

Monoclonal Antibody Isotyping

The IsoStrip Mouse Monoclonal Antibody (mAb) Isotyping Kit can screen a mouse mAb for isotype in three simple steps: dilute the antibody sample, transfer the diluted sample to the development tube, and insert the isotyping strip into the tube. In 5 min, the isotype is indicated by distinct blue bands on the strip. Samples can be ascites, culture supernatants, or purified mAb. **Boehringer Mannheim.** Circle 137.

Software Ties Balances to PCs

BalanceLink is a software program for Mettler-Toledo balances that provides an interface with a personal computer (PC), thus eliminating errors caused by manual entry of weight values into spreadsheets and databases. The



software is broadly compatible with popular software programs such as Excel and Lotus, and is available for either DOS or Windows programs. The Windows version allows for automatic transfer of weight values at adjustable time intervals. **Mettler-Toledo.** Circle 138.

Graphics and Data Analysis Software

Origin 3.0 is an update of Windows-based technical graphics and data analysis software that combines scientific and technical plotting, sophisticated data analysis, and publication-quality graphics in one easy-to-use package. New features include improved curve-fitting routines. The original Lev-

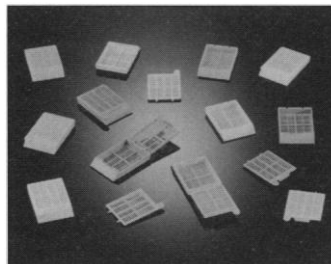
enberg-Marquardt routine is supplemented with linear constraints and the Simplex method. The new "Object Edit" tool bar allows users to drag out a "rubber band" to select multiple objects, such as text tables, and to click on a button to align the objects selected. **MicroCal Software.** Circle 139.

Desktop Imaging Software

FULLPIXELSEARCH software allows users to search and find important regions inside TIFF and PICT images on any color-enabled Macintosh computer. The program matches patterns at the pixel level, a function that has previously been available only on mainframe systems, according to the manufacturer. The software has been used by earth scientists to scan satellite images for regions of interest; pathologists and cell biologists to analyze x-ray, magnetic resonance, and other biomedical images; scientific illustrators to touch up, restore, and enhance digital images; and astronomers and planetary scientists for recognition patterns at the pixel level. **Avian Systems.** Circle 140.

Nonradioactive in Situ Hybridization

Two new nonradioactive detection kits have been developed for the labeling of RNA and DNA probes using fluorescent nucleotides and subsequent colorimetric detection. The use of color kits avoids the problems of radioactive waste disposal and gives results in 2 days. The color kits contain a novel, easy-to-handle hybridization buffer formulation with a rate enhancement system that reduces hybridization time to 1 to 4 hours. **Amersham International.** Circle 141.



Hinged Cassettes

These tissue cassettes and biopsy cassettes feature a modified ball and socket hinge that allows the cassette covers to be opened and closed as often as necessary. A secure locking mechanism prevents separation during processing. After processing, covers can be detached with a simple twist. Instead of being discarded, detached covers can then be mated to coverless cassettes (available separately) and reused several times. This reuse of covers reduces plastic waste by more than 32% compared with other hinged cassettes that are entirely discarded. **Evergreen Scientific.** Circle 142.

Antibodies

"Type specific" collagen antibodies include specificities to human, bovine, chicken, rat, and mouse collagens. The antibodies are available in neat or purified formats. **Biodesign International.** Circle 143.

Monoclonal antibodies to adhesion molecules include specificities to LFA-1, LFA-3, MAC1, CD11c, CD18, CD26, VLA B-1, PECAM, HECAM, ICAM, NCAM, P-Selectin, E-Selectin, L-Selectin, and VCAM-1. **Biodesign International.** Circle 144.

Biotinylated anti-mouse/rabbit immunoglobulin G (IgG) (H + L) is a "universal" secondary antibody that can be used with rab-

bit, mouse, or rat primary antibodies and VECTASTAIN ABC systems. The product is a blend of affinity-purified biotinylated horse anti-mouse IgG (H + L) and biotinylated goat anti-rabbit IgG (H + L). It is designed for automated immunohistochemical staining systems but can also be used in manual staining methods. **Vector Laboratories.** Circle 145.

Literature

Chirex: The Innovative Direction in Chiral Separations is a brochure on the utility of chirex high-performance liquid chromatography columns for the direct separation of amino acid enantiomers. **Phenomenex.** Circle 146.

1993/1994 Electroporation is a catalog that gives details on products, chambers, and accessories. It includes technical and application information and a selection guide. **BTX.** Circle 147.

The Mass Spec Source is a bi-monthly newsletter with sections including topics such as product development, featured products, question and answer forum, and a new section titled "Mass Spec Tips." **Scientific Instrument Services.** Circle 148.

Clontech 1993/1994: Tools for the Molecular Biologist features hundreds of new products including the MATCHMAKER Two-Hybrid System, 5'-AmpliFINDER RACE Kit, and Western Exposure Chemiluminescent Detection System. **CLONTECH Laboratories.** Circle 149.

Immunology Products Brochure details more than 2000 products, more than 300 of them new, including polyclonal, monoclonal, affinity-purified, species-specific, and F(ab)² antibodies and conjugates to human and animal immunoglobulins (Ig) and IgG subclasses; serum proteins; cell surface markers; interleukins; enzymes; and more. **The Binding Site.** 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.

SCIENCE

PERSONNEL PLACEMENT

LINE CLASSIFIED ADVERTISEMENTS

- **Deadlines:** Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Call for holiday deadlines. Advertisements must be submitted in writing.
- **How to Submit a Classified Ad:** Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training.
- **Mail or FAX materials to:**
Science Classified Advertising
1333 H Street, N.W., Room 814
Washington, DC 20005
Telephone: 202-326-6555
FAX: 202-682-0816
- **Rates:** Ads are \$42 per line; \$420 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads.
- **Ads from Outside the U.S.:** A discount of \$30 will be offered to advertisers making payment in U.S. dollars by checks drawn on U.S. banks. Contact Annemarie Vis at +44 223 302067 (telephone) or +44 223 302068 (FAX).
- **Credit Cards:** *Science* accepts MasterCard and VISA. Discount does not apply to credit cards.
- **Cancellations:** Deadline for cancellation is 10 a.m., Tuesday, 10 days prior to issue date.

DISPLAY PERSONNEL ADVERTISEMENTS

For rates and info. about fractional display ads (all ads 1/2 page and larger), contact:

Recruitment Advertising
Deborah Cummings
Telephone: 202-326-6541

Janis Crowley, Recruitment
Advertising Manager
Telephone: 212-496-7704
FAX: 202-682-0816

Annemarie Vis
European Recruitment Advertising
Telephone: +44 223 302067
FAX: +44 223 302 068

CONDITIONS: Personnel advertising is accepted only with the understanding that the advertisers do not discriminate among applicants on the basis of race, sex, religion, age, color, handicap or sexual preference. The AAAS encourages employers to actively recruit and employ underrepresented minority groups. *Science* reserves the right, at its discretion, to decline to publish advertisements submitted to it.

POSITIONS OPEN

FACULTY POSITION IN BIOCHEMISTRY Case Western Reserve University (CWRU)

The Department of Biochemistry invites applications and nominations for a tenure-track position at the **ASSOCIATE** or **FULL PROFESSOR** level. The applicant should have a vigorous and well-established research program in the general area of structural biology. This appointment is part of a joint effort with the Cleveland Clinic Foundation to increase both the depth and breadth of researchers using biophysical techniques such as X-ray crystallography, 2-D NMR spectroscopy, and/or biological spectroscopy. The current strengths of the department are in the areas of protein chemistry, protein/nucleic acid interactions, virology, cell biology, and regulation of gene expression. Applicants should send curriculum vitae and statement of research plans, and have three reference letters sent to:

Dr. William C. Merrick
Chair, Faculty Search Committee
Department of Biochemistry
School of Medicine
Case Western Reserve University
Cleveland, OH 44106-4935

CWRU is an Equal Opportunity/Affirmative Action Employer and encourages the applications of qualified women and minorities.

TEACHING OVERSEAS:

The **Department of Biology** at the American University of Beirut in Beirut, Lebanon (AUB), invites applications for faculty positions at the level of **ASSISTANT PROFESSOR** or above, available October 1, 1994. Candidates with specializations in the following fields are sought: Plant Molecular Biology, Molecular Genetics, Endocrinology, Marine Biology, and Applied and Environmental Biology.

Applicants should hold the Ph.D. degree and are expected to teach undergraduate and graduate courses and to conduct a research program. Postdoctoral experience is preferred. The language of instruction is English.

Appointments are normally made for a three-year period. AUB is an *Equal Opportunity/Affirmative Action Employer*.

Interested persons should send a letter of application (with a copy to the **Director of Personnel, c/o AUB NY Office**) and curriculum vitae, and should arrange for three letters of recommendation to be sent before January 31, 1994, to: the **Dean of Arts and Sciences, c/o New York Office of the American University of Beirut, 850 Third Avenue, New York, NY 10022-6297, USA**. Incomplete and/or late applications will not be considered.

U.S. passports are presently invalid for travel to, in or through Lebanon, and for residence in Lebanon, by order of the Department of State, and therefore, applications from individuals who would travel to or reside in Lebanon on a U.S. passport cannot at this time be considered.

Trinity College in Washington, D.C., is seeking a biologist at the rank of **ASSISTANT PROFESSOR**, effective fall 1994. Teaching responsibilities will include comparative vertebrate development and anatomy, evolution, genetics, and botany. We are especially interested in candidates who are committed to undergraduate teaching and who can contribute to curriculum development. Ph.D. is required. Please send letter of application, curriculum vitae, transcripts, and three letters of recommendation to: **Carole King, Director of Human Resources, Trinity College, 125 Michigan Avenue, N.E., Washington, DC 20017**. *Trinity College is an Equal Employment Opportunity Employer and welcomes applications from women and minorities.*

PHYSIOLOGIST. Tenure-track position, **ASSISTANT PROFESSOR**, to begin late August 1994. Primary responsibilities: teaching human anatomy and physiology, an advanced course in area of specialty, and rotation through lower- and upper-division biology core courses. Recent Ph.D. and teaching experience preferred. Development of research program involving undergraduate and Master's students expected. Send statement of teaching and research interests, curriculum vitae, transcripts, and three letters of reference to: **Dr. Ronald L. Evans, Chair, Department of Biology, California State University, Fresno, CA 93740-0073**. Closing Date: February 14, 1993. *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

BIOLOGY, ASSISTANT PROFESSOR. The Department of Biology at Shippensburg University invites applications for a tenure-track position starting August 1994. An earned doctorate at the time of appointment and two years of teaching experience are required. The successful candidate will teach Principles of Biology, Zoology, Animal Behavior and non-majors courses. Preference will be given to candidates with a background in invertebrate zoology. Scholarly activity will be required in the area of biology specialty or biology education. Applicants should send curriculum vitae, copies of transcripts (both graduate and undergraduate), a statement of teaching philosophy and research interests, plus the names, addresses and telephone numbers of three references to: **Dr. David Long, Chair of the Search Committee, Department of Biology, Shippensburg University, 1871 Old Main Drive, Shippensburg, PA 17257-2299**. Receipt deadline for application materials is: January 10, 1994. *Shippensburg University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

ASSISTANT PROFESSOR IN CELLULAR/DEVELOPMENTAL BIOLOGY. The Department of Biological Sciences at the Florida Institute of Technology, Melbourne, Florida, invites applications and nominations for a full-time faculty position with primary research and teaching interests in cellular and developmental biology. A Ph.D. degree and postdoctoral training are required, and a strong commitment to both teaching and research is a must. The successful candidate will be expected to teach undergraduate courses in Cell Biology and Immunology, and to develop a graduate-level course in an area of his/her research interests. The successful candidate will also serve as advisor to pre-health undergraduates. The individual will be expected to develop a strong, competitive research program in an area of cellular, developmental or neural biology. The Department of Biological Sciences at Florida Tech has undergone rapid growth, with over 20 full-time faculty providing strong programs in Molecular and Cellular Biology, Marine Biology, and Ecology. The appointment will begin in August 1994. Candidates should submit curriculum vitae, a statement of teaching experience, a statement of current and proposed research, and three letters of recommendation by February 15, 1994, to: **Dr. Charles E. Helmstetter, Chair, Search Committee, Department of Biological Sciences, Florida Institute of Technology, 150 West University Boulevard, Melbourne, FL 32901**.

An Equal Opportunity/Affirmative Action Employer.

