

Separate, quantify, or sequence carbohydrates in one day with Glyko FACE® technology

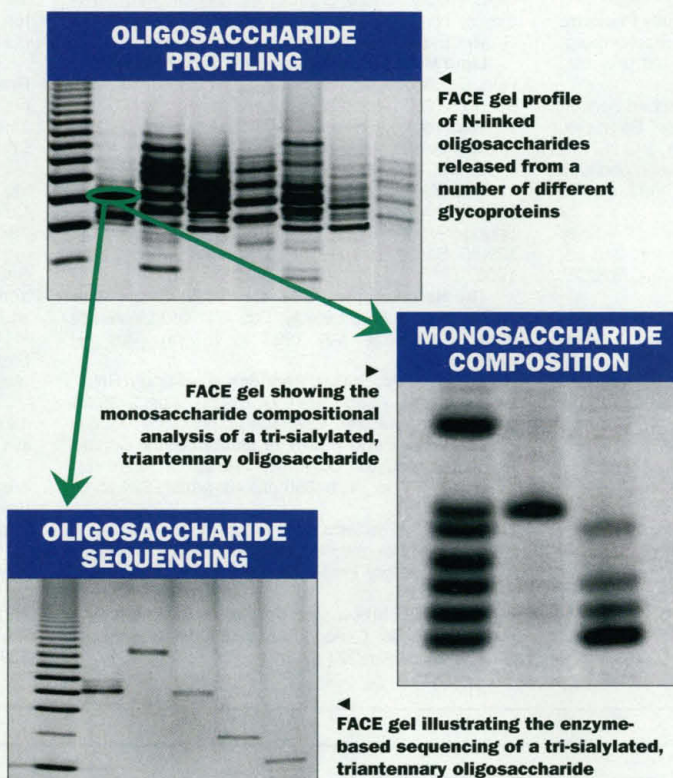
If you're working with DNA or protein, you're ready to work with carbohydrates

Glyko's FACE (*Fluorophore Assisted Carbohydrate Electrophoresis*) technology, makes it possible for you to work with and analyze complex carbohydrates using the same technique you already use every day in your laboratory: polyacrylamide gel electrophoresis.

Now, in less than one day, you can perform profiling, composition, or sequencing experiments such as the ones shown here, using FACE chemistry kits.

Color-coded FACE kits make carbohydrate analysis easy and reliable

FACE kits are color-coded and are designed to provide a complete approach to carbohydrate analysis...starting



with the enzymatic or chemical release from the glycoconjugate to the separation, isolation, or sequencing of oligosaccharides.

Everything you need is included: enzymes or release chemicals, fluorescent-labeling reagents, electrophoresis

standards, controls, running buffers, precast polyacrylamide gels, and complete protocols.

The FACE Imager and FACE Analytical Software give you the ability to analyze, quantify, and document the results of N-linked and O-linked oligosaccharide profiling, monosaccharide composition, and sequencing gels



Glyko FACE kits now available for carbohydrate or glycoconjugate analysis include:

- **N-LINKED OLIGOSACCHARIDE PROFILING KIT**
- **O-LINKED OLIGOSACCHARIDE PROFILING KIT**
- **MONOSACCHARIDE COMPOSITION KIT**
- **N-LINKED OLIGOSACCHARIDE SEQUENCING KIT**
- **O-LINKED OLIGOSACCHARIDE SEQUENCING KIT**

Sequence your oligosaccharides with Glyko recombinant glycosidases

Glyko offers the most complete line of recombinant glycosidases available, each cloned to be free of other glycosidases, protease activity, and carbohydrates:

- **PNGase F**, releases Asn-linked oligosaccharides
- **NANase I**, releases α 2-3 N-acetylneuraminic acid
- **NANase II**, releases α 2-3,6 N-acetylneuraminic acid
- **NANase III**, releases α 2-3,6,8 N-acetylneuraminic acid
- **Neuraminic Acid Linkage Analysis Kit** contains NANase I, II, and III
- **HEXase I**, releases β 1-2,4,6 N-acetylglucosamine
- **MANase I**, releases α 1-2,3,6 mannose
- **FUCase I**, releases α 1-6 fucose

We want to be your carbohydrate research partner

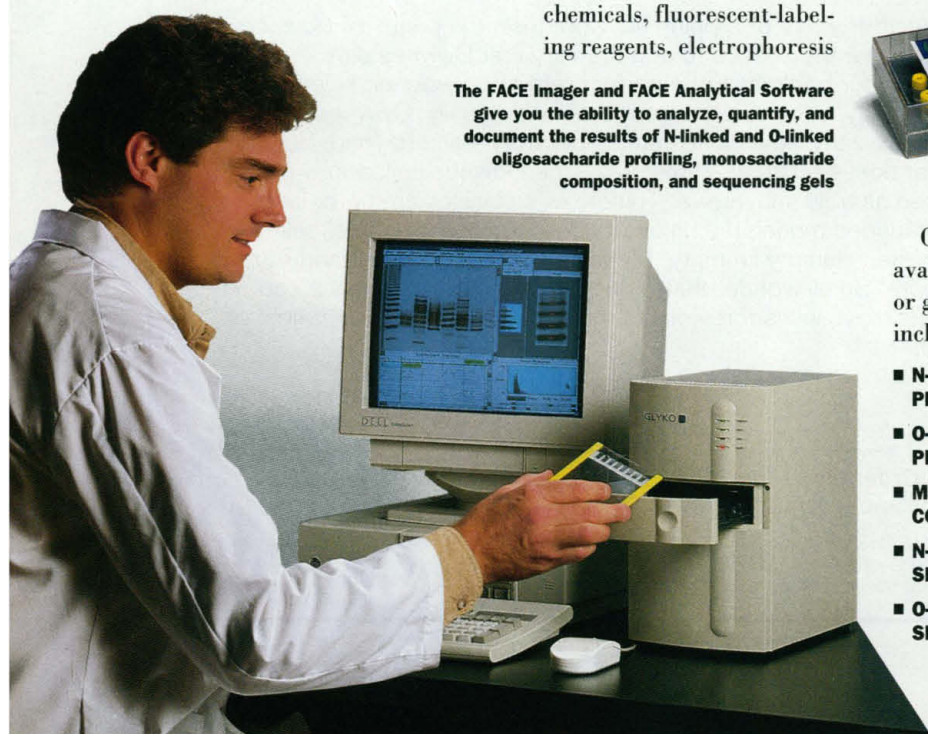
When your research requires a unique application of FACE technology, Glyko scientists will work with you to develop a custom FACE kit.

If you have only an occasional need for carbohydrate analysis, or lack the personnel to perform the analyses you require, our scientists can do it for you.

For more information, please call Glyko, Inc. toll free at 1 800 33 GLYKO (334 5956) or fax us at 1 415 382 7889.



Circle No. 16 on Readers' Service Card

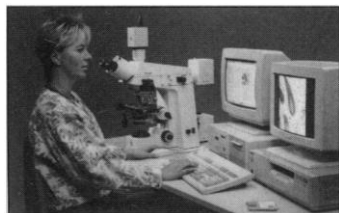


Adhesion Antibodies

Several new additions have been made to an extensive line of adhesion antibodies for use in flow cytometry, immunochemical staining, immunoprecipitation, protein immunoblotting, and mitogen studies. **T Cell Diagnostics.** Circle 138.

Image Archiving Workstation

AxioDoc, a powerful workstation that extends the possibilities for microscope image archiving by combining measurement and image database functions in one instrument, can replace traditional photographic archiving of images in many applications. A video camera, a powerful computer-controlled frame-grabber, and a flexible image database management package provide digital replacement for the familiar 35-mm camera and slide files. On-line display



of the video image shows the user exactly what will be stored, and allows adjustment of parameters such as intensity and color balance for optimum image quality. Morphometric measurements can be made interactively, and the measured data can be linked to the images in the developing database. **Carl Zeiss.** Circle 139.

Gold Labeling Reagents

Nanogold gold particles can now be attached covalently to other molecules at specific sites. Two forms of gold are available, one that reacts with thiols and one that couples to amines. Molecules that can be labeled include antibodies, other proteins, peptides, lipids, carbohydrates, RNA, and DNA. The gold conjugates can then be

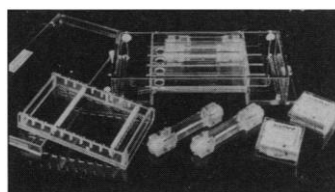
used as probes for electron or light microscopy, cytohistochemistry, blots, and gels. The small size of Nanogold (1.4 nm) allows superior penetration compared with larger colloidal gold probes. Silver enhancement enlarges the gold particles to 10 to 100 nm for easy detection by microscopy and amplifies the signal so 10^{-19} moles can be detected on blots by eye. **Nanoprobes.** Circle 140.

Chronobiology Kit

The Chronobiology Kit is a data collection and analysis system designed for long-term recording of animal activity data such as drinking, feeding, wheel running, or movement. Analysis capabilities include three different types of actograms, five periodograms, activity profiles, time series plots, and more. The collection program automatically flags channels for loss of signal and can control the cycle of 24 external devices, such as lights or deprivation devices. The software is designed for the circadian biologist who needs to collect and analyze data with a minimum of effort. It runs on IBM-compatible computers. **Stanford Software Systems.** Circle 141.

Electroelution System

The Elutrap System is an electroseparation apparatus designed to isolate and concentrate nucleic acids and proteins from gel slices or dilute solutions. Recovery rates of 95% or greater can be achieved; salts and contaminants are removed without sample denaturation or loss due to surface adsorption. Electroelution is carried out by placing a gel slice or sample within the Elutrap device, which is then inserted into one of the channels of the tray insert



of the Elutrap electroelution chamber. Current is applied, causing the sample molecule to migrate through the Elutrap device into a trap formed by specialized exclusion membranes. The method can be used to purify peptide fragments greater than 3 to 5 kD from acrylamide gels, or to isolate nucleic acids from 14 bases to 150,000 base pairs in small concentrations. **Schleicher & Schuell.** Circle 142.

Protein Structure Database

A new version of the Iritis protein structure database incorporates an intuitive graphical user interface and an improved search engine. The graphical interface reduces the query-building process to a simple selection of on-screen "buttons" that reflect the types of searches commonly made on the database. The database can help rationalize protein engineering projects, reducing the time needed to identify target sites and engineer the desirable properties of individual proteins. **Oxford Molecular.** Circle 143.

RNA Synthesis Reagents

A line of RNA synthesis reagents and columns includes highly purified RNA phosphoramidite monomers, which have a guaranteed coupling efficiency of more than 97%. Columns are supplied with end caps that fit most popular synthesizers from both Eppendorf and Applied Biosystems.

Based on controlled pore glass, the columns are available with a 1000 Å pore size to facilitate the synthesis of long oligomers. A special deprotection scheme eliminates the loss of RNA product in the deprotection process. **Eppendorf North America.** Circle 144.

Literature

"New High-Titer Alkaline Phosphatase Conjugates" and "Antibody Purification and Adsorption" are the lead articles in issues number 10 and 11 of *Sigma ImmunoNotes*. **Sigma Chemical.** Circle 145.

Reduced Column Bleed: J & W Scientific for the Chromatography Connoisseur is a brochure that describes the manufacturer's success in reducing column bleed by 50% on hundreds of capillary columns. **J & W Scientific.** Circle 146.

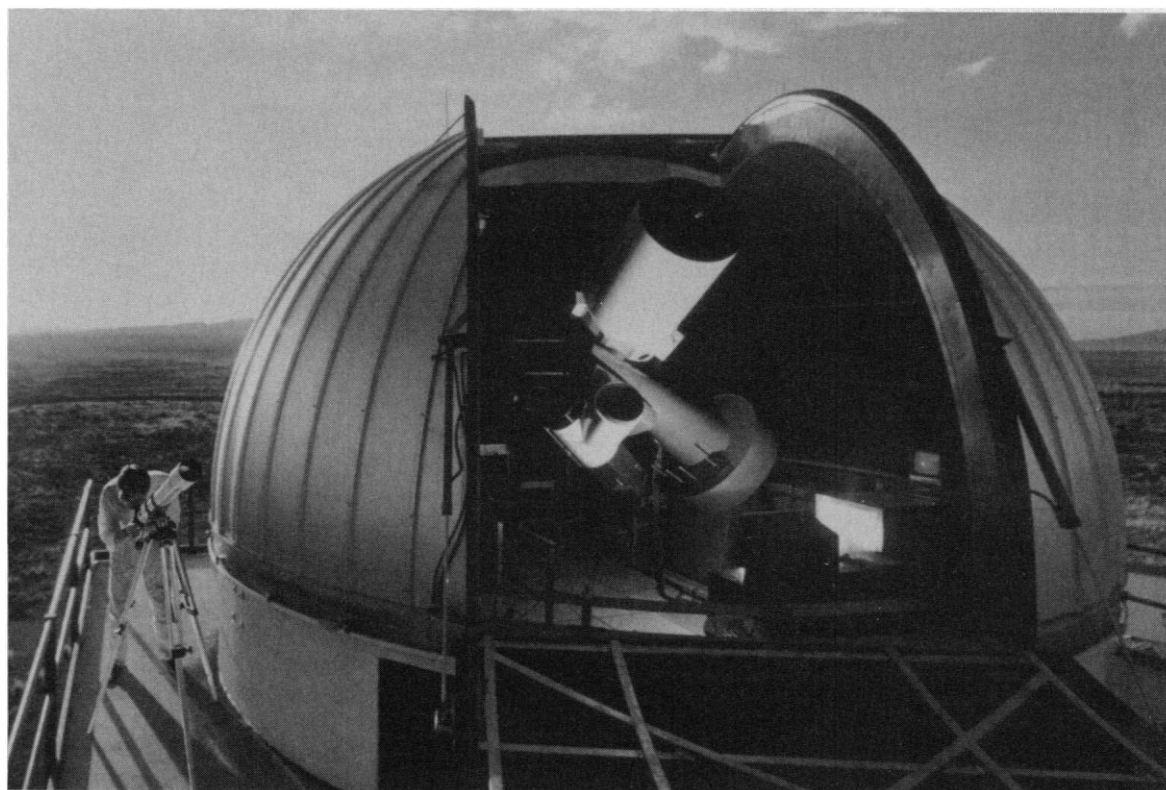
1994-1995 Millipore Direct is a 592-page compendium of several thousand products in a wide variety of applications in areas such as environmental testing, microbiology, chemical/industrial, hospital/pharmacy, quality assurance, medical/clinical/diagnostic, original equipment manufacturers/custom products, lab water purification, and molecular biology. **Millipore.** Circle 147.

Bachem California 1993-1994 Catalog contains a comprehensive selection of bioactive peptides, synthetic intermediates, and recombinant growth factors and cytokines. **Bachem California.** Circle 148.

Cell Adhesion Research: Experimental Considerations is a reference wall chart that includes a listing of cell adhesion molecules, ligands, and molecular characteristics. **Becton Dickinson.** Circle 149.

ACER 2000: Advanced Capillary Extrusion Rheometer System is a brochure that covers techniques, applications, and design features of this instrument. **Polymer Laboratories.** Circle 150.

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



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POSITIONS OPEN

MOLECULAR GENETICIST

The Division of Hematopathology in the Department of Pathology at Vanderbilt University invites application for a tenure-track position at the **ASSISTANT PROFESSOR** level. The position will allow 50% time for independent research with the remainder devoted to establishing a core facility to support research by residents, postdoctoral fellows and faculty.

This individual will organize and facilitate the development of research techniques and their application in the study of human neoplasms and reactive disorders of the hematopoietic lymphoid system. Applicants should have a Ph.D. degree with extensive experience in molecular biology. For further information regarding the position address inquiries to: **Dr. Robert Collins, Department of Pathology, Vanderbilt University Medical Center, 21st and Garland Avenue, C3321-MCN, Nashville, TN 37232.**

Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.

East Tennessee State University (ETSU)—College of Medicine—Department of Microbiology—ASSISTANT/ASSOCIATE PROFESSOR, virologist. Applications are invited for a tenure-track faculty position to develop a vigorous independent research program and collaborative interactions with other investigators. **Essential functions:** teaching medical students and graduate student supervision. Opportunity for clinical involvement possible. **Qualifications:** Ph.D. and two years of postdoctoral work required; interests in molecular approaches to viral pathogenesis encouraged. Submit application letter, curriculum vitae, names of three references and statement of research interests to: **D. W. Lambe, Ph.D., Chairman, Department of Microbiology, College of Medicine, ETSU, Box 70579, Johnson City, TN 37614-0579.** *Affirmative Action/Equal Opportunity Employer.*

UNIVERSITY OF CALIFORNIA SAN DIEGO SCHOOL OF MEDICINE PROFESSOR OF NEUROSCIENCES

The Department of Neurosciences is seeking applications and nominations for a tenured position at the Associate or Full Professor level. The candidate must be an accomplished scientist and a recognized leader in cellular and molecular biological research related to the nervous system, with proven ability as a scholar and a teacher.

The candidate will occupy laboratories in a new building and should enjoy interactions with colleagues both in the Department of Neurosciences and throughout the La Jolla community.

Applications should be submitted prior to March 1, 1994. Salary will be commensurate with rank, and experience and will be based on University of California pay scales. Curriculum vitae and bibliography should be sent to: **Faculty Search Committee, Department of Neurosciences, University of California, San Diego, School of Medicine, 9500 Gilman Drive, La Jolla, CA 92093-0624.**

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

The newly established Division of Circulatory Physiology at Columbia University College of Physicians and Surgeons invites applications for its growing biomedical research program. Plans for expansion are aimed at the creation of a world class research effort in the area of heart failure research. Basic scientists with expertise in the areas of molecular and cellular biology and basic pharmacology who have demonstrated excellence in conducting independent research are encouraged to apply. Candidates should be able to compete for extramural research support and possess either M.D. or Ph.D. in relevant field. Several positions will be available at the **ASSISTANT PROFESSOR, ASSOCIATE RESEARCH SCIENTIST AND ASSOCIATE PROFESSOR** level. Academic appointment and compensation will be commensurate with experience. *We take Affirmative Action toward Equal Opportunity.* Please submit curriculum vitae, a brief statement of research interest, copies of representative publications and the names of three references to: **Milton Packer, M.D., Chief, Division of Circulatory Physiology, Columbia University, College of Physicians and Surgeons, 630 West 168th Street, New York, NY 10032.**

POSITIONS OPEN

ASSISTANT PROFESSOR MEDICINAL CHEMISTRY

The Department of Medicinal and Biological Chemistry at the University of Toledo College of Pharmacy invites applications for a tenure-track faculty position at the level of Assistant/Associate Professor, to begin September 1994. A Ph.D. in chemistry, biochemistry, molecular/cellular biology or a closely related field is required. Particular consideration will be given candidates with capability in emerging areas of drug design such as molecular modeling, molecular biology, gene therapy, or nucleic acid chemistry. The successful candidate is expected to establish a vigorous, externally funded research program, to teach upper-division pharmacy students, and to supervise M.S. and Ph.D. students in the Medicinal Chemistry Program. Send curriculum vitae, an outline of future research plans, and three letters of recommendation to: **Dr. Channing L. Hinman, Search Committee Chair, College of Pharmacy, The University of Toledo, Toledo, OH 43606-3390.** Review of applications will begin March 15, 1994, and will continue until the position is filled. *The University of Toledo is an Affirmative Action/Equal Employment Opportunity Employer.*

FACULTY POSITION IN PHYSIOLOGY—TULANE

Applications are invited for a tenure-track appointment at the rank of **ASSISTANT or ASSOCIATE PROFESSOR**. Candidates should hold the Ph.D. or M.D. degree, have a record of excellence in research, and be committed to academic programs in medical and graduate education. Research areas marked for expansion include, but are not limited to, cardiovascular-renal, cellular/molecular, and membrane/transport physiology. The successful applicant will be expected to have an established research program (associate professor) or to develop an independent extramurally funded research program. Send curriculum vitae, description of research program, reprints, and four letters of recommendation to: **Dr. L. Gabriel Navar, Chairman, Tulane University School of Medicine, Department of Physiology, SL-39, 1430 Tulane Avenue, New Orleans, LA 70112.** *Tulane University is an Affirmative Action/Equal Opportunity Employer.*

University of California, San Francisco ENDOWED PROFESSORSHIP IN REPRODUCTIVE CANCER

The Department of Obstetrics, Gynecology and Reproductive Sciences seeks candidates holding either Ph.D. and/or M.D. degree with established basic research programs in cellular and molecular reproductive cancer. Incumbent will be expected to establish an active research laboratory and to participate in the development of a group of investigators working in reproductive oncology. It is expected that the new faculty member will participate in graduate education and obtain membership in the newly formed Comprehensive Cancer Center at Mount Zion/UCSF Medical Center. Applicants should forward curriculum vitae, summary of current and past research activities and names of references by March 15, 1994, to: **Richard I. Weiner, Ph.D., Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco, San Francisco, CA 94143-0556.** *UCSF is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR: NEUROPHARMACOLOGY. The Department of Pharmacology, Toxicology and Therapeutics at the University of Kansas Medical Center invites applications for a tenure-track position at the Assistant Professor level. The applicant must have a Ph.D. or M.D. degree, with two or more years of postdoctoral experience. The successful candidate will be expected to establish an independent research program in molecular neuropharmacology and contribute to the teaching of graduate and medical students. The ideal candidate will have had training in Pharmacology, neurosciences and molecular-biology. Affiliations with the Center for Environmental and Occupational Health and the Mental Retardation Research Center are possible. Curriculum vitae and the names of three references should be sent to: **Dr. S. J. Enna, Department of Pharmacology, Toxicology and Therapeutics, University of Kansas Medical Center, Kansas City, KS 66160-7417.** *The University of Kansas is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

KU ASSISTANT/ASSOCIATE PROFESSORS, EXERCISE PHYSIOLOGY OR NEUROLOGICAL SCIENCE

Two tenure-track positions available in our graduate programs. Individuals with Ph.D., publication record, and strong commitment to academia preferred. Areas of teaching include the neurosciences/neurorehabilitation, and cardio-respiratory pathophysiology. The department is redirecting its focus to emphasize research and scholarship. Send letter and curriculum vitae to: **Chukuka S. Enwemeka, Ph.D., Professor & Chairman, Department of Physical Therapy, University of Kansas Medical Center, 3901 Rainbow Boulevard, Kansas City, KS 66160-7601. Telephone: (913) 588-6799.**

Equal Opportunity/Affirmative Action Employer. Minorities encouraged to apply.

The Department of Psychology, University of Maryland, College Park: Seeks an **ASSISTANT PROFESSOR** in BioPsychology. Persons applying preferably should have completed a Postdoctoral Fellowship. We seek a scientist who has the potential to make major contributions to knowledge in BioPsychology, and particularly need someone with primary interests to modern methods of neuroscience (for example, neurophysiological, neurochemical or neuropharmacological approaches) applied to the study of behavioral and/or neural plasticity. Applicant should have a record of, and the potential for, continued extramural funding. All applicants should send curriculum vitae, reprints, statement of research and teaching interests, and at least three letters of reference to: **Professor Robert J. Dooling, Department of Psychology, University of Maryland, College Park, MD 20742. Women and minorities are encouraged to apply. The University of Maryland actively subscribes to a policy of Equal Educational and Employment Opportunities. For best consideration, materials should be received by February 15, 1994.**

ASSISTANT/ASSOCIATE PROFESSOR TENURE-TRACK

Applications are invited for a tenure-track position at the level of Assistant Professor, or, exceptionally, Associate Professor in the Department of Pharmacology. Candidates should have a Ph.D., M.D. or equivalent degrees, and excellent research credentials. Candidates using cellular, molecular and/or physical/chemical techniques in areas that complement current strengths of Department faculty are of particular interest. The Department has notably strong research in neuropharmacology, molecular and cellular aspects of alcohol and drug abuse, transmembrane signaling, and molecular genetics.

