate must have a strong publication record. Excellent facilities, equipment, and maximum opportunity for scientific growth. Send current curriculum vitae to: **Carol R. Angle, M.D., Professor of Pediatrics, COP Room 1012, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-6055.** Position will be posted in June 1992 and remain open until position is filled. *The University of Nebraska is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.*

ASSISTANT PROFESSOR—ENTOMOLOGY UNIVERSITY OF MINNESOTA

The Department of Entomology, University of Minnesota, is seeking applicants for a 12-month, tenure-track, extension-research position in urban entomology. The successful applicant will develop an active extension program, with complementary research, on insect pest management in the urban environment. A Ph.D. in entomology or related field and experience in outreach education and IPM research are required. Excellent communication skills, demonstrated extension and/or research productivity and experience in urban entomology are desired. Detailed position description available. Interested individuals should send a letter of application, statement of extension/research goals, curriculum vitae, transcripts plus names and addresses of five references by 31 July 1992 to: **Kenneth Ostlie, Search Committee Chair, c/o Department of Entomology, University of Minnesota, St. Paul, MN 55108. Telephone: 612-624-9272, FAX: 612-625-5299.**

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

SCIENCE EDUCATION COORDINATOR COLLEGE OF ARTS AND SCIENCES UNIVERSITY OF DELAWARE

Applications are invited for a tenure-track position at the advanced **ASSISTANT/ASSOCIATE PROFESSOR** level to direct the secondary science education program. The position will be filled on or before 1 September 1993.

At the University of Delaware, College of Arts and Sciences, departments administer secondary education programs, including those in biology, chemistry, earth sciences (geology and geography) and physics. The appointment will therefore be made in the science department within the College of Arts and Sciences that best reflects the scientific background and interests of the successful candidate. Responsibilities will include: (1) developing a research program concerned with recent advances in the theory and practice of science education; (2) teaching courses in science education; (3) overseeing both the academic advising and the student-teaching supervision of science education majors; (4) initiating grant proposals for innovative preservice training and in-service enrichment programs and projects; (5) participating in an existing campus-wide committee of science faculty and science educators committed to the enhancement of science education; and (6) fostering productive relationships between the state Department of Public Instruction and science education interest groups within the local community and local industry.

Applicants must hold a doctorate with expertise in science education and must demonstrate scholarly productivity in that subject area. Expertise in a science discipline is also required. Opportunities will be available to participate in graduate programs in science education. Curriculum vitae, a statement of present and future research interests and the names of three individuals who can provide letters of evaluation must be submitted by 1 October 1992 to: **David E. Sheppard, Ph.D., Associate Professor, Chair—Science Education Coordinator Search Committee, School of Life and Health Sciences, University of Delaware, Newark, DE 19716, telephone: 302-831-2782.**

The UNIVERSITY OF DELAWARE is an Equal Opportunity Employer which encourages applications from qualified minority group members and women.

POSITIONS OPEN

ASSISTANT PROFESSOR

Ph.D. in Microbiology with a specialty in Infectious Diseases required. Responsible for teaching Infectious Diseases/Public Health course and weekly laboratories to medical students. Emphasis on teaching excellence and teaching experience. Rank and salary commensurate with qualifications. All qualified applicants are encouraged to apply. Position starts August 1992. Send curriculum vitae and letters of recommendation by 6 July to: **Dr. Lauritz A. Jensen, D.A., Head, Department of Microbiology, The University of Health Sciences, 2105 Independence Boulevard, Kansas City, MO 64124. Telephone: 816-283-2213. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE PROFESSOR. Conduct research on optical properties of semiconducting superlattices (SL) and quantum wells (QW), including electron states in GaAs/AlAs SL, nonlinear optical effects in CdTe/CdZnTe QW and SL, and magneto-optical measurements of semiconductors with time and anisotropy stress modulations, utilizing research experience in electro-optical and transport properties of semiconductor systems (including GaAs properties, SL and QW, band structure, ODMR theory, deep levels involving lattice relaxation and multi-phonon transitions), and techniques such as time-resolved optical spectroscopy (photoluminescence), Admittance and Fourier transform infrared spectroscopy, cathodoluminescence spectra and decay, deep level transient spectroscopy, and scanning electron microscope. Forty hours per week, 9 to 5; \$30,000 per year. Job in Hanover, New Hampshire. Requirements: Ph.D. in Solid-State Electronics and 2 years of experience in job offered or as Research Associate with experience identified above. Send two résumés to: **Job Order #92-59, P.O. Box 989, Concord, NH 03302-0989.**

ASSISTANT/ASSOCIATE PROFESSOR

The Department of Physiology and the Institute for Environmental Medicine of the University of Pennsylvania Medical Center seek an experienced cell biologist/biochemist for a research-track faculty position based in the institute.

The successful candidate will interact with an established program in lung cell and molecular biology and an independent research program in mechanisms of exocytosis and/or phospholipid synthesis and intracellular processing. Excellent facilities are available.

Salary commensurate with experience. Send curriculum vitae, a statement of research interests and the addresses of three references, by 31 July 1992, to:

**Director
INSTITUTE FOR ENVIRONMENTAL
MEDICINE
One John Morgan Building/6068
36th Street and Hamilton Walk
Philadelphia, PA 19104**

THE UNIVERSITY OF PENNSYLVANIA is an Equal Opportunity/Affirmative Action Employer.

PROFESSOR OF MEDICINE: HUMAN GENETICS

Harvard Medical School's Department of Medicine at the Brigham and Women's Hospital is seeking to fill a **PROFESSORSHIP** (or tenured **ASSOCIATE PROFESSORSHIP**) in the field of human genetics. Candidates should possess an M.D. and/or Ph.D. and have a well-recognized research program in the broad area of human genetics. Areas of interest might include but are not limited to: (1) Identification of gene loci for specific heritable human disease; (2) diagnosis of genetic disorders, especially those involved in adult diseases; (3) biology of mutant alleles in the molecular pathogenesis of human disorders; and (4) gene therapy. In addition to leadership in research, candidates should possess an excellent record of training young scientists in the field.

Harvard Medical School and the Brigham and Women's Hospital are Affirmative Action Employers. Women and minority scientists are encouraged to apply. Please send curriculum vitae and bibliography to: **Dr. Eugene Braunwald, Chairman, Search Committee for Professor of Medicine: Human Genetics, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115.**

CANCER PREVENTION FELLOWSHIP PROGRAM

The Division of Cancer Prevention and Control (DCPC) is accepting applications for the Cancer Prevention Fellowship Program (CPFP). The purpose of this program is to train individuals from a multiplicity of health science disciplines in the field of cancer prevention and control. The program provides for: Master of Public Health training (at accredited universities); Participation in the DCPC Cancer Prevention and Control Academic Summer Course; Working at NCI directly with individual preceptors on cancer prevention and control projects; Field assignments in cancer prevention and control programs at other institutions. Funding permitting, as many as ten Fellows will be accepted for up to three years of training, beginning July 1, 1993. Benefits include selected relocation and travel expenses, paid federal holidays, and participatory health insurance.

ELIGIBILITY

M.D. or D.D.S. from a U.S., territorial, or Canadian Medical School. Foreign medical graduates must have current ECFMG/FMGEMS certification and appropriate experience, e.g., one year residency in a training program approved by the Accreditation Council for Graduate Medical Education.

OR

Ph.D., Dr. P.H. or other doctoral degree in a related discipline (epidemiology, biostatistics, and the biomedical, nutritional, public health or behavioral sciences). Foreign education must be comparable to that received in accredited U.S., territorial, or Canadian institutions.

PLUS

U.S. citizenship or resident alien eligible for citizenship within four years.

For details and application catalog, send a postcard or letter with your name and home address to:

Douglas L. Weed, M.D., M.P.H., Ph.D.
Director
Cancer Prevention Fellowship Program
Division of Cancer Prevention and Control

Deadline for Receipt of Applications:
September 1, 1992

Further Inquiries: Mrs. Barbara Redding, (301) 496-8640

NATIONAL CANCER INSTITUTE

Executive Plaza South, T-41, Bethesda, MD 20892

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Progenics

Pharmaceuticals, Inc.

SENIOR SCIENTIST AND POSTDOCTORAL POSITIONS

Progenics Pharmaceuticals, Inc. is a biopharmaceutical company specializing in the design and discovery of therapeutics and vaccines to treat HIV infection. Applications are invited from scientists of the highest caliber with Ph.D., M.D., or M.D./Ph.D. degrees. A minimum of 2 years of postdoctoral experience is required for Senior Scientist applicants. Emphasis is placed on basic research and publication in peer-reviewed journals. Progenics collaborates with investigators in laboratories throughout the United States and Europe. The research facilities are situated on a suburban campus 20 miles north of New York City. Current research interests of the staff include:

Molecular biology and biochemistry of HIV and CD4 (the HIV receptor); Virus attachment and entry; Mechanisms of virus-induced membrane fusion; Development of viral inhibitors; Mode of action of neutralizing antibodies; Development of HIV vaccines.

Candidates should send a curriculum vitae, a description of their research experience and interests, and the names and addresses of three references to:

Director, Human Resources
Progenics Pharmaceuticals, Inc.
Old Saw Mill River Road
Tarrytown, NY 10591

United States Biochemical Corporation, a leader in the supply of reagents for molecular biology research, announces openings for outstanding scientists in the areas of synthetic nucleic acid chemistry and molecular biology. Applicants should have demonstrated leadership ability and be capable of independent work. Applications will be considered at all levels: Scientist, Principal Scientist, and Senior Scientist. Qualified applicants should have a Ph.D. degree and at least two years of postdoctoral experience, but applicants with equivalent experience will be considered.

Nucleic Acid Chemists

Candidates should have experience in synthetic nucleic acid chemistry. The successful applicant will be expected to function independently and synthesize a variety of nucleotide analogues. Extensive experience in nucleotide chemistry is therefore necessary.

Molecular Biologists

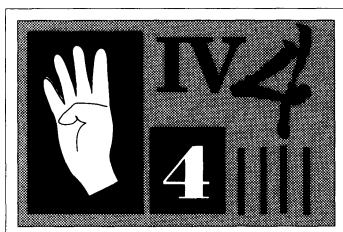
Candidates should have demonstrated expertise in cloning, mutagenesis and expression in both prokaryotic and eukaryotic systems. Knowledge of eukaryotic cell culture and bacterial genetics is also desirable. The successful applicant will be expected to perform independent research involving the cloning, expression and mutagenesis of a variety of genes and proteins as well as assist and advise the Production group on problems related to the expression of proteins manufactured by USB and the storage and maintenance of the strains and plasmids used in their production.

USB is located in a pleasant suburb of Cleveland which offers easy access to the cultural centers of the city (the theater district and ballet, museums-including the excellent Cleveland Museum of Art and the world-renowned Cleveland Symphony Orchestra) as well as access to nearby rural communities with excellent schools.