Behavioral Neuroscience, tenure-track ASSISTANT PROFESSOR. We seek a candidate who uses state-of-the-art techniques to investigate the cellular substrates of learning and memory, but other specialties will be considered. Requirements: Ph.D., very strong research credentials and a commitment to undergraduate and graduate teaching. The successful candidate will show a clear potential for obtaining extramural grant funding. Applicants should send curriculum vitae, reprints, a statement of research accomplishments and goals, and arrange for three letters of reference to be sent to: **Dr. N.A. Swadlow, BNS Search Committee, University of Connecticut, Department of Psychology, U-20, 406 Babbidge Road, Storrs, CT 06269**. *We encourage applications from underrepresented groups, including minorities, women and people with disabilities. (Search #1A143).*

EMORY UNIVERSITY ASSISTANT PROFESSOR COMPUTATIONAL CHEMISTRY

A tenure-track position is available for a Ph.D. chemist with experience in computational chemistry of theoretical molecular modeling or chemometrics. Candidates are sought who will focus research efforts in areas that involve either biomolecules, polymers, molecular assemblies, condensed matter or a related field. The successful candidate will benefit from the excellent computational facility at the Cherry L. Emerson Center for Scientific Computation and further enhance already active computational chemistry research in the department. Detailed curriculum vitae, a summary of research and teaching plans, and three letters of recommendation should be sent to: **Professor Keiji Morokuma, Chair, Computational Chemistry Search Committee, Department of Chemistry, Emory University, Atlanta, GA 30322**. The review will begin after January 1, 1994. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

Postdoctoral Opportunities In The Biomedical Sciences.

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

Exocytosis and Membrane Fusion **Steven S. Vogel, PhD**

Calcium-triggered membrane fusion has been reconstituted between purified exocytotic granules and lipidic membranes. While this reaction does not require the presence of cytoplasmic proteins, it does require that active proteins be present on the surface of the granule and biochemical and immunological techniques are being used to identify and isolate the proteins mediating this reaction. Applicants must have less than five years postdoctoral experience. Laboratory of Theoretical and Physical Biology (OE-40), NICHD, Building 10, Room 6C205.

Molecular Biology and Nucleic Acid Biochemistry **Dolph L. Hatfield, PhD**

The role of selenium in cellular regulation, and the mechanism whereby selenium becomes covalently bound to protein, are being determined through a study of the expression, identity, and regulation of selenocysteine tRNA. In addition, because hypomodified tRNA nucleotides occur in cancer tissue, their role in the malignancy process is being studied. These studies include a determination of their ability to cause ribosomal frameshifting in HIV expression. Applicants must have less than five years postdoctoral experience. Laboratory of Experimental Carcinogenesis (OE-40), NCI, Building 37, Room 3C23.

Molecular Genetics of Gene Targeting **Brian Sauer, PhD**

Transgenics and ES cell gene targeting are being used to study the effects of chromosomal position on gene expression and DNA recombination. Genetic switches for lineage marking and selective gene ablation techniques using site-specific DNA recombinase(s) are also being developed. Applicants should have a strong molecular biology background, experience in genetics or mammalian cell biology, and less than five years postdoctoral experience. Laboratory of Biochemistry and Metabolism (OE-40), NIDDK, Building 10, Room 9B15.

Neurobiology and Neurophysiology **Chris J. McBain, PhD**

The expression and developmental regulation of voltage gated potassium channels in hippocampal neurons are being studied using molecular and *in situ* hybridization techniques. Studies of the properties of voltage gated potassium channels in transfected cell lines are also planned. A strong background in molecular biology and less than five years postdoctoral experience are required. Laboratory of Cellular and Molecular Neurophysiology (OE-40), NICHD, Building 49, Room 5A72.

Orphan Receptors **Cary Weinberger, PhD**

Uncharacterized activating ligands for steroid receptor-like proteins, commonly referred to as "orphan" receptors, are being sought to examine their regulatory roles in animal physiology. A candidate hormone from a tissue extract activating a liver-expressed receptor is being purified and future efforts will seek to determine its molecular structure. Candidates should have experience in molecu-

lar biology, biochemistry, or analytical chemistry and less than five years postdoctoral training. Laboratory of Reproductive and Developmental Toxicology (OE-40), NIEHS, P.O. Box 12233, MD B3-02, Research Triangle Park, NC 27709.

Trans-Dominant Transcription Factors **Charles Vinson, PhD**

The structural properties of the bZIP class of DNA binding proteins are being studied using physical and molecular methods to better understand dimerization specificity. bZIP mutants have been designed that are capable of forming heterodimers with wild type bZIP proteins, thereby inactivating wild type protein function *in vitro*. These proteins are being used *in vivo* to examine the inhibition of cellular differentiation. Laboratory of Biochemistry (OE-40), NCI, Building 37, Room 4D06.

Transgenic Animal Models and Gene Transfer **Edward I. Ginns, MD, PhD**

Transgenic animal models are being developed for the study of the pathogenesis and treatment of analogous human disorders, including Gaucher disease. These animals are used to develop new therapies, including protein/enzyme replacement, transplantation, and gene transfer. Applicants should have less than five years postdoctoral experience and training in molecular biology and/or biochemistry. Relevant experience in the generation of transgenic animals or retroviral gene transfer is also required. Clinical Neuroscience Branch (OE-40), NIMH, Building 49, Room B1EE16.

Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings you may access the NIH EDNET Bulletin Board's POSTDOC conference by Internet (cu.nih.gov) or via modem (1,3014022221 or 1,8003582221). The settings for modem access are "7,Even,1". When connected to NIH, type in ",vt100" at the connect message, "F5E" at initial, and "AJL1" at account.

The Postdoctoral Research Fellowship Opportunities catalog, which describes additional opportunities at the NIH, may be requested from the address below. An electronic version of the catalog may be accessed via the network-based (Internet) Gopher Information System. To access the NIH Gopher server, Gopher client software (available via anonymous ftp "boombox.micro.umn.edu") must be running on your computer and configured to point to "gopher.nih.gov" and port "70". Select *Grants and Research Information* to reveal the *NIH Office of Education* directory. Those interested in receiving information on other postdoctoral opportunities, clinical training opportunities, or accessing Gopher may contact the Office of Education, Building 10, Room 1C129. Phone: 301-496-2427.

To Apply

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



National Institutes Of Health

9000 Rockville Pike, Bethesda, MD 20892

Equal Opportunity Employer

POSITIONS OPEN

Drew University is seeking a **MOLECULAR BIOLOGIST** at the **ASSISTANT PROFESSOR** level for the fall of 1994. This tenure-track position entails lecture and laboratory instruction in the area of molecular biology and biotechnology, establishment of a research program involving undergraduates, and involvement in departmental, college and university activities. Teaching responsibilities are primary and involve 9 to 10 contact hours per semester.

A Ph.D. is required, with clear evidence of expertise in the area of molecular biology as evidenced by course work, research experience, and publications in primary literature. The particular area of expertise is open, but preference will be given to applicants who complement, but do not overlap with, existing faculty strengths in immunology/microbiology, developmental biology, and psychobiology. Applicants must demonstrate the ability to bring the concepts and tools of molecular biology into the undergraduate classroom and laboratory. Applicants who need special accommodations for an interview should request this in advance. Applicants should send (i) a letter of application with statement of teaching and research interests, (ii) curriculum vitae, and (iii) three letters of recommendation by January 17, 1994, to: **Dr. David Miyamoto, Chair, Department of Biology, Drew University, Madison, NJ 07940. An Equal Opportunity/Affirmative Action Employer; women and minorities are encouraged to apply.**

UNIVERSITY OF PENNSYLVANIA. The Department of Psychology intends to make at least two appointments at the **ASSISTANT PROFESSOR** level in the areas of: (a) sensation/perception, (b) attention/memory, or (c) biopsychology. For areas a and b, applicants who combine behavioral studies with quantitative/computational models, information-processing models, or cognitive neuroscience approaches will be especially attractive. Applicants with research interests in all areas of biological psychology will be considered. Areas of research that would complement existing research programs include: the influence of hormones on behavior, the neuronal correlates of perceptual processes or motor control, and mammalian models for studying the neural bases of learning and memory. Candidates should submit curriculum vitae, reprints and preprints, and a statement of teaching and research interests. All materials and 3 letters of recommendation should be sent by January 15, 1994, to: **Search Committee A, Department of Psychology, University of Pennsylvania, 3815 Walnut Street, Philadelphia, PA 19104-6196. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.**

Trinity College in Washington, D.C., is seeking an environmental scientist at the rank of **ASSISTANT PROFESSOR**, effective fall 1994. Teaching responsibilities will include environmental science, ecology and geology. We are especially interested in someone who will be able to develop our environmental science major. Ph.D. is required. Please send letter of application, curriculum vitae, transcripts, and three letters of recommendation to: **Carole King, Director of Human Resources, Trinity College, 125 Michigan Avenue, N.E., Washington, DC 20017. Trinity College is an Equal Employment Opportunity Employer and welcomes applications from women and minorities.**

ASSISTANT/ASSOCIATE PROFESSOR MEMBRANE BIOLOGY

University of California, Santa Barbara

Applications are invited for a ladder faculty position in the Department of Biological Sciences. A broad-based approach to membrane biology using modern molecular biology, biochemistry, structural biology, biophysics or physiology is desired. Areas of interest include, but are not limited to: membrane-cytoskeletal interactions, membrane turnover and biogenesis, protein trafficking, ion channels or membrane transport. Only applicants with a strong research record will be considered. Ph.D. degree or equivalent and postdoctoral experience are required. Teaching at the undergraduate and graduate levels will be expected. Interested candidates should arrange to have curriculum vitae, a statement of research interests, 3 to 5 relevant publications and 3 letters of reference sent to: **Chair, Department of Biological Sciences, University of California, Santa Barbara, CA 93106. Application Deadline: January 15, 1994. The University of California is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

Applicants are invited for two tenure-track positions at the **ASSISTANT PROFESSOR** level beginning August 1994. Candidates must possess a Ph.D. and a strong commitment to teaching. Successful candidates are expected to develop externally funded independent research programs that lead to timely publication and that actively involve students.

Herpetologist or Ornithologist. The successful candidate must develop an active, field-oriented research program. Teaching responsibilities include Herpetology or Ornithology, Vertebrate Zoology, and General Biology.

Biological Oceanographer. Applicants should have research interests in estuarine/coastal environments and experience in field-oriented marine research. Familiarity with small boat and shipboard operations and modern marine instrumentation is preferred. Teaching responsibilities include Physical and Biological Oceanography (undergraduate and graduate) and General Biology.

The College of Charleston is a liberal arts institution whose primary aim is teaching excellence. Biology offers undergraduate instruction leading to the B.A. or B.S. degree, including an undergraduate marine biology emphasis, and an M.S. degree in Marine Biology. Biology operates the Grice Marine Biological Laboratory on Charleston Harbor. Applicants should submit curriculum vitae, statement of teaching and research interests, copies of relevant publications, and three letters of reference to: **Chair, Department of Biology, College of Charleston, Charleston, SC 29424-0001. All application materials should be received by January 12, 1994. The College of Charleston is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT OR ASSOCIATE PROFESSOR IN SCIENCE, TECHNOLOGY, AND SOCIETY:

One tenure-track position in a department of interdisciplinary studies. Areas of specialization being sought include science, technology, and society; science and technology policy; environmental issues. Preference given to candidates with a background in science or engineering. Application deadline is February 1, 1994. Send application materials, including three letters of recommendation, to: **Dr. Chuck Korte, Head, Division of Multidisciplinary Studies, Box 7107, North Carolina State University, Raleigh, NC 27695-7107. Equal Opportunity/Affirmative Action Employer.**

NEUROBIOLOGIST

The **Anatomy Department** of the **Medical College of Ohio** is continuing expansion of its growing neurobiology group and seeks to fill a tenure-track or tenured position with an individual using molecular or other approaches to study neural organization, development, or plasticity. The Medical College and department offer freedom of time to pursue research, excellent core facilities, a competitive 12-month salary, and generous start-up funds. Applicants for an **ASSISTANT PROFESSORSHIP** should demonstrate an ability to establish an independent and funded research program. Applicants for more **SENIOR APPOINTMENTS** should have an ongoing, funded program. Teaching responsibilities will be in one team-taught course to medical students. Forward curriculum vitae, a brief statement of research plans, and names of 3 references by **JANUARY 15, 1994**, to: **John T. Wall, Faculty Search Committee, Department of Anatomy, Medical College of Ohio, Toledo, OH 43699-0008. Equal Opportunity Employer.**