Send curriculum vitae, research plans and the names of three references by February 28, 1994, to: **Faculty Search Committee, Department of Pharmacology, Box C236, University of Colorado Health Sciences Center, 4200 East 9th Avenue, Denver, CO 80262. The University of Colorado is an Affirmative Action/Equal Opportunity Employer.**

ENVIRONMENTAL TOXICOLOGIST

The Department of Biological Sciences, Wichita State University (WSU), invites applications for a tenure-track position with the rank of **ASSISTANT or ASSOCIATE PROFESSOR**. We seek an individual with broad training in ecotoxicology and environmental biology. The applicant must possess significant postdoctoral training, a record of productive research, and the ability to interact collegially. Appointment at the Associate level requires a record of funded research activity. Expectations also include teaching at both the undergraduate and graduate levels and participation in training in multidisciplinary environmental sciences at the graduate level. Wichita is the largest urban area in Kansas and offers a variety of opportunities for research in environmental biology. Deadline for applications is March 1, 1994, or the first of the month until the position is filled. Send curriculum vitae, statement of research and teaching goals, and three names of references to: **Chairperson, Environmental Toxicologist Search Committee, Department of Biological Sciences, Wichita State University, Wichita, KS 67208. WSU is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

The Swiss Federal Institute of Technology in Zurich and the University of Zurich invite applications for the position of a

PROFESSOR OF SEISMOLOGY AND GEODYNAMICS

We are seeking a creative scientist with an international reputation to lead the seismology and geodynamics groups at ETH Zurich. The new professor should have demonstrated experience in earthquake studies and seismological investigations of the earth's interior. He/she will spearhead research into the occurrence relationship of earthquakes, broadband seismology and modelling of earthquake processes. Equally important will be the initiation of innovative programs to define better the 3-D structure of the earth's lithosphere using diverse seismological methods and geodynamic modelling. Collaboration with various ETH research units and coordinated research on a national and international basis is expected.

It would be desirable that the new professor becomes the Director of the Swiss Seismological Service and takes responsibility for its long-term obligations.

The new professor should be a talented teacher. Teaching duties include basic geophysics (especially seismology) as well as lectures in general and theoretical aspects of modern seismological, geodynamic and related geophysical research.

Please submit your application together with a detailed résumé, publication list, statement of research interests and the names of three potential referees to: **President of ETH Zurich, Prof. Dr. J. Nüesch, ETH Zentrum, CH-8092 Zurich, no later than March 31, 1994. In an effort to increase the number of women in top academic positions, we specifically invite applications from female scientists.**

DEVELOPMENTAL BIOLOGIST University of Colorado Health Sciences Center

The Department of Cellular and Structural Biology and the Department of Pediatrics invite applications for two faculty appointments, preferably at the level of **ASSISTANT PROFESSOR**. Candidates must have demonstrated excellence, originality and productivity in research and should have a strong interest in medical and graduate student teaching. Research must emphasize basic mechanisms of development in either vertebrate or invertebrate systems, integrating molecular, cellular, genetic and/or embryological approaches. Applications, including curriculum vitae, a one-page statement of research plans and objectives, and three letters of reference should be sent to: **Developmental Biology Search Committee, Box B-111, University of Colorado Health Sciences Center, 4200 East 9th Avenue, Denver, CO 80262. Application review will begin February 15, 1994. The University of Colorado is an Affirmative Action/Equal Opportunity Employer.**

BACTERIAL OR PARASITIC PATHOGENESIS

The Department of Microbiology and Immunology, College of Medicine, University of Kentucky, seeks candidates for a full-time, tenure-track faculty position at the **ASSISTANT or ASSOCIATE PROFESSOR** level, available July 1994. Applicants should have a Ph.D. or equivalent degree, postdoctoral experience, expertise in molecular biology and host-pathogen interactions, and show exceptional promise in developing or maintaining a strong research program in microbial pathogenesis. The successful candidate is expected to participate in graduate and medical student teaching as well as to develop/maintain an innovative, externally funded research program. This is an excellent opportunity to join an established group of faculty with research programs in prokaryotic and eukaryotic pathogenesis and molecular biology. Start-up funds, state-funded salary commensurate with experience, and modern research facilities will be provided. Applications should include curriculum vitae, representative reprints, a statement regarding research interests and future plans, as well as three letters of recommendation. Send all materials to: **Dr. Robert D. Perry, Chair, Faculty Search Committee, Department of Microbiology and Immunology, MS415 Medical Center, University of Kentucky, Lexington, KY 40536-0084; Telephone: (606) 323-6341; FAX: (606) 257-8994. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer and has an affirmative duty to reasonably accommodate otherwise qualified individuals with a disability.**

POSITIONS OPEN

Two Faculty Positions: PLANT PHYSIOLOGICAL ECOLOGIST and ENVIRONMENTAL MICROBIAL PHYSIOLOGIST. ASSISTANT/ASSOCIATE PROFESSOR, tenure-track teaching positions for individuals with expertise in Plant Ecology and Microbiology. Qualifications: Ph.D.; competency in modern biology related to these two positions; ability to teach lower-division, upper-division and graduate courses in the discipline. Postmark deadline is February 25, 1994. Send curriculum vitae, a statement of professional goals, transcripts, and three letters of recommendation to: **Dr. Chris K. Kjeldsen, Chair, Department of Biology, Sonoma State University, Rohnert Park, CA 94928. Telephone: (707) 664-2189. Equal Employment Opportunity/Affirmative Action Employer.**

FACULTY POSITION IN MOLECULAR PHARMACOLOGY UNIVERSITY OF SOUTHERN CALIFORNIA SCHOOL OF PHARMACY

A tenure-track **ASSISTANT/ASSOCIATE PROFESSOR** position exists in the Department of Molecular Pharmacology and Toxicology. Applicants must have a Ph.D. or equivalent degree and at least two years of postdoctoral research experience. Applicants with a Ph.D. in Pharmacology will be given preference. Individuals with training or interests in pharmacology of signal transduction mechanisms, growth factors, cytokines, molecular bases of neurological disorders and regulation of gene expression are encouraged to apply. A strong commitment to teaching in the Graduate and Professional (Pharm.D.) Program is essential. Applications accepted until positions filled. Applicants should send curriculum vitae, a brief description of current and future research directions and names of three references to:

**Dr. Timothy Chan, Chairman
Department of Molecular Pharmacology
and Toxicology
USC School of Pharmacy
1985 Zonal Avenue
Los Angeles, CA 90033
Equal Opportunity Employer, M/F/H.**

BIOLOGY. LaGrange College (Georgia). ASSISTANT PROFESSOR. Fall 1994. Regular appointment. Ph.D. required. To teach Anatomy, Physiology, Embryology, and similar courses. Undergraduate research is encouraged but most institutional resources support teaching excellence. Biology is the fourth most populated major. The B.A. is offered. Understanding of and commitment to the mission of this United Methodist Church-related liberal arts college is expected. Before March 11, 1994, write for position description, applicant qualifications and application procedures: **Dr. Frank A. James, Vice President and Dean of the College, 601 Broad Street, LaGrange, GA 30240. Equal Opportunity Employer, hiring U. S. citizens and aliens who possess work documentation.**

STANFORD UNIVERSITY—ECOLOGIST/EVOLUTIONARY BIOLOGIST. The Department of Biological Sciences seeks a biologist studying species interactions from an ecological and/or evolutionary point of view. This tenure-track position will be filled at the **ASSISTANT PROFESSOR** level. *Applications from women and members of minority groups are strongly encouraged.* Applicants for this position should send a letter of application and research interests, curriculum vitae, and at least three letters of reference directly to: **Search Committee, Department of Biological Sciences, Stanford University, Stanford, CA 94305. The closing date for these applications is February 25, 1994.**

AQUATIC ECOSYSTEMS BIOLOGIST

The Biology & Microbiology Department, University of Wisconsin Oshkosh, invites applications for a tenure-track **ASSISTANT PROFESSOR** position beginning September 1994. Responsibilities include: develop/teach course in freshwater ecosystems analysis and advanced course in area of expertise; teach introductory biology and other courses as necessary; develop research program; pursue extramural funding, and supervise M.S. theses. Ph.D. required; postdoctoral and teaching experience desirable. Closing date: February 25, 1994. Send application, curriculum vitae, three letters of recommendation and transcripts to: **M. A. Rouf, Chair, Department of Biology & Microbiology, University of Wisconsin Oshkosh, Oshkosh WI 54901-8640. The University of Wisconsin Oshkosh is an Affirmative Action/Equal Opportunity Employer.**

SCIENTIFIC OFFICER, MARINE BIOLOGIST

The Office of Naval Research (ONR) is seeking a highly qualified individual to plan and manage one of the nation's premier research and development programs in Marine Mammal Biology. The program emphasizes the effects of low frequency sound on marine mammal ecology and behavior, marine mammal biosonar systems, undulatory locomotion in marine mammals, and physiology of performance to expand marine mammal operational capabilities. The sponsored research is conducted principally at U.S. universities and industrial laboratories. This is a Civil Service position at the GS-13, 14 or 15 level (\$47,920 - \$86,589), depending on qualifications.

The individual selected will establish goals for and conceive, organize and direct research and development programs directed toward (a) the extraction and electronic emulation of the biosonar techniques by which marine mammals detect, locate and classify objects in the water column and beneath the ocean floor; (b) the effects of high intensity, low frequency sound on marine mammal ecology and behavior, including migration, mating, communication and auditory function; (c) the biomechanics of undulatory locomotion marine mammal systems and the application of this understanding to the development of novel locomotion systems; (d) marine mammal health; and, (e) marine mammal physiology and relationships to nutritional and thermal requirements, especially as related to workload and environmental conditions. This individual will complement and work in a team with existing staff having primary expertise in integrative biology, physiology, ecology, bioacoustics and biosonar systems, neurobiology, and computational analysis. The incumbent will identify new research opportunities, evaluate and select research proposals for funding, manage funding resources, communicate ONR's interests to the scientific community and represent the program within the Navy and DOD. This position provides the challenge and opportunity to have a significant impact on the direction and quality of research in marine mammal biology at the national level. Additionally, the opportunity exists to establish or maintain an individual research program at an academic institution or government laboratory.

Applicants must have a Ph.D. or equivalent training in biological science with an emphasis on marine mammal science or areas of related science and at least one year of professional experience OR an equivalent combination of education and experience. To be qualifying, this experience must have been at a level of difficulty and responsibility equivalent to that of the net lower grade level in the Federal Service. In addition, the applicant **MUST** have knowledge and experience in current state-of-the art research involving marine mammal science or in a related area as evidenced by recent and significant publications in scientific literature. Applicants without this knowledge and experience will not be rated qualified for this position. Experience in audition, animal cognition or comparative physiology is desired.

Interested persons should send a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers or the address below); resume (optional); and, a list of publications to: **Office of Naval Research, Satellite Human Resources Office, ONR CODE 00HR, ATTN: Announcement #93-36 (SCIENCE), 800 North Quincy Street, Arlington, VA 22217-5660. The express mail address is: 4015 Wilson Boulevard, Suite 103, Arlington, VA 22203.**

Applications will be accepted through 27 April 1994 and should be received by that date. Applicants are requested to complete the appropriate supplemental forms. To request a copy of the vacancy announcement and supplemental forms, call (703) 696-4654 or TDD (telecommunication device for the deaf) (703) 696-2681; for further information please call (703) 696-4163 or 696-4587.

U.S. Citizenship Required

An Equal Opportunity Employer

GENE THERAPY POST-DOCTORAL POSITIONS

ALBERT EINSTEIN DIABETES RESEARCH CENTER

HSV-derived vectors will be used to develop potential gene therapies for diabetes and its vascular complications. Scientists with experience in molecular biology or virology are encouraged to apply.

Send curriculum vitae with the names of three references or inquire to:

Howard Federoff, M.D., Ph.D,
Department of Neurosciences, or
Michael Brownlee, M.D.,
Diabetes Research Center

Albert Einstein College of Medicine
1300 Morris Park Avenue
Bronx, New York 10461

POSTDOCTORAL
OPPORTUNITY

Viral Vaccine Research

Lederle-Praxis Biologicals, a division of American Cyanamid Co., is recognized as an international leader in the research, development and manufacture of vaccines for the prevention of viral and bacterial disease. To maintain our success, our Viral Vaccine Department is now seeking an energetic and talented postdoctoral scientist to join our polio vector group and assume responsibility for cloning foreign genes into polio infectious cDNA clones and subsequent characterization of recombinant viruses; including analysis in a transgenic mouse model.

To qualify, you must be a recent graduate of a PhD program in molecular biology with hands-on experience in cloning, site-directed mutagenesis, sequencing and PCR, and excellent communication skills. Experience in virology, especially in the field of polio, is also helpful.

We offer an excellent salary and benefits package, including a 401K savings plan, and a convenient Rockland County location 25 miles north of New York City. If you're ready to make a contribution to a challenging program, send your resume to: Lederle-Praxis Division, Box KM8846, Building 34A/123, Lederle Laboratories, Pearl River, NY 10965. We are an equal opportunity employer.



Lederle - Praxis Biologicals
Protecting families through immunization®

POSITIONS OPEN

BIOLOGY TENURE-TRACK ASSISTANT PROFESSOR. Population Biologist or Microbial Ecologist/Generalist—Required to teach intro courses for majors and non-majors and Anatomy and Physiology. Expected to develop upper-division course(s) for majors. Ph.D. is required, computer experience desirable. Send application, curriculum vitae, statement of teaching philosophy, summary of research goals and three letters of recommendation by January 31, 1994, to: **Dr. William Tramontano, Chair, Biology Department, College of Mount Saint Vincent/Manhattan College, 6301 Riverdale Avenue, Riverdale, NY 10471-1093.** Minorities are encouraged to apply. *Equal Opportunity Employer/M/F/Affirmative Action.*

NEUROSCIENCE: Department of Physical Therapy/Exercise Science, University of Buffalo, is seeking an **ASSISTANT/ASSOCIATE PROFESSOR** in applied neuroscience. Responsibilities include directing a productive research laboratory, teaching neuroscience in undergraduate and graduate programs, mentoring graduate students, and participation in professional service. Research focus that complements existing areas in biomechanics, cardiopulmonary physiology, electrotherapy, muscle injury and repair, or scoliosis evaluation, is preferred. Application deadline: February 15, 1994. Send curriculum vitae and names of three references to: **Dr. Harold Burton, Department PTES, 411 Kimball Tower, SUNY at Buffalo, Buffalo, NY 14214.** SUNY at Buffalo is an *Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSORSHIPS MARINE SCIENCE

The Department of Marine Sciences, a unit of the University of Georgia's School of Marine Programs, invites applications for two tenure-track Assistant Professorships for fall 1994, one in Physical Oceanography, and an anticipated second position in Chemical Oceanography. The new and rapidly growing department has 10 teaching faculty on campus plus 20 adjunct researchers at coastal facilities. Successful applicants will be expected to develop independent, fundable research programs and participate in graduate and undergraduate teaching in appropriate areas of marine science. Collaboration with current campus and coastal faculty on multi-investigator, interdisciplinary research is desirable. Applicants should arrange to send curriculum vitae, statement of research and teaching interests, and three letters of reference by February 19, 1994, to: **Chair, Search Committee, Department of Marine Sciences, Ecology Building, The University of Georgia, Athens, GA 30602-2206.**

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

RESEARCH ASSOCIATE PROFESSOR

University Department of Biological Sciences has opening for Research Associate Professor.

Description of Duties: Direct research laboratory in Molecular and Cell Biology focusing on Golgi function and protein sorting. Supervise graduate students. Publish and present research results on a regular basis.

Requirements: Ph.D. in Biochemistry or equivalent with at least five years of experience in Biochemistry research. Specific background in recombinant DNA, protein chemistry, and ion transport required.

Salary: \$29,400 per year, 40 hours per week.

Apply to: Employment Security Department, P.O. Box 1205, Fayetteville, AR 72702-1205, Job order # 744042.

Must have proof of legal authority to work in the United States. Equal Employment Opportunity/Affirmative Action Employer.

The Microbiology Department of the University of Texas at Austin has two openings for **ASSISTANT PROFESSORS**. One position is in the area of immunology; the second is in any area of microbiology/molecular biology. Appointments at a higher rank will be considered for highly qualified individuals. Excellent communications skills are a requirement. This is an outstanding opportunity to join an excellent department during a period of expansion. Please submit curriculum vitae, including names and addresses of three references and a summary of research interests to: **Dr. Paul Gottlieb, Search Committee Chairman, Microbiology Department, The University of Texas at Austin, Austin, TX 78712-1095.** *The University of Texas is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ORGANIC SYNTHESIS

**University of Frankfurt (Main), Germany
Institute of Organic Chemistry
invites applications for a Tenure Position at the
level of a
FULL PROFESSOR**

Applicants with a Ph.D. should have research expertise in chemical synthesis and should preferably be engaged in methodological development (e.g., combinatorial methods) and use of receptor-directed chemical synthesis for controlling biological functions with synthetic ligands. The successful candidate will join a group of vigorous faculty members and he/she will take part in the program 'Synthesis of Bioactive Compounds' to which the institute is committed. The facilities for and expertise in X-ray crystallography, NMR spectroscopy, molecular modelling, and biological synthesis are available. Applicants are expected to participate in the teaching duties in Organic Chemistry at all University levels.

Applications stating relevant personal details, including details of qualification and experience should be received not later than March 9, 1994, by: **The President of the Johann Wolfgang Goethe Universität, Postfach 11 19 32, D-60054 Frankfurt am Main, Federal Republic of Germany; FAX: +49/69/798-8530.**

CELL BIOLOGIST ASSISTANT/ASSOCIATE PROFESSOR

Applications are sought for a tenure-track position in the Department of Physiology, University of Connecticut Health Center. A new interdisciplinary Center is being formed by a number of established laboratories employing advanced imaging technologies. The successful candidate will join the Center and is expected to have a strong independent research program in cell biology that includes, but is not restricted to, imaging techniques. Please send curriculum vitae, a detailed statement of research interests and plans and the names of 3 references to:

**Dr. Leslie Loew, Director
Center for Advanced Imaging Technology
Department of Physiology
University of Connecticut Health Center
Farmington, CT 06030 - MC 3505**

AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER, M/F/PwD/V.

FACULTY POSITION IN NEUROSCIENCE

The College of Staten Island (CSI) of the City University of New York (CUNY) invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level in Neuroscience beginning September 1, 1994. We seek an outstanding neuroscientist with demonstrated expertise in biological or biochemical research approaches. A Ph.D. or equivalent in neuroscience, biology or chemistry is required. At least two years of postdoctoral experience is highly recommended. A successful candidate will be expected to establish a vigorous, independent, grant-funded research project while developing collaborative relationships with existing research programs at CSI in neuronal adaptation and synaptic plasticity. Teaching responsibilities will be at the undergraduate and graduate level in the basic science closest to the candidate's background and experience. Participation in the CUNY doctoral program and cooperation with the New York State Institute for Basic Research in Developmental Disabilities (IBR) are expected. Ample start-up funds are available and space will be provided in a new laboratory science building on the new 200 plus-acre Willowbrook Park campus of CSI-CUNY, adjacent to IBR. Salary: commensurate with experience and qualifications. Send a letter of interest, current curriculum vitae, statement of present and future research activities and plans, selected reprints, and the names of at least three references to: **Dr. Yigal H. Ehrlich, Chair of the Neuroscience Search Committee, Office of the Dean of Science and Technology (Room 1A-313), The College of Staten Island of CUNY, 2800 Victor Boulevard, Staten Island, NY 10314.** Evaluation of applications will begin on February 15, 1994, and continue until the position is filled. *CUNY Is An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR Department of Neuro-Oncology and Brain Tumor Center

Tenure-track position available for a Ph.D. or M.D./Ph.D. with experience and expertise in conducting laboratory research in molecular and cellular biology with specific emphasis in one or more of the following areas: signal transduction, tumor suppressor genes, protein tyrosine kinases, or molecular strategies for solid tumor therapy. Experience with brain tumors is encouraged but not required. Salary and benefits are highly competitive. Send curriculum vitae, summary of research interests, and references to: **Victor A. Levin, M.D., Department of Neuro-Oncology-Box 100, University of Texas M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.**

*Equal Opportunity/Affirmative Action Employer.
Smoke-free environment.*

UCSF Neurology and Neuroscience

The Departments of Physiology and Neurology at the University of California, San Francisco, seek a board-certified neurologist doing fundamental research related to neurological illness. The successful applicant will occupy a tenure-track position at the level of **ASSISTANT to FULL PROFESSOR**, with a joint appointment in the Departments of Physiology and Neurology and in the interdepartmental Neuroscience Graduate Program. The applicant will carry out an independent research program and will participate in graduate and professional school teaching. Applications should include curriculum vitae, a statement of research interests, reprints of selected publications, and the names, addresses and telephone numbers of three individuals whom the applicant has asked to submit letters of recommendation. *Women and members of underrepresented minority groups are encouraged to apply.* Materials should be sent to: **Chairman, Neurology/Physiology Search Committee, Department of Physiology, Box 0444, University of California, San Francisco, CA 94143-0444.** *UC San Francisco is an Equal Opportunity/Affirmative Action Employer.*

ST. OLAF COLLEGE

Applications are invited for two tenure-track positions in Biology at the **ASSISTANT or ASSOCIATE PROFESSOR** level beginning September 1, 1994. Teaching responsibilities will include introductory biology for majors or non-majors and one or more upper-level courses in human anatomy and physiology, comparative anatomy, evolution, or neurobiology. Successful applicants will be expected to develop an active research program that involves undergraduate students. Qualifications include a Ph.D., demonstrated experience and ability in teaching, and postdoctoral or comparable research experience. Send curriculum vitae, undergraduate and graduate transcripts, a statement of teaching and research interests, and three letters of recommendation to: **Kathleen Fishbeck, Chair, Department of Biology, St. Olaf College, Northfield, MN 55057** by February 11, 1994. St. Olaf College is a co-educational liberal arts college of the church in the Lutheran tradition (ELCA). *St. Olaf is an Equal Opportunity Employer.*

ASSISTANT PROFESSOR MICROBIOLOGY

Applications are invited for a tenure-track, 12-month position in the Department of Microbiology, University of South Dakota School of Medicine. Preference will be given to applicants with research interests in virology, but outstanding candidates in other fields may also be considered. The successful candidate must develop and conduct a competitive, independent research program, and participate in the instruction of medical, graduate, and undergraduate students. Competitive state-supported salary and start-up funds. Candidates should hold the Ph.D. degree and have at least two years of postdoctoral experience. Curriculum vitae and names of three references should be sent to: **Search Committee, Department of Microbiology, University of South Dakota School of Medicine, Vermillion, SD 57069-2390.** Review of applications will begin March 1, 1994, and continue until a suitable candidate is identified. *Equal Opportunity/Affirmative Action Employer.*

DIRECTOR OF MEDICAL RESEARCH

The Children's Mercy Hospital, the regional pediatric referral center affiliated with the University of Missouri, Kansas City, invites applications for the newly established position of Director of Medical Research. The Director will oversee all medical research activities of the hospital.

Candidates must be an M.D., and/or Ph.D. with demonstrated scientific leadership in an academic research program and demonstrated ability to raise medical research funds.

This position is available immediately. To apply, please send curriculum vitae, reprints of recent publications, a short description of research interests and goals, and the names of three references to:

**Search Chairperson,
Director of Medical Research
Bradley A. Warady, M.D.
The Children's Mercy Hospital
2401 Gillham Road
Kansas City, MO 64108**



TWENTY-FOURTH AT GILLHAM ROAD
KANSAS CITY, MISSOURI 64108

EOE/AAP

THE AARON DIAMOND FOUNDATION POSTDOCTORAL RESEARCH FELLOWSHIPS *in the Biomedical and Social Sciences*

In 1994, The Aaron Diamond Foundation will support 25 postdoctoral research fellowships—to encourage excellence in research addressing the problems of **AIDS and drug abuse** and to increase the number of **biomedical and social scientists** working in **New York City** on these problems. The fellowship program is administered by the New York State Health Research Council, aided by a panel of distinguished scientists comprising the Fellowship Selection Committee.