If interested, please submit resumé, bibliography and names and phone numbers of references to:

Manager of Personnel Services
JC-1
United States Biochemical Corporation
P.O. Box 22400
Cleveland, OH 44122
EEO Employer M/V/H





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IRTA and STAFF FELLOW POSITION(S)

Intramural Research Training Award (IRTA) and Staff Fellow Positions are available in the Laboratory of Pulmonary Pathobiology at NIEHS/NIH. Opening for Ph.D. or M.D. with research experience in cellular and molecular biology of inflammation and the regulation of expression of inflammatory mediators and cytokines as well as their receptors. Also considered will be candidates with a strong background in the biochemistry and molecular control of extracellular matrix and cell adhesion molecules; in regulation of gene expression during differentiation of epidermal keratinocytes, bronchial cells and embryonal carcinoma cells; and in transcriptional regulation by retinoic acid nuclear receptors and other transcriptional factors. Experience in studies of receptor-ligand interactions, isolation and characterization of cytokines from tissue culture media or in the techniques of *in situ* hybridization is highly desirable.

REQUIREMENTS: Applicants must have an M.D. or Ph.D. in molecular biology, biochemistry, cell biology, pharmacology or closely related field. Candidates with up to three years of postdoctoral experience may be considered for the IRTA Program, and applicants with up to seven years of postdoctoral experience may be considered for the Staff Fellowship Program. Salary commensurate with education and experience. For more information, contact Dr. Paul Nettiessheim, Chief, Laboratory of Pulmonary Pathobiology, National Institute of Environmental Health Sciences, (919) 541-3540.

For prompt consideration, send cover letter indicating area of interest, curriculum vitae, and three letters of reference by **December 1, 1992** to:

Ms. Carole Gregory (HN48)
NIEHS Personnel Office
P. O. Box 12233
Research Triangle Park, NC 27709

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Research Associate

Protein Engineering

Somatogen, a biopharmaceutical company currently engaged in the development and manufacture of a recombinant human hemoglobin, has an exciting opportunity available in our research laboratory. This individual will be self-motivated, with a desire to be part of a team involved in cutting edge technology.

This position will be appointed to the Protein Engineering Group. Opportunities will exist for some experiments on functional properties and characterization of designed mutants.

The successful candidate will have a B.S. or M.S. in Biology, Molecular Biology or equivalent, plus a minimum of three years of appropriate experience. This individual will be experienced in site-directed mutagenesis, subcloning, polymerase chain reaction, and nucleic acid sequencing. Experience in routine protein characterization (SDS-PAGE, isoelectric focusing, etc.) and protein purification would be helpful.

A competitive salary and benefits package complement this offer. Interested candidates may submit their resume and cover letter indicating, "Protein Engineering Position" to:

Nancy Borne, Manager, Professional Development.

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COLLEGE OF PHYSICIANS AND SURGEONS

DEPARTMENT OF MICROBIOLOGY

POSTDOCTORAL FELLOWSHIPS

The Department of Microbiology Postdoctoral Fellowships are supported by an NIH Training Grant. Members of the Department and their research interests are:

KATHRYN CALAME, PH.D.

Transcriptional regulation in B and T lymphocytes.

MARIAN CARLSON, PH.D.

Gene regulation in yeast.

BERNARD ERLANGER, PH.D.

Immunochemistry of nucleic acids; anti-idiotypic antibodies as probes of receptor structure and function.

DAVID FIGURSKI, PH.D.

Gene regulation and replication control in bacterial plasmids.

HAROLD GINSBERG, M.D.

Molecular mechanisms of virus pathogenesis and transformation.

STEPHEN GOFF, PH.D.

Molecular biology of retrovirus replication; targeted gene disruption.

MAX GOTTESMAN, M.D., PH.D.

Regulation of transcription in an *E. coli* bacteriophage; study of gene regulation in cultured rat thyroid cells.

ELVIN KABAT, PH.D.

Antigen-antibody reactions; fine structure of antibody and lectin combining sites; idiotypic specificity.

AARON MITCHELL, PH.D.

Molecular genetics of meiosis and its regulation in yeast.

BENVENUTO PERNIS, M.D.

Cell dynamics of MHC; binding of peptides by MHC of viable cells.

VINCENT RACANIELLO, PH.D.

Molecular biology of poliovirus and its cell receptor.

PAUL ROTHMAN, M.D.

Molecular mechanisms of immunoglobulin class-switch.

DAVID SHORE, PH.D.

Molecular mechanisms of gene regulation in yeast.

HOWARD SHUMAN, PH.D.

Active transport; intracellular growth of *Legionella pneumophila*.

SAUL SILVERSTEIN, PH.D.

Control of gene expression in human herpes and papillomavirus infected cells.

ALAN STALL, PH.D.

Cellular immunology; regulation of B lymphocyte development and function.

LORRAINE SYMINGTON, PH.D.

Genetics and biochemistry of DNA recombination and repair in yeast.

C.S. HAMISH YOUNG, D.PHIL.

Viral genetics; recombination mechanisms; structure of viral promoters.

Send a letter indicating the investigator of interest, curriculum vitae and the names of three references to: Ms. Edith Shumansky, Department of Microbiology, Columbia University College of Physicians & Surgeons, 701 W. 168th Street, New York, N.Y. 10032. We welcome applications from minority individuals. Columbia University is an Equal Opportunity/Affirmative Action Employer.

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consideration, please forward your résumé to: Scientific Recruitment, Dept. S-692, Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285. An equal opportunity employer.



Cognitive Neuroscience Individual Grants-In-Aid

The McDonnell-Pew Program in Cognitive Neuroscience is accepting proposals for individual grants-in-aid to support research and training in cognitive neuroscience. Applications are sought for projects of exceptional merit that are not currently fundable through other channels and from investigators who are not at institutions already funded by the program. Preference will be given to projects that are interdisciplinary in character involving two or more of the subfields of cognitive neuroscience: clinical and basic neuroscience, computer science, psychology, linguistics and philosophy.

Research support is limited to a maximum of \$30,000 per year for up to two years. Training grants and postdoctoral stipends will be awarded at prevailing rates of the host institution for up to three years. Training grants to support Ph.D. thesis research of graduate students will not be funded. Submissions will be reviewed by an advisory board chaired by Professor George Miller of Princeton University.

Applications must be postmarked on or before the deadline of August 1, 1992.

For proposal guidelines contact: McDonnell-Pew Program in Cognitive Neuroscience, Green Hall 1-N-6, Princeton University, Princeton, NJ 08544-1010, (609) 258-5014, fax: (609) 258-3031, email: cns@clarity.princeton.edu.

CENTRAL NERVOUS SYSTEM RESEARCH San Diego, California

Gensia Pharmaceuticals, Inc. is an emerging leader in research and development of drugs for the treatment of disease in the areas of central nervous system, cardiovascular system, diabetes and inflammation.

We are seeking exceptionally talented scientists for our central nervous system group involved in the rational design and evaluation of drugs targeted at stroke, epilepsy and other neurological disorders.

Positions are available at the M.S. and Ph.D. levels with degrees in physiology, pharmacology, biochemistry or related disciplines in one or more of the following areas: stroke models, seizure models, in vitro electrophysiology, receptor binding, second messenger assays, behavioral pharmacology. Experience within the pharmaceutical industry is preferred.

Gensia is a rapidly growing biopharmaceutical company that offers an exciting research environment with competitive salaries and generous benefits, including a stock option plan. Please send CV to the attention of: HUMAN RESOURCES-CNS, Gensia Pharmaceuticals, Inc., 11025 Roselle Street, San Diego, CA 92121-1204, or Fax directly to 619/535-2758, Attention: B. Hockett.

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POSITIONS OPEN

ASSOCIATE PROFESSOR

(Nutrition and reproductive/developmental biology). The Pennington Biomedical Research Center (PBRC) and the Department of Animal Science, Louisiana State University (LSU), seek a scientist with a background in transgenic animal technology, molecular biology, growth and early development, or animal reproduction. This is a unique opportunity to develop and lead a research program in nutrition and reproductive or developmental biology. The Pennington Center is an ultra-modern, state-of-the-art laboratory and clinical research facility. Generous space and equipment package. Submit résumé and letter of application by 31 July 1992 to: **Evelyn Bennett, Human Resource Management, Pennington Biomedical Research Center, 6400 Perkins Road, Baton Rouge, LA 70808. LSU/PBRC is an Equal Opportunity Employer/Affirmative Action Employer.**

NEUROPHYSIOLOGY ASSISTANT/ASSOCIATE/FULL PROFESSOR

Systems neurophysiologists are invited to apply for a faculty position within The Philip Bard Laboratories of Neurophysiology, Neuroscience Department, The Johns Hopkins University School (JHU) of Medicine. Applications and inquiries should be sent to: **Director, The Bard Laboratories of Neurophysiology, Department of Neuroscience, The Johns Hopkins School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205. JHU is an Equal Opportunity/Affirmative Action Employer.**

CENTER FOR BLOOD RESEARCH HARVARD MEDICAL SCHOOL PROFESSOR OF PATHOLOGY

Harvard Medical School and the Center for Blood Research are seeking a professor of pathology. The successful candidate will be expected to develop a major research and training program in the biology of lymphokines and their receptors, and participate in the teaching of medical and graduate students. Candidates should have demonstrated scholarly achievement and promise of the highest order. *Harvard University is committed to increasing representation of women and minority faculty members and particularly encourages applications from such candidates.* Candidates should send curriculum vitae and statement of research interests to: **Dr. Timothy Springer, Center for Blood Research, 800 Huntington Avenue, Boston, MA 02115. An Affirmative Action/Equal Opportunity Employer.**

CHIEF, LABORATORY SERVICE at the St. Louis VA Medical Center. We are seeking an experienced **PATHOLOGIST/TEACHER** with a record of scholarly productivity. The position will include administration of anatomic and clinical pathology, coordination of academic programs for residents, fellows and staff, and ample opportunities for laboratory and clinical research. Candidates must qualify for a senior faculty appointment at St. Louis University School of Medicine. Salary commensurate with qualifications. Send curriculum vitae to: **Lewis R. Chase, M.D. (IIIJC), Chairman, Search Committee, VA Medical Center, St. Louis, MO 63106. An Equal Opportunity Employer.**

ECOLOGIST-EVOLUTIONARY BIOLOGIST

The W. K. Kellogg Biological Station of Michigan State University (MSU) seeks to hire a **PROGRAM COORDINATOR** for a new, NSF-funded research training group in ecology and evolutionary biology. Primary responsibilities include coordination of a team-taught graduate course in ecological applications and participation in a summer program for high school students. The successful candidate will have a Ph.D. in ecology and evolutionary biology and have a strong interest in team approaches to teaching at graduate, undergraduate and precollege levels. The position will hold a specialist classification with a salary range of \$35,000 to \$40,000 per year. Please send a statement of qualifications, curriculum vitae, and three letters of reference to: **RTG Search, W. K. Kellogg Biological Station, Hickory Corners, MI 49060, by 3 July 1992** or until a suitable candidate is selected. *Women and minority members are encouraged to apply. MSU is an Affirmative Action/Equal Opportunity Institution.*

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR POSTDOCTORAL FELLOW

Positions available immediately in research to develop a birth control vaccine using sperm adhesion proteins or to analyze molecular mechanisms in mammalian fertilization. Individuals with Ph.D. or M.D. and training in immunology, vaccinology, molecular biology or cell biology are encouraged to apply. Openings are in the Contraceptive Development Center at the University of Connecticut Medical School. The Contraceptive Center is supported by a center grant from NIH and by the Mellon Foundation. Excellent salary and benefits commensurate with experience.