IMMUNOLOGIST/ASSISTANT PROFESSOR. Department of Biological Sciences seeks an immunologist (comparative or evolutionary), with postdoctoral experience, for a tenure-track teaching and research position; salary and start-up negotiable. Duties will include teaching a senior/graduate course in Immunology, participation in other appropriate aspects of the undergraduate curriculum, participation in the graduate program in specialty, and establishment of an independent research endeavor. Collaboration with other faculty is encouraged. Please submit a letter of application stating research goals, teaching experience, curriculum vitae, and the addresses and telephone numbers of three references, to: **Dr. C. Bailey, Chair—Faculty Search Committee, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701. Review of applications will begin on December 15, 1993, and continue until the position is filled. Since the University of Arkansas is committed to achieving diversity (gender, ethnic, and racial) in its faculty, the University encourages application from qualified individuals who would contribute to such diversity.**

POSITIONS OPEN

TWO BIOLOGY POSITIONS. The previously announced search in biology has broadened to two positions at the **ASSISTANT PROFESSOR** level to fill needs in the areas of **Cell Biology, Developmental Biology, Invertebrate Biology, Genetics, Immunology, and General Biology.** Ability to teach microbiology or parasitology is desirable. Dedication to quality teaching in both the general biology and upper-division courses is expected, as well as a desire to involve undergraduate students in research. Ph.D. required. *Affirmative Action/Equal Opportunity Employer.* Please send a letter of application, curriculum vitae, transcripts, and at least three letters of reference by February 1, 1994, to: **Christine Wilcox, Secretary to the Biology Search Committee, Hanover College, P.O. Box 108, Hanover, IN 47243. (Those who have previously applied need not reapply, but may submit additional information.)**

Microbiology/Molecular Biology: Indiana University Northwest. **ASSISTANT PROFESSOR.** Tenure-track position to begin Fall Semester 1994. Candidates must have a Ph.D. and be committed to teaching undergraduates in Biology with a special interest in Microbiology and Molecular Biology. Teaching areas will include both majors and nonmajors microbiology, virology, and immunology. Indiana University Northwest is part of the Indiana University system with an enrollment of 6000+ students. Applicants should send curriculum vitae, transcripts, and names, addresses, and telephone numbers of three references by February 1, 1994, to: **Chairman, Biology Search Committee, 335 Marram Hall, Indiana University Northwest, 3400 Broadway, Gary, IN 46408. Indiana University is an Affirmative Action/Equal Opportunity Employer.**

TWO ASSISTANT PROFESSOR BIOLOGY POSITIONS

Hollins College, a selective, private, four-year liberal arts college for women, invites applications for two positions starting September 1, 1994. Candidates are expected to have completed the Ph.D. by the time of appointment. The first position is for 3 years (with the possibility of renewal) for a Cellular-Molecular Biologist who can teach undergraduate courses in cell/molecular biology, molecular and mendelian genetics, and microbiology. The second position is a tenure-track position for a broadly trained Biologist to teach courses such as ecology, vertebrate zoology, comparative anatomy, histology and possibly developmental biology. All members of the department share responsibility for various beginning-level courses. Average teaching load is four to five courses per year including appropriate laboratories and the January short term. Successful applicants are expected to develop an active research program involving undergraduate students. Curriculum vitae, transcripts, statement of teaching and research interests and experience, copies of significant publications, and three letters of recommendation should be sent to: **Dr. Harriet Gray, Chair, Department of Biology, Hollins College, P.O. Box 9616, Roanoke, VA 24020 by December 31, 1993.**

Hollins is an Equal Opportunity Employer and encourages applications from women and minorities.

OHIO UNIVERSITY, ASSISTANT PROFESSOR—IMMUNOLOGY

Applications are being accepted for a 9-month, tenure-track position available September 1, 1994. We seek an immunologist to participate in the instruction of graduate and undergraduate immunology, Microbiology and/or Public Health. A Ph.D. and postdoctoral experience are required. Research area is open. However, preferred areas include molecular immunology and immunoparasitology. An opportunity exists to participate in interdisciplinary programs, such as the Molecular and Cellular Biology Program and the Tropical and Geographical Disease Institute. Our department has 50 faculty members, 75 graduate students and state-of-the-art research facilities. Ohio University has approximately 18,000 undergraduate students and 2,000 graduate students. Athens is located in the foothills of rural southeastern Ohio where the cost of living is moderate. Salary: competitive, negotiable upward from \$33,000. Please send curriculum vitae, statement of research and teaching interests, representative publications, and three letters of recommendation by January 14, 1994, to: **Ms. Jean Witkowski, Department of Biological Sciences, Ohio University, Athens, OH 45701-2979. OHIO UNIVERSITY IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER.**

WYETH - AYERST RESEARCH

Wyeth-Ayerst Research, a major division of American

**Home Products Corporation,
has opportunities available in
Molecular Genetics, a newly
created Core Technology Division**

MOLECULAR GENETICS

**located at its Princeton research center. This division
is responsible for application of molecular genetics to the
development of transgenic models of human disease.**

Our goal is to assemble a highly trained multidisciplinary team whose expertise will synergize with the scientists in other divisions in order to facilitate the application of molecular genetics to the global drug discovery efforts in the Cardiovascular, Diabetes, Inflammation, Neuroscience and Bone Disease programs. The Division will also provide support for the research efforts of our newly created Women's Health Institute and for the future needs of Drug Safety & Metabolism.

Reporting to the Director, Molecular Genetics, each staff member is expected to have dual training: in molecular genetics and in a discipline related to an area of therapeutic interest such as, but not limited to, cardiovascular disease, CNS disorders, or inflammation. Facilities include the newly constructed and equipped Princeton bioscience building.

Ph.D. Positions

Principal Scientist

Responsible for managing multiple transgenic and gene targeting projects, construction of novel DNA chimeras for both molecular genetic and transgenic purposes, analysis of recombinant DNA clones, library construction and analysis and screening for novel target clones. **Position #666**

Principal Scientist

Responsible for carrying out projects with particular emphasis on the transgenic and gene targeting operations. In addition to the construction of DNA chimeras, analysis of DNA clones and library construction, the duties include planning transgenic experiments in conjunction with the other Divisions. **Position #667**

Research Scientist

Focus on the development of the murine embryonic stem cell system as a model for testing various developmental, signal transduction and transcriptional processes, as well as serving as the major resource person for the handling of the embryonic stem cells such that they remain capable of germ line transmission. **Position #668**

Research Scientist

Focus on the development of novel vectors and methods for increasing the efficiency of gene targeting and creating defined mutations in the mammalian genome. The researcher will initiate liaisons with other divisions to identify potential targets for gene modification and will be primarily responsible for the creation and analysis of animal models. **Position #669**

Senior Scientist

Provide research support in the creation and analysis of the animal models and in the development of novel vectors and methods for increasing the efficiency of gene targeting and creating defined mutations in the mammalian genome. **Position #670**

Senior Scientist

Responsible for the development and maintenance of the injection facilities including carrying out the actual pronuclear injections and developing the infrastructure necessary for both transgenic and gene targeting procedures. **Position #671**

Ph.D. Positions require 1-5 + yrs. relevant experience.

B.S./M.S. Positions

Senior Molecular Biologist

Provide technical support to the transgenic animal and embryonic stem cell facility including demonstrating proficiency in the techniques required for the production and characterization of transgenic and chimeric animals. **Position #672**

Molecular Biologist

Responsible for providing skilled technical support which will include oligonucleotide synthesis, DNA sequencing, pulse-field gel electrophoresis, establishment and maintenance of vector and bacterial strain libraries, library screening, and mammalian cell culture. **Position #673**

B.S./M.S. Positions require 2-5 + yrs. relevant experience.



Leading the Way for a Healthier World

Wyeth-Ayerst offers an excellent compensation and benefits package in a highly professional environment. Please respond by sending your resume with salary requirements and Position # of interest to: **Wyeth-Ayerst Research, Human Resources, CN 8000, Princeton, NJ 08543-8000.** Equal Opportunity Employer, M/F/D/V.



Syntex has earned its reputation in the pharmaceutical industry for significant and innovative research with a continuing commitment to excellence in R&D. Consider these exciting research opportunities working in our Corporate Headquarters located in Palo Alto, California.

RESEARCH SCIENTISTS

Immunology

Direct a team of scientists involved in the discovery of therapeutic agents for the treatment of inflammatory and/or immunologically-mediated diseases such as autoimmune diseases, allergy/asthma and rejection of organ transplants. Develop models for immunologic diseases and study the mechanism of action for active therapeutic agents. Requires Ph.D. or MD, or equivalent, and 3+ years of industry or university experience plus training in immunology or inflammation biology. (Dept. CS1210SB1)

Enzymology

Oversee a variety of exciting drug discovery programs that have enzymes as targets, including direct responsibility for the matrix metalloproteinase program. Experience with a variety of enzyme systems is desirable. A Ph.D. in a related field, or equivalent, and 10 years of post-graduate experience required. (Dept. CS1210SB2)

Enzymology/Protein Chemistry

Participate in a team effort to develop inhibitors for prostaglandin H synthase. Experience in protein engineering/mutagenesis and enzyme kinetics is highly desirable. A Ph.D. in a related field, or equivalent, and 2 years of postdoctoral experience required. (Dept. CS1210SB3)

Biochemistry/Cell Biology

Study the effects of inhibition of nucleotide biosynthesis on cellular proliferation and metabolism. Experience in nucleotide biosynthetic pathways is desirable. A Ph.D. in a related field, or equivalent, and 2 years of postdoctoral experience required. (Dept. CS1210SB4)

Protein Crystallography

Participate in all aspects of protein crystallography including crystallization and structure solution by MIR. There will be collaborative interaction with other members of the Molecular Structure Department, as well as biologists and chemists involved in drug discovery projects. A Ph.D., or equivalent, with 2+ years of relevant experience required. Knowledge of X-ray diffraction data collection, protein structure determination and refinement essential. (Dept. CS1210SB5)

Syntex offers competitive salaries and generous benefits including relocation assistance, an incentive bonus plan, on-site health club, and daycare facilities. Please send your resume indicating appropriate Dept. Code, to Syntex Corporation, Professional Staffing Dept., 3401 Hillview Avenue, Suite A2-130, Palo Alto, CA 94304. Syntex is an equal opportunity employer committed to the values of a diversified workforce.



The Second Carolina Conference on Chromosome Structure and Dynamics

TITLE: Biologic Consequences of Genomic Instability

To be held April 27-30, 1994
at the University of North Carolina at Chapel Hill

Organizing Committee: Thea Tlyst, Carl Barrett,
Kerry Bloom, Julian Preston, Michael Resnick

Topics will cover Chromosomal Changes in Development Differentiation and Death, Chromosome Stability & Modification, Mechanisms of Chromosome Change, Cell Cycle Control, Checkpoints and Perturbations, Nuclear Organization, Chromatin Structure, and Regulation of Gene Expression. Among the speakers will be: S. Baylin, M. Bissell, K. Bloom, B. Brinkley, B. Emerson, B. Engels, C. Greider, J. Hamlin, M. Oettinger, T. Petes, M. Resnick, S. Roeder, M. Tainsky, K. Tartoff, T. Tlsty, B. Wakimoto, S. Warren, and G. Van de Woude. A poster session is scheduled and submission of abstracts is encouraged.

The cost of registration and meals is \$250 (does not include lodging). Please apply by **February 1** by writing a brief letter describing your research interests and their relevance to this meeting. For further information contact Jo Ann McPherson, The Program in Molecular Biology & Biotechnology, CB# 7100-S, 130 MBBRL, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7100. PH. # (919) 966-6800 or Fax (919) 966-6821.

Co-sponsored by the North Carolina Biotechnology Center, Chemical Industry Institute of Toxicology, National Institute of Environmental Health Science, and the Program in Molecular Biology & Biotechnology.

CANCER RESEARCH INSTITUTE INVESTIGATOR AWARDS

The Cancer Research Institute is announcing the availability of Investigator Awards to support accomplished immunologists at the assistant professor level as they undertake their first independent investigations. The award is \$50,000 per year for four years. The funds may be used at the discretion of the recipient for salary, technical assistance, supplies, or capital equipment. The Cancer Research Institute does not provide funds for administrative overhead.

The deadline for receiving applications is March 1, 1994. Funding for the Investigator Award will commence on July 1, 1994.

Candidates must hold a doctoral degree and work in the field of tumor immunology or general immunology. Eligibility is limited to scientists who will be in their first or second year as a tenure-track assistant professor (or equivalent rank) as of July 1, 1994. Please note that individuals who will begin their third year as assistant professor on July 1, 1994, are not eligible for the award. The Institute has no citizenship restrictions, and research supported by the award may be conducted at non-profit medical schools and research centers in the United States or abroad.