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

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

Preference is given to: (1) those with doctoral degrees awarded after 1987 (generally MDs must have completed their residency, while applicants with non-medical degrees may initiate the fellowship immediately after graduation); (2) applicants early in their careers, with three or fewer years of postdoctoral research experience; (3) those who are relocating to New York City; and (4) U.S. citizens or permanent residents. Women and members of minority groups are especially encouraged to apply.

APPLICATION DEADLINE: JULY 29, 1994

FURTHER INFORMATION:

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

MEETING

Rice University
Institute of Biosciences & Bioengineering

SECOND DE LANGE CONFERENCE *Biotechnology: Science, Engineering and Ethical Challenges for the 21st Century*

February 28-March 2, 1994

Rice University Campus, Houston, Texas

Monday, February 28

What is the current state of basic research in biotechnology and what opportunities and challenges does it present?

C. Thomas Caskey, Director, Institute for Molecular Genetics, Baylor College of Medicine

Kathleen S. Matthews, Professor and Chair, Department of Biochemistry and Cell Biology, Rice University

Anna Marie Skalka, Director, Institute for Cancer Research, Fox Chase Cancer Center

Alex Wlodawer, Director, Macromolecular Structure Laboratory, Frederick Cancer Research Facility, National Cancer Institute

Daniel E. Koshland, Jr., Editor-in-Chief, *Science* Magazine

Barbara Mishkin, Counsel, Hogan & Hartson, Washington, D.C.

John C. Bailar, III, Professor and Chair, Department of Epidemiology and Biostatistics, McGill University

Tuesday, March 1

How is biotechnology currently being applied? What are the implications of technology transfer for research?

Michael L. Shuler, Professor of Chemical Engineering, Cornell University

Louis Lasagna, Sackler School Dean and Dean for Academic Affairs, Tufts University School of Medicine

Jerome Schultz, Director, Center for Biotechnology & Bioengineering, University of Pittsburgh

Rebecca Elsenberg, Professor of Law, University of Michigan Law School

José E. Trias, Vice President and General Counsel, Howard Hughes Medical Institute

Neal F. Lane, Director, National Science Foundation

Wednesday, March 2

What are the potential future applications of biotechnology and what are the implications of such applications for society as a whole?

M.R.C. Greenwood, Associate Director for Science, Office of Science and Technology Policy, Executive Office of the President

Robert M. Nerem, Institute Professor and Chair for Engineering in Medicine, Georgia Institute of Technology

Savio L.C. Woo, Professor, Department of Cell Biology, Baylor College of Medicine

Ruth Ellen Bulger, Vice President for Scientific Affairs, Henry M. Jackson Foundation for the Advancement of Military Medicine

Gene F. Parkin, Professor and Chair, Department of Civil and Environmental Engineering, University of Iowa

The conference is free and open to the public. However, advance registration is required as space is limited. For information, call Rice University Institute of Biosciences and Bioengineering, (713)527-6034, Fax (713)285-5154. Onsite registration will be held each day, if space permits.

POSITIONS OPEN

ANIMAL PHYSIOLOGIST

ASSISTANT PROFESSOR. Applications are invited for a tenure-track position in the Department of Biological Sciences at Butler University. The position emphasizes enthusiasm for high-quality undergraduate teaching as well as directing undergraduate research. The successful candidate will teach a course in animal physiology. In addition, all faculty participate in the introductory biology course. An individual research laboratory and start-up funds are provided. Conditions for continuing research are excellent, and generous in-house research funds are available. Candidates must have a Ph.D. degree. Applicants should submit curriculum vitae, transcripts, statement of teaching and research interests, and three letters of reference to: **Dr. J. W. Berry, Department of Biological Sciences, Butler University, Indianapolis, IN 46208.** Screening of applicants will begin immediately and will continue until a suitable applicant is found. *Butler University is an Equal Opportunity and Affirmative Action Employer.*

PENN STATE FACULTY POSITION IN BIOLOGY

Applications are invited for a tenure-track **ASSISTANT PROFESSORSHIP** starting fall 1994. The successful candidate will have training in anatomy or physiology and have primary responsibility for teaching comparative anatomy or animal/cell physiology. We expect applicants to have postdoctoral experience and to be able to develop a vigorous, externally funded research program in an area complementing strengths in the Biology Department. The Biology faculty's research spans molecular evolutionary genetics, developmental and cell biology, biodiversity and ecology, vertebrate and plant physiology, and ecological physiology. Send a letter of application, including a statement of research and teaching interests, and curriculum vitae, along with names, addresses, and telephone numbers of three references to: **Linda Maxson, Box CA, Department of Biology, 208 Mueller Lab, Penn State University, PA 16802-5301.** Deadline for applications is February 18, 1994, or until a suitable candidate is found. *An Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to apply.*

PLANT GENETIC ENGINEERING RESEARCH ASSISTANT PROFESSOR

The Department of Forest Science at Oregon State University seeks an applicant with a Ph.D. to develop systems for genetic engineering of poplars and other tree species for intensive plantation culture. Experience with plant tissue culture, gene transfer, and recombinant DNA methods is essential. The position is at the rank of Assistant Professor, Senior Research, and is a full-time, 12-month, fixed-term position. Reappointment is at the discretion of the Dean. It is funded by a University-industry-government Cooperative. Salary is \$32,004 to \$40,008 per year depending on qualifications and experience; medical, dental, and life insurance plans are available. Send a letter of application summarizing background and interests, résumé, transcripts, and three letters of recommendation to: **Dr. Logan Norris, Department of Forest Science, Oregon State University, Corvallis, OR 97331-7501.** For information contact: **Prof. Steve Strauss, Telephone: 503/737-6578, FAX: 503/737-1393, E-mail: strauss@fsl.orst.edu.** *Oregon State University is an Affirmative Action/Equal Opportunity Employer and has a policy of being responsive to the needs of dual-career couples.*

DIRECTOR, PROGRAM IN DIABETES

Department of Medicine at Case Western Reserve University (CWRU), University Hospitals of Cleveland and the V.A. Medical Center seek an outstanding investigator (M.D. or M.D./Ph.D.) active in Diabetes Research to develop and direct a program in Diabetes encompassing research, teaching, and patient care. Appointments will be at the Associate or Professor level. Resources to recruit 2 to 3 additional faculty will be available. Applicants should submit curriculum vitae and three references to: **F. Ismail-Beigi, M.D., Ph.D.; Chair, Program in Diabetes Search Committee, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-4951.** *CWRU is an Equal Opportunity/Affirmative Action Employer. Applications from women and minority groups are encouraged.*

POSITIONS OPEN

ASSISTANT/ASSOCIATE/FULL PROFESSOR CELL BIOLOGY AND ANATOMY

The Department of Cell Biology & Anatomy, Oregon Health Sciences University, invites applications for a full-time **Assistant, Associate or Full Professor.** Departmental research is focused on molecular mechanisms of cellular control and we seek applicants with interests in the analysis of cell growth and differentiation. We are particularly interested in analysis of oncogene function, regulation of the cell cycle, the role of signal transduction in the regulation of cellular proliferation or the relationship between changes in the cytoskeleton or extracellular matrix and cell growth. Applicants with interests in other areas of cell and molecular biology will also be considered. Individuals working with either higher or lower eukaryotes are encouraged to apply. Applicants at the Associate or Full Professor level should have an established research program with extramural funding. Interested persons should send curriculum vitae, a statement of research interests and the names of three references by February 28, 1994, to: **R. Maurer, Search Committee, Department of Cell Biology and Anatomy, Oregon Health Sciences University, Portland, OR 97201.** *Oregon Health Sciences University is an Equal Opportunity/Affirmative Action Employer.*

ECOLOGIST: Bloomsburg University stresses excellence in teaching. Applications for a full-time, tenure-track position to begin fall 1994 at the **ASSISTANT PROFESSOR** level are invited. Ph.D. in ecological biology required. Applicant should be a community/population ecologist, with field experience in northeastern U.S. forest ecosystems. The applicant should have experience in mathematical ecology, and have a broad background in biology, earth sciences, and natural history. Primary responsibility will be to teach undergraduate ecology with a lab/field component. Responsibilities include directing undergraduate and Master's research, and involvement in undergraduate and graduate courses. Send letter of application, curriculum vitae, official transcripts of undergraduate and graduate course work, and three letters of reference by March 1, 1994, to: **Search Committee, Biological and Allied Health Sciences, Bloomsburg University, Bloomsburg, PA 17815.** *Bloomsburg University is an Equal Opportunity/Affirmative Action Employer.*

ASSOCIATE DEAN FOR RESEARCH

The University of Kansas School of Medicine announces the search for an Associate Dean for Research. The Associate Dean will be assigned the primary responsibility for maintaining and enhancing the research stature of the School of Medicine and serves as an advocate for the research activities within the School, the Medical Center and the University. The successful candidate must have a medical degree, experience in both basic science and clinical research, administrative experience in grant acquisition, familiarity with government and non-government grantor policies, demonstrated scholarly activities/research, having had a major NSF or NIH grant within the last five years, and strong interpersonal, organizational and communication skills. Salary will be commensurate with experience. Appointment will allow individual to continue some of his/her research and clinical activities. Nominations and/or applications should be forwarded to: **Daniel Hollander, M.D., Executive Dean, School of Medicine, The University of Kansas Medical Center, 3901 Rainbow Boulevard, Kansas City, KS 66160-7300.** *Equal Opportunity/Affirmative Action Employer.*

BIOLOGICAL SCIENCE PROGRAM ADMINISTRATOR—The Laboratory of Molecular Systematics, National Museum of Natural History, seeks an individual with a background in evolutionary biology and a strong interest in laboratory management for the post of Biological Science Program Administrator. This individual will be responsible for the day-to-day management of the business affairs of the Laboratory, and will supervise a secretary and a funds manager. Applications must be postmarked by 15 February 1994; *U.S. citizenship is required.* Send curriculum vitae and federal application form (SF-171) to: **Smithsonian Institution, Office of Human Resources, Branch 1, P.O. Box 23762, Washington, DC 20026-3762. Attention 94-1006U.** For more information contact **Dr. David Swofford** or **Dr. Michael Braun (301) 238-3444.** *An Equal Opportunity Employer.*

POSITIONS OPEN

CHAIR—Department of Pathology, Microbiology and Immunology, University of California, Davis. Associate Professor/Professor—salary commensurate with qualifications. Responsible for maintaining and developing academic programs including undergraduate, D.V.M., graduate academic and graduate clinical curricula, and research. Will participate in teaching, research and service programs of the department. D.V.M./Ph.D. or equivalent required. Board certification in appropriate specialty College of the AVMA preferred. Demonstrated or potential leadership in academic program administration essential. Excellence in research, graduate clinical education and/or graduate academic education, and experience in hospital-based service program and acquisition of extramural funding. Apply to: **Dallas M. Hyde, Recruitment Committee Chair, c/o Jean Kevern, Veterinary Medicine Dean's Office, University of California, Davis, CA 95616.** Applications accepted through April 1, 1994, or until filled. Submit letter of intent, curriculum vitae, 3 to 5 reprints, list of extramural funding, and names and addresses of three references. *Affirmative Action/Equal Opportunity Employer.*

DIRECTOR

Experimental Animal Core Laboratory and Research Program University of Vermont College of Medicine

The Department of Pathology/Vermont Thrombosis Center is inviting applications for a director of a core laboratory to support multidisciplinary cardiovascular research. The applicant should have experience in physiological, cell biological, and molecular biological procedures pertinent to vascular biology, thrombosis, and atherosclerosis. Applicants should have at least eight years of postdoctoral experience; proven expertise with diverse experimental animal preparations, physiologic measurements, and biochemical markers of thrombosis and tissue injury; as well as proven ability to compete for extramural funding. Preferred areas of research are thrombosis, thrombolysis, vessel passivation, and the vascular biology of restenosis. *Applications are strongly encouraged from women and individuals of diverse racial, ethnic, and cultural backgrounds.* Please send curriculum vitae and three references to: **Dr. Edwin G. Bovill, Professor and Chairman, Department of Pathology, University of Vermont, Burlington, VT 05405.** Applications will be accepted until February 18, 1994. *AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER.*

MANAGER OF R&D IN ISRAEL

Xenograft Technologies, Ltd. is seeking a senior immunologist with 5 to 15 years of experience in product development in the pharmaceutical or biotechnology industry to lead its R&D efforts in Rehovot. Candidates should have direct experience in developing monoclonal antibody-based therapeutic products. Contact: **President, 2044 Columbus Parkway, Benicia, CA 94510; (FAX: 707/747-7010) or General Manager, P.O. Box 370, Rehovot 76100.**

DNA CORE FACILITY MANAGER

A position is available to manage the DNA Microchemical Core Facility (MCF) at San Diego State University. Applicants for this position should have an advanced degree and extensive experience with oligonucleotide synthesizers and automated DNA sequencing. Please submit a résumé and request three letters of recommendation to be received no later than February 14, 1994: **San Diego State University, Personnel Services (DNA Core Facility Manager), San Diego, CA 92182-0741.** *San Diego State University is committed to a diverse workforce and affirmative action and is an Equal Opportunity/Affirmative Action Title IX Employer.*

DEAN FOR COLLEGE OF NATURAL SCIENCES offering B.S. and B.S. Ed. degrees that emphasize application and integration of computer/information systems technology in biology, chemistry, math and physics. Doctoral degree compatible with mission; record of excellence in academic leadership, teaching and scholarship, and record of computer application in teaching and research. Administrative experience at university level preferred. Desired start date: July 1, 1994. Application letter, résumé, names, addresses and telephone numbers of at least three references to: **Academic VP, Dakota State University, Madison, SD 57042-1799.** Applications reviewed on receipt, accepted until position is filled. *Equal Opportunity Employer.*

Scientific excellence in a progressive, collaborative research environment is a valued part of Amgen's corporate culture. As a global leader in biotechnology, our substantial investment in R&D provides outstanding resources for innovative, self-motivated scientists. Amgen's commitment to significantly expand efforts in developing novel, breakthrough therapeutics has created numerous career opportunities in our

Inflammation Research Group

Research Scientists

(PhD) plus Postdoctoral experience.

Research Associates

(BS/MS) plus Laboratory experience.

Molecular Biology

Experience in PCR, cDNA cloning, hybridization and library construction is required. Knowledge of expression in mammalian cells or *E. coli* and subsequent gene product characterization is desired.

(Job Code OA-SC-MZ-001)

Cell Biology

Experience in cell culturing, hybridoma generation, characterization of monoclonal antibodies or adhesion and lymphocyte proliferation assays is required.

(Job Code OA-SC-MZ-002)

Biochemistry

Experience in purification, characterization and identification in one or more of the following areas: protein chemistry, carbohydrate chemistry or lipid chemistry is required.

(Job Code OA-SC-MZ-003)

Biomolecular Assays

Experience in microplate assays, antibody purification and tissue culture. Knowledge of mammalian cell expression and molecular biology is desired.

(Job Code OA-SC-RN-003)

Cell-based Assays

Experience in mammalian cell adhesion assays, cell separations, cell culture and transfection required. Must have experience in state-of-the-art molecular biology techniques, including PCR, Northern blotting and site-directed mutagenesis.

(Job Code OA-SC-RN-002)

LIMS and Robotics

Database and programming expertise and experience commensurate with information management in a highly automated laboratory setting required.

(Job Code OA-SC-RN-005)

Assay Automation Development

Substantial experience in assay design and development (ELISA, RIA, cell activation, cell adhesion). Experience in assay automation and high-throughput assay systems highly desirable.

(Job Code OA-SC-RN-006)

Carbohydrate Chemistry Laboratory

Synthetic organic chemist experienced in carbohydrate synthesis; relevant analytical experience; or experience in molecular modeling and knowledge of interaction between biomolecules.

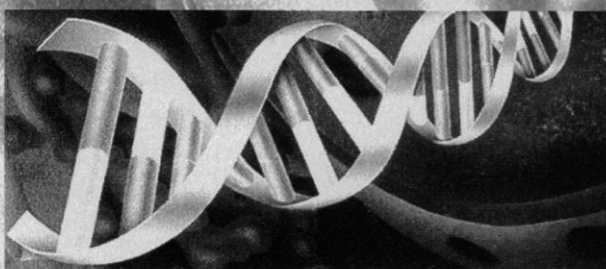
(Job Code OA-SC-AV-005)

Please FAX OR mail your resume/curriculum vitae to:
FAX: (805) 447-1985, Amgen Inc., Staffing, Job Code (See Above), Amgen Center, Thousand Oaks, CA 91320-1789. For additional information regarding Amgen's recruitment process, please call (805) 447-4150. Please, principals only.

AMGEN®

EEO-Affirmation Action employer M/F/D/V.

CAREER OPPORTUNITIES



FOR RESEARCH SCIENTISTS

ONCOGENE SCIENCE is continuing to expand its drug discovery Research and Development Program. Oncogene Science has established collaborations with a number of the major pharmaceutical companies by combining state-of-the-art molecular biology with sophisticated laboratory automation to lead the way in the discovery of novel therapeutic agents. We are looking for Ph.D. scientists with strong communication skills to work effectively within multidisciplinary teams, including molecular biology and assay development, robotics, medicinal and natural products chemistry, pharmacology and preclinical areas.

DIRECTOR OF CHEMISTRY

We are now seeking a senior scientific manager with several years of experience to build and direct the company's emerging chemistry effort. This person will initially manage a group of four scientists working in natural products chemistry and begin directing a number of outside collaborations in the areas of combinatorial and medicinal chemistry. The individual will also work closely with Oncogene's industry-leading high throughput drug screening facility with responsibility for initial lead discovery.

PROGRAM MANAGER, ATHEROSCLEROSIS/THROMBOSIS

This senior scientist will lead a collaborative research program with a major US pharmaceutical company. Applicants must have broad experience and knowledge in the area of atherosclerosis. The initial focus is to develop novel agents for modulating lipoprotein metabolism. Excellent written and oral communication skills and the ability to lead people are also essential. A working knowledge of molecular biology is highly desirable.

SENIOR SCIENTIST, CANCER

This person will help lead the Company's collaboration with a major US pharmaceutical company to develop therapeutic products for the treatment of cancer. The successful candidate will have an outstanding scientific track record with 3+ years of relevant experience in the field of cancer research, preferably pharmacology. A thorough knowledge of the molecular basis of cancer is essential. The ideal candidate will also have a good understanding of preclinical drug development.

SCIENTIST, IMMUNOASSAY DEVELOPMENT

We seek a Ph.D. or equivalent with 1-3 years of industrial or academic experience in ELISA development. Responsibilities will include development and validation of immunoassays for use in drug discovery and development of improved immunoassay technology. The ideal candidate will have skills in enzyme-antibody conjugation, immunohistochemistry and other techniques in protein biochemistry. An interest in novel detection methods for nucleic acid and proteins is a plus.

SCIENTIST/SENIOR SCIENTIST, NATURAL PRODUCTS CHEMISTRY

We are currently expanding our efforts in natural products and medicinal chemistry and are looking for a motivated individual to join this team. The successful candidate will have a Ph.D. in natural products chemistry with proven expertise in assay guided fractionation and structural elucidation techniques.

Oncogene Science offers superb opportunities for career development in a highly participative environment. Interested applicants should send or fax their resumes, noting the appropriate position, to: **Oncogene Science, Inc., 106 Charles Lindbergh Blvd., Uniondale, NY 11553-3649. Fax: (516) 222-0114.** An Equal Opportunity Employer M/F/H/V.

**Oncogene
Science**

Graduate Program in Molecular & Cellular Biology The University of Illinois at Chicago College of Medicine

The Molecular & Cellular Biology Training Program provides interdisciplinary training. Over 40 faculty members from different departments participate in the program. Students can choose from many possible areas of research, including:

- Cell Growth & Differentiation
- Cell Structure
- Developmental Biology
- DNA Structure & Function
- Gene Regulation
- Immunology
- Molecular Biology of Cancer
- Molecular Endocrinology
- Protein Structure & Function
- Signal Transduction

Principal Participating Departments:

- Biochemistry
- Cell Biology & Anatomy
- Genetics
- Microbiology & Immunology
- Pharmacology
- Physiology & Biophysics

Stipends of \$14,000 are available to all doctoral students in the form of tuition-free fellowships. Interested candidates are encouraged to seek application and information from:

MCBTP
c/o Heidi Hamm
Dept. of Physiology and Biophysics
835 S. Wolcott, M/C 901
Chicago, IL 60612

ALLERVAX CAT®
PHASE II
CLINICAL TRIALS
IN PROGRESS

At ImmuLogic,
we're taking a novel approach to the treatment of allergies and autoimmune diseases based on proprietary discoveries, an advanced molecular understanding, and innovative thinking. By targeting the initiating events in the immune system known as the Recognition Triad, we're developing products that will control, rather than mediate the reaction. Our ALLERVAX® products can potentially cause T cells to become non-responsive, and convert an allergic or disease reaction to a normal one. Our initial results are a promise of what's to come: already, our lead therapeutic, ALLERVAX CAT, for allergy to cats, is in Phase II Clinical Trials, with the potential to realize our vision of a new paradigm for treating immune disorders.

Translating Innovative Ideas Into Powerful Results

SCIENTISTS -

Discovery Research

You will be involved in the initiation of new interactive programs to develop novel therapeutics in immunologically relevant diseases and will develop and implement experimentation on immunomodulators and peptide-based vaccines. Qualifications: Ph.D. with a minimum of 2-5 years' relevant experience in immunology. Cellular immunology with expertise of activation mechanisms and *in vivo* models of transplantation and antibody responses required. Knowledge of signaling pathways at a biochemical and molecular level a plus. Dept. SD1.

Our steady progress has established us as a dynamic and rapidly expanding biopharmaceutical leader; our key industry partnerships and first-rate team of scientific professionals are taking us even further. We offer exceptional opportunities for growth, support for your career development, and rewards that include a competitive compensation and benefits package. Please send your CV, referencing the department, to: Human Resources Department, ImmuLogic Pharmaceutical Corporation, 610 Lincoln Street, Waltham, MA 02154. An equal opportunity employer. Principals only.

IMMULOGIC
Pharmaceutical Corporation
The clear relationship between business and science.

Biopharmaceutical R&D Postdoctoral & Assistant Scientist Positions

Interferon Sciences, Inc. is a biopharmaceutical company committed to the challenge of developing antiviral therapeutic products. The R&D Department has positions open in the following primary areas:

Cell Biology-Biologists with experience in mammalian cell culture, cytokine bioassay, immunoassay, production and purification of antibodies. (RD-94CB)

Protein Biochemistry-Biochemists with experience in characterization and purification of proteins, SDS-PAGE, Western blot, HPLC, affinity chromatography and carbohydrate analysis. (RD-94PB)

Analytical Biochemistry-Biochemists with experience in analytical protein chemistry, protein sequencing, amino acid composition analysis, peptide mapping and protein structure analysis. (RD-94AB)

Molecular Biology-Molecular biologists with experience in PCR, DNA sequencing, DNA/RNA isolation and detection, subcloning and virology. (RD-94MB)

ISI offers excellent compensation and benefits packages. Qualified candidates should send his or her resume, with the appropriate position code, to: **PERSONNEL DEPT. INTERFERON SCIENCES, INC. 783 JERSEY AVENUE, NEW BRUNSWICK, NJ 08901.** No phone calls please.