Applications should include a cover letter, curriculum vitae, bibliography, three letters of recommendation and reprints of any recent publications. Send applications to: **Dr. Paul Prima-koff, Department of Physiology, MC-3505, University of Connecticut Medical School, Farmington, CT 06030.** *The University of Connecticut Health Center is an Affirmative Action/Equal Opportunity Employer.*

DIRECTOR OF RESEARCH

The P/SL Healthcare System and Center for Health Sciences Education seek an M.D. Ph.D., Pharm.D., D.V.M., D.O., or D.P.M. researcher with experience in conducting clinical research to establish an Office of Research and Development. The system has two hospitals with 800 beds, an active medical staff numbering over 500, and centers of excellence in transplantation, oncology, limb preservation, geriatrics, cardiology, women's services, and behavioral health. Our graduate medical education programs are affiliated with Rush University in Chicago, the University of Colorado and the College of Osteopathic Medicine of the Pacific.

The director will be responsible for planning, developing, implementing, and evaluating the P/SL research program. Candidates are invited to commit up to 30% of their time to their own research activities. At least 10 years of experience in clinical research, knowledge of biostatistics, strong interpersonal skills, and exceptional written and verbal communication skills are required.

Send cover letter, curriculum vitae and references to:

Robert M. Rifkin, M.D.
Chairman

Search Committee for Research & Development
c/o Bone Marrow Transplant Program
Presbyterian/St. Luke's Medical Center
1719 East 19th Avenue
Denver, CO 80218

TEXAS, CHAIR, DEPARTMENT OF BIOMEDICAL SCIENCES: Applications are invited for the position of chairperson of the department of biomedical sciences. Candidates should have strong academic credentials in the biomedical sciences including a proven record of funded research. Candidates must have: (1) a Ph.D., D.D.S. (D.M.D.)/Ph.D., or M.D./Ph.D. degree(s); (2) a record of teaching and research commensurate with a tenured professor at the institution; (3) a strong commitment to academic excellence; (4) excellent communication and interpersonal skills to work effectively with internal and external constituencies; (5) experience with predoctoral and graduate education; and (6) administrative experience. The successful candidate is responsible for leadership, administration and coordination of departmental activities including research and dental, dental hygiene and graduate student basic science curricula development. This new department has been created from the recent merger of basic science departments with teaching responsibilities in anatomy, biochemistry, cellular and molecular biology, microbiology, and physiology. Interested individuals should submit a letter of application, curriculum vitae, and names and addresses of three references to: **Dr. Charles J. Arcoria, Chair, Search Committee, Baylor College of Dentistry, 3302 Gaston Avenue, Dallas, TX 75246.**

The Baylor College of Dentistry is an Equal Opportunity/Affirmative Action Employer.

CIBA-GEIGY has a major long-term commitment to the field of asthma and allergy research and development of novel therapeutic agents for the treatment of asthma and related diseases. We are looking for

Recent PhDs

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We are interested in candidates with a PhD in Pharmacology or related subject with at least 2 years post-doctoral experience. Knowledge of and experience in the field of pulmonary pharmacology/asthma is of value but is not essential.

Please send your application under ref. "**Science 9338**" to Dr. U. Spaeti, CIBA-GEIGY Ltd., Personnel Dept., P.O. Box, CH-4002 Basel, Switzerland.

CIBA-GEIGY

Synthetic Carbohydrate Drugs

Greenwich Pharmaceuticals has brought its lead compound, a novel synthetic carbohydrate drug, into late Phase III development as a treatment for rheumatoid arthritis. With a second compound in Phase I and others in preclinical development, we are breaking new ground in carbohydrate technology.

Pharmacokineticist-Ph.D.

Responsible for the development of preclinical pharmacokinetic/pharmacodynamic (PK/PD) programs in support of disposition studies of new drug candidates. This position requires strong communication and leadership skills.

Pharmacologist-Ph.D.

Responsible for the development of a research program utilizing in vitro and in vivo models of inflammation and non-malignant, proliferative diseases to determine potential structure-activity relationships of the Company's carbohydrate compounds. This position requires an innovative, interactive approach to drug development.

Biochemist-Ph.D.

We are seeking a Ph.D. biochemist interested in identifying the anti-inflammatory and anti-proliferative effects of novel synthetic carbohydrates in support of drug development. This position requires excellent communication skills and a great deal of scientific initiative.

Greenwich's strong intellectual and technical resources create a challenging atmosphere where excellence is encouraged and creativity is rewarded. Compensation is highly competitive and includes salary and benefits. Candidates interested in improving patient's lives should mail or fax resume, indicating position of interest, to: **Human Resources Department, Greenwich Pharmaceuticals Inc., 501 Office Center Drive, Ft. Washington, PA 19034. Fax: 215-540-9696.** Equal Opportunity Employer.



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Science at Synergen

Synergen, Inc., is a young and rapidly growing research-based biopharmaceutical company located in Boulder, Colorado. We use the latest advances in recombinant DNA technology, molecular biology and manufacturing technology. Our focus is on the discovery, development and production of protein-based pharmaceuticals for treatment of serious human diseases.

Several of our compounds have progressed through laboratory testing, preclinical development and are now in human clinical trials. Our first commercial scale manufacturing plant is scheduled for completion late this year.

TOXICOLOGIST

This position will involve the use of *in vivo* models to test preclinical safety of anti-inflammatory agents, cytokines, binding proteins and neurotrophic factors. Other responsibilities include writing protocols for monitoring and interpreting contracted toxicology studies along with performing in house GLP toxicology studies. Demonstrated experience in toxicology and physiology and *in vivo/in vitro* model experimentation, and a Ph. D. or DVM/Ph. D. with a minimum of 2 years Post Doc., is required. First consideration will be given to candidates who have experience with immune hypersensitivity reactions and the FDA drug approval process.

Boulder, Colorado residents enjoy a community renowned for its beauty, culture and natural attractions...making this a great place to live and work.

Please send your resume to: Director of Recruitment, Box TX, Synergen, Inc., 1885 33rd Street, Boulder, CO 80301. We are an Equal Opportunity Employer.



SYNERGEN

CANCER CENTER DIRECTOR

The University of Vermont seeks a Director for the Vermont Cancer Center, an NCI-designated Comprehensive Cancer Center. Candidates with either basic science or clinical orientations will be considered. The Center is searching for a leader with a strong record of research achievement and administrative experience in cancer-related areas. The Director will be expected to have a serious commitment to the development of clinical services and the delivery of patient care; to determine program goals and directions for the teaching and research that take place under the auspices of the Cancer Center; to work with other administrative officers of the University to ensure the integration and continuity of these activities; to direct the preparation of funding applications including the institution's Cancer Center Support Grant; and to participate with the Cancer Center staff in programs relating to prevention, screening, and outreach to the rural Vermont population. The existing strengths of the Center include the Drug Development Program, Genetic Toxicology Program, Growth Control/Signal Transduction Program, Clinical Research Program, and the Cancer Control Research Program. Developing strengths include the Immunobiology Program and the DNA Damage and Repair Program. The Director will hold a tenure-track academic appointment in the appropriate department of the Medical College. The Director reports directly to the Dean of the Medical College and has status equal to that of Department Chair. UVM is an Affirmative Action/Equal Opportunity Employer. Applications from women and people from diverse racial, ethnic and cultural backgrounds are encouraged. Letters of application should include a curriculum vitae with a summary of relevant research, clinical, and administrative experience, and the names of at least three references. Applications will be accepted until the position is filled. Please send letters of application to **Susan S. Wallace, Ph.D., Chairperson VCC Director Search Committee, Department of Microbiology and Molecular Genetics**, The University of Vermont, B202 Given Building, Burlington, Vermont 05477 (802) 656-2164.

Pharmaceutical/Biotechnology: Careers In Industry

This special section, reprinted from the May 8 issue of **SCIENCE** takes an in-depth look at careers in the pharmaceutical and biotechnology industries.

Highlighted topics include:

- Challenges and incentives offered by a pharmaceutical or biotechnology firm
- A sampling of salaries for scientists in industry
- How industry salaries compare with university jobs
- "Hot" new fields in industry

Also included are "career stories" from five scientists who made the decision to move to a position in industry.

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EXPANDING OUR COMMITMENT TO INNOVATIVE RESEARCH

Innovative research at Sandoz has been enhancing medicine around the world for over a century. Pioneering drugs have extended and improved the quality of life for countless individuals and revolutionized basic scientific concepts within the transplantation and mental health fields.

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BIOLOGICAL NMR SPECTROSCOPISTS

We are seeking NMR spectroscopists with training in a biological science to make major contributions in the area of biomolecular structure determination using modern NMR techniques and computer programs.

SCIENTIST B MS/BS or equivalent in Biophysics or Biochemistry with three to five years of experience, respectively, in NMR spectroscopy. Primary responsibilities will include the maintenance and operation of NMR and computer facilities and the development of technology in biological NMR research. A thorough background in 2-D NMR and some knowledge of electronics and computers is also required.

Position #2219DC.

ASSISTANT FELLOW Ph.D. NMR spectroscopist with 0-4 years of postdoctoral or industrial research experience and a strong background in the area of multi-dimensional NMR. The successful candidate should have proven biomolecular structure determination experience and have the capability to develop and apply modern NMR techniques for the determination of structures of proteins, peptides and ligand-target complexes. The ability to design and modify multi-dimensional NMR pulse sequences is highly desirable. **Position #2223MS.**

MOLECULAR BIOLOGISTS

ASSISTANT FELLOW Ph.D. in Molecular Biology with 0-4 years of experience to work on projects related to peptide display libraries, cell-signalling receptors and adhesion molecules. The successful candidate will clone and identify novel cell surface receptors and characterize their role in signal transduction or cell-cell interaction as they pertain to immunoregulation and inflammation. Applicants must have demonstrated expertise in molecular biology. Skills in tissue culture and computer analysis of DNA/proteins are desirable.

Position #1754MS.

Positions at Sandoz offer personal satisfaction, professional opportunity/challenge, competitive salaries and an excellent benefits package. Our campus-like facilities are conveniently located in northern New Jersey. For prompt, confidential consideration, please specify the number of the position you are responding to and forward your resume, to:

POSTDOCTORAL FELLOW A similar position is also available for a Ph.D. Molecular Biologist as a postdoctoral fellow. Our postdoctoral fellows are eligible for a full benefits package, and our openings are for one year but are extendible up to two years by mutual agreement. **Position #367MS.**

SCIENTIST B The selected individual will be involved in the expression of cellular receptors and other proteins involved in cell surface activation pathways using both prokaryotic and eukaryotic expression systems.

To qualify, you must possess a BS/MS degree in a biological science or equivalent with 3-5 years of relevant experience in molecular biology principles and techniques. Demonstrated skills in DNA and RNA preparation and analysis, and an understanding or PCR applications in molecular cloning is required. Exposure to tissue culture as well as experience in computer analysis of DNA and proteins are desirable. **Position #2119DC.**

PROTEIN BIOCHEMIST/CHEMIST

Ph.D. in Chemistry, Biochemistry, Cell Biology or a closely related discipline and several years of postdoctoral research. Broad knowledge in protein structure-function relationships, secondary structure motifs, receptor interactions, protein biochemistry, protein/peptide purification techniques and interest and experience in immunology and/or inflammation is required. The candidate must have sufficient experience and ability to assume leadership for a research effort on peptide libraries including collaboration with internal physical and analytical chemists as well as external consultants.