For application details, please contact:
Ms. Lynne Harmer, Grant Administrator
Cancer Research Institute
681 Fifth Avenue

New York, NY 10022-4209
Phone: 212-688-7515 FAX: 212-832-9376

AMERICAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY ANNUAL MEETING

I. PROTEIN TARGETING AND MEMBRANE TRAFFIC

Randy Schekman - Organizer

PLENARY LECTURE
"COMPONENTS AND MECHANISMS INVOLVED IN PROTEIN
TRANSLLOCATION ACROSS THE ER-MEMBRANE"
Tom Rappaport - *Max Delbruck Center for Molecular Medicine*

PROTEIN FOLDING IN VIVO AND IN VITRO

Chair: David Agard - *HHMI and UC, San Francisco*
Speakers: Ulrich Hartl, Peter Kim, Ari Helenius

VESICULAR TRAFFIC

Chair: Sandra Schmidt - *Scripps Research Institute*
Speakers: Tom Martin, Scott Emr, Randy Schekman

LIPID TRAFFIC

Chair: Richard Pagano - *Carnegie Institution of Washington*
Speakers: Konrad Sandhoff, Kai Simmons, Vytas Bankaitis, Masahiro Nishijima

MOLECULAR MOTORS

Chair: Donald Cleveland - *Johns Hopkins University*
Speakers: Richard Vallee, Julie Thierot, Thomas Kreis

II. STRUCTURAL ASPECTS OF SIGNAL TRANSDUCTION

Susan Taylor, Organizer

PLENARY LECTURE
"STRUCTURAL BASIS FOR TRANSDUCING
FUNCTION"

Heidi E. Hamm - *University of Illinois, College of Medicine*

**PROTEIN PHOSPHORYLATION /
DEPHOSPHORYLATION: STRUCTURAL BASIS
FOR PROTEIN FUNCTION**

Chair: Susan S. Taylor - *UC, San Diego*
Speakers: Alexandra Newton, John D. Scott, Sung-Hou Kim

Schering Plough Young Investigator Award
John Kuriyan - *Rockefeller University*

**RECEPTORS AND THEIR COMMUNICATION
WITH OTHER PROTEINS**

Chair: Anthony J. Pawson - *University of Toronto*
Speakers: Nicholas Tonks, Robert J. Lefkowitz, Sara Courtneidge

GTP-BINDING PROTEINS AND SIGNAL TRANSDUCTION

Chair: Heidi E. Hamm - *University of Illinois*
Speakers: Richard Kahn, Matthias Sprinzl, Alfred Wittinghofer

DEVELOPMENTAL CONTROL OF THE CELL CYCLE

Chair: Ed Harlow - *Massachusetts General Hospital*
Speakers: Terry Orr-Weaver, Kim A. Nasmyth, Charles D. Sherr, Joseph Nevins

AWARD LECTURES

ASBMB-AMGEN AWARD

"Dystroglycan: A Novel Laminin Receptor and Its Role in the
Molecular Pathogenesis of Muscular Dystrophy"
Kevin P. Campbell - *HHMI and University of Iowa*

ASBMB-MERCK AWARD

"A Trail of Research: From Lipoic Acid to Multienzyme Complexes"
Lester J. Reed - *University of Texas, Austin*

THE WILLIAM C. ROSE AWARD

"CO Formation by *Klebsiella pneumoniae*"
Robert H. Abeles - *Brandeis University*

THE HERBERT A. SOBER AWARD

"Formation of Active Enzyme from Defective, Incomplete and Rearranged Polypeptide Chains:
Aspartate Transcarbamylase"
Howard K. Schachman - *University of California, Berkeley*

SCHERING-PLOUGH YOUNG INVESTIGATOR AWARD

"Crystal Structures of Peptide Complexes of SH2 Domains"
John Kuriyan - *Rockefeller University*

ASBMB SATELLITE MEETING

STRUCTURE AND FUNCTION OF KINASES AND PHOSPHATASES
May 20 - 21, 1994 — Washington, D.C.

"A NATURAL PRODUCTS-BASED APPROACH TO UNDERSTANDING AND
CONTROLLING SIGNAL TRANSDUCTION"
Stuart Schreiber - *Harvard University*

STRUCTURAL FEATURES OF KINASES AND PHOSPHATASES

Chair: Jack Dixon - *University of Michigan*

PROTEIN: INTERACTIONS IN KINASE CASCADES

Chair: John D. Scott - *Vollum Institute, Oregon Health Sciences University*

MECHANISM AND SPECIFICITY

Chair: Alexandra Newton - *Indiana University*

**REGULATORY MECHANISMS OF KINASES
AND PHOSPHATASES**

Chair: Joseph Avruch - *Massachusetts General Hospital*

III. THE RNA WORLD

Nicholas Cozzarelli - Organizer

PLENARY LECTURE
"THE FUNCTION AND REGULATION OF SIGMA FACTORS IN *E. COLI*"
Carol A. Gross - *University of California, San Francisco*

RNA SPLICING

Chair: Christine Guthrie - *University of California, San Francisco*
Speakers: John Abelson, Don Rio

RIBOZYMES

Chair: Norman R. Pace - *Indiana University*
Speakers: Melissa Moore, Harry Noller, Michael D. Been

RNA STRUCTURE AT HIGH RESOLUTION

Chair: Ignacio L. Tinoco - *University of California, Berkeley*
Speakers: Jamie Williamson, Arthur Pardi, Stephen R. Holbrook

IN VITRO SELECTION OF NOVEL RNA STRUCTURES

Chair: Lawrence Gold - *University of Colorado, Boulder*
Speakers: Michael Yarus, Andrew Ellington

IV. DNA: PACKAGING, REPLICATION AND EXPRESSION

Patrick O'Farrell - Organizer

PLENARY LECTURE
"COMBINATORIAL REGULATION BY
MULTIPLE FUNCTIONAL SURFACES OF A
STERIOD RECEPTOR"

Keith Yamamoto - *University of California,
San Francisco*

**REGULATORY NETWORKS OF GENE
EXPRESSION**

Chair: Michael Levine - *University of California, San Diego*
Speakers: Claude Desplan, Michael Gilman, Erin O'Shea

TRANSCRIPTIONAL MACHINES AND CHROMATIN FUNCTION

Chair: Michael Grunstein - *University of California, Los Angeles*
Speakers: Gary Felsenfeld, Michael Dahmus, Diane Hawley

ENZYMOLGY OF DNA REPLICATION

Chair: Bruce Stillman - *Cold Spring Harbor Laboratories*
Speakers: Nicholas Cozzarelli, I. Robert Lehman, Bruce Alberts, Carol Greider

THE GENOME PROJECT: MATHEMATICAL AND EXPERIMENTAL APPROACHES

Chair: Francis Collins - *National Institutes of Health*
Speakers: Michael S. Waterman, Patrick Brown, Robert Waterston

V. "THE WASHINGTON CONNECTION"

Robert T. Schimke - Organizer

SCIENCE AND EARLY EDUCATION

Chair: Bruce Alberts - *National Academy of Sciences*

SCIENCE AND TECHNOLOGY TRANSFER

Chair: Daniel Vapnek - *Amgen Incorporated*

SCIENCE AND PUBLIC POLICY

Chair: Howard Schachman - *University of California Berkeley*

VI. SPECIAL SESSIONS

"NEW APPROACHES TO COLLEGE SCIENCE EDUCATION"
SPONSORED BY THE ASBMB EDUCATIONAL AFFAIRS SUBCOMMITTEE

"WOMEN AND MINORITIES IN SCIENCE: SUCCESSES IN INDUSTRY AND ACADEMIA" CO-
SPONSORED BY THE ASBMB EQUAL OPPORTUNITIES FOR WOMEN SUBCOMMITTEE AND
THE ASBMB EQUAL OPPORTUNITIES FOR MINORITIES SUBCOMMITTEE

ABRF/ASBMB SYMPOSIUM

"INNOVATIVE TECHNIQUES FOR BIOMOLECULAR RESEARCH"

Lowell H. Ericsson - *University of Washington*
Ronald L. Niece - *University of Wisconsin*

NSF WORKSHOP

"EXTREMOZYMES: BIOCATALYSIS UNDER EXTRAORDINARY CONDITIONS"

Michael W. W. Adams - *University of Georgia* Robert M. Kelly - *University of North Carolina*
Francine B. Perler - *New England Biolabs*

INTERNATIONAL SOCIETY FOR THE STUDY OF XENOBIOTICS SATELLITE MEETING

**THE CYTOCHROMES P450: STRUCTURE, FUNCTION,
REGULATION AND GENETICS**
May 21 - 22, 1994 — Washington, D.C.

FUNCTION AND REGULATION OF CYTOCHROMES P450

Co-Chair: J. Trant - *Louisiana State University*
Co-Chair: A. Hildebrandt - *Institut für Arzneimittel, Berlin*

MAMMALIAN ENZYMES WHICH METABOLIZE ENDOGENOUS COMPOUNDS

Co-Chair: T. Matsubara - *Shionogi & Co., Ltd. Osaka*
Co-Chair: C. Fisher - *University Texas Southwestern Medical Center, Dallas*

**REGULATION OF EXPRESSION OF
CYTOCHROMES P450 AND RELATED GENES**

Co-Chair: S. Orrenius - *Karolinska Institute*
Co-Chair: R. Kato - *Keio University, Tokyo*

**STRUCTURE-FUNCTION STUDIES ON
CYTOCHROMES P450**

Co-Chair: I. C. Gunsalus - *University of Illinois*
Co-Chair: R. Sato - *Osaka University*

Washington, D.C.
May 21-25, 1994
Organized by Jack Dixon
Opening Lecture
"CELLULAR SIGNALLING BY
TYROSINE PHOSPHORYLATION"
Joseph Schlessinger -
NYU College of Medicine

Information and abstract forms are available from:

ASBMB Meeting Office
9650 Rockville Pike, Bethesda, MD 20814-3998
Tel: 301-530-7010, FAX: 301-530-7014

POSITIONS OPEN

BAYLOR UNIVERSITY—EXPERIMENTAL PHYSICAL BIOCHEMIST. The Department of Chemistry invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level for fall 1994. The Department offers degrees in chemistry at the B.A., B.S., M.S., and Ph.D. levels. Candidates must have training, background, and research interests in experimental physical biochemistry, as evidenced by publications and course work at the undergraduate and/or graduate level(s). The successful applicant will be expected to establish an independent research program, to attract graduate students and extramural funding, and to demonstrate excellence in teaching standard chemistry courses (especially physical and biochemistry) at the undergraduate and graduate levels. A Ph.D. is required, an undergraduate degree in chemistry or biochemistry is preferred, and postdoctoral experience is highly desirable. Applicants should submit a letter of application, résumé, publication list, summary of research experience, graduate and undergraduate transcripts, and a statement of research interests and plans. At least three letters of recommendation should be sent directly to: **Dr. Mary Lynn Trawick, Chair, Faculty Search Committee, Department of Chemistry, P.O. Box 97348, Baylor University, Waco, TX 76798-7348.** The deadline for receipt of applications is January 14, 1994. *Baylor University is a Baptist University affiliated with the Baptist General Convention of Texas. As an Affirmative Action/Equal Opportunity Employer, Baylor University encourages minorities, women, and persons with disabilities to apply.*

MOLECULAR AND CELLULAR NEUROBIOLOGISTS MCGILL UNIVERSITY

The Montreal Neurological Institute (MNI) has established a new research group of neurobiologists to study the cell biology of excitable tissues. Ongoing research within the group is focused on molecular and cellular bases of neuronal excitability, synaptic plasticity and excitotoxicity. The group is seeking to hire three new members with related research interests who will be appointed at the level of **ASSISTANT or ASSOCIATE PROFESSOR** within McGill University's Faculty of Medicine. The academic environment and collaborative potential for neuroscience at the MNI, at McGill and in Montreal are excellent. Montreal is a cosmopolitan, bilingual city known for its high quality of life. The deadline for receipt of applications is January 30, 1994. Applications should be sent to: **M. Avoli, M.D., Ph.D., Montreal Neurological Institute, 3801 University Street, Montreal, Quebec, Canada H3A 2B4.**

McGill University is committed to Equity in Employment.