 **INTERFERON SCIENCES, INC.**
An Equal Opportunity Employer

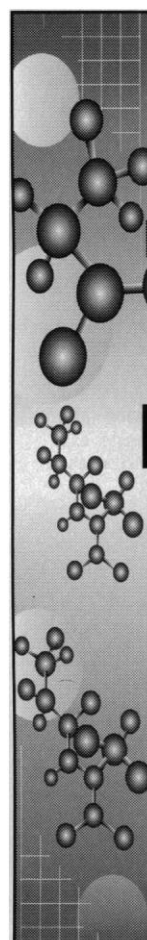
POSTDOCTORAL TRAINING IN CELL AND MOLECULAR BIOLOGY OF MALE REPRODUCTION

The Center for Biomedical Research of The Population Council offers postdoctoral training in various aspects of male reproductive physiology. Fellowships are provided by an NIH-supported Training Program. Research interests of our training faculty include:

Milan Bagchi, Ph.D.	Transcriptional regulation by nuclear hormone receptors; thyroid and retinoid hormone action.
C. Wayne Bardin, M.D.	Hormonal control of testicular function; contraceptive development.
James F. Catterall, Ph.D.	Regulation of gene expression by androgens; structure-function of sperm membrane proteins.
Ching-Ling C. Chen, Ph.D.	Transcriptional control of testicular expression of the inhibin/activin and clusterin genes.
C. Yan Cheng, Ph.D.	Mechanisms of cell-cell interaction in the testis; Sertoli cell function.
Glen L. Gunsalus, Ph.D.	Structure-function analysis of extracellular steroid binding proteins.
Matthew P. Hardy, Ph.D.	Hormonal control of Leydig cell differentiation; expression of steroidogenic enzymes.
Carl Monder, Ph.D.	Biochemical and molecular analysis of steroid metabolizing enzymes.
Patricia L. Morris, Ph.D.	Intratesticular regulators of Leydig cell function; mechanisms of Sertoli-germ cell interaction.
David M. Phillips, Ph.D.	Mechanisms of sexual transmission of human immunodeficiency virus.

The Center for Biomedical Research is located on the campus of Rockefeller University and provides excellent facilities for research and an outstanding scientific environment for postdoctoral training. Applicants must be U.S. citizens or Permanent Residents. Applications from women and minorities are encouraged. Please send curriculum vitae and names and addresses of three references to The Fellowship Secretary-NIH Training Program, The Population Council, Center for Biomedical Research, 1230 York Avenue, New York, NY 10021, USA. Indicate in your cover letter the name of the faculty member(s) of interest.

An EOE/AA Employer M/F



Advanced technologies, visionary management, a progressive approach: these are the strengths behind Procept's focus and the reason for our rapid growth. We are expanding on our core technologies — T cell biology and receptor structure-based small molecule drug design — to create novel therapeutic compounds that enhance the clinical management of diseases involving the immune system. With intense activity in all phases of research, and accelerating pre-clinical/clinical studies, we are clearly adding to the momentum of our discovery. Take advantage of the resulting opportunities.

SCIENTIST - BIOPHYSICAL CHEMISTRY


You will interact with a structure-based drug design team to evaluate the binding of lead immunosuppressive compounds to target receptors. Includes determination of affinity, stoichiometry, specificity and effects on target receptor structure. Position requires a Ph.D. in Chemistry/Biochemistry with 2+ years of postdoctoral experience studying protein-ligand interactions, preferably utilizing various spectroscopic techniques (fluorescence/CD/UV-VIS).

PRINCIPAL INVESTIGATOR - PRECLINICAL DEVELOPMENT/PROCESS DEVELOPMENT

Responsible for the development of methods for the production, separation, purification, formulation and validation of new chemical processes and technologies as well as for defining product specifications. Actively involved in setting up and supervising in-house capabilities for new product formulation and characterization and for investigative scale process chemistry. Responsible for qualifying and managing definitive (cGMP) process development work in contract facilities and preparation of documents for regulatory filing. Position requires a Ph.D. and 5-8 years of related experience. Pharmaceutical process and product development experience preferred.

In addition to extensive business and academic affiliations, we offer state-of-the-art facilities, support for your continuing career development, and an outstanding compensation and benefits package that includes incentive stock options. Please send your C.V. to: Jean Fletcher, Director of Human Resources, Procept, Inc., 840 Memorial Drive, Cambridge, MA 02139. We are an equal opportunity employer.

PROCEPT



CTI
CELL THERAPEUTICS, INC.


Cell Therapeutics, Inc. is an innovative biopharmaceutical company focused on the design and development of a variety of small molecule drugs that treat significant human diseases. We currently have the following opportunity available.

**GROUP LEADER/SENIOR SCIENTIST
CELLULAR IMMUNOLOGY**

CTI is developing synthetic, orally-active phospholipid signaling inhibitors that block IL-2 and CD28-mediated signal transduction. The successful candidate will act as a team leader for an aggressive development program. This position requires a PhD/MD with 5+ years of academic or industry experience in cellular immunology; a distinguished record of accomplishments; direct experience with animal model of autoimmune diseases and proven administrative skills.

CTI's location on Puget Sound in downtown Seattle provides spectacular views and easy access to all major metropolitan attractions. We offer a competitive compensation and benefits package as well as an environment where your contributions can make a significant difference. Please send or fax your CV referencing Job #GR194B to:

Human Resources
Cell Therapeutics, Inc.
201 Elliott Avenue West, Suite 400
Seattle, WA 98119
FAX: (206) 284-6206
Equal Opportunity Employer



JOIN THE LIFE SCIENCES REVOLUTION

CLINICAL DIAGNOSTICS (18 OPEN POSITIONS)

The Clinical Diagnostics Group will pursue the development of diagnostic tests which will incorporate innovations in both instrument and reagents technology. These systems will incorporate new separation and detection formats, based on PerSeptive technologies, that are expected to result in substantial improvements in speed, precision, sensitivity and cost. Clinical Diagnostic tests, based on patented technologies in flow-through immunoassays, capillary electrophoresis, mass spectrometry and perfusion chromatography, are currently under development. These systems will not only detect and measure target analytes currently measured by existing diagnostic systems, but will also incorporate analytes related to the rapidly emerging genetic testing market. A significant number of positions are available for both experienced and entry level Ph.D. and B.S./M.S. scientists determined to advance the state-of-the-art in clinical diagnostics. Openings exist for scientists in the following areas:

- Immuno Chemistry
- Clinical Chemistry
- DNA Probes
- Electrophoresis
(Capillary Electrophoresis)
- Bioanalytical Chemistry
- Clinical HPLC
- Clinical Mass Spectrometry

(Dept. CD1/21)

TARGET BASED DRUG DISCOVERY (15 OPEN POSITIONS)

PerSeptive Biosystems is pursuing new methodologies for the selection and identification of new therapeutic lead compounds to significantly increase productivity in drug discovery. Using receptors or other biological targets, the Target Based Drug Discovery team will screen libraries of biological and chemical compounds to isolate, identify, and characterize new therapeutic leads, using PerSeptive's high throughput separations technologies and automated instrumentation systems. For members of this multidisciplinary team developing innovative methods for drug discovery, we are seeking highly motivated scientists for positions in these areas:

- Molecular Biology and Cell Biology
- Protein Chemistry/Receptor Biochemistry
- Medicinal Chemistry and Drug Design
- Bioanalytical Chemistry
- Mass Spectrometry

The positions available range from entry-level to those requiring 5-10 years' industrial experience, and require a Ph.D. or equivalent experience in the appropriate scientific discipline. Positions are also available as Research Associates, and require a B.S./M.S. degree, plus experience in the designated disciplines.

(Dept. DD1/21)

DNA/PROTEIN SEQUENCING GROUP (10 OPEN POSITIONS)

Continuing cutting edge research aimed at understanding biological mechanisms at a molecular level requires major advances in the art and science of sequencing proteins and oligonucleotides. The DNA/Protein Sequencing Group will develop methods and instruments to perform high speed sequence analyses of biopolymers, using high resolution and high sensitivity mass spectrometers and innovative separation technology. The scientists will collaborate with their colleagues in the PerSeptive Mass Spectrometry Division, Vestec Products, as well as other external research groups. PerSeptive believes that its mass spectrometry and separations technologies will substantially increase sequencing productivity at the gene and protein level and will have an accelerating effect on biomedical research targeted at better diagnostics and therapeutics. Positions exist within the DNA/Protein Sequencing Group at the Ph.D. and Research Associate levels for both entry-level and experienced scientists with backgrounds in:

- Protein Chemistry
- Protein and/or Oligo Sequencing
- Oligonucleotide Chemistry
- Bioanalytical Chemistry
- Mass Spectrometry

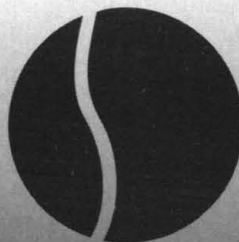
(Dept. DNPS1/21)

PEPTIDE AND OLIGONUCLEOTIDE SYNTHESIS (7 OPEN POSITIONS)

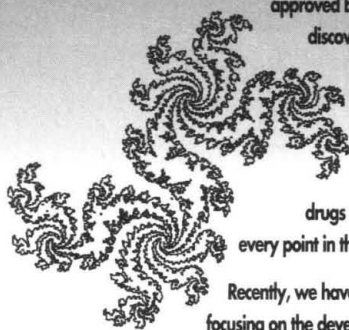
The continuing explosion in basic and therapeutic research utilizing peptides, proteins and oligonucleotides requires new approaches to synthesis and purification of these biopolymers. The Biomolecule Synthesis Group will develop new methods of synthesis, coupled with innovative instrumentation for the synthesis and purification of peptides and oligonucleotides, based on the superior mass transport characteristics of PerSeptive's Poros media and its instrumentation platforms. The synthesis supports and instruments that this group will develop will substantially reduce the cost, while improving the quality and speed, of DNA and peptide synthesis, and enable the large scale manufacture and commercialization of biomolecule based therapeutics. Openings exist within the Biomolecule Synthesis Group at the Ph.D. and B.S./M.S. levels for both entry-level and experienced scientists with backgrounds in:

- Peptide Synthesis Chemistry
- Oligonucleotide Synthesis Chemistry
- Organic Chemistry
- Chemical Engineering/Scale-up
- Bioanalytical Chemistry

(Dept. POS1/21)



PerSeptive



Over the last decade, fundamental molecular biology discoveries have led to the first phase of the life sciences revolution that has produced almost 20 FDA-approved biotherapeutics, a \$4 billion immunodiagnostics industry and potential opportunities in genetic testing, gene therapy and structure-based drug discovery. The tools necessary to allow the life sciences revolution to meet its full commercial potential have not kept pace with the discoveries of molecular biologists. PerSeptive Biosystems has developed a new generation of tools that fundamentally improve productivity in life sciences research, development and manufacturing through the application of core technologies in Perfusion Chromatography®, ImmunoDetection™, Mass Spectrometry, Capillary Electrophoresis and Rational Surface Design™.

Our core business focuses on providing the biopharmaceutical industry with purification and analysis tools to develop and manufacture new drugs cost effectively and time efficiently. We have designed an integrated product portfolio to make substantial improvements in productivity at every point in the drug development process.

Recently, we have completed a \$58 million R&D financing to pursue the application of our core technologies to related life science opportunities. We will be focusing on the development of new products for Clinical Diagnostics, Systematic Screening of libraries of Chemical and Biological Compounds for Therapeutic Drug Discovery, DNA and Protein Sequencing using Mass Spectrometry, and DNA and Peptide Synthesis Systems using our Proprietary Flow-through Media and Systems.

We have grown four-fold over the last year from 60 to 250 people. In that time our annual revenues grew from \$5MM to \$18.7MM with our first profitable quarter ending in September 1993. This new R&D financing will double the size of our R&D organization from its current staff of 80 scientists and engineers.

MATERIALS DEVELOPMENT AND SURFACE CHEMISTRY

(3 OPEN POSITIONS)

The Materials and Surface Chemistry Group at PerSeptive is responsible for the development of new types of Chromatography and synthesis supports, and characterization of new forms of surface chemistries to effect separations of biomolecules. Rational surface design approaches are being used to produce synthetic, antibody-mimic surfaces for separations and diagnostic applications. Openings currently exist in this group for both Ph.D. and B.S./M.S. level scientists with experience in:

- Polymer Chemistry and Synthesis
- Surface Chemistry
- Analytical Biochemistry

(Dept. MDSC1/21)

OLIGONUCLEOTIDE PURIFICATION

(3 OPEN POSITIONS)

The BioProcess Development group is engaged in a wide variety of bioseparations problems ranging from discovery of novel applications of PerSeptive's POROS perfusion chromatography technology to development of scalable processes for our collaborations with the world's leading biopharmaceutical companies. We are looking for talented separations scientists at the Ph.D., M.S. and B.S. levels with experience in the following areas:

- Purification of Oligonucleotides
- Purification of Proteins and Peptides
- Analytical Biochemistry
- Manufacturing Scale-Up

(Dept. OP1/21)

NEW INSTRUMENTATION DEVELOPMENT

(6 OPEN POSITIONS)

The Instrumentation Group acts as a central development group in collaboration with other PerSeptive R&D groups in Separations Science, Biomolecule Synthesis and Sequencing, Clinical Diagnostics, and Mass Spectrometry, to develop, together with the Software Engineering Group, prototypes of new instrument systems and platforms to expand PerSeptive's state-of-the-art instrument workstations. The members of this group work in a fast paced, challenging R&D environment which is developing the tools for the Life Science Revolution. Openings currently exist within this group for experienced individuals with a B.S./M.S. degree in:

- Electrical Engineering
- Mechanical Engineering

(Dept. NID1/21)

MASS SPECTROMETRY FOR LIFE SCIENCES

(6 OPEN POSITIONS)

The Mass Spectrometry Group will collaborate closely with PerSeptive's Mass Spectrometry Division, Vestec Products, (based in Houston), to identify and develop new applications of mass spectrometry in the Life Sciences. PerSeptive is committed to building the most advanced biological Mass Spec Group in the industry. The scientific thrust of this group is the use of mass spectrometry in the biomedical and life sciences, while instrument development is conducted at Vestec.

The members of this group will work with other PerSeptive R&D groups, and are also expected to have significant external interactions. While the majority of openings involve research that uses mass spectrometry, openings also exist for those individuals interested in the design and modification of mass spectrometers and their interfaces to advanced separations instruments. Positions exist for experienced Ph.D. and B.S./M.S. level scientists who are interested in a challenging environment advancing the state-of-the-art in mass spectrometry and its life sciences applications.

(Dept. MS1/21)

PROJECT MANAGEMENT

A project management position is available, reporting to the Vice President of R&D. The project manager will work with senior R&D management to prepare technology plans, monitor progress, and report to senior PerSeptive management on major initiatives in clinical diagnostics, biomolecule synthesis and sequencing, therapeutics, and life sciences instrumentation, including mass spectrometry. The position requires excellent interpersonal and communication skills, and the ability to easily function in a rapidly growing and changing environment. Facility with commonly used project management tools is required. The successful candidate will have a Ph.D. in the Life Sciences, with an M.B.A. preferred, and a minimum of 3 years' successful experience in project management in the life or biomedical sciences.

(Dept. PM1/21)

We seek out innovative thinkers and reward them with opportunities for both autonomy and collaboration, as well as with an outstanding compensation/benefits package. Send your resume, referencing the appropriate department, to Human Resources:

PerSeptive Biosystems, Inc.

38 Sidney Street
Cambridge, MA 02139

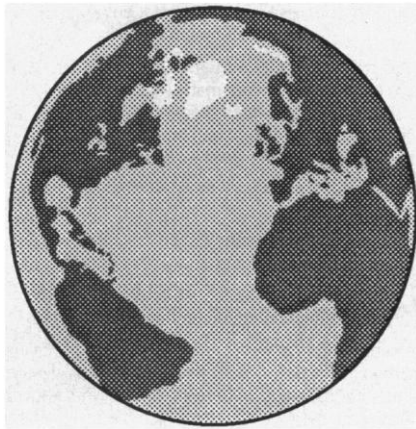
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Biosystems

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announce the introduction of the
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or Andrew Davis: +44 457 838519

Postdoctoral Research Scientists

Upjohn Laboratories, a division of The Upjohn Company, has exciting opportunities for postdoctoral research scientists in the following areas:

Molecular and Cell Biology (Specialty Code 100-PRS)

- **Activation of dopamine receptor subtypes.** Candidates with experience in molecular biology, biochemistry, molecular pharmacology, and cell biology are encouraged to apply.
- **Modulation and function of calcineurin in T cells using a combination of molecular biology and biochemical approaches.** Applicants should have a strong background in molecular biology, including PCR analysis and cDNA cloning. Previous biochemistry and cell biology experience also desirable.
- **Ion Channel Electrophysiologist.** Extensive experience on whole-cell and single-channel recording is essential. Successful candidate is expected to perform experiments on ion channel expression and regulation in *Xenopus* Oocytes, in juxtaglomerular cells and mammalian kidney, in coronary smooth muscle cells and in heart cells.
- **Herpes simplex virus capsid assembly and DNA packaging by both genetic and in vitro approaches.** Experience in molecular biology, biochemistry and virology required.
- **Molecular mechanisms of virulence gene regulation in intracellular bacterial pathogens, with particular emphasis on environmental regulation of virulence gene expression.** Interest in microbial pathogenesis, and experience with DNA binding proteins, protein-protein interactions, and microbial genetics.

Medicinal Chemistry (Specialty Code 201-PRS)

- **Synthesis of novel antibacterial agents.** This position requires a strong background in the multistep total synthesis of complex molecules. Experience in the use of organometallic methods for organic synthesis is desirable.
- **New applications of microbial oxidation methods to organic synthesis.** A strong background in organic synthesis and isolation/structure determination is required. Additional experience with molecular modeling and/or enzyme reaction is desirable.

Adhesion Biology (Specialty Code 101-PRS)

- **Role of the redox-sensitive nuclear transcription factor NF- κ B in the activation of endothelial cell adhesion molecule gene transcription.** Applicants should have a strong background in cell biology or biochemistry, with emphasis on skills in molecular biology.

In addition to an excellent salary and benefits package, Upjohn Laboratories offers a stimulating, multidisciplinary research environment at our modern facilities located in Kalamazoo, a southwestern Michigan community located midway between Chicago and Detroit. Our region provides an outstanding mix of cultural and recreational pursuits and a reasonable housing cost market. For consideration, please forward your C.V. and a statement of research interests (refer to the appropriate Specialty Code) to: **The Upjohn Company, Corporate Recruiting, 7000 Portage Road, Kalamazoo, MI 49001.** Equal Opportunity Employer.

The Upjohn logo consists of the word "Upjohn" in a bold, white, sans-serif font, centered within a solid black rectangular box.

THE CHINESE ACADEMY OF SCIENCES
with support of the
MAX-PLANCK-GESELLSCHAFT
intends to establish two
INDEPENDENT RESEARCH GROUPS
at the Shanghai Institute of Cell biology
for
PROMISING YOUNG CHINESE SCIENTISTS

Applications are invited for positions as

RESEARCH GROUP LEADERS

from young scientists in China or abroad who have achieved a degree of international recognition in their field, preferably in

**DEVELOPMENTAL BIOLOGY
CELL BIOLOGY
MOLECULAR BIOLOGY or
NEUROBIOLOGY**

The successful applicants will be expected to conduct fully independent, original and dynamic research programs.

The positions possess full scientific and economic independence and are limited to a maximum of five years. They are paid according to Chinese regulations; in addition, special social benefits, a supplement in foreign currency and travel grants are offered. The groups will have modern laboratory facilities and funding for scientific and technical co-workers. The operating expenses include funds in foreign currency.

Applications, including a tabular curriculum vitae, a list of publications with reprints of three selected papers, a description of major scientific achievements and a summary of future research plans, should be submitted in English by March 15, 1994, to:

Prof. Uli Schwarz (Director)
Max-Planck-Institut für Entwicklungsbiologie
Postfach 21 09, 72011 Tübingen/Germany, Fax No. -497071-601447

A group of finalists will be invited to present their projects at a symposium in Shanghai in the second half of May. Travel and accommodation expenses will be covered.



KAROLINSKA INSTITUTET
Postdoctoral/Research Associate position
Nutritional toxicology, DNA adducts

The Department of Medical Nutrition is a university department within the Karolinska Institute with a staff of about 100 persons (scientists, students, technical and administrative staff). The department is situated within the Novum Research Center in which around 300 scientists are involved in studies on various aspects of cell biology, molecular biology and toxicology. A high percentage of the staff are foreign scientists. The postdoctoral position is intended for studies on the metabolism of heterocyclic amines and the formation of DNA adducts involving heterocyclic amines.

The postdoctoral position is initially for two years with possibility for extension up to four years. Preference is given to applicants with experience of DNA adduct measurements, HPLC-techniques and massspectrometry.

Applications should be sent to Professor Jan-Åke Gustafsson, Department of Medical Nutrition, Karolinska Institute, Huddinge University Hospital, Novum, S-141 86 Huddinge, SWEDEN. Curriculum Vitae, publication list and two references should be given.

**THE UNIVERSITY OF
GENEVA (SWITZERLAND)**

FACULTY OF MEDICINE

Is seeking qualified candidates for
a position of:

PROFESSOR OF MEDICINE

Future head of the Division of
Clinical Diabetology Department
of Medicine.

The candidates should demonstrate ability to direct a research program and to ensure pre- and post-graduate teaching.

The interested persons should write to:

The Dean of the
Faculty of Medicine
Centre medical universitaire
1211 Geneva 4
Switzerland

Additional information can be obtained on request.

**Minority Medical Faculty Development
Research Fellowships**

The Minority Medical Faculty Development Program, sponsored by the Robert Wood Johnson Foundation, has up to 12 positions beginning in 1995. The program offers postdoctoral research fellowships to physicians from under-represented minority groups as defined by the Association of American Medical Colleges (blacks, Mexican-Americans, Native Americans, and mainland Puerto Ricans who have completed at least post-secondary education on the mainland). These individuals must have demonstrated superior academic and clinical skills and must be committed to careers in academic medicine with special interest in **BIOMEDICAL RESEARCH, CLINICAL INVESTIGATION OR HEALTH SERVICES RESEARCH**. The fellowship supports four consecutive years of research training. Each Fellow will receive an annual stipend of up to \$50,000 with 5% increases per year and a fixed \$25,000 annual grant toward support of research activities.

Applicants must be U.S. citizens and must have completed formal clinical training by the projected time of entry into the program. The application deadline is April 15, 1994; applications must be requested by March 22, 1994.

For further information and application materials, contact: James R. Gavin III, M.D., Ph.D., Program Director, Minority Medical Faculty Development Program, 4733 Bethesda Avenue, Suite 350, Bethesda, MD 20814. Telephone (301) 913-0210.



**THE UNIVERSITY
OF QUEENSLAND**

Equal opportunity in employment is University policy

Lecturer in Entomology (Academic Level B) Tenurable Department of Entomology

The Department of Entomology at The University of Queensland seeks applications for the position of Lecturer (tenurable) in Entomology. Minimum qualifications for the position include a PhD in Entomology from a recognised institution and three years postdoctoral experience. Applicants must demonstrate a commitment to teaching all levels of Entomology and show strong basic skills that include biology and systematics of economically important insects. The appointee will teach subjects in Immature Insect Taxonomy, Systematic Theory and a course reflecting the appointee's research expertise. Applicants should display a strong research program in areas which have an application to agriculture.

Salary will be in the range of A\$41,000 – A\$48,688 per annum, dependent on qualifications and experience.

Applicants should forward an original plus eight copies of a curriculum vitae to the Director, Personnel Services, The University of Queensland, Qld 4072 Australia. The CV should include a one-page statement of professional goals, a list of all publications and the names, addresses and fax numbers of three referees qualified to judge the applicant's potential in teaching and research within a university environment. For further information, please contact Professor Gordon Gordh, Head of Department, on +61 7 365-2271.

Closing date: 28 January 1994.

Please quote **Reference No. 56793**.



UNSW

**THE UNIVERSITY OF NEW SOUTH WALES
AUSTRALIA**

CENTRE FOR THROMBOSIS AND VASCULAR RESEARCH

SENIOR RESEARCH OFFICER (NH&MRC) – Fixed Term

Salary Level NH&MRC: A\$41,000 - A\$48,688 per annum.