Position #1752MS.

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FELLOWSHIP IN MOLECULAR NEUROBIOLOGY

The Laboratory of Neurosciences, at the National Institute on Aging, Bethesda, invites applicants for a Fellowship position, to study molecular biological aspects of the brain in relation to development and aging, neuroplasticity and Alzheimer's disease. The successful candidate will be expected to apply techniques of recombinant DNA and/or in situ hybridization to address differences in gene expression in health and disease.

Applications are invited from individuals having a Ph.D., M.D., or combined degrees. NIH is an equal opportunity employer and applications from women and minorities are invited. Interested candidates should submit their Curriculum Vitae to:

**Stanley I. Rapoport, M.D., Chief
Laboratory of Neurosciences
National Institute on Aging
National Institutes of Health
Building 10, Room 6C103
9000 Rockville Pike
Bethesda, MD 20892**

Request for Applications

The Malaria Vaccine Development Program (MVDP) of the Agency for International Development is soliciting applications from U.S.-based research institutions describing 3-year malaria vaccine research projects. Two separate RFAs, each with a distinct research focus, are being issued:

RFA-R&D/H-92-001

**Design & Construction of
Pre-erythrocytic & Cytoad-
herence Malaria Vaccines**

RFA-R&D/H-92-002

**Fundamental Studies in
Malaria Vaccine
Development**

Proposals are due September 30, 1992. The RFAs and detailed application instructions are available from:

**MVDP Project Officer
AID Office of Health
SA-18; Room 1232**

**Washington, DC 20523
(Fax 703-875-4686)**



POSITIONS OPEN

RESEARCH DIRECTOR (Ph.D. or equivalent). Tall Timbers Research, Inc., is a non-profit, scientific and educational organization, best known for its studies in fire ecology and its long-term research on wildlife habitat, resource management issues and ecology of natural communities. Current research includes: game birds, ecological forestry, and populations of native plants and animals. Send curriculum vitae, four references by 1 August 1992: Lane Green, Tall Timbers Research, Inc., Route 1, Box 678, Tallahassee, FL 32312-9712; telephone: 904-893-4153; FAX: 904-668-7781.

SCIENCE WRITER/EDITOR

Science Writer/Editor for high-profile biomedical research and patient care institution. Write science and medical news and feature articles in lay language for external newsletter and various other institutional publications, including press releases, and participate in planning graphics as needed. Participate in writing text for annual report. Write brochures, reports, biographical sketches, and other smaller publications and documents as needed. Requirements: 3 to 5 years of experience writing and editing on science and medical subjects for a lay audience. Journalism experience strongly preferred. Solid science background. (At least an undergraduate degree in biology or a related subject is preferred.) Ability to produce accurate, polished copy on tight deadlines. Flexibility in receiving assignments and comments of editors and reviewers. Salary: \$43,000 per year. FAX résumé to: 212-639-3576.

The Fogarty International Center (FIC), National Institutes of Health (NIH), Public Health Service, Bethesda, Maryland, is recruiting for the position of **PROGRAM OFFICER FOR BIODIVERSITY**, GS-13/14 (\$46,210 to \$80,087 per year depending upon qualifications). Incumbent serves as staff specialist for all institutional and other award programs related to biodiversity administered or supported by the Fogarty International Center. Applicants should have training and experience in a scientific discipline related to biodiversity. For further information including qualifications requirements, contact: Ms. Sharon Nieberding, Personnel Officer, FIC, at: 301-496-4625; FAX: 301-402-1135. Applications must be received by 22 June 1992. U.S. citizenship required. NIH is an Equal Opportunity Employer.

LABORATORY MANAGER. Position is for a talented research associate who is well versed in 2-D NMR and can help oversee a research group that uses a variety of instruments for peptide purification. The successful candidate should have some peptide synthesis background and will help to administer day-to-day operation of a laboratory of six to seven postdocs and graduate students involved in synthesis and biophysical studies on peptide hormones and carbohydrates. Salary: \$30,000 to \$35,000 per year. Position available 1 August 1992. Initial appointment for 1 year. Send résumé and names and addresses of three references by 25 July 1992 to: Dr. Fred Naider, Department of Chemistry, The College of Staten Island/CUNY, 130 Stuyvesant Place, Staten Island, NY 10301. Applications will be reviewed until the position is filled. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Available immediately to study the molecular biology of intermediate filament proteins during nerve development and regeneration in goldfish and zebrafish. A strong background in molecular cloning is required. Please send applications to: Dr. Nisson Schechter, Department of Psychiatry, Health Sciences Center, T-10, SUNY at Stony Brook, NY 11794. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to study molecular genetics of peroxisome biogenesis in yeast. Ph.D. in molecular/cellular biology. Interested individuals send curriculum vitae and names of three references to: Dr. James M. Cregg, Department of Chemical and Biological Sciences, Oregon Graduate Institute of Science and Technology, 19600 N.W. von Neumann Drive, Beaverton, OR 97006-1999. Telephone: 503-690-1217. Equal Opportunity Employer.

POSITIONS OPEN

THE DIVISION OF BIOLOGY, CALIFORNIA INSTITUTE OF TECHNOLOGY, seeks **TWO FACULTY MEMBERS** in the areas of cell biology and immunology. Appointments will be for tenure-track positions. Successful applicants are expected to generate creative and productive research programs. Please send curriculum vitae, list of publications, a brief statement of research interests and plans. The curriculum vitae should include the names and addresses of three references for the candidate. Applications should be sent to: Ms. Joyce Kato, Immunology and Cell Biology Search Committee, Division of Biology 147-75, California Institute of Technology, Pasadena, CA 91125. The California Institute of Technology is an Equal Opportunity/Affirmative Action Employer and encourages the applications of qualified women and minorities.

DEPARTMENT OF PHARMACEUTICAL SCIENCES FACULTY POSITION IN DRUG DELIVERY FOR PROTEINS/PEPTIDES. The College of Pharmacy Department of Pharmaceutical Sciences at the University of Nebraska Medical Center is seeking a faculty member with expertise in biological research relevant to drug delivery systems and strategies. Candidates should have a Ph.D. in one of the biological or pharmaceutical sciences with research experience in cell biology, molecular biology, or immunology related to drug delivery. The opportunity exists for the successful candidate to collaborate with a multidisciplinary faculty involved in drug delivery research to evaluate biological mechanisms related to the biopharmaceutics, efficacy and safety of drugs and drug delivery systems. Research in the delivery of proteins and peptides is desirable. In addition, faculty in the Eppley Cancer Institute participate in collaborative research and the department's graduate program. Applicants should submit curriculum vitae and the names of three references to: Chair, Search Committee, Position #1-6143, Department of Pharmaceutical Sciences, College of Pharmacy, University of Nebraska Medical Center, 600 South 42nd Street, Omaha, NE 68198-6025. Applications will be accepted until the position is filled. The University of Nebraska is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.

POSTDOCTORAL POSITION available immediately to study the organization, development, and plasticity of intrinsic synaptic circuits in the cerebral cortex. Opportunity for independent research in a well-equipped and funded multidisciplinary laboratory. Send curriculum vitae and description of research interests and experience to: Dr. Asaf Keller, Department of Anatomy, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814. Equal Opportunity Employer

POSTDOCTORAL POSITION IN MOLECULAR NEUROBIOLOGY

One or two NIH-funded postdoctoral positions available to carry out studies on structure-function relations in ion channels and receptors employing a combination of molecular biological, biochemical and electrophysiological approaches [see *J. Biol. Chem.* 267, 8360 (1992) for a recent publication]. Current efforts are focused on nicotinic acetylcholine receptors, 5HT₃ receptors, and voltage-gated Cl⁻ channels. Experience in molecular biology or electrophysiology is highly desirable. Please send curriculum vitae and names of references to: Dr. Michael M. White, Department of Physiology, Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, PA 19129.

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Applications and nominations should be submitted not later than

15 October 1992

to John L. C. Dall, MD, Official Coordinator for the SANDOZ PRIZE, The Victoria Infirmary, Glasgow G42 9TY, United Kingdom (phone 44 41-649 4545, fax 44 41-649 2206).

Information can be obtained from this office and from any SANDOZ PHARMA company.

(PROOF)

Alkermes, Inc., a fast-growing neuropharmaceutical company developing products for the treatment of diseases of the central nervous system, is presently seeking an individual to fill the following position.

NEUROPHARMACOLOGIST

Alkermes is seeking a first-class neuropharmacologist specializing in animal models of acute and chronic neurodegenerative diseases and other neurologic disorders. Projects will include evaluating novel therapeutic agents in established animal models mimicking such disorders as Alzheimer's disease, Parkinson's disease, and stroke as well as developing new models when necessary. An important part of the job is to select and work with outside collaborators to evaluate Alkermes therapies in specialized models.

Responsibilities will include building and supervising a group involved in *in vivo* research as well as participating in project teams to address scientific and clinical issues related to Alkermes compounds. The successful candidate will hold the following qualifications:

- ☐ Ph.D. in neurobiology or a related discipline with 5-10 years of post-Ph.D. experience.
- ☐ Extensive knowledge of neuroanatomy and neurophysiology.
- ☐ At least 5 years experience with animal models of chronic and acute neurodegenerative disorders including stroke.
- ☐ At least 3 years of pharmaceutical or biotechnology industry experience strongly preferred.
- ☐ Knowledge of models for other CNS diseases such as brain tumor or infectious disease.

As an Alkermes employee, you will have the chance to make a significant impact in a stimulating environment that fosters autonomy, responsibility, and innovation. You will also enjoy an excellent salary and benefits package. For immediate consideration, please send your resume to Alkermes, Inc., Box CAG, 64 Sidney Street, Cambridge, MA 02139.

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Alkermes, Inc.

REPLIGEN has always been on the leading-edge in research committed to healthcare. Over the past year, results from our research have allowed us to identify product candidates for the prevention and treatment of AIDS and for the treatment of cancer and acute inflammation. We have recently begun several new research projects in the inflammation area, even as we begin clinical trials on our anti-cancer compound. The year ahead promises many new and exciting challenges for people seeking a research environment that rewards initiative and recognizes achievement. If you're looking for a biotech company that's going places, join us today.

Vice President Molecular & Cell Biology

In this highly important position, you will play a leadership role on IL-8 receptor antagonist and B7/CD28 immunoregulation projects. This will involve supervising a highly qualified professional staff of 25 and directing all aspects of the molecular & cell biology department including the achievement of research, budgets and staffing objectives. Additional responsibilities will require you to oversee research and preclinical activities for an HIV immunotherapy therapeutic project and interact with corporate partners, academic collaborators and regulatory agencies on behalf of our research organization. The desired individual will possess a working knowledge of cytokine receptors/adhesion molecules and receptor mediated signal transduction. Your experience must include 8+ years' successfully managing, leading and motivating a committed research group applying molecular biology to problems in cell biology. PhD required.