RESEARCH ASSISTANT PROFESSOR: This position is available in a laboratory studying the genetics and molecular biology of pattern formation in *Drosophila* and other insects. The post is suitable for a candidate with a strong background in *Drosophila* genetics and/or molecular biology who wishes to assume a leadership role on a research team without the duties that accompany tenure-track faculty positions. Please send inquiries and curriculum vitae to: **Dr. Sean Carroll, Howard Hughes Medical Institute, Laboratory of Molecular Biology, 1525 Linden Drive, University of Wisconsin-Madison, WI 53706.**

Equal Opportunity Employer.

FACULTY POSITION CELL BIOLOGY Department of Biology University of Virginia

The Department of Biology at the University of Virginia invites applications for a tenure-track appointment at the **ASSISTANT PROFESSOR** level. An exceptional researcher using molecular and/or genetic methods to investigate fundamental questions in **CELL BIOLOGY** is being sought. Individuals studying prokaryotic, fungal, plant or animal systems will be considered. *Applications from women and members of minority groups are strongly encouraged.* Applicants should submit curriculum vitae, a summary of past research accomplishments, a description of future research plans and teaching interests, and at least three letters of reference to: **Cell Biology Search Committee, Department of Biology, Gilmer Hall, University of Virginia, Charlottesville, VA 22903-2477.** Screening of applications will begin January 15, 1994. *The University of Virginia is an Equal Employment Opportunity/Affirmative Action Employer.*

POSITIONS OPEN



MEMORIAL UNIVERSITY OF NEWFOUNDLAND PROFESSOR— MARINE MAMMAL SCIENTIST

Behaviour, Physiology and Energetics of Seals
Faculty of Science
St. John's, Newfoundland,
Canada A1B 3X7

Applications are sought from internationally established research scientists to fill an interdisciplinary faculty position at the rank of Full or Associate Professor in the Faculty of Science. Major responsibilities include: (1) Co-ordination of an incisive research programme focused on the energetics, physiology and/or behaviour of seals. (2) Participation in teaching of graduate and undergraduate students (e.g., Biopsychology and Marine Biology Programmes). There is a world class outdoor holding facility with breeding populations of harp and harbour seals, large tanks and supporting laboratory and energetics facilities at the Ocean Sciences Centre. It is expected that the appointment will be made to the Department of Biology or the Department of Psychology, with appropriate cross/joint appointments. The closing date for applications is 31 January 1994. To be considered for this position please send curriculum vitae, including your telephone and FAX number, plus the name, telephone, and FAX numbers of five referees to: **Chair, Marine Mammal Scientist Search Committee, c/o Dean of Science, Memorial University of Newfoundland, St. John's, NF, Canada, A1B 3X7. Telephone: (709) 737-8154, FAX: (709) 737-3316. Email: hroche@kean.ucs.mun.ca.** *In accordance with Canadian Immigration requirements, this advertisement is directed towards Canadian citizens and permanent residents of Canada. Memorial University is committed to Employment Equity.*

ASSISTANT PROFESSOR COMPARATIVE PHYSIOLOGIST

The Department of Zoology and Physiology invites applications for a tenure-track faculty position at the rank of Assistant Professor to start fall semester, 1994. The applicant must have a Ph.D. with broad training in physiology. Postdoctoral experience is preferred. Applicant will be expected to teach undergraduate courses in physiology and develop graduate courses. Research interests should encompass an integrative approach addressing mechanisms of vertebrate physiology. It is expected that the successful applicant will develop a rigorous, independent research program capable of attracting extramural funding. Send letter, statement of research interests, curriculum vitae, and have three letters of reference sent by January 15, 1994, to: **Dr. Henry J. Harlow, Search Committee Chair, Department of Zoology and Physiology, The University of Wyoming, Box 3166 University Station, Laramie, WY 82071.** *The University of Wyoming is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSISTANT PROFESSOR Glycobiology—Transgenic Mouse Models

A faculty-level (non-tenure-track) position is available for an individual with **demonstrated expertise** in construction of transgenic mice to join a small, highly interactive team studying the regulation of mucin-glycoprotein biosynthesis (e.g. O'Connell *et al.*, *JBC* 267:25010, 1992; Hagen *et al.*, *JBC* 268:18960, 1993). Please send curriculum vitae and the names of at least two references to: **Dr. Lawrence A. Tabak, University of Rochester Medical Center, Box 611, Rochester, NY 14642, FAX: 716-473-2679.** *The University of Rochester is an Equal Opportunity/Affirmative Action Employer.*

CONSERVATION BIOLOGIST: Tenure-track **ASSISTANT PROFESSOR** beginning August 1994. Primary responsibilities include teaching introductory and advanced courses in ecology and biological resources management. An active research program is expected. Candidates must have a Ph.D. in conservation biology or a closely related area. Experience in computer applications to ecological studies, including GIS, is required. Send letter of application, résumé, and three current letters of recommendation to: **Michael D. Morgan, Chair, Search and Screen Committee, University of Wisconsin-Green Bay, Green Bay, WI 54311 by 14 February 1994.** *UWGB is an Affirmative Action/Equal Opportunity Employer. Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality.*

POSITIONS OPEN

FACULTY POSITIONS IN PROTEIN CRYSTALLOGRAPHY AND STRUCTURAL NMR

The Department of Biophysics, Boston University School of Medicine, has moved to new research facilities (Center for Advanced Biomedical Research). The facilities house state-of-the-art laboratories for X-ray diffraction/crystallography and high resolution NMR, together with laboratories for structural electron microscopy, general research laboratories and a research computing center.

The department is committed to expanding its research programs in structural biology. The previously advertised search for a new faculty position in the field of protein crystallography has been re-opened and new applications are invited. In addition, applications are invited for a second new faculty position in the field of structural NMR.

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

Augustana College, Sioux Falls, South Dakota, seeks to fill tenure-eligible position as **ASSISTANT PROFESSOR** of Biology with emphasis in Cell Biology to teach a service course in Human Anatomy to Nursing and Allied Health students. Responsibilities for this position will include teaching Cell Biology, Human Anatomy, an advanced course in the candidate's area of expertise and participating in Introductory Biology. Candidate will also conduct and maintain an extramurally funded research program involving undergraduates. Earned doctorate in Cell Biology, Cellular Anatomy, or related area required. College-level teaching experience desirable; experience with Electron Microscopy also desired. Candidates must be committed to the liberal arts and understand the role of science as a component of the liberal arts. Knowledge of technology appropriate to the position, and a commitment to continuing professional/scholarly growth required. Applications accepted until position is filled. Qualified applicants may submit a letter of application, curriculum vitae, graduate transcripts (direct from Registrar's Office), names and telephone numbers of three current references and a statement of professional goals to: **Dean of the College, Augustana College, Box 763, Sioux Falls, SD 57197.** *Equal Opportunity Employer/Affirmative Action.*

INSECT ECOLOGIST. Department of Biology and Microbiology, California State University, Los Angeles, will fill an **ASSISTANT PROFESSOR** tenure-track position starting fall 1994. Ph.D. required. Candidates must have strong quantitative skills and conduct research in population, community, or evolutionary ecology. Successful applicant is expected to participate in a multidisciplinary program of research and instruction in environmental biology involving undergraduate and Master's students. Teaching duties in general biology, entomology, and area of specialty. Research start-up funds are available. Applicants should submit curriculum vitae, statement of research interests, and three letters of recommendation to: **Dr. Robert Desharnais, Department of Biology and Microbiology, California State University, Los Angeles, CA 90032-8201. FAX: 213-343-2095. Email: bob@biol1next.calstatela.edu.** Deadline 31 January 1994 or until filled. *Equal Opportunity/Affirmative Action/Disabled Employer.*

MEMBRANE BIOLOGIST: ASSISTANT or ASSOCIATE PROFESSOR of Biology starting August 15, 1994, doctorate required, tenure-track, postdoctoral experience preferred. Position requires research experience in biological membranes. Candidate must develop a **nationally competitive research program.** Competitive start-up package available. Appointee will teach and direct undergraduate and graduate students (M.A. and Ph.D.). Submit curriculum vitae, statement of research program, and list of four references to: **SEARCH, Biology Department, University of South Dakota, Vermillion, SD 57069-2390; Telephone: (605) 677-6175, TDD: (605) 677-5249.** Screening begins January 1, 1994. **EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER.**

A New Era of Discovery

Plans for Research on Space Station



FREE!

**February 17, 1994
1pm to 3pm Eastern Time**

Be sure to attend this information-packed videoconference to find out how Space Station will provide scientists with a **space-based laboratory**. It features acclaimed scientists, astronauts, and NASA officials who will appear live via satellite to explore the exciting possibilities for research in the life sciences, biotechnology, materials, fluid physics, combustion science, and technology development.

Call PBS in January to attend at the nearest location. Or you may offer the videoconference at your organization at no charge — all you need is a satellite dish. Call today for a free brochure!

NASA



1-800-257-2578



**Pharmacologist/Pharmacokineticist
for new PET Scanning Center**

**Biochemist and Director of Research
for Department of Neurosurgery**

West Virginia University

**Appointments in Neurosurgery, Radiology and
Pharmacology/Toxicology**

A new PET scanning facility is being opened at West Virginia University, and the Department of Neurosurgery, together with the Departments of Radiology and Pharmacology/Toxicology, is seeking a tenure-track faculty member to lead a research effort concentrating on PET scanning in neurosurgical patients and to serve as director of research for the Department of Neurosurgery. The position will be at the level of assistant or associate professor, depending upon the experience of the successful candidate. Requirements include a Ph.D., M.D. or equivalent degree, at least two years of research experience related to P.E.T. scanning, and a strong record or potential for obtaining extramural grant support.

West Virginia University is located in Morgantown, West Virginia, a pleasant university community near many major urban centers. The environment is ideal for raising a family. West Virginia University is an affirmative action/equal opportunity employer. Women and minority candidates are strongly encouraged to apply. Send letters of interest, CV and three references to: Howard H. Kaufman, M.D., Professor and Chairman, Department of Neurosurgery, PO Box 9183, Health Sciences Center, West Virginia University, Morgantown, WV 26506.

Review of applicants will begin February 1, 1994, and will continue until the position is filled.

NATIONAL INSTITUTES OF HEALTH • PUBLIC HEALTH SERVICE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

Director, Office of Equal Opportunity, Office of the Director

The National Institutes of Health (NIH) invites applications for the position of Director, Office of Equal Opportunity, Office of the Director. This is a Civil Service position in the Senior Executive Service (SES), with a salary ranging from the ES-1 to ES-6 pay level per annum (currently \$92,900 to \$115,700). A one-year probationary period must be served by the individual selected if not currently in the career Senior Executive Service.

The Director, Office of Equal Opportunity, is responsible for planning, implementing, evaluating and providing leadership for a comprehensive equal opportunity program within the NIH encompassing equal employment opportunity, affirmative action, workforce diversity, program planning/evaluation, complaints management and adjudication, and oversight and evaluation of civil rights compliance activities especially in the areas of contracts and grants. The incumbent will provide advice and consultation relating to the identification and elimination of systemic barriers to equal employment opportunity, and will foster effective recruitment and development of a diverse workforce. The incumbent will function as the NIH expert and principal spokesperson for the Director, NIH, on workforce diversity and equal opportunity policies, priorities and activities, as well as represent the Director, NIH, in negotiations, appropriations hearings, major conferences and contacts with high-ranking executives, external organizations and congressional staff on equal opportunity issues and activities. Consultative services will be provided on complex, systemic, trans-NIH equal opportunity issues, complaints resolution activities, affirmative action progress and human resource/workforce issues.

Applicants must possess broad administrative and technical experience in directing a multifaceted equal opportunity program with an aim toward developing a culturally diverse workforce.

Applicants are required to submit an Application for Federal Employment (SF-171), available at all Federal Job Information Centers and Federal Personnel Offices. Resumes are not acceptable applications. Additionally, applicants may send a curriculum vitae and a bibliography. The vacancy announcement with mandatory/desirable qualifications requirements can be obtained by calling (301) 402-4111. Application material must be sent to the following address:

**National Institutes of Health
Office of the Director Personnel Office
Attn: Ms. Wanda P. Fisher
P.O. Box 41048
Bethesda, Maryland 20824-1048**

Public Health Service Commissioned Officers wishing to enter the SES must follow the above procedures. Officers interested in performing the duties of the position within the PHS Commissioned Corps may submit a resume to the above address.

**APPLICATIONS MUST BE POSTMARKED NO
LATER THAN JANUARY 24, 1994.**

Selection for this position will be based solely on merit, with no discrimination for nonmerit reasons such as race, color, religion, sex, national origin, political affiliation, marital status, disability, age, or membership or nonmembership in an employee organization.