Applications are invited for a post-doctoral position as vascular and cell biologist in the Centre for Thrombosis and Vascular Research located at the University of New South Wales and the Prince of Wales Hospital. Staff at the Centre have broad interests in vascular biology encompassing vascular cell and platelet biology, atherosclerosis, growth factors and fibrinolysis.

A vascular and cell biologist with experience in fibrinolysis and familiarity with molecular biological methods is sought for a project focussing on receptor-mediated catabolism of plasminogen activators and related proteinases with their inhibitors. Candidates must have post-doctoral experience and be capable of working independently. A knowledge and understanding of EEO/AA principles is required.

The initial appointment will be for the period to 31 December, 1994 with prospects of funding for 5 years.

Further information is available from Dr Dwain Owensby or Dr Philip Hogg on telephone (61 2) 399 2939, facsimile (61 2) 398 4275.

Applications close 11 February 1994.

PLEASE QUOTE REF 002SCI

APPLICATION PROCEDURE

Applicants should submit a written application **QUOTING REFERENCE NUMBER**. Include business and private telephone numbers; a complete resumé, (copies of academic transcript and qualifications where appropriate); and the names, addresses (and preferably facsimile numbers) of at least two referees to: The Recruitment Officer, Human Resources, P.O. Box 1, Kensington, N.S.W. 2033 Australia by applications close date. People from EEO groups are encouraged to apply.

22259

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The University supports a smoke free work environment**



ETH Zürich

The University of Zurich and the Swiss Federal Institute of Technology, Zurich, invite applications for the tenured position of a

Professor in Biomedical Engineering

who will be the head of the Institute of Biomedical Engineering, which is jointly operated by the University of Zurich and the Federal Institute of Technology in Zurich (ETHZ).

Research should focus on an innovative area within biomedical engineering in close cooperation with the School of Medicine. The teaching duties will include lectures and courses at all levels. Non-German speaking candidates will be expected to acquire sufficient language skills within a reasonable period of time.

Requirements for candidacy are an outstanding scientific achievement and a vigorous research program, leadership qualities, teaching abilities, and a willingness for collaborative efforts within and outside the two universities. The chair is a joint position of the University of Zurich and ETHZ.

Written application should be submitted to the **Chairman of the Search Committee, Prof. Dr. M. Turina, Clinic for Cardiovascular Surgery, University Hospital, Rämistrasse 100, 8091 Zurich (telephone +1 255 32 98, fax +1 255 44 46, not later than February 28, 1994)**. Applicants should consult "Guidelines for submission of application", available through the Office of the Dean, University of Zürich, Gloriastrasse 23, CH-8091 Zürich, Fax +1 255 45 65. Younger and female scientists are encouraged to apply.



WORLD HEALTH ORGANIZATION INTERNATIONAL AGENCY FOR RESEARCH ON CANCER LYONS, FRANCE

MOLECULAR BIOLOGIST

The Unit of Mechanisms of Carcinogenesis of the International Agency for Research on Cancer is conducting studies to elucidate the etiopathogenesis of human cancer through a multidisciplinary approach ranging from experimental studies to molecular epidemiology. The aim is to identify carcinogenic risk factors and to provide the scientific basis for the extrapolation of experimental data to humans.

A molecular biologist is required to participate in the conception, planning and conduct of projects on the role of activation and inactivation of oncogenes and tumour-suppressor genes and other genetic alterations in human cancers. He/she will interact with other experimental scientists and epidemiologists in and outside the International Agency for Research on Cancer in the implementation of molecular epidemiological studies. The incumbent is expected to supervise technical staff and visiting fellows, and to report findings at scientific meetings.

A postgraduate degree or equivalent at doctorate level in molecular biology and some years of experience in cancer research and collaborative studies are required.

The appointment will be initially for two years, the first being probationary, and can be extended further.

The salary level is US\$ 42 013 p.a. plus a cost of living element which is currently US\$ 17 346 p.a. for a staff member without dependents, and US\$ 45 271 p.a. plus a cost of living element of US\$ 18 652 for a staff member with dependents. Salaries are net of tax.

Those interested should write, enclosing a curriculum vitae, to:

Personnel Office

I.A.R.C.

150, Cours Albert Thomas

69372 Lyon Cedex 08

France

Fax N° 72 73 85 75

Candidates will be contacted only if they are under serious consideration.

POSITIONS OPEN

NMR FACILITY MANAGER. The Division of Biological Sciences at the University of Chicago invites applications for manager of NMR spectrometers in a new Magnetic Resonance Spectroscopy User Facility for multidimensional NMR spectroscopy of bio-macromolecules. Applicants should have a Ph.D. with experience in the use of NMR spectrometers and a working knowledge of multidimensional NMR and design of pulse sequences. Responsibilities will include instrument maintenance and instruction of NMR methods at all levels. It is expected that the manager will interact with user groups to facilitate research. The successful applicant will have the opportunity to develop innovative NMR methods for which spectrometer time will be made available. The 12-month salary will be highly competitive and commensurate with experience. Applicants should send curriculum vitae, list of publications, and copies of salient publications and arrange to have three letters of reference forwarded to: **Professor Michael A. Weiss, Department of Biochemistry and Molecular Biology, 920 East 58th Street, Chicago, IL 60637**, by February 15, 1994. *The University of Chicago is an Equal Opportunity/Affirmative Action Employer.*

FRED C. DAVISON CHAIR IN TOXICOLOGY

The Department of Physiology & Pharmacology, College of Veterinary Medicine at the University of Georgia invites applications and nominations of distinguished scientists for the Davison Chair in Toxicology. Applicants should possess the D.V.M. and Ph.D. degrees; board certification in toxicology, pathology, or pharmacology is desirable; current excellence in research with a demonstrated ability to obtain extramural funding and to attract and train outstanding graduate students is required. Teaching experience at the professional and graduate levels will be considered. The successful applicant will command a highly competitive salary, a generous start-up package, and an endowed, annual budget for base support of research. Applicants should provide a cover letter indicating teaching and research interests and experience, curriculum vitae, and names of three individuals who can provide letters of reference to: **Dr. John M. Bowen, Davison Chair Search Committee, College of Veterinary Medicine, The University of Georgia, Athens, GA 30602-7371**. Applications received by April 1, 1994, are assured of consideration. *An Equal Opportunity/Affirmative Action Institution.*

GENETICIST Carleton College

Applications are invited for a one-term (1/3 academic year, September 1–November 22, 1994) leave replacement in the Department of Biology. Teaching responsibilities include an upper-level lecture/laboratory course in genetics. Ph.D. preferred—ABD considered. *Women and minority candidates are strongly encouraged to apply.* Send application, curriculum vitae, undergraduate and graduate transcripts, a statement of teaching philosophy, a summary of research and three letters of reference to: **John Tymoczko, Department of Biology, Carleton College, Northfield, MN 55057-4025** by February 28, 1994, or until suitable candidates are selected. *Carleton College is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN AGING RESEARCH

The Division of Geriatric Medicine of St. Louis University School of Medicine and the St. Louis Veterans Administration (VA) Medical Center invite applications for a full-time research position studying biochemical mechanisms of aging and the diseases of aging. Ph.D. required and molecular biology experience helpful, but specific research area is open. Division has ongoing research in neurobiology, Alzheimer's disease, osteoporosis, anorexia, diabetes, and carcinogenesis. Appointment will be at VA Medical Center with joint appointment in Division of Geriatric Medicine and other basic science department. Academic rank is open and will be commensurate with experience and funding record. To apply, send curriculum vitae, statement of research interests, and names of three references to: **Dr. H. J. Armbricht, Geriatric Center (11G-JB), St. Louis VA Medical Center, St. Louis, MO 63125**. *We are an Equal Opportunity/Affirmative Action Employer, M/F/H/V. Women and minorities are encouraged to apply.*

POSITIONS OPEN

VISITING INSTRUCTOR AND LABORATORY COORDINATOR, BIOLOGY: M.S. or Ph.D., Non-tenure-track for 1994-95 at John Carroll University, a Catholic and Jesuit University, offering B.S., M.S. and M.A. degrees. Position possibly renewable twice. Responsibilities will be to teach all laboratory sections in major's-level freshman biology (Zoology and Botany topics) and to teach one or more non-majors biology courses and to be the Laboratory Coordinator for freshman- and sophomore-level courses (12 credit hour load per semester). Submit a letter of application, curriculum vitae, statement of teaching philosophy and 3 letters of recommendation by 1 March 1994 to: **E. J. Skoch, Department of Biology, John Carroll University, University Heights, OH 44118**. *An Equal Opportunity/Affirmative Action Employer; women and minorities encouraged to apply.*



FACULTY POSITION IN DRUG DELIVERY/DRUG TRANSPORT TECHNOLOGY, COLLEGE OF PHARMACY AND ALLIED HEALTH PROFESSIONS, WAYNE STATE UNIVERSITY. The Department of Pharmaceutical Sciences is seeking candidates for a tenure-track position available immediately in Drug Delivery/Drug Transport Technology with focus on molecular and biochemical aspects of drug delivery mechanisms, including gene therapy utilizing altered genes, viruses or living cells, and biological functions of transport/carrier proteins. Candidates are expected to interface with research programs at the cellular/molecular level in the Department and the University. Persons with demonstrated expertise in applied biotechnology are especially urged to apply. Candidates will be expected to establish a funded research program. Teaching at both the graduate and undergraduate levels is also expected. Applicants should possess a Ph.D. degree in pharmacology, pharmaceutical sciences, immunology, or related disciplines and have postdoctoral experience. Rank and salary commensurate with experience. Qualified candidates should send curriculum vitae and the names and addresses of three references to: **Fusao Hirata, M.D., Ph.D., Interim Chair, Department of Pharmaceutical Sciences, College of Pharmacy and Allied Health Professions, 528 Shapero Hall, Detroit, MI 48202**. *Wayne State University is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.*

FACULTY POSITIONS IN MOLECULAR CELL BIOLOGY AND/OR IMMUNOLOGY RUSH MEDICAL COLLEGE

The Departments of Pharmacology and Immunology/Microbiology at Rush Medical College invite applications for faculty members using molecular biological approaches to address one of these broad areas: inflammation biology, vascular biology, or lung biology. Rush Medical College is part of a large medical center with ample opportunities for collaborations and readily available clinical materials. The Departments of Pharmacology and Immunology/Microbiology have strong research programs in vascular endothelial and lung cell biology, acute phase reactants, HIV immunology, cellular immunology, molecular virology and allergy. Candidates for a tenured Associate or Full Professor position must have a history of publication and extramural funding, be capable of developing an outstanding research program, and be interactive/collaborative with other investigators in the medical center. Candidates for a tenure-track Assistant Professor position must demonstrate significant promise in these areas. Successful candidates will have opportunities to teach medical and graduate students.

Submit curriculum vitae, statement of research interest, representative reprints, and the names of three references to: **Dr. Mark Peeples, Chairman, Search Committee, Rush Medical College, 1653 West Congress Parkway, Chicago, IL 60612**. Applications must be received by April 1, 1994. *Rush-Presbyterian-St. Luke's Medical Center is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

FACULTY POSITION. The Department of Biochemistry and Molecular Biology in the College of Medicine solicits applications for a tenure-track (12-month) position at any level. Applicants at the Assistant Professor level should have a Ph.D. and/or M.D. degree, postdoctoral experience, and demonstrated excellence in research. Applicants at the Associate/Full Professor level should have a nationally recognized research program. The successful candidate will join a department undergoing significant expansion and will occupy laboratories in the recently completed Biomedical Research Building. He/she will be expected to have or develop a funded research program that utilizes modern techniques to address problems in the area of enzymology and protein structure/function relationships, train Ph.D. candidates, and contribute to teaching graduate and medical students. Applicants should submit curriculum vitae, a brief statement of proposed research, and the names, addresses and telephone numbers of three references to: **Gary A. Bannon, Department of Biochemistry and Molecular Biology, Slot 516, University of Arkansas for Medical Sciences, 4301 West Markham, Little Rock, AR 72205**, by 15 February 1994. *UAMS is an Equal Opportunity/Affirmative Action Employer.*

FACULTY AND POSTDOCTORAL POSITIONS IN MOLECULAR GENETICS AT THE INSTITUTE FOR THE GENETIC ANALYSIS OF COMMON DISEASES NEW YORK MEDICAL COLLEGE

Collaborate with human geneticists, epidemiologists, clinicians, and molecular biologists in systematic studies of genes that predispose to cancer, psychiatric illness, diabetes, obesity, hypertension, and other serious common chronic disorders. Experience in gene cloning or gene expression desirable. Highly qualified candidates are encouraged to send curriculum vitae, names of three references, and statements of scientific interests to: **Michael Swift, M.D., Director, Division of Human Molecular Genetics, New York Medical College, 4 Skyline Drive, Hawthorne, NY 10532; 914-347-2592 (Telephone); 914-592-2275 (FAX).**

FACULTY POSITION

The expanding Urology Research Laboratory at Northwestern University Medical School invites applications from new or established investigators with basic science interest to complement active programs in cell biology of prostate cancer and BPH, role of extracellular matrix in cellular differentiation, gene expression in urogenital tract development and role of bacterial adhesion in UTI. The position offers a competitive salary with a tenure-track status. A joint appointment in one of the basic science departments will be offered depending on area of interest. Rank will be commensurate with experience. Applications should be sent to:

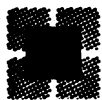
**Dr. Chung Lee
Tarry 11-715**

**Department of Urology
Northwestern University Medical School
303 East Chicago Avenue
Chicago, IL 60611-3008**

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

FACULTY POSITION

The University of North Carolina at Chapel Hill invites applications for a junior or senior tenure-track **FACULTY POSITION** in the Department of Cell Biology and Anatomy. Appointee must have a Ph.D. or M.D. degree and will be expected to establish or have a funded research program in a modern area of cellular, molecular or developmental biology and to participate in teaching first-year medical and doctoral students. Starting date negotiable. *Women and minorities are encouraged to identify themselves.* Send curriculum vitae, a description of current and future research plans, and have three letters of recommendation sent independently by March 1, 1994, to: **Dr. Charles R. Hackenbrock, Chair, Department of Cell Biology and Anatomy, School of Medicine, 108 Taylor Hall, CB# 7090, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7090. AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER.**



**FACULTY POSITION IN THE
DEPARTMENT OF
NEUROSCIENCES
CLEVELAND CLINIC
FOUNDATION
RESEARCH INSTITUTE**

Molecular Biology of Myelination

The newly established Department of Neurosciences seeks an outstanding candidate to fill a faculty position at the Assistant, Associate, or full Staff level. Applicants must have a Ph.D. and/or M.D. and an active independent research program. Individuals must utilize state-of-the-art techniques to investigate cellular and molecular aspects of myelination in the central and peripheral nervous system with a focus on axon/glia signaling, transcriptional factors, transgenic technology, dysmyelination, and demyelinating diseases. Excellent departmental facilities and generous start-up funds are available. The Department of Neurosciences is housed in the Health Sciences Building, along with the Departments of Cell Biology and Molecular Biology. Opportunities for interaction with clinical Neuroscience departments are plentiful. Candidates should submit a curriculum vitae, a list of publications, a brief statement of research interests, and three letters of reference to: **Search Committee, Department of Neurosciences-NC30, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195. The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.**

alza

Protein Formulation Chemist San Francisco Bay Area

Nicoderm®, Procardia XL®, Duragesic®, Estraderm®...some of the most recognizable products in the pharmaceutical industry. We're ALZA, the company that developed these popular products. If you would like to participate in the most exciting breakthroughs in pharmaceutical therapy, join ALZA today. We're currently seeking an experienced Protein Formulation Chemist for our Biological Sciences department.

Here's your chance to utilize your 7+ years' experience in formulation development within the pharmaceutical industry. You will develop new, innovative formulations for proteins and peptides in drug delivery system pharmaceuticals; design methods used to evaluate protein formulations under experimental conditions; and provide the scientific/project leadership needed to create/modify new drug formulations for therapeutics.

The preferred candidate will have a PhD in Pharmaceutical Chemistry, Pharmacy, Chemical Engineering, Biochemistry, Protein Chemistry or equivalent. We require demonstrated expertise in maintaining the functional activity of isolated proteins and peptides, as well as a solid background with analytical methods to characterize formulation stability. Knowledge of container compatibility, chemical modification and regulatory issues are necessary; experience with protein lyophilization is helpful.

Please send your resume to ALZA, Human Resources, 950 Page Mill Rd., P.O. Box 10950, Palo Alto, CA 94303-0802. FAX (415) 494-5151. Or call (415) 494-5319 or our TDD line at (415) 494-5003. We are pleased to be an equal opportunity employer and encourage applications from qualified persons with disabilities. All trademarks are registered to their respective companies.

ASSISTANT PROFESSOR

**Department of Zoology
The University of British Columbia**

Applications are invited for a tenure-track position at the Assistant Professor level in the Department of Zoology, University of British Columbia. Appointment may be considered at a higher rank for a senior woman with exceptional qualifications. Salary will be commensurate with education and experience.

The Department of Zoology currently comprises 36 faculty members, approximately 35 postdoctoral fellows and research associates, and 140 graduate students. Preference will be given to candidates with at least 2 years' postdoctoral experience and with demonstrated excellence in research that complements the present strengths in the department. We require an animal population geneticist with strong theoretical skills. Experience with molecular biology approaches to this discipline will be considered an additional asset. The appointee will be expected to develop a strong research program, and teach in appropriate undergraduate courses, including biostatistics. **Starting date will be January 1 or July 1, 1995.** Appointment is subject to final budgetary approval.

Closing date for application is June 1, 1994.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. UBC welcomes all qualified applicants, especially women, aboriginal people, visible minorities and persons with disabilities.

Curriculum vitae, 3 letters of reference, and a brief outline of research interests should be submitted to:



Dr. J.E. Phillips
Head, Department of Zoology
University of British Columbia
#2354-6270 University Boulevard
Vancouver, B.C. CANADA V6T 1Z4
Fax: (604) 822-2416

Sterling Winthrop Pharmaceuticals Research Division is the worldwide pharmaceutical research and development organization of Sterling Winthrop Inc. Our Collegeville, PA facility seeks a

SENIOR RESEARCH INVESTIGATOR Lab Animal Resources

This senior level scientist will lead the drug safety pharmacology program including its integration for research projects, selection of studies and assays, interpretation of results, report documentation, and assurance of appropriate conduct of all aspects of this program. Additionally, this scientist will lead the animal models program providing leadership in the development and application of suitable in vivo and in vitro models in comparative medicine for ongoing research projects. This position serves as the focal person for worldwide application of both programs.

Requirements include a Ph.D. in pharmacology or a related biological discipline. An individual with a dual degree of Ph.D. and veterinarian medicine (DVM/VMD) is preferred. Board certification is advantageous. Candidate should have 2 or more years experience in a biomedical research environment and have experience in scientific presentations and publications.

At Sterling Winthrop, you'll enjoy a highly competitive salary and a comprehensive and flexible benefits package. For confidential consideration, forward your resume and salary requirements to:



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**Human Resources
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Mail Code GV-9,
Position #45-93-JRC
1250 S. Collegeville Rd.
P.O. Box 5000
Collegeville, PA
19426-0900

Equal Opportunity
Employer, M/F/D/V

POSITIONS OPEN

MANAGER CLINICAL SEROLOGIC SERVICES. Anmed/Biosafe Inc. seeks a Ph.D. to manage the department, conduct clinical research, develop and validate assays and represent company. The position requires a degree in Immunology, Virology or related plus supervisory experience and knowledge of immunoassay methods, e.g., ELISA. If interested please submit a résumé and salary objective to: **Anmed/Biosafe Inc., 7642 Standish Place, Rockville, MD 20855.**

FACULTY POSITION IN PHYSICS

Applications are invited for a junior, regular, full-time faculty member to teach introductory physics and advanced undergraduate courses in his/her specialty, and contribute to the college's interdisciplinary B.A. programs. A Ph.D. in physics and college teaching experience are required. Simon's Rock is a small, B.A.-granting liberal arts college designed for students who are prepared to begin college work after the 10th or 11th grade. Please send application, transcripts and three letters of reference to: **Physics Search Committee, Simon's Rock College of Bard, 84 Alford Road, Great Barrington, MA 01230 USA.** Applications will be considered beginning **March 15, 1994**, and the search will continue until a suitable candidate is hired. *The college is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

TENURE-TRACK POSITION IN MOLECULAR BIOLOGY

A position is currently available for a scientist with postdoctoral experience whose interests focus on molecular aspects of mutagenesis and DNA repair in mammalian cells. Applications will also be considered from individuals in related fields, e.g., cell cycle regulation, signal transduction, oncogene/tumour suppressor gene function, if they reflect an area of research that is compatible with the goals of the department. Potential candidates must possess appropriate expertise in molecular biological techniques at the nucleic acid and/or protein levels. Please send curriculum vitae and the names of three references to: **Dr. Elliot Drobetsky, Research Center, Maisonneuve-Rosemont Hospital, 5415 boulevard de l'Assomption, Montreal, Quebec, Canada H1T 2M4.**

ZOOLOGY: Fall 1994. Ph.D. required. Animal physiology, introductory biology, and courses in other areas of candidate's competence. Commitment to teaching, scholarship, and supervision of undergraduate research essential. Clinch Valley College is a four-year college of the University of Virginia, serving far southwestern Virginia with programs based in the liberal arts, including degrees in biology, chemistry, environmental science and medical technology. Send letter, résumé, transcripts, and names and addresses of three references to: **Zoology Search Committee, Office of Academic Affairs, Clinch Valley College, College Avenue, Wise, VA 24293.** Review will begin in February 1994. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS available for studies of transcription factor expression and function in hematopoiesis and human leukemia. Applicants should have a Ph.D. degree and background in gene expression, DNA-protein interactions, anti-sense or ribozyme technology, or signal transduction. Send a letter of interest, curriculum vitae and names and telephone numbers of two references to: **Dr. Stephen D. Nimer, Sloan-Kettering Institute, RRL717B, 1275 York Avenue, New York, NY 10021.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS—Johns Hopkins University. Opportunities are available to study neuronal degeneration. Experience in biochemistry, cell and/or molecular biology required. Please send curriculum vitae and a list of 3 references to: **Dr. Ted M. Dawson, Department of Neurology, JHU, Pathology 2-210.600 North Wolfe Street, Baltimore, MD 21287.** *Equal Opportunity/Affirmative Action Employer.*

A **POSTDOCTORAL FELLOWSHIP** is available to study signal transduction through the sphingomyelin pathway, a new signaling system mediating TNF and IL-1 action. Studies will focus on RAF and MAP kinases, NF- κ B, HIV and apoptosis. Salary is \$29,000 per year. M.D. or Ph.D. acceptable. Please send curriculum vitae to: **Dr. Richard Kolesnick, Head, The Laboratory of Signal Transduction, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.**

POSITIONS OPEN

POSTDOCTORAL POSITION—Available January 1994 in the Department of Cell Biology & Anatomy, Texas Tech University Health Sciences Center (TTUHSC). Projects involve molecular and cell biological analysis of β -galactoside binding proteins in implantation of mammalian embryos. Experience in protein chemistry, cell adhesion molecules, or immunochemical techniques are desired. Please send curriculum vitae to: **Texas Tech University Health Sciences Center, Office of Human Resources, 3601 4th Street, Lubbock, TX 79430.** *TTUHSC is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available in the area of retrovirus replication/pathogenesis. Primary studies involve equine infectious anemia virus; collaborations are available for comparative studies in other retroviral systems including HIV, RSV, or MPV. Training in molecular biology or virology preferred. Send curriculum vitae, a summary of research interests and names of three references to: **Dr. Susan Payne, Department of Molecular Biology and Microbiology, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-4960.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION YEAST TELOMERE FUNCTION

A funded postdoctoral position is available immediately to study the role of telomeres in yeast chromosome maintenance and segregation. Projects will focus on the recently cloned *TEL2* gene, an essential gene encoding a regulator of yeast telomere length (Runge and Zakian, submitted), or the *lsl1-1* and *lsl5-1* mutations, which preferentially destabilize linear, but not circular, chromosomes. (*Chromosoma* (1993) 102, 207-217).