Research Scientist & Research Associate – Pre-Clinical Studies

Due to the rapid progress of our lead therapeutic compounds, we are establishing a pre-clinical trials group for our HIV and acute inflammation projects. This group will develop small animal models to address tissue distribution, bioavailability and blood clearances. We are looking for a Research Scientist with a PhD and 2+ years' experience with *in-vivo* measures of biologics and preferably some monoclonal antibody experience. We are also looking for a Research Associate with a BS/MS and similar experience.

Repligen offers competitive salaries, equity participation including an E.S.O.P. and benefits such as tuition reimbursement, three weeks' vacation and a 401(k) savings plan. Please send/FAX resume and cover letter to Ed Bocko, Repligen Corporation, One Kendall Square, Building 700, Cambridge, MA 02139, FAX # (617) 494-1786. An Equal Opportunity Employer, M/F/D/V.

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UK UNIVERSITY OF KENTUCKY COLLEGE OF MEDICINE

CANCER CENTER DIRECTOR

The University of Kentucky has reactivated the search for a new Director of its Markey Cancer Center. The Center has over 168,000 square feet of space, 56 inpatient beds, including a 12 bed bone marrow transplant unit, approximately 30,000 square feet of research space and an excess of 7,000 square feet of clinic space. More than 140 faculty in 25 departments of 8 different colleges of the University participate in Cancer Center programs. A variety of multidisciplinary research programs are served by eight core facilities: macromolecular structure, flow cytometry, transgenic mouse production, electron microscopy, magnetic resonance imaging, pathogen-free animal care, clinical research and biostatistics. The Center is a major participant in the Southwest Oncology Group, the National Surgical Adjuvant Breast and Bowel Project and the Children's Cancer Study Group. Notable strengths include molecular biology, tumor immunology, gynecologic oncology, neuro-oncology, bone marrow transplantation, and drug formulation and testing.

Candidates with either basic science or clinical orientations will be considered. Essential qualifications are a strong record of research achievement and knowledge of administrative and clinic functions in cancer-related areas. Letters of application should include curriculum vitae and the names of at least three references. Minorities and females are encouraged to apply. Consideration of applications will begin June 5, 1992.

Please send letters of application to:

Eddie Tevelson Lach
Special Assistant to the Dean
College of Medicine
Room MN 149 A
Chandler Medical Center
Lexington, KY 40536-0084

The University of Kentucky is an Affirmative Action, Equal Opportunity Employer

POSTDOCTORAL FELLOW GENE EXPRESSION

DEC Pharmaceuticals Corporation has gathered a dedicated scientific and administrative team focused on achieving our corporate mission of developing antibody-based therapeutics.

We seek a Postdoctoral Fellow to join our growing team. This position will focus on expression of polymeric immunoglobulin in mammalian cells and the use of homologous recombination for expression of immunoglobulin by mammalian cells. The duties will include performing complex molecular biology techniques and sterile tissue culture as well as developing, executing, and evaluating complex experiments. The selected candidate will have a PhD or its equivalent in Molecular Biology, Genetics, or a related field.

IDEC Pharmaceuticals is a leader in the development of immunologically active monoclonal antibodies for therapeutic applications in the area of certain cancers, HIV infection, and autoimmune disorders. We pride ourselves in the excellence of our team members and invite you to join us. We offer a competitive compensation package and excellent working conditions. For consideration, please send your resume and references to: IDEC Pharmaceuticals Corp., Ad SPD, 11099 N. Torrey Pines Rd., Suite 160, La Jolla, CA 92037. EOE.



POSITIONS OPEN

A **POSTDOCTORAL POSITION** is available from 1 September 1992 (negotiable) to work with Drs. Barry Halliwell and Carroll Cross, studying the mechanisms by which toxic gases (O_3 , NO_2 , cigarette smoke) oxidatively damage the human lung. Work will be based at University of California Davis (UCD), but some visits to Kings College London to learn methods may be arranged. Applicants should have a Ph.D. in biological sciences or chemistry. Experience in HPLC, GC or MS is preferred. Apply to: Dr. Cross, Pulmonary Medicine, 4301 X Street, UCDMC, Sacramento, CA 95817; FAX: 916-734-7924; telephone: 916-734-3564. *Equal Opportunity Employer/Affirmative Action.*

POSTDOCTORAL POSITIONS are available immediately to study: (1) developmental roles of DNA repair using transgenic animals with special emphasis on mouse models of human genetic diseases such as xeroderma pigmentosum and Cockayne syndrome; (2) the role of DNA double strand breakage in homologous and nonhomologous recombination, gene amplification, and cytogenetic damage; and (3) role of extracellular matrix and matrix remodeling in regulation of tissue-specific gene expression, with an emphasis on mammary gland using transgenic mouse models. Preference will be given to applicants with prior experience in vector design and/or transgenic animal work. Strong molecular biology background required. Funding available through an NIEHS training grant (U.S. citizens and permanent residents only) and U.S. DOE. Send curriculum vitae and three references to: (1) Dr. James E. Cleaver, (2) Dr. William F. Morgan, or (3) Dr. Zena Werb, Laboratory of Radiobiology and Environmental Health, University of California, San Francisco, CA 94143-0750. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS AT OAK RIDGE NATIONAL LABORATORY: Four positions in murine molecular genetics available in Biology Division (with E. Rinchik, R. Woychik, L. Stubbs, and M. Mucenski) to study gene structure and function utilizing the mouse as a model system. Information/applications: **Postgraduate Research Program/Biology, Science/Engineering Education Division, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117; telephone: 615-576-3456.**

POSTDOCTORAL POSITION is available to investigate intracellular signal transduction in platelets. Experiments will examine a cytoskeletal protein that is both a cAMP-dependent protein kinase substrate and a member of the Ras superfamily of GTP-binding proteins. Recombinant DNA as well as traditional biochemical methods will be utilized. Send curriculum vitae and two letters of reference to: Nancy Andrews, Center for Thrombosis and Hemostasis, CB #7015, 435 Burnett-Womack Building, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599.

POSTDOCTORAL POSITIONS HARVARD MEDICAL SCHOOL

Using *Drosophila melanogaster* as a model system for studying molecular and development aspects of cancer-related genes. Emphasis is on (1) genes involved in normal and leukemic hematopoiesis, and (2) the *awd* gene, the fly homolog of a human tumor metastasis-suppressing gene. Experience with molecular biology techniques required. Send curriculum vitae and two to three letters of reference to: Dr. Charles Dearolf, Dana-Farber Cancer Institute, Jimmy Fund Laboratories #209, Harvard Medical School, 44 Binney Street, Boston, MA 02115. *An Equal Opportunity/Affirmative Action Employer.*

A **POSTDOCTORAL POSITION** is available to study the molecular biology and physiology of the renin-angiotensin system in transgenic animals. Experience in molecular biology or whole animal physiology is required. Funding is through an Institutional Training Grant. *Candidate must be a U.S. citizen or permanent resident.* Send letter stating interest, curriculum vitae and names of three references to: Curt D. Sigmund, Ph.D., University of Iowa College of Medicine, B150 ORP, 2501 Crosspark Road, Coralville, IA 52241. *The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS for recent Ph.D.'s to participate in an action research program on the structure, regulation and expression of human DNA repair genes and enzymes. Current research efforts focus on the molecule defects which underlie cancer-prone human genetic disorders and structural analysis of multifunctional repair enzymes by site-specific mutagenesis. Submit curriculum vitae and the names of three references to: Dr. Michael A. Sirover, **FELS INSTITUTE FOR CANCER RESEARCH AND MOLECULAR BIOLOGY**, Temple University School of Medicine, 3420 North Broad Street, Philadelphia, PA 19140. *Equal Opportunity Employer.*

POSTDOCTORAL ASSOCIATES. Molecular Biologist—Somatic Cell Geneticist—Applications are invited for two postdoctoral positions to work on projects involving the molecular analysis of human tumors. One position requires a strong background in recombinant DNA technology. Experience in chromosome walking and in the use of cosmid or YAC libraries desirable. The second position requires previous training in the use of somatic cell hybrids for chromosome mapping and/or microcell-mediated transfer. Submit curriculum vitae and names of three references to: JT, c/o Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. *We are an Equal Opportunity Employer.*



POSTDOCTORAL POSITION CARDIAC PHYSIOLOGY UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE

A postdoctoral position is available immediately for research in electrophysiology and excitation-contraction coupling of cardiac muscle. The research will involve the use of patch clamp techniques and fluorescent ion-indicators, including imaging, and flash photolysis of caged compound in single, voltage-clamped cardiac cells. Applicants should have a Ph.D. or M.D. and experience in electrophysiology. Interested individuals should send curriculum vitae and names of three references to: Dr. C. William Balke or Dr. Michael R. Gold, Department of Physiology, University of Maryland at Baltimore, 660 West Redwood Street, Baltimore, MD 21201. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW: CARDIOVASCULAR PHYSIOLOGY, TULANE UNIVERSITY. Position available for Ph.D. or M.D. with experience in cardiovascular autonomic physiology to assist in the development of a research project pertaining to autonomic regulation of the electrophysiologic properties of the neonatal heart. Experience with cardiovascular research using animal models and physiologic monitoring systems are essential. Experience in autonomic nervous system physiology highly desirable. Send curriculum vitae and names of three references to: Arthur S. Pick-off, M.D., Director, Pediatric Cardiology Section, Tulane University Medical Center, 1430 Tulane Avenue, New Orleans, LA 70112.

POSTDOCTORAL RESEARCH FELLOWSHIP, DEPARTMENT OF PATHOLOGY. The Department of Pathology at Fox Chase Cancer Center seeks applicants for a fellowship in surgical oncologic pathology and research in the area of molecular biology in tumor diagnosis. Applications for training fellowships for 1993-94 are open to pathologists wishing to be trained in those aspects of cancer diagnosis research. The position entails engagement of 50% of the time in research and 50% in surgical pathology of tumor diagnosis. Fellowships are awarded for 1 year and are subject to second-year renewal. Fellows will, in general, be selected from applicants with some postdoctoral research experience related to cancer or surgical pathology. Deadline for applications is 1 December 1992. For additional information, contact: Jeanne Nace, Administrative Assistant, Department of Pathology, Fox Chase Cancer Center. Applications should be submitted to: Jose Russo, M.D., Chairman, Selection Committee for Postdoctoral Fellowship, Department of Pathology, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Attention: Personnel Department. *We are an Equal Opportunity/Affirmative Action Employer.*

Public Authority for Applied Education and Training State of Kuwait

The Public Authority for Applied Education and Training invites applications for faculty positions for the 1991-92 academic year in the ranks and specializations indicated below:

- Professor, Associate Professor and Assistant Professor (earned Ph.D. in areas of specialization required)
- Lecturer, Teacher, Assistant Teacher (minimum Master's degree in areas of specialization required)

The positions are tenable at the College of Basic Education, a two-year post-secondary college in Kuwait.