NIH is an Equal Opportunity Employer

POSITIONS OPEN

ARIZONA STATE UNIVERSITY (ASU) WEST: The Life Sciences program invites applications for two full-time tenure-track positions as **ASSOCIATE** or **ASSISTANT PROFESSOR**:

(1) **Ecological or Evolutionary Genetics** applying modern techniques to the study of ecological or evolutionary questions; (2) **Biometry/Systems Biology** with expertise in quantitative, statistical, or simulation approaches to any area of ecology, evolution, or organismal biology. **Requirements for both positions:** A Ph.D. in one of the Life Sciences, a record of scholarly achievement and innovative teaching experience appropriate to level of appointment. **Desired:** Individuals who will complement our strengths in ecology, and in evolutionary and organismal biology. The successful candidate will be expected to develop innovative, interdisciplinary teaching programs, and to establish an externally funded research program involving undergraduate and graduate students. Preference will be given to individuals who are working with plants or invertebrates. Send cover letter, curriculum vitae, brief statements of research and teaching interests, three representative publications, and three letters of reference to: **GENETICS SEARCH COMMITTEE or BIOMETRY SEARCH COMMITTEE, Life Sciences Program (2352), ASU West, P.O. Box 37100, Phoenix, AZ 85069-7100. Application deadlines:** January 31, 1994, or the 15th of each ensuing month until the positions are filled. **Position starting dates:** August 1, 1994. *The Life Sciences Program at ASU West actively seeks diversity among its employees and students. Applicants from all protected classes are encouraged to apply. An Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS

The Center for **Extracellular Matrix Biology** at the Institute of Biosciences and Technology, Texas A&M University, located at the Texas Medical Center, Houston, Texas, invites applications for two tenure-track positions at the **ASSISTANT PROFESSOR** level. Applicants should have a Ph.D. or M.D. and a proven record of accomplishments as a postdoctoral fellow or faculty member and have research interests in the area of extracellular matrix biology. Preference will be given to candidates with training in developmental and/or cell biology and experience in molecular biology.

Applicants should send a letter outlining their research interests, their curriculum vitae and three letters of reference to: **Dr. Magnus Höök, c/o Bill Alley, Institute of Biosciences and Technology, 2121 Holcombe Boulevard, Houston, TX 77030.**

Affirmative Action/Equal Opportunity Employer.

INVERTEBRATE ZOOLOGIST. A tenure-track faculty position at the **ASSISTANT PROFESSOR** level, starting fall 1994. Ph.D. required; university/college teaching and/or postdoctoral experience desirable. Teaching will include general zoology and advanced courses. Appointee will be expected to develop a research program involving undergraduates and Master's-level students. Preference given to applicants with expertise in systematics and development of a regional invertebrate collection. Record of publications and grants desirable. Send curriculum vitae, undergraduate and graduate transcripts, statement of teaching philosophy and research interests, and three letters of recommendation by January 30, 1994, to: **Dr. Carl Train, Department of Biology, Southeast Missouri State University, Cape Girardeau, MO 63701. Women and minorities are encouraged to apply. An Equal Opportunity, M-F, Affirmative Action Employer.**

BIOSCIENCE/RESEARCH FACULTY POSITION

The New England College of Optometry is seeking applications for a full-time, tenure-track **ASSISTANT** or **ASSOCIATE PROFESSOR**. The candidate must have a Ph.D., O.D., or M.D. degree, and a record of research grant funding. Responsibilities include conducting research and obtaining external funding. Laboratory space is available. Teaching assignments will be based on the candidate's background. Teaching excellence is required; the ability to link basic to clinical science is desired. Salary/rank are negotiable. Applicants should submit a letter of application, curriculum vitae, a concise description of research interests and goals, and three professional references to: **Mark Zorn, Ph.D., Director, Ocular Research and Biotechnology Center, The New England College of Optometry, 424 Beacon Street, Boston, MA 02115. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

The University of Texas School of Public Health TENURE-TRACK FACULTY POSITION

The University of Texas-Houston, School of Public Health invites applications for a tenure-track faculty position at the **ASSISTANT/ASSOCIATE PROFESSOR** level in Environmental Sciences. We seek an individual with experience and interest in interdisciplinary research in environmentally significant contaminants and their potential effects on human populations and ecosystems. Prospective candidates should have a Ph.D. in Environmental Sciences or related field with a record of teaching, research accomplishments, and ability to attract extramural funding. Send curriculum vitae, a description of research interests and goals, and three letters of recommendation to: **Thomas H. Connor, Ph.D., Associate Professor and Search Committee Chair, UT-H, School of Public Health, P.O. Box 21086, Houston, TX 77225.** Review of the applicants will begin immediately and will continue until the position is filled. *The University of Texas is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

BIOLOGY: ASSISTANT PROFESSOR IN VIROLOGY. Full-time, tenure-track beginning August 1994. Major responsibilities will include teaching an introductory clinical microbiology course for biology and nursing students, developing and teaching an upper-level course in virology, and helping with introductory biology courses as the need arises. A rigorous background in virology and microbiology is required. Applicants must have a Ph.D. and a strong commitment to teaching and maintaining an active research program involving undergraduates. Full consideration given to applications received by January 3, 1994. Send letter of application, curriculum vitae, copies of all transcripts, and three current letters of recommendation (at least one of which must address your competence in teaching) to: **Dr. LaVern R. Whisenton, Co-Chair, Virologist Search Committee/SC1210, Biology Department, MILLERSVILLE UNIVERSITY, P.O. Box 1002, Millersville, PA 17551-0302. An Affirmative Action/Equal Opportunity Employer.**

ECOLOGIST. The role of plants in ecosystems is the focus of a tenure-track **ASSISTANT PROFESSORSHIP** in environmental biology. The successful candidate will build our department's current aquatic ecosystems expertise, which includes microbial ecology, zooplankton ecology, and environmental physiology, and enhance or benefit from synergistic interactions with one or more related department research activities in record of environmental change (sedimentation, environmental magnetism, Quaternary studies, tectonics), aqueous and stable isotope geochemistry, and hydrology. Expertise in phytoplankton primary production/ecology, or watershed ecology desirable, but other specialties will be considered. We expect active research and teaching that contribute to our degree programs in environmental sciences (B.A./B.S., M.S., Ph.D.). Send curriculum vitae, statement of research and teaching interests, selected reprints, and 3 letters of reference to: **Craig Williamson, Department of Earth & Environmental Sciences, #31 Williams Drive, Lehigh University, Bethlehem, PA 18015.** Application review begins February 3, 1994, for position starting January 1995. *Lehigh is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE PROFESSOR OF PHYSIOLOGY/BIOPHYSICS

The Department of Physiology and Biophysics of Indiana University School of Medicine is seeking applicants for a full-time, tenure-track position at the Assistant or Associate Professor level in the area of vascular biology or membrane channels/receptors. Strong preference will be given to individuals who use modern cellular or molecular approaches to address physiological questions in these areas. Candidates must have a doctorate and at least three years of postdoctoral experience. Send (1) curriculum vitae, (2) a concise statement of research interests and future plan, (3) representative reprints, and (4) names, addresses and telephone numbers of three to five references by January 15, 1994, to: **Chairman of Search Committee, Department of Physiology and Biophysics, MS 374, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202-5120. Indiana University is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT PROFESSOR: TERRESTRIAL PLANT ECOLOGY

The Department of Biology at Virginia Tech invites applications for a tenure-track faculty position at the rank of assistant professor to begin August 1994. The applicant must have documented research and teaching experience, and postdoctoral experience will strengthen the application. The responsibilities include graduate and undergraduate teaching, and the development of a competitive research program in the individual's field of interest. The candidate will be expected to build upon the existing strengths of the faculty in biology. A letter of application, curriculum vitae, statement of professional goals, and the names of five references should be received by January 15, 1994 (or until suitable candidates are identified). All correspondence should be directed to: **Dr. Erik T. Nilsen, Department of Biology, Virginia Tech, Blacksburg, VA 24061-0406. Virginia Tech has a strong commitment to the principle of diversity, and, in that spirit, seeks a broad spectrum of candidates including women, members of minority groups, and people with disabilities.**

DEPARTMENT OF MICROBIOLOGY THE OHIO STATE UNIVERSITY

Applications are invited for a vacant tenure-track position in the area of **Microbial Physiology** at either the **ASSISTANT** or **ASSOCIATE PROFESSOR** rank. Assistant Professor candidates will be expected to have considerable postdoctoral experience and Associate Professor candidates to have well-developed extramurally supported research programs. Candidates employing molecular biological and biochemical approaches to investigate a fundamental process of microorganisms will be given preference. The Department has several strong research groups investigating basic and applied aspects of microbial physiology and plans to continue to build on this established strength. Excellent laboratory space and departmental support are available. The successful applicant will be expected to direct a productive, externally funded research program and to participate in the Department's instruction of introductory microbiology for undergraduate students and advanced topics for graduate students. Candidates should submit curriculum vitae, a summary of research plans and the names of three referees to: **Dr. F. Robert Tabita, Chair of the Search Committee, Department of Microbiology, The Ohio State University, 484 West Twelfth Avenue, Columbus, OH 43210. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam-era veterans, disabled veterans and individuals with disabilities are encouraged to apply.**

The Environmental Studies Program at Florida International University (FIU) has two tenure-track positions at **ASSISTANT/ASSOCIATE** level for fall 1994; one in environmental policy, and one in resource/ecological economics, environmental education/communications, and/or environmental policy/law. Interest in international sustainable development desirable. Teaching at undergraduate/graduate levels. Environmental Studies is an interdisciplinary program in the College of Arts and Sciences. Applicants should have a Ph.D. degree and strong research capability. Submit curriculum vitae, appropriate publications, course syllabi and a statement of teaching/research philosophy, postmarked by January 27, 1994, to: **Dr. Thomas Pliske, Environmental Studies Program, Florida International University, University Park, Miami, FL 33199. Telephone: (305) 348-3804, FAX: (305) 348-1986. FIU is a member of the State University System of Florida with 24,000 students and is an Affirmative Action/Equal Opportunity/Equal Access Employer.**

DEAN OF NATURAL SCIENCES

Candidates are being sought for the position of **Dean of the College of Natural Sciences of the University of Puerto Rico, Río Piedras Campus.** This is a Ph.D.-granting college with an expanding research base. Candidates should meet the following criteria: Ph.D. in the Natural Sciences; demonstrated competence in research; professor recognized for excellence in teaching; administrative experience; proficient in Spanish and English. Please send letter of intent, curriculum vitae, and 3 letters of recommendation to: **Search Committee, Office of the Dean, College of Natural Sciences, University of Puerto Rico, Río Piedras, P.R. 00931. An Equal Opportunity Employer. Deadline for applications December 30, 1993.**

Postdoctoral Research Positions

(Two temporary posts - 2 years)

Glaxo Group Research is Britain's leading pharmaceutical company with an excellent reputation for discovering and developing safe new medicines.

A major component of our research is directed towards understanding the molecular mechanisms underlying disease. Experimental and theoretical techniques to investigate interactions at a molecular level are being

employed to investigate several biological systems.

To further this effort we now have two postdoctoral positions available immediately in the areas described below. The environment is dynamic and research-driven and would suit candidates eager to make major scientific contributions. Publications in scientific journals will be actively encouraged.

Signal Transduction Proteins

A multi-disciplinary project aimed at defining the basis of protein-protein interactions in important signal transduction pathways is underway. A major goal of which is to determine the X-ray crystal structure of proteins involved in signalling pathways in order to define the basis of molecular recognition in these systems.

As part of this project we require a highly motivated postdoctoral scientist with a strong background in expression and purification of proteins for structural studies. Experience in protein crystallisation would be advantageous although not essential. There will be an

opportunity to be involved in protein crystallography and other biophysical techniques such as NMR and surface plasmon resonance. You will have a strong desire to understand the molecular processes that control signalling pathways and have the opportunity to be involved in on-going structural projects. Our facilities at GGR are world-class; well-equipped molecular biology laboratories, protein scale-up facilities, a BIAcore instrument, a FAST area detector, a 600MHz NMR spectrometer and an extensive computing network for molecular modelling.

Computer-assisted Ligand Design

With the increasing availability of protein structures which are relevant to our therapeutic targets there is a need for the development of new computational chemistry tools. These tools will help us to characterise protein binding sites and then automatically design ligands to interact at these sites. We wish to recruit a highly motivated post-doctoral worker to develop and explore the use of new methodology to aid in these processes.