Please send curriculum vitae, a brief summary of research experience and publications and the names of three references to: **Dr. Kurt Runge, Department of Molecular Biology, NC2-119, Cleveland Clinic Foundation, Research Institute, 9500 Euclid Avenue, Cleveland, OH 44195.** FAX: (216) 444-0512.

POSTDOCTORAL POSITION. INDIANA UNIVERSITY SCHOOL OF MEDICINE. Position available to study the regulation of tissue-specific gene expression in myeloid cells, including the characterization and cloning of transcription factors. Experience in molecular biology and/or protein purification is highly desirable. Applicants should send letter of inquiry, including curriculum vitae and names of three references to: **David Skalik, Ph.D.; Wells Center for Pediatric Research, Room 2600; Riley Hospital for Children; 702 Barnhill Drive; Indianapolis, IN 46202-5225.**

GRADUATE FELLOWSHIPS IN PROTEIN ENGINEERING

An interdisciplinary graduate program leading to a Ph.D. in Biological Sciences, Chemistry, or Engineering with a Concentration in Protein Engineering is offered at the University of California, Irvine. The program provides a unique opportunity for students to work with faculty within the School of Biological Sciences, the Department of Chemistry, and the Department of Biochemical Engineering and to focus their coursework and research in the areas of protein structure and function and molecular biology. The program brings together approximately twenty faculty with research interests in structure/function of enzymes, metalloproteins, receptors, and growth factors; protein folding and design; bioremediation; protein modification with non-natural amino acids; NMR spectroscopy; and X-ray crystallography.

The application deadline for fall 1994 admission is March 1, 1994. Address inquiries to: **Graduate Program in Protein Engineering, University of California, Irvine, CA 92715-9788; Telephone: (714) 856-6686; Internet: ProtEngr@UCI.edu.** *Applications from underrepresented groups, including minorities, women, and people with disabilities, are encouraged.*

POSTDOCTORAL RESEARCH FELLOWSHIP for the Division of Cardiology, Baltimore, offers an exciting position to study the molecular basis of a novel lipoprotein abnormality associated with premature coronary disease. Background in molecular biology required. Send curriculum vitae and names of three references to: **Michael Miller, M.D., Director, Preventive Cardiology, University of Maryland Medical System, Division of Cardiology, 22 South Greene Street, Room N3W80, Baltimore, MD 21201.** *An Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION is available at the National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Public Health Service, to study transcriptional regulation of genes in terminally differentiating epidermis. Position requires at least 5 years of prior training in advanced techniques of molecular biology and cell biology. Applicant must be familiar with culturing and manipulation of epidermal keratinocytes. Salary is \$30,000 to \$55,000 per year. Send bibliography, curriculum vitae and names of three references to: **Dr. Peter M. Steinert, NIAMS, NIH, 9000 Rockville Pike, Building 6, Room 425, Bethesda, MD 20892.** Applications must be received no later than one month from date the advertisement appears. *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION IN DEVELOPMENTAL NEUROBIOLOGY

Position available immediately to study novel growth factors involved in neurotransmitter plasticity in the central nervous system. Candidate must have previous experience in molecular biology and, preferably, tissue culture techniques. Send curriculum vitae and names of three references to: **Dr. Lorraine Iacovitti, Institute for Neuroscience, Department of Neurology, Mail Stop 423, Hahnemann University, Philadelphia, PA 19102.**

POSTDOCTORAL POSITIONS available to study molecules involved in dictating the subcellular location of protein kinases or the transcriptional regulation of genes by growth factors and second messengers. Applicants should have experience in molecular biology, genetics, cell biology, or protein chemistry. Send curriculum vitae and names of three references to: **Dr. Richard H. Goodman or Dr. John D. Scott, Vollum Institute, L474, Oregon Health Sciences University, 3181 SW Sam Jackson Park Road, Portland, OR 97201-3098.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOWSHIP TUMOR IMMUNOLOGY

This program focuses on novel methods of cancer immunotherapy with translational potential as well as the molecular genetics of T lymphocyte biology. Trainees have the opportunity to collaborate with a diverse faculty of cellular and molecular biologists at the Massey Cancer Center and utilize its extensive core laboratory facilities. The candidate should have a strong background in cellular immunology; molecular biological experience is preferred. Send curriculum vitae and letters of reference to: **Dr. Harry Bear, Massey Cancer Center, Medical College of Virginia, MCV Box 37, Richmond, VA 23298.** *MCV/VCU is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

RESEARCH IN EXPERIMENTAL PATHOLOGY AND MOLECULAR PATHOBIOLOGY LEADING TO THE PH.D.

Expanded faculty and state-of-the-art facilities; stipends of \$13,000 and up per year including full tuition waivers; attractive campus in suburban Westchester close to New York City; expedited review process and flexible entrance times for promising candidates.

Contact: **Henry P. Godfrey, M.D., Ph.D., Professor and Director, Graduate Program, Department of Experimental Pathology, New York Medical College, Valhalla, NY 10595.** Telephone: 914-993-4146. *Equal Opportunity Employer.*

IMMUNOPATHOLOGIST-CYTOCHEMIST SENIOR RESEARCH SCIENTIST

Individual to do original research on human carcinoma with stress on cell membrane receptors and kinas at H.M. Bligh Cancer Research Laboratories, UHS/Chicago Medical School. Solid basic science foundation, 3 to 5 years of experience in tumor immunology and histo/cytopathology, and up-to-date knowledge of light, ultraviolet and transmission electron microscopy techniques required. Meticulous benchwork and record keeping habits necessary. Academic appointment possible. Technical help available. Outstanding salary and benefits—non-grant dependent. Send curriculum vitae, transcripts, details of benchwork expertise and bibliography to: **Box 538, Lake Bluff, IL 60044.** *Equal Opportunity Employer, M/F.*

Postdoctoral Research at The Wistar Institute



The Wistar Institute is seeking Postdoctoral applicants interested in Molecular Genetics, Molecular Virology, Cell & Developmental Biology, Cell & Molecular

Immunology, and Structural Biology. Fellows can anticipate a stimulating and challenging experience in an environment characterized by strong, interdisciplinary collaboration and state-of-the-art biotechnology.

Wistar is an independent, non-profit biomedical research institution with close collaborative relationships with the University of Pennsylvania and other major research and clinical organizations within the Philadelphia region. The Wistar Institute is an NIH-designated Basic Cancer Research Center.

For more information, contact: **Coordinator of Research Training, THE WISTAR INSTITUTE, 3601 Spruce Street, Philadelphia, PA 19104.** Interested Postdoctoral applicants are requested to send a Curriculum Vitae and the names of three (3) references. EOE, M/F/D/V. Minority candidates are strongly encouraged to apply.

Medical Writer/ Sr. Medical Writer

The R.W. Johnson Pharmaceutical Research Institute (RWJPRI) is a first-class worldwide research and development organization within Johnson & Johnson, the world's largest and most comprehensive provider of health care products. RWJPRI performs R&D activities for the Johnson & Johnson companies ... Cilag, Ortho-McNeil Pharmaceutical and Ortho Biotech.

Expanding CNS and Clinical Pharmacology programs have created significant career opportunities for Medical Writers/Sr. Medical Writers with good written and oral communication skills, and demonstrated ability to handle diverse, multiple assignments simultaneously.

To qualify, you must have a Ph.D. in the Biological Sciences (Pharmacology preferred) with extensive publications and other scientific writing experience. You will be responsible for collaborating with physicians and statisticians in preparing investigational drug brochures, reports summarizing clinical trial results, and other summary documents for NDAs/product license applications/international registrations.

We offer a competitive salary and comprehensive benefits, and ideal suburban locations in Central New Jersey or suburban Philadelphia. Ours is a smoke-free workplace.

No phone calls please. Submit curriculum vitae with salary requirements to: HR Dept. 15, R.W. Johnson Pharmaceutical Research Institute, P.O. Box 300, Raritan, NJ 08869-0602.

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PHARMACEUTICAL RESEARCH INSTITUTE
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Syntex is a leading international healthcare company involved in the research, development, and manufacture of pharmaceutical products and medical diagnostic systems. Consider this exceptional opportunity in our Discovery Research department in Cardiovascular Pharmacology at our San Francisco Bay Area headquarters.

Biologist

In this senior position, you will plan, conduct and interpret pre-clinical in vivo experiments to study the effects of novel drugs on cardiovascular and/or gastrointestinal functions. You will be involved with all aspects of the research project, including surgery. To qualify, you will need 3+ years of research experience conducting pre-clinical experimentation, involvement in planning and interpreting research projects, and a minimum of a BS, or equivalent experience.

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UNIVERSITY OF COLORADO SCHOOL OF MEDICINE DEPARTMENT OF PHYSIOLOGY

ASSISTANT/ASSOCIATE PROFESSOR - TENURE TRACK

The Department of Physiology at the University of Colorado School of Medicine has available one tenure track position at the Assistant or Associate Professor level. Although applications may be submitted at any time, selection of candidates will begin March 1, 1994.

The Department Faculty have active research programs in developmental neurobiology, ion channel expression, synaptic transmission, sensory transduction, epithelial transport and secretion, and reproductive physiology. The School of Medicine is strongly research-based, with active interdepartmental programs in Cell and Developmental Biology, Immunology, Molecular Biology, and Neuroscience.

Applicants will be considered who have research interests in cellular, molecular or developmental physiology or functional organization of the central nervous system. Successful candidates will be expected to conduct vigorous independent research programs and to participate in professional and graduate teaching. Applicants should send *Curriculum Vitae* and the names of at least three referees to:

Dr. S.R. Levinson
Chair, Faculty Search Committee
Department of Physiology, C240
University of Colorado Medical School
DENVER, CO 80262

The University of Colorado Health Sciences Center is committed to Equal Employment Opportunity and Affirmative Action.

POSITIONS OPEN

TWO POSTDOCTORAL POSITIONS available. The first for research in combined molecular biology-electrophysiology project on ion channels. Training in molecular biology required. Additional familiarity with or training in electrophysiology helpful. The second for patch clamp studies on cardiac ion channels. Electrophysiology experience necessary. Submit curriculum vitae to: **Dr. Ira S. Cohen, Department of Physiology & Biophysics, Health Sciences Center, State University of New York, Stony Brook, NY 11794-8661.** *SUNY at Stony Brook is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately in the Oklahoma Center for Molecular Medicine (OCMM) Transgenic Animal Facility. Position includes participating in the production of transgenic and knockout mice, and collaborations with investigators within the OCMM. Experience in molecular biology required; experience in transgenic technology, homologous recombination and/or cell culture desired. Send curriculum vitae with names and telephone numbers of three references to: **Dr. N. L. Nadon, Biology Department, University of Tulsa, 600 South College Avenue, Tulsa, OK 74104.** *The University of Tulsa is an Equal Opportunity Employer.*

KIRIN



POSTDOCTORAL POSITION IN PLANT MOLECULAR BIOLOGY

A 2-year postdoctoral position is available immediately for individuals interested in plant molecular biology. Applicants will study the expression of the genes involved in fatty acid and lipid synthesis using transgenic plants. Applicants should have demonstrated experience in the area of molecular biology, biochemistry and/or plant physiology. Plant transformation technique is desirable, but not required. Salary and benefits levels are competitive. For information, FAX: **(+81-45-788-4042)** or call **(+81-45-788-7205)**. Please send curriculum vitae, reprints and three letters of recommendation to: **Dr. Takeshi Ohtani, Central Laboratories for Key Technology, Kirin Brewery Co., Ltd., Fukuura 1-13-5, Kanazawa-ku, Yokohama 236, Japan.**

ENVIRONMENTAL TOXICOLOGY TRAINING

UNIVERSITY OF WISCONSIN-MADISON

POSTDOCTORAL POSITIONS in Molecular, Cellular and Biochemical Toxicology funded by an NIEHS training grant.

Topic Areas Include: Regulation of gene expression (toxicant metabolizing enzymes, oncogenes, DNA repair enzymes); Cellular effects mediated by the Ah-receptor; Toxicant activation, biomonitoring of exposure and protection; Toxicity in developing organisms; DNA binding and carcinogenesis; Action of toxicants on liver, kidney, gonadal, nerve and immune cells.

Time will be allocated for research training in Toxicology, and Molecular and Cellular Biology as appropriate. Successful applicants will be strongly encouraged to establish collaborative projects involving more than one laboratory.

Applicants must be U.S. citizens or permanent residents and should send curriculum vitae, three references (addresses/telephone) and a letter stating research interests to:

**Dr. Colin R. Jefcoate, Director
Environmental Toxicology Center
B157 Steenbock Library
550 Babcock Drive
Madison, WI 53706
Telephone: (608) 263-4580**

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available at the University of California, San Diego, to investigate the neuroanatomy of the mammalian gustatory system. Funded projects concern neurotrophism in the taste periphery, and the synaptic organization of the central taste system. Techniques include high voltage EM autoradiography, EM-immunocytochemistry, and neuronal tract tracing. Send curriculum vitae and a statement of research interests to: **Mark C. Whitehead, Ph.D., Division of Anatomy, 0604, Department of Surgery, UCSD, La Jolla, CA 92093-0604.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS to study the cell cycle regulation and development of the megakaryocytic/platelet lineage (see *Journal of Cell Biology* 123, 1545). Must have experience in molecular biology. Salary support available. Send curriculum vitae detailing research experience, and 2 to 3 letters of reference to: **Dr. Katya Ravid, Department of Biochemistry, Boston University School of Medicine, 80 East Concord, Boston, MA 02118.**

POSTDOCTORAL POSITIONS available to study neurotropic herpes viruses. Applicants should send curriculum vitae, references and a brief description of research interests to: **The Postdoctoral Program, Department of Molecular Biology, Lewis Thomas Laboratory, Princeton University, Princeton, NJ 08544-1014.**

Princeton University is an Equal Opportunity/Affirmative Action Employer.

A **POSTDOCTORAL POSITION** to study pharmacokinetics and mechanisms of drug activity against *Toxoplasma gondii* is available in our Department of Immunology and Infectious Diseases. Required is a doctorate in Pharmacology, Pharmacokinetics, Biopharmaceutics or Pharmacodynamics. Experience in pharmacokinetic studies, in studies to determine bioavailability/bioequivalence, in the use of statistical analysis to evaluate pharmacokinetic observations, as well as in studies on mechanisms of drug activity in mammals will be an asset. The successful candidate will be responsible for the organization, execution, and analysis of pharmacokinetic studies for a contract research testing facility. Send curriculum vitae to: **K. Roberts, Research Institute, Palo Alto Medical Foundation, 860 Bryant Street, Palo Alto, CA 94301.** *We are an Equal Employment Opportunity Employer.*

POSTDOCTORAL POSITION available immediately to study biological electron transfer using new ruthenium photoexcitation technique (See *Biochemistry* 32 7519, 8492). Systems under study include cytochrome c, cytochrome oxidase, cytochrome c peroxidase, and cytochrome b₅. Send curriculum vitae and names of three references to: **Dr. Frank Millett, Department of Chemistry and Biochemistry, University of Arkansas, Fayetteville, AR 72701.** FAX: **(501) 575-4049.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION—MARINE MICROBIOLOGY is available immediately for a Postdoctoral Research Associate to investigate the relationship between microbial community composition and community metabolic capabilities in coastal bacterioplankton communities. We are looking for someone with experience in molecular biology, preferably with training in microbiology or aquatic microbial ecology. This is a 2.5-year, full-time position at a starting salary of approximately \$30,000 per annum and a full benefits package. We expect the successful candidate to join the project by September 1 and preferably by June 1, 1994. Telephone: **(415) 435-7100** for further information. To apply, send a cover letter with curriculum vitae and the names, addresses and telephone numbers of at least 3 references to: **Dr. J. T. Hollibaugh, Tiburon Center, SFSU, P.O. Box 855, Tiburon, CA 94920;** by March 1, 1994. *San Francisco State University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are particularly urged to apply.*

DOCTOR OF ARTS IN BIOLOGICAL SCIENCES: FELLOWSHIPS are available for persons interested in the D.A. degree in Biological Sciences. The program stresses preparation for undergraduate teaching at colleges and universities. Applicants must hold a Master's degree in some area of biology. Deadline for receipt of application is 1 March 1994. For more information contact: **Chairman D.A. Committee, Department of Biological Sciences, Idaho State University, Pocatello, ID 83209.** *An Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIPS in gastroenterological research available for two or more years beginning 1994. Faculty employs multidisciplinary approach using biochemical, cell/molecular biological, immunological, physiological and electrophysiological techniques. Applicant may focus on clinical and/or basic studies. Applicants should have M.D. or Ph.D. degree and must be a U.S. citizen or have permanent visa status. Send curriculum vitae and names of three references to: **N. F. LaRusso, M.D., Program Director, NIH Training Grant, Mayo Clinic, Rochester, MN 55905.** *Mayo Foundation is an Affirmative Action and Equal Opportunity Educator and Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION

POSTDOCTORAL POSITION(S) to study the biochemistry and molecular biology of natural product and antimetabolite drug resistance in mammalian systems. Projects include: (1) the use of *in vitro* mutagenesis and drug selection *in vivo* to obtain altered forms of p-glycoprotein in order to study the functional properties of this class of membrane transporters, and (2) the biochemical and molecular characterization of the mammalian reduced folate transporter to further understand the genetic basis for intrinsic resistance to antifolates and the fundamental nature of folate vitamin transport *per se*. Candidates must have a Ph.D., M.D., or equivalent degree and significant expertise in molecular biology and recombinant DNA techniques. The deadline for applications material is February 11, 1994. Send curriculum vitae to: **Dr. Peter Melera, Molecular and Cell Biology Program, UMAB, 108 North Greene Street, Baltimore, MD 21201-1503.**

UCLA GLOBAL CHANGE CONSORTIUM FELLOWSHIPS

The UCLA Consortium on Global Change and Its Regional Impacts has established three doctoral fellowships as part of UCLA's membership in the New Sun Foundation created by the World Meteorological Organization. Fellowships will be awarded on a competitive basis, and will extend over the period of doctoral study. Applications will be accepted from any discipline appropriate to studies of global environmental change and its regional impacts, including biological, engineering, health, physical, and social sciences. Recipients must be accepted into a UCLA doctoral degree program for the 1994-95 academic year, and will be expected to interact with an interdisciplinary group of Global Change Consortium faculty and students. Application deadline: March 15, 1994. For information contact: **Debbie Musselman, Telephone: (310) 825-1580, Institute of Geophysics and Planetary Physics, 3823 Slichter Hall, University of California, Los Angeles, CA 90024-1567.** *Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF ABERDEEN

5-YEAR POSTDOCTORAL RESEARCH FELLOWS (2) £12,828-£20,442 per annum

Required for the Department of Molecular and Cell Biology to join the Aberdeen *Candida* Group, which has a strong background in the molecular and cell biology of dimorphism in *C. albicans*, a major fungal pathogen in humans. You will focus on the molecular biology of *C. albicans* dimorphism and the cell wall and will be expected to develop collaborations with other members of the Group. Funded by the Wellcome Trust, both posts are tenable for five years.

Application forms and further particulars are available from: **Personnel Services, University of Aberdeen, Regent Walk, Aberdeen AB9 1FX; Telephone: (0224) 272727** quoting reference number ZMC 229R. A 24-hour answering service is in operation. Closing date: 11 February 1994.

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POSTDOCTORAL RESEARCH FELLOWSHIPS

IN SUBSTANCE ABUSE. Three research fellowship positions (2 to 3 years) are available in a stimulating and productive laboratory and clinic. The first position responsibilities will be to participate in studies on the behavioral and pharmacological treatment of opioid and heroin dependence. Includes research on new pharmacotherapy, buprenorphine, as well as behavioral treatment. For this position contact **Warren K. Bickel, Ph.D.** The second position is to study caffeine and nicotine self-administration and withdrawal in humans. Both laboratory and clinical studies. For this position contact **John R. Hughes, M.D.** The third position entails participating in the development, conduct, and publication of studies on behavioral treatment for cocaine dependence. Participation in conducting laboratory studies examining factors influencing human cocaine self-administration is also possible. For this position contact **Stephen T. Higgins, Ph.D.**

For all positions applicants must have completed doctoral training in psychology or pharmacology, and have research experience. *Minorities are encouraged to apply.* Competitive stipends. Send letter of interest, curriculum vitae, and letters of reference to the individuals named above at: **Human Behavioral Pharmacology Laboratory, Department of Psychiatry, University of Vermont, Burlington, VT 05401.**

Cellular/Molecular Immunology

The University of Calgary Faculty of Medicine invites applications for a full-time academic position at the Assistant Professor level or higher for research in cellular or molecular immunology. Qualifications include a PhD, MD or equivalent, and interest and experience in immunology at the cellular or molecular level, particularly related to autoimmune pathogenesis of Type 1 Diabetes. Opportunities will be available for graduate and medical school teaching. Rank and salary commensurate with qualifications and experience.

The successful candidate must compete successfully for salary and establishment grant support from the Alberta Heritage Foundation for Medical Research or the Medical Research Council, and will have 75% of time protected for research.

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

The University of Calgary is committed to Employment Equity.

Please submit a complete curriculum vitae and statement of research and goals, and arrange for three letters of reference to be sent directly, by March 15, 1994, to:

Dr. Ji-Won Yoon
Professor and Director
Julia McFarlane Diabetes Research Centre
The University of Calgary
3330 Hospital Drive N.W.
Calgary, Alberta, Canada T2N 4N1



THE UNIVERSITY OF
CALGARY

RESEARCH ENGINEER/ SCIENTIST

The Energy and Environment Division of the Lawrence Berkeley Laboratory currently has an opening for a Staff Scientist to conduct research on building energy performance and related indoor air quality issues in the Energy Performance of Buildings Group of the Indoor Environment Program.

Current focus will be on projects relating to thermal energy distribution systems in buildings, ranging from residential duct systems to large commercial-building HVAC complexes. The work involves development of new duct system technologies, detailed and simplified simulation models of integrated thermal, air-flow & HVAC-system performance, national standards for thermal distribution system efficiency and field experimentation on existing buildings and new technologies. Other responsibilities include project management, supervision of graduate students/research associates, and oral/written presentation of research findings.

Requires extensive background/experience in one or more of the following areas: basic or applied fluid mechanics or heat transfer; aerosol science and technology; large-scale field monitoring; large computer simulation codes (preferably building related); energy technology development; and IAQ measurement and modeling techniques. Substantial experience in independent research communication also required. Ph.D. in mechanical engineering, chemical engineering, or physical science; experience in Building Science, especially HVAC and thermal distribution; and experience in interdisciplinary research preferred.

Please send resume and salary requirements to: **Lawrence Berkeley Laboratory, Staffing Office, Box #JSCI2081, One Cyclotron Road, Berkeley, CA 94720.** An equal opportunity employer.



LAWRENCE BERKELEY LABORATORY
UNIVERSITY OF CALIFORNIA
U.S. Department of Energy

Yale University Assistant Professorships in Pathology:



The School of Medicine is seeking applicants for full time appointment at the Assistant Professor level. Successful candidates will develop an independent investigative program, participate in the teaching of graduate students, medical students, and housestaff, and contribute to collaborative investigations with other members of the research and clinical faculty. Applicants with demonstrated creativity, research productivity and training in molecular genetics, molecular oncology, biochemistry, virology, or cell biology, and an interest in problems related to human biology are preferred.

Send current CV and names of three references before April 15, 1994 to:

Jon S. Morrow, M.D., Ph.D., Professor and Chairman, Department of Pathology, Yale University, School of Medicine, 310 Cedar Street, New Haven, CT 06510.