Areas of Specialization:

Botany
Bio Chemistry
Geology
Developmental Psychology
Evaluation and Measurement
Computers in Education
Physical Education
Home Economics
Design & Production of Educational Materials
Art Education (wood work, metal work, framing and painting, design, needle work)
Physics
Zoology
Math (math analysis, teaching methods, algebra, geometry)
Library & Information Science
Educational Television
Music Education
Interior Design
Computer Science
Teaching Methodology (lesson planning, practicum in early childhood education)

Qualified applicants should write for applications, salary scale and conditions of service to:

PAAET
Cultural Division
Kuwait Embassy
3500 International Dr., N.W.
Washington, D.C. 20008
Tel: 202-364-2100

Completed applications should be returned to the above address and must include curriculum vitae, and official academic transcripts. Applications will be forwarded for action to the Public Authority in Kuwait.

NOTE: Documents submitted will not be returned.

POSTDOCTORAL POSITION IN MR RESEARCH

The Laboratory of Cardiac Energetics, National Heart, Lung and Blood Institute, NIH, Bethesda, Maryland invites applications from qualified individuals for a postdoctoral staff position in a group developing magnetic resonance imaging and spectroscopy using a whole-body 4 T magnet.

The ideal candidate must have a Ph.D. in physics, computer engineering or electrical/electronic engineering, with a strong interest in *in vivo* NMR, and a good track record for application of hardware innovation. This research program is currently making rapid progress in high field MR spectroscopy in volunteers and patients, and in functional brain mapping using gradient echo MRI.

Applicants should send curriculum vitae, a brief description of research experience and interests, and names and addresses of three references to:

Dr. Robert Turner
National Institutes of Health
National Heart, Lung & Blood Institute
Laboratory of Cardiac Energetics
Building 10, Room B1D161
9000 Rockville Pike
Bethesda, Maryland 20892



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TENURE TRACK ASSISTANT PROFESSOR MOLECULAR BIOLOGY AND PHARMACOLOGY

The Department of Molecular Biology and Pharmacology at Washington University School of Medicine is recruiting an individual at the level of Assistant Professor in the tenure track. Outstanding scientists working within the broad area of molecular biology and biological chemistry will be considered with an emphasis on those who are expert at using molecular genetic approaches to examine fundamental questions in gene regulation and function, particularly as they affect cellular differentiation.

Interested applicants should forward a curriculum vitae, a short summary of research plans, and the names and addresses of three references to:

Search Committee (c/o Jeffrey Gordon, Head)
Department of Molecular Biology and Pharmacology
Washington University School of Medicine
660 South Euclid Avenue, Box 8103
St. Louis, Missouri 63110

Washington University is an Affirmative Action/Equal Opportunity Employer committed to increasing the representation of women and minority groups on its faculty.

**ICRAF**

VACANCY ANNOUNCEMENT FOR SCIENTISTS/SENIOR SCIENTISTS

The International Centre for Research in Agroforestry (ICRAF) is an autonomous, non-profit organization, established in 1977 with headquarters in Nairobi, Kenya and a member of the Consultative Group on International Agricultural Research (CGIAR). ICRAF's overall goal is to mitigate tropical deforestation, land depletion and rural poverty through improved agroforestry systems.

AGROFORESTRY (BRAZIL)

The individual will be stationed at EMBRAPA's Agroforestry Research Centre in Porto Velho, Rondonia, Brazil, as part of a team with Brazilian scientists and members of the CIAT-IICA-CATIE consortium on natural resource management. Main responsibilities consist of conducting strategic research on nutrient cycling and soil fertility improvement in promising agroforestry alternatives to slash and burn and recuperation of abandoned lands. Work will be done in collaboration with a multidisciplinary team, both on-station and on-farm. The scientist will also collaborate in evaluating multipurpose trees, training activities and in strengthening national institutions.

Candidates must have a Ph.D. degree or equivalent in agronomy, soil science, horticulture or forestry with special emphasis on soil fertility/nutrient cycling. Other requirements include broad experience in tropical annual and/or perennial crops and/or pastures, experimental methods, and at least 5 years experience in internationally recognized research; demonstrated ability to design, formulate and coordinate research programs with minimal supervision; computer literacy and understanding of cross-cultural multidisciplinary environments. Fluency in English and Spanish or Portuguese is essential. Spanish speaking candidates will be expected to develop proficiency in Portuguese.

MULTI-PURPOSE TREE IMPROVEMENT (BRAZIL)

The individual will be stationed at EMBRAPA's Agroforestry Research Centre in Manaus, Brazil, and will work as part of a team with Brazilian scientists and members of the CATIE-CIAT-IICA consortium on natural resource management. Main responsibilities are: to collect, select and improve multipurpose tree germplasm of importance to provide agroforestry alternatives to slash and burn agriculture with emphasis on indigenous species, such as *Bractis gasipaes*; evaluating adaptability to acid soils, participate in training programs and strengthen national institutions. The individual will also be expected to develop a collaborative multi-local programme of species/provenance evaluation.

Candidates must have a Ph.D. degree or equivalent in breeding in forestry, annual crops or horticulture; and at least 5 years experience in internationally recognized research; demonstrated ability to design, formulate and coordinate research programs with minimal supervision; computer literacy and understanding of cross-cultural multidisciplinary environments. Fluency in English and Spanish or Portuguese is essential. Spanish speaking candidates will be expected to develop proficiency in Portuguese.

CONDITIONS OF EMPLOYMENT

Appointments to these international senior staff positions will be for two years beginning in July 1992 or soon thereafter. Competitive salary and benefits are comparable to similar international agricultural research institutions. Applicants should send their updated C.V., including salary details, names and full addresses (including telephone, fax/telex) of three referees so as to arrive not later than 15 June 1992 addressed to the Head of Human Resources, International Centre for Research in Agroforestry, P.O. Box 30677, Nairobi, Kenya, Tel: (254-2) 521450; Telex: 22038; E. Mail: CGI354, Telefax: (254-2) 521001; Cable: ICRAF.

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Cell Biologist Scale-Up Group

Genetic Therapy, Inc., a leading biotechnology company, is working with researchers at the National Institutes of Health and academic medical centers to develop retroviral mediated and other gene transfer technologies applicable to human gene therapy. The Scale-up group is currently seeking a scientist with a Ph.D. in cell biology or related fields and at least two years of postdoctoral experience in mammalian cell cultures. The candidate will develop scale-up cell culture techniques for viral vectors. Experience and familiarity with large scale cell cultures is helpful. GTI offers a stimulating and challenging research environment with competitive salaries and benefits. Please send a resume along with the names and addresses of two references to:



Genetic Therapy, Inc.
Human Resources - SU1
19 Firstfield Road
Gaithersburg, MD 20878

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Scientist

Large-Scale Cell Culture Process Development

Genentech, Inc., currently has an opportunity for an experienced Scientist. Working closely with other scientists, you will develop and scale-up cell culture processes for the production of recombinant proteins for clinical applications. Additionally, you will improve upon current state-of-the-art for bioreactor design and process control, cell/liquid separation and continuous culture. You will also work with various departments to specify process parameters as well as monitor and review early clinical production runs.

Requirements include an MS/PhD in Chemical Engineering, or related field, and hands-on experience in small- and large-scale cell culture. Strong leadership and communication skills are essential. Industrial experience is preferred.

We offer an excellent salary and benefits package. For immediate consideration, please send your resume to Genentech, Inc., Human Resources, Dept. LPG, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal opportunity employment. Women and minorities are encouraged to apply.

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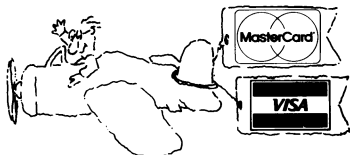
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Recruitment Ad for University of California Institute on Global Conflict and Cooperation

The University of California Institute on Global Conflict and Cooperation (IGCC) invites applications for two positions as Coordinator of Policy Research; one to begin September, 1992, the second to begin at a date to be arranged during the 1992/93 academic year.

IGCC is a systemwide research unit of the University of California, headquartered on the U.C. San Diego campus. It was established to conduct and encourage research and instructional programs in the causes of international conflict and the opportunities for international cooperation.

The Coordinators of Policy Research report to the Director of IGCC and are responsible for assisting in the organization and conduct of IGCC policy-related projects—for example, on conventional arms control, nuclear proliferation and nuclear arms control, Asian security relations, international environmental policy, and economic competitiveness and national security. The main responsibilities of the persons occupying these positions are to provide an effective link between scholarship in international affairs conducted in the UC system and the world of foreign policymaking in the United States and abroad. The Coordinators of Policy Research at one and the same time must possess scholarly credentials and enjoy the respect of academics, while being conversant with the major foreign policy issues of the day and having demonstrated experience in the foreign policymaking process. Among the specific tasks of the Coordinators of Policy Research are organizing international conferences addressing major foreign policy issues, preparing discussion papers for these, disseminating the findings of IGCC policy-relevant studies as widely as possible, working with research directors and development personnel on fundraising, and supervising postdoctoral fellows in related research fields. Teaching one class a year is possible.

IGCC seeks candidates who have a Ph.D. in international relations, political science, or natural science, experience in the policy world, and a demonstrated capacity to contribute effectively to the IGCC policy studies program.

Salary and rank commensurate with qualifications and based on UC payscale. Send vitae, names of five references, samples of written work and any other relevant materials indicating professional accomplishments directly to the following address: University of California, San Diego, Policy Research Search Committee, (SCI) Institute on Global Conflict and Cooperation (0518), 9500 Gilman Drive, La Jolla, CA 92093-0518. All applications received by August 1, 1992 or thereafter until positions are filled will receive thorough consideration. UC is an AA/EEO employer.

RESEARCH SCIENTISTS

ICOS Corporation is a biotechnology company pioneering scientific development in the fields of cell trafficking and cell activation. Positions are available for scientists with postdoctoral experience in the following areas:

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Research Scientist Immunology

Genetic Therapy, Inc., a leading biotechnology company, is working with researchers at the National Institutes of Health and academic medical centers to develop retroviral mediated and other gene transfer technologies applicable to human gene therapy. The Immunology Department's Cancer Gene Therapy Program is currently seeking scientists specializing in tumor immunology, tumor cell biology and development of *in vivo* tumor models. This position requires a Ph.D. and at least four years postgraduate experience. GTI offers a stimulating and challenging research environment with competitive salaries and benefits. Please send a resume along with the names and addresses of two references to:



Genetic Therapy, Inc.
Human Resources -
CGT-RS1
19 Firstfield Road
Gaithersburg, MD 20878

GTI is an equal opportunity
employer.