The techniques to be investigated include the use of chemical structure and reaction databases, expert systems and molecular and quantum mechanics. A strong background in at least one of these disciplines and a desire to combine this knowledge with that gained working alongside our medicinal and computational chemists is essential. Computational facilities are excellent.

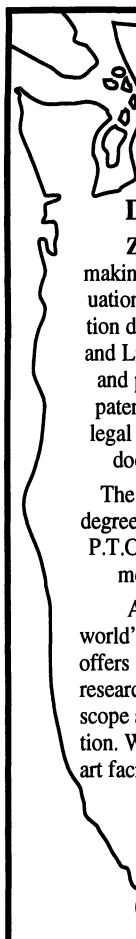
In return you can expect an excellent salary along with a wide range of benefits.

To apply, or for further information, please send your CV to the Research Personnel Officer,

Human Resources Department, Glaxo Group Research, Greenford Road, Greenford, Middx UB6 0HE, England. Please state clearly for which post you would like to be considered.

Glaxo Group Research





○ Seattle, WA

ZYMOGENETICS

Director, Intellectual Property & Licensing


ZymoGenetics, a Seattle based biotechnology company making important strides in the development and clinical evaluation of therapeutic products aimed at tissue repair, coagulation disorders, and diabetes is seeking an Intellectual Property and Licensing Director to manage the patent department, draft and prosecute foreign and U.S. patent applications, conduct patentability and infringement analyses, negotiate and draft legal aspects of licensing agreements and technology transfer documents, and oversee transfer of biological materials.

The successful candidate will possess a JD, a BS or higher degree in biological sciences, registration to practice before US P.T.O. and five+ years related experience, including management experience. Related laboratory experience a plus.

As a subsidiary of **NOVO NORDISK**, the world's largest manufacturer of insulin, **ZymoGenetics** offers an exciting environment characteristic of a small research and development company, along with the scope and stability of a large pharmaceutical corporation. We also offer intellectual challenge, state-of-the-art facilities and a generous benefits package.

Please apply by sending your CV to:
ZymoGenetics, Inc.
 Attn: Human Resources #71R193
 4225 Roosevelt Way NE
 Seattle, WA 98105

Novo Nordisk



ZymoGenetics is an Equal Opportunity Employer

**PREDOCTORAL TRAINING IN NEUROSCIENCE
 INTERDISCIPLINARY PhD PROGRAM
 IN NEROSCIENCE
 LOUISIANA STATE UNIVERSITY MEDICAL CENTER
 SCHOOL OF MEDICINE
 NEW ORLEANS**

Applications are now being accepted for the interdisciplinary PhD Training Program in Neuroscience. Established in 1992, this program offers intensive training in neuroscience. Research conducted at the LSU Neuroscience Center spans both behavioral neuroscience and molecular neurobiology, and includes the study of genes, cells, and human behavior. Generous stipend support is available on a competitive basis. Applicants should have a strong GPA in undergraduate science courses, and a combined (verbal and quantitative) GRE score of at least 1200. Three letters of reference are required. Students should have taken courses in Biology, Chemistry (including Organic), Physics, Computer Science, and Mathematics (Calculus). Highly qualified individuals should send inquiries to: **Nicolas G. Bazan, M.D., Ph.D.** and **R. Ranney Mize, Ph.D.**; Co-Directors of the Interdisciplinary Ph.D. Program, c/o LSU Neuroscience Center of Excellence, 2020 Gravier Street, Suite B, New Orleans, LA 70112, Telephone: (504) 568-6700, Fax: (504) 568-5801. EOE/AA.

**DEPARTMENT OF CHEMISTRY
 DEPARTMENT HEAD**

The Department of Chemistry of South Dakota State University invites applications for Department Head. The South Dakota State University Chemistry Department is responsible for maintaining sound instructional and research programs, and for providing analytical services to the residents of the State of South Dakota. The Department Head coordinates these efforts and ensures that maximum effectiveness is achieved. The position is funded with 50% Agricultural Experiment Station funds and 50% university funds; the head should divide her/his administrative work accordingly between the Agricultural Experiment Station and instructional programs of the department. South Dakota State University is a land grant university and South Dakota's largest higher education institution with an enrollment of approximately 9,000 students. The University is located in Brookings, a town of over 16,000 in east central South Dakota. Brookings is a low crime community located 50 minutes from Sioux Falls, a city of 100,000. The department has 22 faculty, serves over 2,000 undergraduates, has over 20 graduate student and offers the B.S., M.S., and Ph.D. degrees. The successful candidate must have an earned doctorate in chemistry or related field; have successful experience in teaching and/or research; show interest and capability for administering a diverse department that includes agricultural and traditional chemistry research ad B.S., M.S., and Ph.D. instructional programs; demonstrate effective communication (oral and written) and interpersonal relationship skills, and the capacity for leadership. Demonstrate commitment to ethnic, cultural, and gender diversity and to the process of Affirmative Action and Equal Employment Opportunity. Send letter of application with curriculum vitae, documentation of qualifications related to the positions expectations, other pertinent credentials, and three letters of reference to Dr. Chuck McMullen, Chair, Chemistry Search Committee; Agricultural Hall, South Dakota State University; BOX 2207B; Brookings, SD 57007. Phone (605) 688-6141. Finalists will be required to provide official graduate school transcripts. Review of applications will start January 24, 1994 and the position will remain open until filled. Expected starting date is July 1, 1994. AA/EEO Employer/ADA reasonable accommodation 605-688-4128 (TT/Voice 605-688-4394).



Assistant Research Scientist

NYU Medical Center currently has Research Associate and Post Doctoral positions available for the study of signal transduction, protein-protein interactions and gene expression. Experience in molecular biology, tissue culture techniques and transfection required.

Salary will commensurate with experience. Please send CVs to Ms. Maha Singh, Human Resources Dept., NYU Medical Center, 550 First Avenue, New York, NY 10016. CVs must be received by Jan 3. EOE, M/F.

SCIENTIFIC OFFICER, COASTAL SCIENCES

The Office of Naval Research is seeking a highly qualified individual to plan and manage broad research projects of a long-range nature, and exploratory and advanced development of a more short-range nature in the broad field of COASTAL SCIENCES. The sponsored research is conducted principally at universities and government/industrial laboratories by leading scientists in the field. This is a Civil Service position at the GS/GM-14 or 15 level (\$56,627 - \$86,589), depending on qualifications.

The individual selected will establish goals for and conceive, organize and direct research and development programs in new areas of COASTAL SCIENCES involving physical oceanography, remote sensing, sediment transport, acoustics, ocean turbulence, and/or other near shore marine environmental matters. 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 coastal sciences 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 oceanography or in an engineering or physical science area related to coastal sciences 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 next lower grade level in the Federal Service. In addition, the applicant MUST have knowledge and experience in current state-of-the art research involving coastal sciences or in a related engineering or physical science 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.

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:

Mailing Address: Office of Naval Research
Satellite Human Resources Office, ONR Code OOHR
ATTN: ANNOUNCEMENT #93-32 (SCIENCE)
800 North Quincy Street
Arlington, VA 22217-5660

Express Mail Address: 4015 Wilson Boulevard
Room 103
Arlington, VA 22203

Applications will be accepted through 23 March 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

Harvard Medical School/ Joslin Diabetes Center

F A C U L T Y

Signal Transduction & Cellular Regulation

The Joslin Diabetes Center with the support of the Lucille P. Markey Charitable Trust is expanding its program in signal transduction and cellular regulation. Positions are available for qualified M.D.s and/or Ph.D.s with expertise in the areas of peptide hormone, growth factor, and cytokine action, hormonal regulation of gene expression, vascular cell biology, molecular genetics and transgenic animal research as it might apply to studies of the pathogenesis of diabetes or its complications. Academic appointment at Harvard Medical School appropriate to seniority. Women and minorities are encouraged to apply.

Interested individuals should send a curriculum vitae and the names and telephone numbers of three possible references to Dr. C. Ronald Kahn, Joslin Diabetes Center, One Joslin Place, Boston, MA 02215.

An Equal Opportunity Employer

DEPARTMENT OF BIOLOGICAL SCIENCES

Applications are invited for a tenure-track position at the Assistant Professor level in the area of **Plant Physiology**.

Individual with demonstrated expertise in Weed Science or Plant Stress Physiology are especially encouraged to apply. All applicants should have post-doctoral experience and a balance of basic and applied research interests, together with a strong publication record. The successful candidate will contribute to undergraduate teaching in plant physiology and general biology. He/she will also be expected to develop an active and independent research program and contribute to the Department's graduate studies program. The successful candidate will be a member of the Department's Centre for Pest Management and provide graduate training in the areas of weed science and/or plant stress physiology. There are many possibilities for collaborative research in a number of areas and excellent facilities exist for physiological and molecular biological work. Position is available April 1, 1994; starting date is anticipated to be no later than September 1, 1994.

Applicants should submit a curriculum vitae, reprints of publications and a statement of current and future research interests. They should also arrange to have three letters of recommendation, including a summary of their research and teaching abilities, sent to:

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

The closing date for applications - January 31, 1994

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

POSITIONS OPEN

FACULTY POSITION IN ENVIRONMENTAL MICROBIOLOGY

The Department of Microbiology and Immunology at the Medical University of South Carolina, College of Medicine, invites applications for tenure-track positions at the ASSISTANT/ASSOCIATE PROFESSOR level. Applicants should have a relevant doctoral degree, and a background in the area of environmental microbiology. Successful candidates will participate in the teaching of graduate students, and will undertake a vigorous independent research program in an area relevant to environmental microbiology. Applicants should send curriculum vitae, a brief summary of ongoing research interests and future research plans, and the names of three references to: **Gabriel Virella, M.D., Ph.D., Professor, Department of Microbiology and Immunology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.** Response deadline, January 10, 1994. *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR FULL-TIME, TENURE-TRACK THERAPEUTIC RADIOLOGY/ RADIATION ONCOLOGY

REQUIREMENTS: M.D., Minnesota licensure by start date and board certified in Therapeutic Radiology/ Radiation Oncology. Candidate should have at least one year of academic experience, and experience in interstitial radiation therapy. Experience in neuro-oncology, gynecologic and pediatric oncology patient care desired. Must be interested and experienced in academic research and writing in the area of radiation therapy. Position involves teaching medical fellow specialists, medical students and radiotherapy technologist students in radiation oncology. This position entails patient care in all radiotherapy modalities. Salary open to negotiation depending upon experience. Start date is January 24, 1994. Apply to: **Search Committee, Department of Therapeutic Radiology, Box 494 University of Minnesota Hospital and Clinic, Harvard Street at East River Road, Minneapolis, MN 55455** before January 16, 1994. *The University of Minnesota is an Equal Opportunity Educator and Employer.*

VICE PRESIDENT CLINICAL DEVELOPMENT

San Diego-based public biopharmaceutical company has an opening for a Vice President—Clinical Development to oversee clinical trials of small-molecule therapeutic drugs for the treatment of ischemic disorders (acute MI and stroke). The right candidate will have an M.D. or Ph.D. degree and at least 5 years of experience in the design, implementation and analysis of clinical trials and in handling all reporting and liaising with the FDA and CRO groups. The candidate should have experience in all aspects of Drug Development, especially as regards intravenous cardiovascular and neurologic acute care therapeutic agents. Candidate should thrive in a small-company, fast-paced environment. We offer a competitive salary, a generous stock option package, attractive Southern California location, and a complete medical/dental plan. All inquiries will be held in confidence and should be addressed to: **Box 44, Science Classified Advertising, 1333 H Street N.W., Room 814, Washington, DC 20005.**

ASSOCIATE DIRECTOR for Clinical Research of the University of Rochester Cancer Center and Chief of Medical Oncology. The University of Rochester is seeking candidates for the joint responsibility of Associate Director for Clinical Research of our National Cancer Institute Designated Cancer Center and Chief of Medical Oncology in the Department of Medicine. Candidates must have a strong record of independent research, administrative leadership and a commitment to patient care and education. The successful candidate will be expected to foster the growth of high-quality innovative research and patient care programs at the Cancer Center, which has close affiliations with five Rochester hospitals. Significant resources are available, which include additional faculty positions, laboratory and office space and start-up funds. Please send curriculum vitae to: **David Bushinsky, M.D., Search Committee Chair, University of Rochester School of Medicine, Box 675, 601 Elmwood Avenue, Rochester, NY 14642.** *The University of Rochester is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

UNIVERSITY OF ROCHESTER CANCER CENTER ASSOCIATE DIRECTOR FOR LABORATORY RESEARCH

The University of Rochester Cancer Center is seeking an individual with a distinguished record of research accomplishments for the position of Associate Director for Laboratory Research. The Associate Director will be expected to maintain a strong research program, provide leadership in the Cancer Center, foster interactions between clinical and laboratory-based research programs, and oversee the Center's shared resources. The successful candidate will participate in a substantial expansion of the Cancer Center basic science faculty. In addition, the Associate Director will serve as PI on a funded NCI postdoctoral training grant and an ACS institutional research grant. The University of Rochester Cancer Center is a designated center of the National Cancer Institute, with faculty representing broad areas of cancer research. The Associate Director will receive a joint appointment in the Cancer Center and in the most appropriate basic science department. Applicants should send curriculum vitae to: **Dr. Patricia M. Hinkle, Search Committee Chair, Box 711, University of Rochester Medical Center, Rochester, NY 14642.**

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

DIRECTOR

The Moss Landing Marine Laboratories (MLML) invites applications for the position of Director. Responsibilities include administering the academic and research programs, coordinating faculty and student affairs, fostering and participating in the instructional program, maintaining an active research program, and encouraging the education and research activities of faculty and students. Currently, MLML is housed in temporary facilities; the Director will be instrumental in the reconstruction process.