If you have submitted a curriculum vitae within the last 18 months, your application is on file.

Yale University is an equal opportunity, affirmative action employer.
Minorities and women candidates are urged to apply.



Washington
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Biology & Biomedical Sciences

*Graduate and postdoctoral training
opportunities in...*

Molecular and Cellular Immunology

Paul Allen - Presentation of self-antigens and tolerance.

Julian Ambrus - Cytokine regulation of human B cell proliferation and differentiation.

Ted Hansen - Molecular and cellular studies of the immune system.

Stan Korsmeyer - Proto-oncogenes in lymphocyte development and malignancy.

Dennis Loh - Molecular genetics of T-cell receptors.

Douglas Lublin - Phospholipid-anchored membrane proteins and lymphocyte activation.

Ken Murphy - Molecular development of T helper cell phenotypes.

Marion Peters - Immunoregulation of T and B lymphocytes in liver and bowel diseases.

Robert Schreiber - Cytokines and cytokine receptors.

Andrey Shaw - Function of tyrosine kinases in T cell activation.

Matt Thomas - Cellular regulation by protein tyrosine phosphatases; lymphocyte activation.

Emil Unanue - Antigen processing and presentation.

...and others

Please direct inquiries for postdoctoral training to specific faculty members. For graduate school information, please write to: Biology & Biomedical Sciences, Campus Box 8226, 660 S. Euclid Ave., St. Louis, MO 63110-1093; or call 800-852-9074.

Radiopharmacologist

Merck Research Laboratories in West Point, PA, a leader in pharmaceutical and biological research, has an excellent research career opportunity in the Radiopharmacology Group.

The position involves the application of radionuclide methodologies to drug development, with particular emphasis in autoradiographic methods. Applicants must have a Ph.D. in Pharmacology, Biochemistry, or related fields with 1 to 2 years post-doctoral research or an M.S. degree with 5 years research experience. Expertise in all aspects of autoradiography (e.g. radioligand-receptor and in situ hybridization) is a minimum requirement. Experience with in vivo pharmacologic methods such as small animal surgery is desirable.

Excellent salary and benefits programs accompany these positions at our modern research facilities located 25 miles northwest of Philadelphia. Please send curriculum vitae with references, transcripts and cover letter to **Personnel Manager, Ad D-27, MRL Human Resources - WP42-2, Merck Research Laboratories, P.O. Box 4, West Point, PA 19428.** EOE/AA/VH Employer.



MERCK
Research Laboratories

POSITIONS OPEN

POSTDOCTORAL FELLOWS. The Brain and Development Research Center (BDRC) of the University of North Carolina seeks three research fellows for training programs bridging two or more disciplines of the following disciplines: neuroanatomy, neurochemistry, neuroendocrinology, neuropharmacology, neurotoxicology, biochemistry, molecular biology, genetics. Fellowships are available in all BDRC sections: Molecular Neurobiology (B. Popko), Neurochemistry (P. Morell), Neurogenetic Disorders (Kunihiko Suzuki), Neuropathology (Kinuko Suzuki), Neuropharmacology (G. R. Breese), Neurotoxicology (R. B. Mailman), Pediatric Genetics and Metabolism (A. S. Aylsworth) and Psychoendocrinology (A. J. Prange, Jr.). U.S. citizenship or permanent residence and Ph.D. or M.D. are required. Send curriculum vitae, three reference letters and a one-page goal statement to: **Dr. Kunihiko Suzuki, Director, BDRC, University of North Carolina, Chapel Hill, NC 27599-7250.** Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP. Available immediately for molecular biologist with recent Ph.D. or M.D. to work as part of an interdisciplinary team investigating cellular receptors involved in cell motility. Applicants should have experience in molecular cloning techniques; experience in biochemistry helpful. The appointment is for two years with an opportunity for career advancement.

Please send curriculum vitae including names and addresses of three references to: **Douglas Cines, M.D., Hematology-Oncology, 7 Silverstein Pavilion, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104.**

POSTDOCTORAL ASSOCIATE VIRAL BASED GENE TRANSFORMATION OF SKELETAL MUSCLE CELLS

Applications are invited for a Postdoctoral Associate position to study the mechanisms of viral based recombinant gene expression in skeletal muscle cells. The successful applicant will join a team working on various aspects of neuromuscular disorders ranging from linkage to gene therapy in a fully equipped, newly renovated laboratory. Experience in various aspects of molecular biology as well as recombinant gene expression is preferred. Experience in adenovirus or parvovirus research is a plus. Position is available immediately. Please send curriculum vitae and names, addresses and telephone numbers of three references by February 28, 1994, to: **Richard J. Bartlett, Ph.D., Head, Neurogenetics and Gene Therapy, Department of Neurology, University of Miami School of Medicine, Miami, FL 33136. (305) 547-5858 (Voice), (305) 548-4678 (FAX).**

FELLOWSHIPS IN VISION SCIENCE

PREDOCTORAL AND POSTDOCTORAL RESEARCH FELLOWSHIPS are available at the University of Florida College of Medicine through an NIH, National Eye Institute Training Grant. Research emphases are in vision cell biology, molecular biology, and biochemistry. The 12 faculty preceptors maintain primary appointments in the Departments of Anatomy and Cell Biology, Biochemistry and Molecular Biology, Immunology and Medical Microbiology, Neuroscience, Pathology, and Pharmacology. Inquiries for complete program description and application forms should be sent to: **Dr. William Hauswirth, Box 100284, University of Florida, Gainesville, FL 32610-0284.** Applications will be accepted at any time, but decisions are normally made in April/May for August admission. U.S. citizens or nationals only. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE HARVARD MEDICAL SCHOOL

Positions are available to study nicotinic acetylcholine receptors (AChR's) and receptor-associated proteins. Projects include: (1) structural studies of AChR's (protein chemistry/spectroscopy); (2) functional properties of mutant AChR's expressed in oocytes or cell lines; (3) function of non-receptor proteins in regulation of cell surface distribution of AChR's. Experience in molecular biology and/or membrane biochemistry required. Send curriculum vitae with the names and addresses of three references to: **Dr. Jonathan B. Cohen, Department of Neurobiology, Harvard Medical School, 220 Longwood Avenue, Boston, MA 02115.**

Harvard Medical School is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP PROGRAM IN MAMMALIAN ORGAN SYSTEM PHYSIOLOGY. The American Physiological Society, in collaboration with **Genentech, Inc.**, is pleased to announce the creation of a new fellowship program designed to promote careers in mammalian organ system physiology in recognition of the fact that many advances in cell and molecular biology will ultimately require an understanding in the context of the organism. A central criterion is that the postdoctoral project uses the tools of cellular and molecular biology in the setting of the whole animal. Candidates should identify a laboratory and sponsor under whose supervision a project in mammalian organ system physiology and molecular biology can be combined. The award is for a two-year period and includes an annual stipend (\$32,000) and a trainee allowance of \$3,500. Deadline: **May 15, 1994.** Contact: **APS/Genentech Postdoctoral Program, American Physiological Society, 9650 Rockville Pike, Bethesda, MD 20814-3991. Telephone: (301) 530-7118.**

A **POSTDOCTORAL FELLOWSHIP** in Molecular Biology/Applied Computer Science is available in the BioMolecular Engineering Research Center at Boston University. Candidates must have a recent Ph.D. in molecular biology, molecular genetics or computer science. The research will center on the problems of diagnostic sequence pattern recognition. This will involve collaboration with active experimental molecular biologists and computer software developers. UNIX and C programming experience preferred. Position available February 1, 1994. Send curriculum vitae and 3 letters of reference to: **Dr. Temple F. Smith, BMERC, Boston University, 36 Cummington Street, Boston, MA 02215.** An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE

A position is available immediately to study the developmental and reproductive effects of benzene in fish. A Ph.D. in fish pathology or aquatic toxicology is required. Experience in chromatography is preferred. Send résumé and 3 letters of recommendation to: **Chairman, DBPS, College of Pharmacy, Xavier University, 7325 Palmetto Street, New Orleans, LA 70125.** Conduct all experiments as described in the proposal; Analyze data and prepare manuscripts for publication/presentation. Supervise research assistants and student researchers; Maintain the laboratory and relevant records; Other assigned duties. Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE to study structure-function relationships of nicotinic acetylcholine receptor channels. Current studies involve identification and analysis of determinants of ligand binding, channel gating, and interactions between subunits. Techniques include site-directed mutagenesis, ligand binding, and single channel recording. Candidates experienced in these techniques and with demonstrated interest in molecular neurobiology are especially encouraged to apply. Send description of research interests and curriculum vitae to: **Dr. S. M. Sine, Mayo Clinic, 200 First Street SW, Rochester, MN 55905.**

ASSISTANT RESEARCH SCIENTIST DEPARTMENT OF PHARMACOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

RESEARCH POSITION available immediately for a scientist to conduct research in molecular neuropharmacology. Studies include the characterization of tissue derived and recombinantly expressed receptors; mapping of receptor distribution by receptor autoradiography; and the identification of the mechanisms of action/structure-activity requirements of novel receptor ligands *in vitro* and *in vivo*. **Requirements:** advanced degree in Pharmacology plus 5 years of postdoctoral experience; excellent communications skills; experience in recombinant expression and characterization of receptors; quantitative receptor autoradiography; basic molecular techniques including *in situ* hybridization; stereotaxic surgery and animal models of CNS disorders. Knowledge of theoretical pharmacology and computer hardware/software expertise in desirable. Salary: \$40,518 to \$51,525. Please send curriculum vitae, names and addresses of three references by March 15, 1994, to: **Dr. Kelvin W. Gee, Department of Pharmacology, College of Medicine, University of California, Irvine, CA 92717.** UCI: Rooted in education, enriched by diversity.

POSITIONS OPEN

RESEARCH SPECIALIST: Five-year position available in Berkeley, California, to lead Electric and Magnetic Fields Extramural Research Grants Program for the State of California. Should have Ph.D. or equivalent degree, experience in Magnetic Fields research; competent in grants/administration. Salary is negotiable. Equal Opportunity Employer. Send résumé to: **Raymond R. Neutra, M.D., Dr.P.H., 5900 Hollis Street, Suite E, Emeryville, CA 94608.** Deadline: February 14, 1994.

RESEARCH ASSISTANT

Position available for qualified individual with technical expertise using current molecular techniques such as construction of expression vectors, screening genomic and cDNA libraries, Northern and Western blots. Tissue culture skills and a willingness to work with animals. Candidates should submit curriculum vitae and names of three references to: **Drs. Elizabeth J. Robertson/Elizabeth K. Bikoff, Department of Biochemistry, Molecular, Cellular, and Developmental Biology, Harvard University, 16 Divinity Avenue, Cambridge, MA 02138.**

SENIOR SCIENTIST— COAGULATION REAGENT DEVELOPMENT

An immediate growth opportunity exists for an experienced person in the area of product development of coagulation reagents. The incumbent should have three to five years of industrial experience in IVD product development and be a self-starter. Knowledge of FDA cGMP and 510(k) regulations is required. The firm offers competitive salaries and benefits and enjoys an attractive midwestern location with good housing and schools. All inquiries will be held in confidence and should be addressed to: **Box 46, Science Classified Advertising, 1333 H Street N.W., Room 814, Washington, DC 20005.**

MOLECULAR (DNA) TECHNOLOGISTS—Kaiser Permanente San Jose's new molecular lab seeks qualified individuals to perform molecular lab procedures and techniques used for analysis of DNA samples. Requires a B.S. in chemical, physical or biological sciences and at least one year of experience in a clinical molecular lab performing DNA diagnostic testing procedures and techniques. **Employment Office, 275 Hospital Parkway, Suite 300, San Jose, CA 95119. Telephone: 408-972-7293.** Equal Employment Opportunity/Affirmative Action.

MR BIOENGINEER. The Department of Radiology at the University of Pennsylvania is seeking a faculty-level engineer for its MRI research program. This research-track position is based at the University of Pennsylvania Medical Center in Philadelphia. The investigator will work in a newly developing program in clinical applications of MRI/MRS. Applicants should have a Ph.D. in Bioengineering with experience in MRS and MRI including magnetization transfer imaging, and should also be familiar with operation and pulse programming of clinical MR scanners. Demonstrated organizational and leadership skills are essential and experience in industry is desired. Résumés to: **Robert Lenkinski, Ph.D., Department of Radiology, University of Pennsylvania Medical Center, 3400 Spruce Street, Philadelphia, PA 19104.** The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.

PROTEIN CHEMIST

A position is available for a skilled protein chemist to oversee a protein chemistry core facility including equipment for protein/peptide purification and sequencing. The successful applicant will interact with a small group of investigators studying the interactions of anesthetic agents with neurotransmitter receptors and ion channels. The position will be a non-faculty, career-level appointment. In addition to development of appropriate protein purification and fragmentation protocols, this individual will be responsible for development of novel protein sequencing strategies. Demonstrated experience in protein chemistry and sequencing are required, and experience in organic synthesis is desired. Direct applications, including a description of relevant experience and the names of three references to: **Dr. Jonathan B. Cohen, Department of Neurobiology, Harvard Medical School, 220 Longwood Avenue, Boston, MA 02115.** Harvard Medical School is an Affirmative Action/Equal Opportunity Employer.

The Neuroscience Department at Pfizer Central Research has a number of openings for BS/MS level scientists. In these challenging opportunities, you will be part of an interdisciplinary team focused on the discovery of novel therapeutic agents for the treatment of diseases of the central nervous system. Areas of active investigation include anxiety, depression, psychosis, Alzheimer's and other neurodegenerative diseases. Individuals with skills in all areas of neuropharmacological research are encouraged to apply.

Neuroscientists, BS/MS

Behavioral Pharmacology

The primary responsibility of this position is to conduct experiments examining the effects of drugs on schedule-controlled behavior *in vivo*. Familiarity with operant techniques (including drug discrimination), and relevant surgical and computer skills, are preferred.

***In Vivo* Neuropharmacologist**

The flexible and responsible BS scientist we seek will become part of a team investigating novel treatment strategies for Alzheimer's disease. Familiarity with *in vivo* techniques such as stereotaxic surgery, behavioral pharmacology, neurochemistry or electrophysiology would be an asset, as would industrial experience and competence in the use of computers for data collection and analysis.

Neuroscience Research Assistant I

In this key assignment, you will perform *in vitro* electrophysiological experiments in research projects directed toward the discovery of novel CNS drugs. Techniques used in your research will include patch and voltage clamp recording from a variety of cell lines, xenopus oocytes and primary neurons, and patch clamp and intracellular recording from brain slice preparations. Experience should include *in vitro* electrophysiology from neurons, cell lines or other excitable cells. Familiarity with computerized data collection and analysis systems and experience with brain slice recording or tissue dissociation methods are desirable.

Neuroscience Research Assistant II

Challenge your skills performing stereotaxic surgeries for microdialysis probe implantation, and analyzing dialysate samples with HPLC utilizing electrochemical detection. HPLC troubleshooting and data analysis will be required. To qualify, you'll need a BS in biological sciences (or the equivalent) and relevant surgical experience. A knowledge of neuropharmacology and microdialysis is also required.

Neurochemist

We have an exciting opportunity for a highly motivated neurochemist to join our Dementia Group in the search for novel therapies for Alzheimer's disease. The successful candidate will have experience with radioligand-receptor binding in membranes, second messenger assays (PI, cAMP), and *in vivo* neurochemistry (dosing, tissue sampling and analysis). Some experience with HPLC analysis is also required, and tissue culture skills are desirable. An MS in Biological Science or a BS with four years of relevant experience is essential.

In addition to a stimulating research environment, we offer a competitive compensation and benefits package, including generous relocation assistance to this southeastern Connecticut shoreline community. Qualified applicants may send a resume, description of research experience, and names of three references to: **Mr. Kym Goddu, Personnel Associate, Employee Resources Department, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340.** We are an equal opportunity employer.



Central Research

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Let *SCIENCE*'s B.S./M.S. Recruitment Advertising Section do your recruiting with our targeted university bonus distribution! By placing a full-page or larger ad in this special section, your message will reach students at many of the nation's finest colleges and universities, including prestigious minority institutions across the country. This year-round reference tool will be distributed free of charge to B.S./M.S. students in biology and chemistry. We have joined forces with Department Chairs and Career Counseling Centers at major universities who will distribute this supplement to their job-seeking B.S./M.S. students. The section will also be in the hands of ambitious, forward-thinking science students who are actively seeking employment by attending career fairs.

Highlights of the section include:

- Guidelines for science graduates obtaining a first job
- Interviewing strategies
- Candid words from college recruiters and what they look for in a candidate
- Hot fields for B.S./M.S. scientists
- What scientific and technical skills are hot right now
- What kind of salaries recent graduates can expect
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REACH MINORITY SCIENCE GRADUATES:

This special section will also be distributed at universities with a high minority enrollment. Plus, this special section will also be published in the 27 August issue of *SCIENCE*, guaranteeing your recruitment ad exposure to over 450,000 scientists worldwide!

**For more information on advertising in this *SCIENCE* exclusive, please call
Janis Crowley, Recruitment Advertising Manager at 212-496-7704.**

Advertising Space Reservation Deadline: Tuesday, August 10, 1993.

**Don't forget to advertise your M.S./Ph.D. positions in our annual
Careers In Science issue published September 24, 1993.**

*The Nation's top schools for Biological Sciences, various Chemistry disciplines and Clinical Medicine ranked by the Institute for Scientific Information's *SCIENCE WATCH*, as well as the top 20 schools from *U.S. NEWS & WORLD REPORT*'s Annual America's Best Colleges issue.



**HARVARD MEDICAL SCHOOL
ANNOUNCES
A NEW GRADUATE PROGRAM IN
BIOLOGICAL AND BIOMEDICAL SCIENCES**

To provide the broad foundation now required for a career in modern biological research, a new graduate program - **Biological and Biomedical Sciences (BBS)** - has been created by unifying the former Cell & Developmental Biology and Tridepartment graduate programs.

Under the direction of Connie Cepko, BBS comprises the following departments and their affiliated faculty:

Biological Chemistry & Molecular Pharmacology	headed by	Christopher T. Walsh
Cell Biology	headed by	Marc W. Kirschner
Genetics	headed by	Philip Leder
Microbiology & Molecular Genetics	headed by	Bernard N. Fields
Pathology	headed by	Peter Howley

BBS provides a rigorous basic science curriculum, preparing students to pursue a thesis addressing fundamental biological questions or problems directly relevant to human biology. The flexibility and diversity of this program enable students to pursue a variety of interests via coursework and laboratory rotations. Thesis preceptors can be chosen from any of the departments, which include faculty located at the medical school and at area hospitals.

More information and application forms can be obtained from: Harvard Medical School Division of Medical Sciences, 260 Longwood Avenue, MEC 435, Boston, MA 02115, (617) 432-0162. *Harvard University is committed to the principles of Affirmative Action and welcomes applications from students of either sex and any race, color, religion, sexual orientation or national and ethnic origin.*

**PHARMACOKINETIST
PHARMACOLOGIST
ANALYTICAL CHEMIST**

MicroProbe Corporation is a publicly-held, dynamic biotechnology company poised for rapid growth in our Therapeutics division. Opportunities include:

An opening for a **Pharmacokineticist** to provide the lead role in developing our pharmacokinetics program including experimental design and assessment of pre-clinical and early clinical stage development of novel oligonucleotides. Responsibilities will include developing studies and leading a group to design, conduct, analyze and report on pharmacokinetics studies for Phase I through Phase IV drug development, including pharmacokinetics and pharmacodynamic assessments. The program will be in support of worldwide regulatory submissions of novel pharmaceutical agents. Minimum requirements include a PhD in Pharmacology, Biochemistry or Pharmaceuticals and 3-5 years of relevant pharmaceutical industry experience.

A **Pharmacologist/Toxicologist** responsible for experimental design and study assessment for pre-clinical development of novel oligonucleotides. The minimum requirements include a PhD in Pharmacology, Toxicology or Virology and 3-5 years of relevant pharmaceutical industry experience.

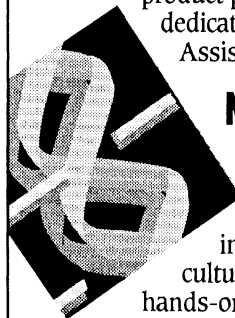
A **Process Development/Analytical Chemist** responsible for establishing GMP processes and methods for novel pharmaceutical agents based on oligonucleotide technology. Requirements include a PhD in Analytical Chemistry or Biochemistry, familiarity with GMP, quality control and quality assurance procedures and current analytical techniques with 3-10 years of relevant pharmaceutical industry experience.

We offer an attractive salary and a comprehensive benefits package including stock options. To be considered for these challenging opportunities, please send your resume to: **MicroProbe Corp., Attn: HR/RM/MG-Pharm., 1725 220th St. S.E., #104, Bothell, WA 98021. EOE.**

MICROPROBE
CORPORATION

RESEARCH ASSISTANTS/ASSOCIATES

Genentech's commitment to science is a critical component to our success in the biotechnology industry. Our leadership position and rich product pipeline create opportunities for dedicated Research Assistants/Associates.



NEUROSCIENCE

You'll study possible protective effects of neurotrophins on central and peripheral neurons in animal models, as well as in cell culture systems. This position requires hands-on experience with stereotaxic surgery, micro-dissection and electrophysiological recording in lab animals.

A BS/MS plus 2 or more years' neurobiology lab experience is required. Knowledge of electrophysiology and familiarity with either intracellular/extracellular recording, voltage-clamping, or patch-clamping techniques are also essential. Neuronal cell culture and immunocytochemistry knowledge is desired. Job Code NS-WQG

CELL CULTURE PROCESS DEVELOPMENT GROUP

You'll be involved with the optimization of mammalian cell culture processes for the production of recombinant proteins. You will examine cell metabolism to address nutrient limitations, as well as investigate ways of enhancing recombinant product secretion.

A BS/MS in Biochemistry, Cell Biology or Biology, and 5+ years' of cell culture and biochemical research experience are required. The ability to design and conduct experiments relevant to process development, under minimum supervision, as well as provide training and guidance to others in the lab is also required. Excellent written and verbal communication skills are essential. Experience in mammalian cell culture, cell metabolism and protein secretion preferred. Job Code: TS-AM

Genentech offers an excellent salary and benefits package which includes child care facilities, free health club membership and fully paid medical/dental/vision coverage. For immediate consideration, please send your resume indicating Job Code, to Genentech, Inc., Human Resources, 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.

Genentech, Inc.

DANA FOUNDATION POSTDOCTORAL SCHOLARS PROGRAM IN BIOLOGICAL IMAGING AT UCLA

The Department of Molecular and Medical Pharmacology and the Crump Institute for Biological Imaging at UCLA have a unique program of study in an environment where the principles of imaging, molecular and cellular biology and pharmacology merge in studies of the brain. Two positions are available immediately within The Dana Postdoctoral Scholars programs of study in the use of PET and MRI to investigate:

1) Alterations in metabolism and neurotransmitter systems by drugs of abuse. We are currently seeking qualified Ph.D. applicants with expertise in behavioral pharmacology related to the neurobiology of addiction. The project will involve the design and implementation of drug self-administration paradigms in non-human primates.

2) The metabolic maturation and neuronal plasticity of the brain. The research will focus on the causes and significance of normative and induced changes in brain metabolism in developing non-human primates. The successful applicants will join an ongoing research program and should have a Ph.D. in behavioral neuroscience, developmental psychobiology or a related field. Familiarity with ethology is desired.