POSITIONS OPEN

ALFRED P. SLOAN FOUNDATION

POSTDOCTORAL FELLOWSHIPS IN MOLECULAR STUDIES OF EVOLUTION. Up to ten awards. Total compensation: \$25,000 plus \$10,000 research funds per year. Tenable for 1 to 2 years at universities or non-profit research institutions in the United States or Canada. Applicant should be prospective or recent Ph.D. in molecular biology, evolutionary biology, or related discipline. Deadline: 4 September 1992. For details, contact: **Dr. Michael S. Teitelbaum, Alfred P. Sloan Foundation, 630 Fifth Avenue, New York, NY 10111. Telephone: 212-649-1649.**

CELLULAR AND MOLECULAR HEMATOPOIESIS

RESEARCH INVESTIGATOR to join group studying stem cell regulation, with projects including: (1) novel stem cell cytokine receptor genes; (2) stromal cell cytokine production and regulation; (3) T cell pathway-specific cytokine induction; and (4) hematopoiesis following bone marrow transplantation. Applicant should have demonstrated experience in mammalian cell culture and molecular biology. Appointment to be at the level of **POSTDOCTORAL FELLOW** or **ASSISTANT RESEARCH SCIENTIST**, depending upon qualifications. Applications, including three references, should be sent to: **Stephen G. Emerson, M.D., Ph.D., Cell and Molecular Biology Program & Department of Internal Medicine, University of Michigan, Room 5510B MSRB, 1150 West Medical Center Drive, Ann Arbor, MI 48104. An Equal Opportunity/Affirmative Action Employer.**

TEACHING FELLOWSHIP, COLLIN COUNTY COMMUNITY COLLEGE (CCCC). Requires master's degree with a major and/or 18 graduate semester hours in the teaching discipline from a regionally accredited institution and a MINIMUM of NO college level teaching experience to a MAXIMUM of no more than 3 years of full-time equivalent college teaching. Salary: \$25,000 plus benefits. Call: 214-881-5666 for more information and to request an application. *Ethnic minorities and persons with disabilities are encouraged to apply. CCCC does not discriminate on the basis of race, color, religion, sex, national origin, age, disability or veteran status.*

POSTDOCTORAL FELLOW/RESEARCH ASSISTANT. Two positions to study the structure/function of the yeast mitochondrial ATP synthase and the evolution of enzyme specificity in isocitrate dehydrogenase. Experience in molecular biology, genetics or protein biochemistry desirable. Competitive salary and benefits. Send curriculum vitae and names of three referees to: **Tony Dean, Biochemistry, UHS/CMS, 3333 Green Bay Road, North Chicago, IL 60064-3095. UHS/CMS is an Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH FELLOW to work on characterizing genes acting to control the expression of murine T-lymphocyte differentiation antigens. Project involves determining the molecular basis of mutant somatic cell lines showing altered expression of the CD8 or Thy-1 cell surface glycoproteins. Possible approaches include genomic sequencing, in vitro, and in vivo footprinting, or the construction of cDNA libraries and the use of subtractive hybridization. An opportunity for someone to work relatively independently in an excellent research environment. Requires a Ph.D. in molecular biology or a related field and an interest in basic immunology or cellular differentiation. Send curriculum vitae to: **The Salk Institute, Department BH, P.O. Box 85800, San Diego, CA 92186-5800. Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE to study the regulation of expression and function of $\alpha 7$ integrin (*JCB* 117, 643) during the development of the skeletal myogenic lineage using monoclonal antibodies and recombinant DNA. A limited amount of teaching will include delivery of immunology laboratories to first-year medical students. Experience in molecular biology and immunology preferred. Potential for annual reappointment; to start 20 August 1992, or thereafter. Send curriculum vitae and names of three references to: **Stephen J. Kaufman, Ph.D., University of Illinois, Department of Cell & Structural Biology, 506 Morrill Hall, 505 South Goodwin, Urbana, IL 61801. The University of Illinois is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE MOLECULAR GENETICS

Position available 1 July 1992 to study DNA rearrangement in the ciliate *Tetrahymena*. Experience in recombinant DNA technology and/or DNA sequence analysis is required. Send curriculum vitae and names and telephone numbers of three references to: **Dr. Kathleen Karrer, Biology Department, Marquette University, Milwaukee, WI 53233. Equal Employment Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH POSITION now available for studies of growth factor regulation of cancer cell proliferation. Opportunity to participate in collaborative research within the Division of Reproductive Endocrinology. Experience in cell and molecular biology is required. Send curriculum vitae, statement of interests, and names of three references to: **Sydney A. Shain, Ph.D., Professor, Department of Obstetrics and Gynecology, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, TX 78284-7836. An Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE POSITIONS DEPARTMENT OF CROP AND SOIL SCIENCES

Two **POSTDOCTORAL RESEARCH ASSOCIATE** positions available immediately. (1) To construct plant expression vectors by in vitro mutagenesis. Must have experience in gene cloning using plasmid vectors and in oligonucleotide-directed mutagenesis. (2) Genetic engineering of potatoes or maize. Both positions annually appointed, renewable up to 3 years based on funding. Send curriculum vitae, transcripts and three letters of recommendation to: **Dr. M. Sticklen, 202 Pesticide Research Center, Michigan State University, East Lansing, MI 48824; FAX: 517-353-5598.**

PHYSICIST (POSTDOCTORAL RESEARCH ASSOCIATE): Job Site: Troy, New York. Study dynamic scaling in epitaxial growth using HRLEED, STM and other interfacial characterization techniques. Require Ph.D. in physics; 2 years of experience in job offered or 2 years of experience as physics research assistant in experimental surface and interfacial physics, including characterization techniques; knowledge of electron diffraction theory and thin film growth demonstrated by thesis or published papers; proficient with HRLEED, STM. Salary: \$25,650. Send résumé, in duplicate, two professional references to: **C. Hartman, NYS Department of Labor, 100 Broad Street, Glens Falls, NY 12801. Refer to: J.O. #NY0001266. DOT CODE 023-061-014.**

RESEARCH ASSOCIATE MOLECULAR BIOLOGY

Applications are invited for a research position available immediately in a small, independent, privately endowed laboratory newly organized for research in the molecular biology of human diseases, with emphasis on the development of novel diagnostic tests for diseases and disease agents. Experience in biochemistry and molecular genetics or cell biology required. Familiarity with monoclonal antibody techniques and molecular cloning useful; but demonstrated scientific originality and imagination more important than area of specialized expertise. Apply by mailing résumé and a brief statement of research interests and accomplishments to: **EPG Laboratories, 111 East Shore Road, Manhasset, Long Island, NY 11030.**

RESEARCH ASSOCIATE

The Department of Biochemistry and Cell Biology announces the availability of a research associate position in the areas of metalloprotein structure and function. Previous experience in one of the following areas is highly desirable: purification and/or characterization of membrane-bound enzymes, electron transport proteins, biophysical technique (especially epr). Please include the names of three individuals who are willing to provide references on behalf of the applicant.

All information should be sent immediately to: **G. Palmer, Department of Biochemistry and Cell Biology, Rice University, P.O. Box 1892, Houston, TX 77251. Rice University is an Equal Opportunity Employer.**

POSITIONS OPEN

RESEARCH ASSOCIATE (LAB TECH. III) For NIH-funded study of heat shock protein 27 in breast cancer. Duties include performing routine molecular biology techniques and ordering supplies. Minimum qualification 1 year of experience with molecular biology techniques plus a B.S. degree, \$22,484 per year. Forward résumé and list of references to: **Dr. Steve Carper, Chemistry Department, University of Nevada, Las Vegas, Las Vegas, NV 89154, FAX: 702-597-4159. Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE position available immediately to study molecular aspects of growth factors, receptors, and signal transduction in normal and malignant hemopoietic cells. Ph.D., M.D., or equivalent and 2 years of postdoctoral experience in hemopoiesis and molecular biology research required. Send curriculum vitae and references by 26 June 1992 to: **Dr. K. S. Zuckerman, University of Alabama at Birmingham, 513 Tinsley Harrison Tower, Birmingham, AL 35294. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH AFFILIATE for an NIH-funded research project. Cytokines in inflammatory diseases will be investigated at the cell level with special emphasis on ultrastructural and functional characterization. Candidates should have a Ph.D. degree with experience and interest in protein biochemistry and molecular biology, tissue culture, immunochromatography and electron microscopy. Submit curriculum vitae and the names and addresses of three references: **Dr. Steven A. Rich, Health Research, Inc., Wadsworth Center for Laboratories and Research, New York State Department of Health, Empire State Plaza, P.O. Box 509, Albany, NY 12201-0509.**

ASSOCIATE SPECIALIST in molecular and cell biology, Division of Biochemistry and Molecular Biology. We are able to support an individual (\$38,448 to \$46,296 per year) to do research in genetic toxicology, cellular oxidative damage, aging, and carcinogenesis. Supervise analytical facility of computer-controlled HPLC's (with electrochemical, chemiluminescence and UV-diode array detection), and capillary GC (with CIMS, NP and EC detection). Candidates need a Ph.D. degree in pharmacology or related field and demonstrated productivity in analytical chemistry (knowledge of computers), DNA adducts, cellular oxidative damage, aging, and carcinogenesis. Experience in the handling of animals is required.

Qualified candidates should send a letter of application, résumé, names of three references, and copies of relevant publications to: **Dr. Bruce N. Ames, Division of Biochemistry and Molecular Biology, 401 Barker Hall, University of California (UC), Berkeley, CA 94720. Deadline for receipt of applications is Friday 3 July 1992 or 30 days from publication date, whichever is later. UC Berkeley is an Equal Opportunity Affirmative Action Employer.**

COMMONWEALTH OF PENNSYLVANIA ENVIRONMENTAL ECONOMIST SALARY RANGE: \$39,511 TO \$61,066

The Pennsylvania Department of Environmental Resources has an opening for an economist specializing in either ecological or engineering economics or both. The position will focus on economic aspects of protecting public health and the environment and may, depending on the applicant's qualifications, include natural resource valuation/cost recovery, cost-risk-benefit issues in the choice of remedial alternatives and evaluation of engineering effectiveness, impacts of permitting on high value natural resources, and costs of policy implementation versus health and other costs of not implementing. It will involve development and review activities, expert witnessing and staff training. Strong writing and communication skills and a doctorate in one or more of the above disciplines is required. This position is located in Harrisburg, Pennsylvania. Send résumés with copy of this ad to: **The Pennsylvania Department of Environmental Resources, Bureau of Personnel (EE), Room 717, Executive House, P.O. Box 2357, Harrisburg, PA 17120. For further information, call Linda Walde at: 717-783-2021.**

The Department is an Equal Employment Opportunity/Affirmative Action Employer.

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We are seeking a candidate with a Ph.D. (or equivalent degree) with a strong background in biochemistry and experience in biochemistry/biology specifically related to bone. A minimum of 2 years of postdoctoral experience preferred and demonstrated competency in the bone area is required. A background in growth factors or in vivo/in vitro osteo-cell responses to various stimuli is desirable. Need highly motivated individual who will take a leadership role in many levels of product R&D.

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21 to 25 July 1992, San Francisco
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17 to 20 August 1992, Boston
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DEAN COLLEGE OF ARTS AND SCIENCE VANDERBILT UNIVERSITY

Vanderbilt University invites applications and nominations for the position of Dean, College of Arts and Science.

The Dean bears chief responsibility for the academic, fiscal, and administrative leadership of the College of Arts and Science and reports directly to the Provost. We seek a distinguished scholar with outstanding abilities in leadership and administration, who is capable of fostering high quality research and teaching. Candidates must qualify for appointment to the rank of Full Professor with tenure in a department of the College.

Vanderbilt University, an independent, private institution founded in 1873, has approximately 9,000 students and 1,400 full-time faculty members on a single campus. Its schools include the College of Arts and Science, the Graduate School, Blair School of Music, Owen Graduate School of Management, Peabody College, and the schools of Engineering, Law, Medicine, and Nursing.

The College of Arts and Science, with approximately 3,400 undergraduate and 600 graduate students, occupies a central position within the University. Its more than 300 full-time faculty members, in 22 Departments and 12 Programs, pursue a broad range of activities in teaching and research.

Vanderbilt University is committed to the principles of diversity and affirmative action. It strongly encourages nominations of, and application by, minority and female candidates. Vanderbilt is an Affirmative Action, Equal Opportunity Employer.

Applications should include a letter of interest, a curriculum vitae and the names, addresses, and telephone numbers of at least four references. Nominations should be made by letter. Please send these materials to:

**Professor Randolph Blake, Chair
College Deanship Search Committee
Office of the Provost
221 Kirkland Hall
Vanderbilt University
Nashville, Tennessee 37240
FAX: 615-322-7629**

The Search Committee will begin reviewing applications immediately and continue until the position is filled.

U.S. Public Health Service

EPIDEMIOLOGY TRAINING PROGRAM

Applications are currently being accepted for the 1993 U.S. Public Health Service (PHS) Epidemiology Training Program. **APPLICATIONS ARE DUE SEPTEMBER 14, 1992.** Training begins approximately July 1, 1993.

Features: The first year, trainees attend a university to study epidemiology, biostatistics, and related subjects. The subsequent two years, they work with senior epidemiologists for one of the following agencies: National Institutes of Health, Food and Drug Administration, National Center for Health Statistics, or Alcohol, Drug Abuse, and Mental Health Administration. Individuals who have a year of training in epidemiology may be accepted for the final two years of the program.

Compensation depends on the chosen personnel system. The two most common are:

1. A limited appointment in the Commissioned Corps of the USPHS in which the usual rank for program entrants will be Lieutenant (O-3). The starting salary for an O-3 physician with dependents is about \$42,300 depending on training and experience. For non-physicians of the same rank with dependents, the starting salary is about \$37,300. Approximately 37% of these salaries is exempt from federal, state, and local income tax.

2. Appointment as a staff fellow in the sponsoring agency with starting salaries of approximately \$42,500 for physicians and \$28,000 for non-physicians. An increase of up to \$2,000 per year will take effect in the second and third years.

Eligibility: M.D., D.O., Doctorate or Ph.D. in a health discipline, and one year of postdoctoral training/experience by July 1, 1993; U.S. citizenship by September 14, 1992; acceptability to a M.P.H. program, or more advanced public health degree for the first year.

To obtain an application, send your name and address to: **NIH Training Center, Epidemiology Training Program, EPS/100, 9000 Rockville Pike, Bethesda, MD 20892, or call 301/402-3402.**

The PHS Epidemiology Training Program is an equal opportunity employer.

POSITIONS OPEN

LEAD CYTOMETRY TECHNOLOGIST

Children's Hospital, Boston, is seeking a full-time **LEAD CYTOMETRY TECHNOLOGIST** in our Genetics Department. Responsibilities include preparing and operating machines for cell sorting experiments. Requires experience with flow cytometry and computers. Please send résumés to: **Doreen McGaff, Human Resources, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. Equal Opportunity Employer.**

ASSOCIATE RESEARCH SCIENTIST

To join ongoing research on water movements across ocular epithelia and other cells. Some work involves culturing cells and assaying osmotic and diffusional water permeabilities of cells and subcellular elements. Other work involves biochemical and molecular biological techniques to study membrane proteins. Cell volumes are measured with optical techniques. Expertise required in cell culture, biochemistry, physical optics, mathematical and numerical methods, computer operations and interfaces, electronics, programming, etc. Ph.D. or M.D. Salary: \$30,000 per year. Start: 1 July 1992. Send curriculum vitae to: **Dr. Jorge Fischberg, Department of Ophthalmology, College of Physicians and Surgeons, Columbia University, 630 West 168th Street, New York, NY 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.**

NATURAL PRODUCTS CHEMIST. Campbell Research and Development, a division of the Campbell Soup Company, in Davis, California, is seeking a natural products chemist. The successful candidate must be able to independently develop methods for the isolation, identification and further analysis of plant metabolites using GC, HPLC and other appropriate methods. Knowledge of plant metabolites ("phytochemicals") as related to human nutrition is desirable. Must have excellent communication skills. Requires Ph.D. or M.S. in nutrition, biochemistry, chemistry or other areas relating to human health and plant metabolites. Starting date: 1 August 1992. Facility located 6 miles from the University of California, Davis, campus. Submit résumé, transcripts and names of references to: **Ms. Dawn Adams, Campbell Research and Development, 28605 County Road 104, Davis, CA 95616. Telephone: 916-753-2116.**

MOLECULAR AND CELLULAR NEUROBIOLOGISTS

MONTREAL NEUROLOGICAL INSTITUTE MCGILL UNIVERSITY

The Montreal Neurological Institute (MNI) is establishing a research group of five molecular and/or cellular neurobiologists to study mechanisms of neuronal survival. Neurotrophins and other survival-promoting molecules will be one, although not the only, research focus. A mid-career or senior scientist with a strong publication record and funding history is being sought as group leader. Other appointments will be made at appropriate ranks with McGill University's Faculty of Medicine. The group will be housed in newly developed laboratory space and provided with ample set-up funds. The academic environment and collaborative potential for neuroscience at the MNI, at McGill and in Montreal are excellent. Montreal is a cosmopolitan, bilingual city known for its high quality of life.

Applications should be sent to: **Dr. Richard A. Murphy, Director, Montreal Neurological Institute, 3801 University Street, Montreal, Quebec, H3A 2B4. The deadline for receipt of applications is 31 August 1992.**

McGill University is committed to Equity in Employment.

SENIOR PROGRAMMER/ANALYST IN CRYSTALLOGRAPHY to participate in the further development of software and algorithms used in protein crystallography. The individual will work closely with Drs. Hendrickson and Bourne. A Ph.D. in x-ray crystallography or a closely related field, with at least 4 years of experience with Fortran and C programming is prerequisite. Send, FAX, or Email curriculum vitae and the names of three references to: **Dr. Philip E. Bourne, Howard Hughes Medical Institute, Columbia University, 630 West 168th Street, New York, NY 10032. FAX: 212-305-7379; Email system@cuhhca.hhmi.columbia.edu.**

POSITIONS OPEN

FACULTY OF SCIENCE AND TECHNOLOGY (NATHAN CAMPUS)

RESEARCH SCIENTIST NMR SPECTROSCOPY

5-YEAR FIXED-TERM APPOINTMENT (READVERTISED); Ref F5-92

The appointee will take responsibility for the operation and maintenance of the new NMR Facility comprising one 600-, one 400- and two 200-MHz spectrometers, supported by a network of UNIX-based workstations.

Duties will include supervision of spectrometer usage, training of users, and development and implementation of new NMR methods to support diverse interdisciplinary research projects in the School of Science. It is expected that the appointee will undertake research in collaboration with existing research groups or set up an independent research program. There will also be the opportunity to undertake a small amount of teaching of NMR spectroscopy to honors and postgraduate research students.

A relevant Ph.D. together with substantial experience in NMR spectroscopy and familiarity with the operation and maintenance of state-of-the-art NMR instrumentation are essential.

Appointment will be made at Research Fellow Grade I or II level commensurate with qualifications and experience and will be within the following ranges: Research Fellow Grade II: A\$39,463 to A\$48,688 per annum; Research Fellow Grade I: A\$30,340 to A\$37,618 per annum. The position is renewable after the 5-year fixed-term period.

We invite expressions of interest, indicating your area of expertise, by facsimile +61 7 875-7656 to: **The Faculty Administrator, Faculty of Science and Technology, by 19 June 1992.**

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STAFF SCIENTIST

Experienced in molecular techniques/hematology. Responsible for the coordination and development of a stem cell analysis program for an outpatient cancer treatment facility. Qualified candidates send a letter of application and résumé to: **Dr. Bonni J. Hazelton, Response Technologies, Inc. (RTI), 1775 Moriah Woods Boulevard, Suite 11, Memphis, TN 38117. RTI is an Equal Opportunity Employer.**

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TOPICS COVERED: • History of research on ACP1 • Genetics of ACP1 • Function and biochemical mechanisms of ACP1 • Modulation of activity of ACP1 • Human adaptability and ACP1. • Future research on ACP1.

INVITED SPEAKERS: • E. Bottini, Italy; • J. Dising, Denmark; • D. Hopkinson, England; • H. Mohrenweiser, USA; • G. Sensabaugh, USA.

For information contact:

**Professor E. Bottini
Dipartimento di Chirurgia
II Università di Roma-Torvergata
Via O. Raimondo, 1
00173 Roma, Italy
Tel-FAX-39-6-72592852**

POSITIONS OPEN

SOFTWARE ENGINEER. Requires Ph.D. or equivalent in Computer Science with specialization in design and implementation of distributed languages, concurrent object-oriented languages, compiler technology and runtime support systems for distributed environments, and 3 years of experience in software engineering, including compiler design and implementation, object-oriented concurrent language design, distributed language design, and application development using C and UNIX. To lead team in architecting, designing and implementing an object-oriented interface definition language and compiler for a distributed object management facility. Also responsible for managing the relationship with a joint development partner for this language and compiler. Salary: \$75,200 per year. Forty hours per week. Job site/interview: Mountain View, California. Clip ad and send with résumé no later than 19 June 1992 to: **Job #MLM #15470, P.O. Box 9560, Sacramento, CA 95823-0560. Upon hire must show immediate ability to work in the United States. Equal Opportunity Employer.**

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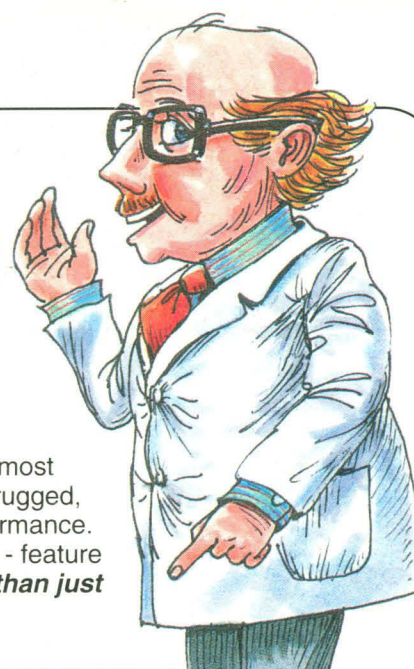


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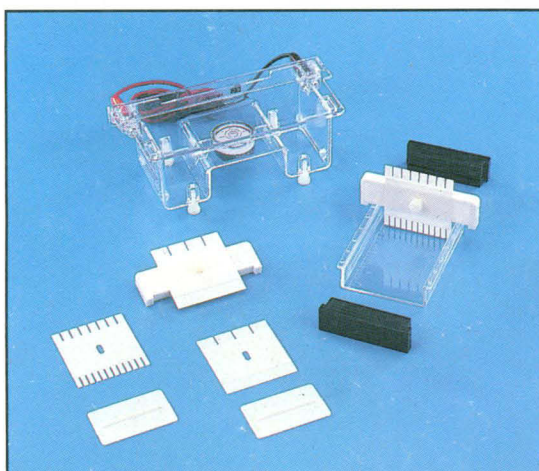
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