The postdoctoral positions are designed for individuals who have completed their Ph.D. within the last four years. These research projects are part of a Dana Foundation Scholars program that also carries out a similar range of studies in human subjects. Please submit curriculum vitae, a description of research goals and the names and addresses of three references to:

Dr. Michael E. Phelps
Jennifer Jones Simon Professor
Chairman, Department of Molecular and Medical Pharmacology
Director, Crump Institute for Biological Imaging
Department of Molecular and Medical Pharmacology
UCLA School of Medicine
23-138 Center for the Health Sciences
10833 Le Conte Avenue
Los Angeles, CA 90024-1735

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Responsibilities for these highly visible positions include:

- Focusing your sales skills to identify customer needs and provide solutions.
- Calling on end users directly to achieve maximum sales
- Developing cooperative strategies with our Marketing department to target focus markets.

Qualifications include:

- 3-5 years **demonstrated** success selling or marketing technical products to biotech, diagnostic or medical customers.
- BS/MS degree or equivalent, preferably in life sciences.
- Previous NIH Labs or University of Calif. experience highly desirable
- Familiarity with application programs for tracking and reporting sales activity.

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Washington

WASHINGTON UNIVERSITY IN ST. LOUIS

Department of Genetics

The Department of Genetics plans to hire several new faculty members over the next three years. Applications for junior level, tenure track faculty positions are invited. Applicants utilizing genetic model systems to address biological problems will be considered. Responsibilities include establishment of a strong and interactive research program and a commitment to graduate and/or medical student education.

Applicants should send a curriculum vitae and a statement of current and future research plans and arrange for the submission of three letters of reference by April 1 to:

Search Committee
Attention: Norma Brown
Department of Genetics
Box 8232
Washington University School of Medicine
4566 Scott Avenue
St. Louis, MO 63110

Senior Protein Chemist and Associate/Full Professor University of Illinois at Chicago

Applications are invited for a position as Head of the Protein Sequencing/Synthesis Laboratory in the UIC Research Resources Center (50%) and tenured Associate/Full Professor in the Department of Biochemistry (50%). We seek faculty who will have a commitment to facilitating university research programs through management of a centralized protein chemistry laboratory and participation in service, training, administrative activities, and demonstrated commitment to equality of opportunity. Applicants are expected to have established expertise and an active, independent and externally funded research program in protein/peptide chemistry. Applicants should send a CV, statement of career interests, summary of current and future research plans and three letters of reference to: Protein Chemist Search Committee, c/o D. Debelak, Search Coordinator, Office of the Vice Chancellor for Research (m/c 672), 310 AOB, 1737 W. Polk Street, University of Illinois at Chicago, Chicago, Illinois 60612. Application deadline: March 31, 1994. *The University of Illinois is an Equal Opportunity/Affirmative Action Employer.*

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Faculty Positions in Marine Science University of North Carolina at Wilmington

The Marine Science Program at UNCW is expanding, and applications are invited for five faculty positions beginning August '94. UNCW currently has some 35 faculty members plus other PIs working in marine sciences. The B.S. degree is offered in marine biology, and master's degrees in chemistry, geology, biology and marine biology. A cooperative Ph.D. degree program in marine science is offered jointly with North Carolina State University. Expansions are planned in all of these programs.

UNCW is located on the coast in southeastern North Carolina, with proximity to rivers, tidal creeks, estuaries, continental shelf soft and hardbottom environments, two estuarine research preserves, the Gulf Stream and the open Atlantic beyond. UNCW is a part of the Duke/UNC Oceanographic Consortium which operates the R/V Cape Hatteras, and it is host to the NOAA National Undersea Research Center which operates the undersea lab Aquarius.

Applications and nominations are invited in the following areas:

- **ENDOWED CHAIR IN MARINE SCIENCE:** Professor in biological oceanography. This person would be expected to provide leadership and interact extensively with faculty, graduate and undergraduate students. An active, externally funded research program is essential.
- **PHYSICAL OCEANOGRAPHER:** Assistant professor in Physics Dept., tenure track with strong background in physics. Must interact with other marine scientists at UNCW.
- **MARINE GEOLOGIST:** Assistant professor in Earth Science Dept., tenure track, with research interests in environmental problems related to coastal/ocean systems.
- **VERTEBRATE BIOLOGIST:** Assistant professor in Biology, tenure track. Should be able to teach comparative anatomy, herpetology and courses in area of specialization, and complement existing departmental strengths in coastal and marine biology.
- **MARINE BIOLOGY:** Assistant professor, tenure track. Candidates must have expertise (research and teaching) in the area of comparative vertebrate immunology and molecular biology, and complement existing biomedical programs in marine chordates.

Each position requires a Ph.D. and post-doctoral experience is desirable. Teaching at both the undergraduate and graduate levels will be required, along with an active research program. Applications received by March 15, 1994 will be assured consideration. Send resume, brief description of intended research, a statement of teaching interest and experience, and names of five references to Dr. Joan Willey, Department of Chemistry, UNCW, 601 S. College Road, Wilmington, N.C. 28403-3297.

Equal opportunity/affirmative action employer.



Lakian Postdoctoral Scholar

at the Marine Biological Laboratory
Woods Hole, MA

THE MARINE BIOLOGICAL LABORATORY is seeking candidates and nominations for a one-year, renewable, postdoctoral fellowship for work and study in our year-round research laboratories beginning about July 1, 1994. We are especially interested in a person willing to contribute to interdisciplinary investigations.

The programs available to host this fellow are:

- **Architectural Dynamics in Living Cells** (Shinya Inoué, Rudolf Oldenbourg & Andreas Stemmer)
- **Program for Molecular Evolution** (Mitchell Sogin)
- **Ecosystems Center** (John Hobbie & Jerry Melillo)
- **Cell Biology in a Fish Model** (Neal Cornell)
- **Development of Mariculture Methods** (Alan Kuzirian)
- **Database Development of *E. coli* Genes and Gene Products** (Monica Riley)
- **Biochemistry of Bioluminescence** (Osamu Shimomura)
- **National Vibrating Probe Facility** (Lionel Jaffe & Peter Smith)
- **Calcium Patterning Program** (Andrew Miller & Lionel Jaffe)

Submit a letter of interest and current curriculum vitae to be received by
March 1, 1994 to: Human Resources Office
Marine Biological Laboratory, Woods Hole, MA 02543.

EQUAL OPPORTUNITY EMPLOYER - NON-SMOKING WORKPLACE

Synaptic Pharmaceutical Corporation has an immediate opportunity in our Molecular Pharmacology Group for a Ph.D. researcher whose studies will involve analysis of known and novel receptor subtypes in heterologous expression systems, site-directed mutagenesis, and drug discovery. Experience in G-protein-coupled receptors and demonstrated expertise in receptor binding and signal transduction with a minimum of 4 years postdoctoral experience is required. A background in physiology or animal behavior is preferred.

Synaptic Pharmaceutical Corporation is a leader in the search for novel therapeutic agents for the treatment of central and peripheral nervous system disorders using human target-based drug design. Successful candidates will join our multi-disciplinary drug discovery teams to create new therapies for the treatment of human diseases.

Synaptic Pharmaceutical Corporation offers excellent compensation and benefits which include a 401(k) plan and equity participation programs.

Synaptic
Pharmaceutical Corporation

For consideration, send resume in confidence to:

Human Resources Manager, Dept. 147
Synaptic Pharmaceutical Corporation
215 College Rd., Paramus, New Jersey 07652

**Molecular Pharmacology of
G-Protein Coupled Receptors**

Postdoctoral Position

The National Cancer Institute, National Institutes of Health, Public Health Service, requests applications for a Post Doctoral Fellow located in the Experimental Retrovirology Section of the Medicine Branch, Clinical Oncology Program in Bethesda, Maryland. Salary range is \$43,000-\$55,000. The National Cancer Institute is an Equal Opportunity Employer.

Qualifications:

1. At least four years practical experience, as demonstrated by scientific publications, in the area of development of antiviral therapy against HIV-1 infection using the techniques involved in anti HIV-1 drug testing and determination of the antiretroviral mechanism of such drugs.
2. At least four years practical experience in performing and training others in the techniques involved in the isolation and propagation of clinical HIV-1 strains from individuals infected with HIV-1 receiving antiviral therapy, and determination of genetic and phenotypic properties of such HIV-1 strains.
3. At least four years practical experience as a physician, as demonstrated by scientific publications, in the study of cancer immunology using lymphokine-induced immunocompetent cells.
4. US Citizenship is not required.

All applications must be postmarked within 14 days of this issue of Science. All applications should include the following:

- a) Curriculum vitae and bibliography;
- b) Cover letter including date and place of birth;
- c) C.V. should detail education and training, as well as current residence.

All applications should be sent to:

**Robert Wittes, M.D., Chief
Medicine Branch, COP, DCT
National Institutes of Health
National Cancer Institute
Building 10, Room 12N226
9000 Rockville Pike
Bethesda, Maryland 20892**

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From immunoassays and DNA probes to molecular/cellular biology and software instrumentation, IDEXX is utilizing state-of-the-science technologies to aggressively and successfully target niche markets worldwide. Our powerful new generation of diagnostic and detection products are now used in applications ranging from animal health to food and environmental testing and biomedical research. With a phenomenal growth pattern behind us and a solid growth strategy ahead, we are seeking top-notch professionals to add to our research team.

Research Scientists

Gene Expression/Protein Purification Group

Current opening involves the cloning and expression of genes related to animal infectious diseases and immunity. This individual must have a Ph.D. in Molecular Biology or Biochemistry and must have experience in the expression of cloned genes in prokaryotic and eukaryotic cells or protein purification. cDNA cloning or immunoassay development experience helpful. 0-2 years' post-doctoral experience preferred.

Immunoassay Technology Group

Current opening involves developing novel immunoassay technologies. Candidates should have 2-5 years' post doctoral experience in developing immunoassay technologies, especially solid phase immobilizations.

In addition to the above openings, IDEXX continues to generate unique opportunities for individuals who share our enthusiasm for discovery. We regularly have openings for Ph.D. and Master's level Manufacturing Scientists, Manufacturing Chemists, and Research Associates in the following areas:

- Microbiology • Molecular Biology • Biochemistry • Immunology

Respond in confidence with CV and letter of interest to: Human Resources, Code SC0121, IDEXX Laboratories, Inc., One IDEXX Drive, Westbrook, ME 04092. We are an equal opportunity employer.

Energy, Environment and Resources Center. The University of Tennessee, Knoxville invites nominations and applications for the position of Director of its Energy, Environment and Resources Center (EERC). The mission of the EERC is to develop multidisciplinary policy research programs crossing college and departmental lines and to serve in an advisory capacity on academic, campus-wide issues dealing with the environment. The director is the chief administrative officer of the EERC and reports to the Associate Vice Chancellor for Research. Applicants should hold an earned doctorate degree in a discipline related to the mission of the EERC and should qualify for a tenured position in a related academic department. The candidate should have administrative experience at the departmental level or above, in an academic institution or federal government agency; knowledge of potential funding sources; demonstrated success in grantsmanship; experience in managing interdisciplinary efforts; a strong record of publications; and an understanding of and demonstrated commitment to equal employment opportunity and affirmative action. The directorship is a permanent 12-month administrative appointment that will become available as early as July 1, 1994. Salary is open and depends on experience and qualifications. The review of applications will begin March 1, 1994 and applications will be received until the position is filled. Nominations should be as detailed as possible; applications must include a current resume, names and addresses of at least three references, and a statement of the applicants' special qualifications for, and interest in the position. Nominations and applications should be sent to: Dr. Gregory Reed, Search Chair, c/o Ms. Jodie Wehr, Office of Research Administration, The University of Tennessee, 404 Andy Holt Tower, Knoxville, TN 37996-0140. UTK is an EEO/AA/Title IX/Section 504/ADA Employer.

Sr. Scientists Microbial Pathogenesis Sr. Scientist, Group Leader, Molecular Biology

to join our molecular biology team engaged in bacterial vaccine research and development. Successful candidates should have a Ph.D. in microbiology or a related field. We require 2-5 years of post-doctoral experience for the project scientist and 4-10 years technical and supervisory experience for the group leader. Expertise in molecular microbiology and bacterial pathogenesis is essential; applicants with experience in industry are especially encouraged to apply.

MicroCarb provides a challenging environment and a state-of-the-art facility. We offer competitive compensation and an excellent benefits package. For consideration, please send your resume and salary history/requirements to Human Resources, MicroCarb Inc., 300 Professional Dr., Gaithersburg, MD 20879. Equal Opportunity Employer.

MICROCARB

Magnetic Resonance Imaging and Spectroscopy

One or more positions are open for staff members at the Biomedical Magnetic Resonance Laboratory, which includes the NSF-supported Center for Magnetic Resonance Technology for Basic Biological Research and an NIH-supported Research Resource for Biomedical Magnetic Resonance Research and Technology. Duties include research, teaching, technical support and laboratory management. M.S. or Ph.D. in science or engineering, or equivalent experience, required; Ph.D. preferred. At least two years experience in a scientific research laboratory is preferred, with experience in biological NMR spectroscopy and imaging desirable. The position is a 100% time, 12 month academic professional appointment. The salary is negotiable depending upon qualifications and experience.

Active research areas in the Laboratory include functional brain MR imaging and spectroscopy, *in vitro* and *in vivo* NMR studies of physiology and metabolism, NMR microscopic imaging and microspectroscopy, contrast agent development, signal and image processing and the design and construction of new devices and accessories. Available equipment includes: a Spectroscopy Imaging Systems Corporation (SISCO) 4.7T/33 cm imaging spectrometer with a Doty Scientific microprobe, an IBM Field-Cycling Relaxometer, a General Electric/Tecmag GN300/Libra 7.05T/89 mm bore multinuclear spectrometer with microimaging, a Varian Associate 11.7T (500MHz)/51 mm bore spectrometer, also equipped for microimaging, a 4T/1 m bore shielded magnet with a Surrey Medical Imaging Systems (SMIS) imaging and spectroscopy system, a SMIS 4.7T/31 cm system with a Magnex magnet, and an IBM RS/6000 with a direct fiber optic connection to the Convex supercomputer and Connection Machine CM-5, as well as the usual desktop computers and workstations.

For full consideration, send a letter of application, resume and the names, addresses and telephone numbers of three references by March 15, 1994 to:

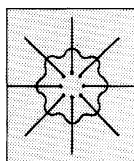
Paul C. Lauterbur
Biomedical Magnetic Resonance Laboratory
University of Illinois
1307 West Park Street
Urbana, Illinois 61801

Salaries and starting dates are negotiable.

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

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SENIOR CHEMICAL ENGINEER

An opening exists at our corporate research center for a Ph.D.-level Chemical Engineer to support our process technology. Using your 5 or more years' industrial experience, you'll work on various projects independently or as part of a team. Responsibilities include process development, design and economic analysis, project interface, technology transfer, and plant operation.

To qualify, you must have a strong process engineering background in the scale-up of protein purification processes and bio-organic reactions. Also requires interpersonal and communication skills to work effectively with professionals at all levels, including research scientists. Versatility, creativity and problem-solving abilities are highly desirable.

We offer a fast-paced environment where creativity is valued, and independent thinking, as well as collaboration, is encouraged. We offer unparalleled support for your scientific standing, and a generous compensation and benefits package. Please send your resume, to: **Corporate Human Resources, Dept. CE, Enzon, Inc., 40 Kingsbridge Road, Piscataway, NJ 08854.** An equal opportunity employer.

Real Life: ACHIEVEMENTS

PLANT BIOTECHNOLOGY

ICI Seeds is one of the World's leading seed companies with breeding and biotechnology research centers in the major commercial seed markets and sales in over 40 countries. The North American group, based in Iowa, markets corn hybrids as well as leading varieties of soybean, sorghum, sunflower, canola and alfalfa. We have a number of openings in our product-driven biotechnology programs at the company's research center near Ames, Iowa. Successful candidates will join interdisciplinary teams applying state-of-the-art biochemistry, cell and molecular biology to crop improvement programs.

MOLECULAR BIOLOGY: Group Leader - we seek an individual who will serve as a Group Leader in our corn transformation program. This individual will have a Ph.D. in Plant Molecular Biology, with special emphasis on disease resistance. Post-doctoral and commercial experience will be an advantage.

Research Specialist - applications are invited from those with an interest in analyzing the inheritance and expression of transgenes. This individual will have a BS/MS in plant sciences with experience in plant molecular biology.

BIOCHEMISTRY: Research Specialist - we seek an individual to assist in developing corn hybrids with improved grain quality and environmental stress tolerance. This individual should have an MS in Plant Biochemistry, Physiology or a closely related discipline and a solid background in biochemical methods. Knowledge and research experience related to molecular biology, modern approaches to plant physiology, and tissue culture would be additional assets.

Enjoy the advantages of belonging to a worldwide organization with the professional and financial resources to support and sustain aggressive long-term research.

We offer a competitive salary commensurate with experience, comprehensive benefits including a generous relocation package, high professional standards and - most importantly - career association with a world leader in meeting farmers' needs for the coming decade. Please submit your c.v. in confidence to: Stephanie Roach, ICI Seeds, 2369 330th Street, Box 500, Slater, IA 50244.



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POSITIONS OPEN

PLANT/SYSTEMS ECOLOGIST Desert Laboratory, University of Arizona

The Desert Laboratory of the University of Arizona invites applications for a tenured/tenure-track faculty position focused on **ecosystem function and management in grasslands and deserts**. Position will utilize the resources of the Desert Laboratory, a research facility with a 90-year legacy in ecologic research and monitoring, and the Animas Foundation, an institution established to study the sustainability of grazing in the southwestern United States. The Foundation's primary resource is the Gray Ranch, a 1320-square kilometer tract dedicated to conservation of southwestern ecosystems, maintenance of traditional rural livelihoods, and long-term ecological research. Academic responsibilities, including teaching, can be in Ecology & Evolutionary Biology, Geosciences, or School of Renewable Natural Resources. Send cover letter with names and telephone numbers of 3 references, curriculum vitae, and copies of up to 5 significant papers to: **Dr. Jay Quade, Chair of Search Committee, Desert Laboratory, Department of Geosciences, University of Arizona, Tucson, AZ 85721; Telephone: (602) 621-2579 or 621-4051.** Applications will be reviewed beginning February 7, 1994. *The University of Arizona is an Equal Opportunity/Affirmative Action Employer. Women and minorities are urged to apply.*

RESEARCH/PROTEIN STRUCTURE. A full-time position as a **STAFF SCIENTIST** is available in Pullman, Washington. The qualified candidate will be responsible for structural studies of bacterial chemoreceptors utilizing primarily electron microscopic techniques. This will include two-dimensional crystallization and formation of other ordered structures, analysis of these structures by electron microscopy and image processing. The candidate must have a Ph.D. in Biophysics or related area and minimum of five years of research experience after that degree in two-dimensional crystallization of membrane proteins, electron microscopy of membrane proteins, computer-based image analysis and electron diffraction techniques. The starting salary will be \$29,500 per year. By March 1, 1994, send résumé to: **Employment Security Department, E&T Division, Job #407335, P.O. Box 9046, Olympia, WA 98507-9046. Equal Opportunity/Affirmative Action Employer.**

COURSES AND TRAINING

NEW ENGLAND BIOLABS MOLECULAR BIOLOGY AND BIOTECHNOLOGY SUMMER WORKSHOPS.

We are pleased to announce the ninth annual summer workshops held at the Clark Science Center, Smith College, Northampton, Massachusetts. This intensive two-week course emphasizes hands-on molecular biology. No previous experience is required. The fee is \$2,700 and includes room and board. Three sessions will be offered: June 5-18, June 26-July 9, and July 17-30, 1994. For further information, see our full-page ad which will appear in the February 4, 1994, issue of *Science*, or call (413) 584-3643.

MICROENCAPSULATION COURSE

How to, Hands-on, Microencapsulation Lab Short Course for biologists, pharmacists, chemists, life scientists and engineers, by **Curt Thies, Professor of Chemical Engineering, Washington University, St. Louis, March 6-9, 1994. Telephone: (314) 935-6066.**

Applications are invited for **POSTDOCTORAL RESEARCH TRAINING POSITIONS** in molecular, cellular or physiological aspects of developmental disorders. Appointments are for 2 years and applicants should hold M.D. or Ph.D. degrees. Direct applications (curriculum vitae, statement of career objectives and 2 letters of reference) to: **H. S. Iwamoto, Ph.D., Department of Pediatrics, Division of Neonatology, 3333 Burnet Avenue, Cincinnati, OH 45229-3039. UC/CHMC is an Equal Opportunity Employer and encourages applications from qualified women and minorities.**

MEETINGS

PLASMA MEMBRANE REDOX IN DISEASE AND CELL DYSFUNCTION March 23-26, 1994, Cordoba, Spain

Molecular biology and biochemistry of plasma membrane redox in relation to growth and cellular dysfunction.

Organized by: D. James Morré and F. L. Crane, Purdue University; P. Navas, Cordoba; G. Benga, Cluj-Napoca; M. Böttger, Hamburg.

Information and application forms: Sarah Craw; Life Sciences Research Building, Purdue University, West Lafayette, IN 47907 USA. Telephone: (317) 494-1388, FAX: (317) 494-4007.

Participation limited. Inquires by February 15, 1994.

ANNOUNCEMENTS

BIOMEDICAL PHYSICS GRADUATE PROGRAM UCLA

M.S., Ph.D., Postdoctoral

Six new Fellowships (*U.S. citizen/permanent resident required*; up to \$15,000 annual; includes tuition) available for four M.S./Ph.D.'s; and two Postdoctoral (\$22,000 up); and other research assistantships in the Department of Radiological Sciences in fall 1994. Training areas: Biophysics, Medical Imaging, Radiation Therapy, Radiation Biology. Information:

**UCLA Biomedical Physics
Graduate Program
Department of Radiological Sciences
Los Angeles, CA 90024-1721
Telephone: (310) 825-7811
(310) 825-7705 FAX**

REQUEST FOR PROPOSALS. Clark County, Nevada, is soliciting research proposals to develop cost effective barriers to reduce mortality of desert tortoises on roadways. Interested parties should contact: **Jeannie Hernandez, County Administrators Office, Telephone: (702) 455-3530 for RFP. Proposals due February 11, 1994. Equal Opportunity Employer/Affirmative Action.**

INVITATION TO MEMBERSHIP: AFRICAN VIROLOGY GROUP

The *African Virology Group* is conducting a membership drive. For further information, interested individuals in North and South America are encouraged to contact: **Godwin A. Ananaba, Ph.D., Biology Department, Spelman College, Atlanta, GA 30314; or Respiratory Virology, MS-G17, Centers for Disease Control, Atlanta, GA 30333, USA. Telephone: (404) 223-7645, FAX: (404) 639-1307.**

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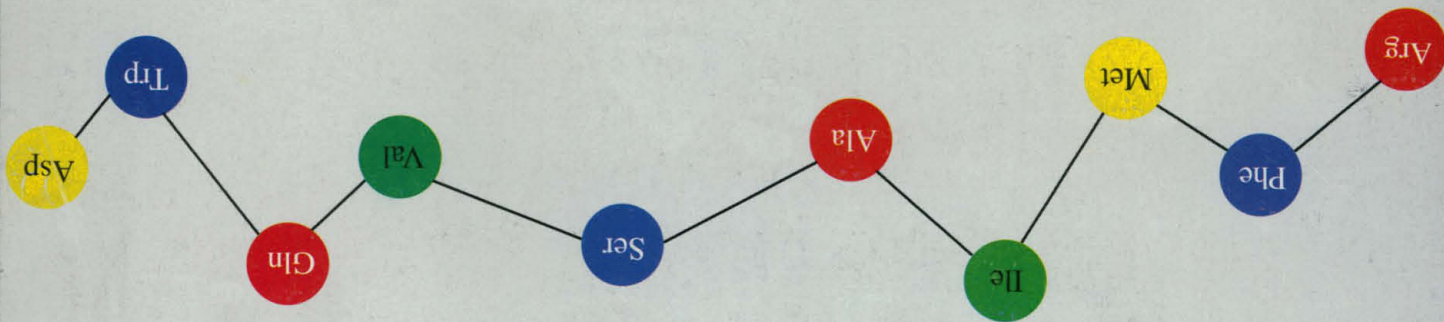
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