The Director should be a distinguished scientist of international reputation, eligible for tenure, with broad interests in the marine sciences, a Ph.D., a notable record of academic achievement, administrative expertise, and a demonstrated potential to provide effective management and leadership. Familiarity with UNOLS ship operations is desirable.

Submit curriculum vitae, names of three references, recent publications/reprints, and other information as may be appropriate. Review of applications begins January 15, 1994, and a decision is expected by May 1, 1994, with a starting date of August 24, 1994 (or earlier). **Dr. Kenneth R. Rebman, Chair, Moss Landing Marine Laboratories Governing Board, P.O. Box 450, Moss Landing, CA 95039.**

Detailed position announcements from MLML at the above address or call **408-755-8650** or Email: **JOHNSTON@MLML.CALSTATE.EDU.**

SJSU/MLML is an Equal Employment Opportunity/Affirmative Action Employer.

The Department of Commerce/NOAA/OAR/Office of Oceanic Research Programs is seeking applicants for the position of **PROGRAM MANAGER, GS-340-15 (\$66,609 to \$86,589).** The successful candidate will serve as **Director, National Undersea Research Program (NURP)**, and be responsible for program planning and management, supervision of staff, and establishing standards and guidelines to assure effective and safe activities in and under the sea. NURP activities are carried out mainly through a network of six regional undersea research centers located at universities and research institutes. NURP's research is conducted throughout the world in support of NOAA's mission. The successful candidate will have a broad knowledge of marine science concepts; ability to formulate and develop scientific programs and policies; ability to lead and direct a multidisciplinary staff; and demonstrate knowledge of one or more of the *in situ* systems, such as ROV's, SCUBA or submersibles through his/her work in the sea. The position is located in Silver Spring, Maryland. Applicants must submit the June 1988 edition of the Standard Form 171 by December 30, 1993, to: **NOAA/Personnel Operations Division, Career Resources Center, Room 01230, 1325 East West Highway, Silver Spring, MD 20910.** For a copy of the vacancy announcement and listing of the quality ranking factors call (301) 713-0677, refer to Vacancy #: **OA/M-94-03-MMPM.** *DOC is an Equal Opportunity Employer.*

POSITIONS OPEN

COORDINATOR FOR RESEARCH DEVELOPMENT. The Texas Agricultural Experiment Station seeks candidates to provide assistance to researchers and administrators in proposal preparation, review, and submission to federal and state granting agencies, private foundations, and major business firms. Candidates must have a Ph.D. in Agriculture or Life Sciences or a related field and ten or more years of progressively responsible experience in an academic research position, in a biotechnology firm or in agribusiness. Extensive travel is required. Send letter of application, résumé, official transcripts, and a list of three references before February 15, 1994, to: **Dr. R. Daniel Lineberger, Search Committee Chair, Texas Agricultural Experiment Station, College Station, TX 77843-2133.** *AFFIRMATIVE ACTION EMPLOYER.*

PURDUE UNIVERSITY VICE PRESIDENT-RESEARCH/ DEAN-GRADUATE SCHOOL

The Vice President/Dean is responsible for fostering and coordinating excellence in research and graduate education. The position has major leadership and management responsibilities for federal relations, funded research programs, multischool centers and institutes, technology transfer, and coordinated graduate education. Candidates should have a highly successful record of leadership and achievement in several of the above areas, present credentials commensurate with appointment as full professor with tenure, have a high standard of professional integrity and professional ethics, and have a commitment to cultural diversity/equal opportunity. Position is available July 1, 1994. Review of applications begins January 15, 1994. Send letter of application and curriculum vitae to: **Dr. R.E. Grace, Chair of Search and Advisory Committee, Schleman Hall, Purdue University, West Lafayette, IN 47907-1103.** *Purdue is an Equal Opportunity/Affirmative Action Employer; women and minorities are encouraged to apply.*

DIRECTOR OF DIAGNOSTICS

If you are highly energetic, team-oriented and interested in the discovery of novel DNA-based diagnostics for human diseases, an emerging biotechnology company is seeking a scientist with your skill.

The successful candidate will lead a small group of dedicated scientists engaged in the development of DNA-based diagnostic tests for human diseases. The ideal candidate will have extensive experience in the design, implementation and manufacturing of DNA-based diagnostic tests. A Ph.D. in molecular biology or related field and 6 to 10 years of relevant experience in an industrial setting are required.

The ability to manage and motivate a growing group of research scientists is essential. Excellent oral and written communication skills will be demonstrated by a strong record of scientific accomplishments. Commitment to working in a team-oriented environment is essential.

We offer a highly competitive compensation and benefit package. Qualified applicants should submit curriculum vitae to: **Director, Human Resources, Applied Genetics, 11588 Sorrento Valley Road, Unit 21, San Diego, CA 92121.**

COLLECTIONS MANAGER, INVERTEBRATES

The Canadian Museum of Nature* is searching for a Collections Manager for the Invertebrate Section of the Collections Division. In this position you will budget, plan, supervise, and report on collections management functions and projects, and conduct original research related to collection care and management. Knowledge requirements include: invertebrate systematics, especially mollusc systematics, and collection management practices, procedures and techniques. The two official languages are required for this position. You must have an M.Sc. in biology or zoology, museum studies, or related field, or equivalent through accreditation. If you meet the above qualifications, send your application to: **Pierre Boivin, Personnel Division, Canadian Museum of Nature, P.O. Box 3443, Station "D," Ottawa, Ontario, CANADA K1P 6P4.** FAX: (613) 991-0117. *State competition #2090-93-CMN-OC-037.* Statement of qualifications is available from **Suzanne Renaud-Walli** at (613) 991-0015. Closing: 17 January 1994.

*formerly the National Museum of Natural Sciences.



NITROMED

Join the team that's discovering the power of Nitric Oxide

Hailed by Science magazine as the "Molecule of the Year," Nitric Oxide (NO) is the basis for an important new class of drugs. And **NitroMed** is the company positioned to become the leader in the discovery, development and marketing of NO-modulating pharmaceuticals.

NitroMed was founded by two respected leaders in this field - Joseph Loscalzo, M.D., Ph.D., Whitaker Professor of Medicine, Boston University School of Medicine, and Jonathan Stamler, M.D., Associate Professor, Duke University Medical Center. Manuel Worcel, M.D., CEO of **NitroMed**, has extensive experience in building successful organizations in research and development and business development. Under his direction, the company is applying its unique understanding and expertise in NO biology and chemistry to develop compounds that harness and extend NO's effect on vascular and visceral smooth muscles, and nerve cells. **NitroMed's** research and development focuses on new and original drugs for the treatment of cardiovascular, gastrointestinal, genitourinary and neurodegenerative diseases. **NitroMed** is now preparing to take its first product through clinical trials.

NitroMed seeks to immediately recruit drug discovery and drug development scientists. In addition to a challenging and stimulating environment, all positions offer competitive compensation, including excellent salaries, health care benefits and stock option incentives.

Vice President, Medical and Regulatory Affairs

Requires M.D. with ten years of successful experience in the pharmaceutical industry, designing and implementing clinical trials and registering new drugs. Develop clinical and regulatory strategies to insure optimal product approval cycle and supervise all activities necessary for submission of IND's, NDA's and other compliance documents.

Director, Medicinal Chemistry

Requires organic chemistry Ph.D. with ten years of experience in drug discovery in the pharmaceutical industry. Must demonstrate success in synthesis of products with general therapeutic applications. Recruit and manage a superior medicinal chemistry team. Leads this team in interacting with biologists and molecular biologists in development of NO-related drug discovery projects.

Director, Biology

Brings Ph.D. in pharmacology, biochemistry or molecular biology and ten years of experience in drug discovery. Has great track record in researching products for general therapeutic applications. Recruit and manage biologists, pharmacologists and biochemists and work in close cooperation with **NitroMed's** medicinal chemistry team to develop drug discovery projects in areas of GI, cardiovascular, genitourinary and neurodegenerative diseases.

NitroMed is also recruiting the following positions for its drug discovery team:

Senior Scientists, Medicinal Chemistry. Requires Ph.D. in organic chemistry.

Senior Scientists, Biology. Requires Ph.D. in pharmacology, cell biology, biochemistry or molecular biology.

Associate Scientists, Biology. Requires B.S./M.S. in pharmacology, cell biology, biochemistry or molecular biology.

Respond in confidence with CV and letter of interest to: Manuel Worcel, M.D.; President and Chief Executive Officer; NitroMed, Inc.; One Kendall Square; Building 200; Cambridge, MA 02139; USA.
NitroMed is an equal opportunity employer.



announces a

**Resident Research
Associateship Award**
to be offered in the field of
**Tropospheric Chemistry
Process and Modeling
Research**

at the
**EPA ATMOSPHERIC RESEARCH
AND EXPOSURE ASSESSMENT
LABORATORY**
in Research Triangle Park,
North Carolina

The National Research Council (NRC) is accepting applications for award competitions in 1994 for a Postdoctoral Research Associateship at the Environmental Protection Agency's Atmospheric Research and Exposure Assessment Laboratory (AREAL) in RTP, NC.

**Research opportunities exist in the
areas of:**

developing, refining, and testing (with field data) multidimensional models for predicting the global distribution of greenhouse gases and aerosols, considering the problems associated with sources, transport, and scale linkages (i.e., urban-to-regional-to-global) in the model formulation; using measured abundances and isotopic ratios of selected carbon-species with models to improve understanding of source-sink relationships; and field measurement of fluxes of globally important constituents.

The NRC awardee will work as a guest investigator in the Troposphere-Biosphere Chemistry Research Branch at AREAL, RTP, NC. Annual stipend for recent Ph.D. recipients is \$35,000 with supplements of up to \$10,000 for those with specialized training. The award is for one year renewable to a maximum of three. Support is provided for relocation and limited professional travel, and a comprehensive health insurance program is offered.

For further information contact:

Dr. J.E. Sickles, II
USEPA (MD-75),
AREAL, TBCRB

Research Triangle Park, NC 27711
Tel: (919) 541-2446



Applications, submitted directly to the
NRC, are accepted on a continuous
basis throughout the year. Those
postmarked by: January 15, will be
reviewed in February; by April 15, in
June; and by August 15, in October.

FOR APPLICATION MATERIALS CONTACT:

**NATIONAL RESEARCH
COUNCIL**

**The Associateship Programs
(TJ-2094/ER)**

2101 Constitution Avenue
Washington, DC 20418
FAX: (202) 334-2759

Molecular Biologists Protein Chemists

Pro-Neuron, Inc., a development-stage pharmaceutical company, is currently working on a number of therapeutic products in the area of growth factors and antibody targeted therapeutics.

We are seeking Ph.D.- and B.Sc.-level Molecular Biologists to participate in the isolation and cloning of growth factors, and protein engineering of antibodies and enzymes. Extensive experience with molecular techniques is required, including cloning, expression and hybridization. Experience with cell culture, expression systems and tumor biology is also desirable.

We are also seeking Ph.D.- and B.Sc.-level Protein Chemists to participate in the isolation and cloning of growth factors and in the protein engineering of antibodies and enzymes. Extensive experience with protein chemistry techniques is required, including gel electrophoresis, column chromatography and other separation methodologies. Experience with HPLC, hematopoietic factors and tumor biology is also desirable.

Pro-Neuron offers a competitive salary and comprehensive benefits package.

For immediate consideration, please send your resume to Pro-Neuron, Inc.,

Attn: Department JK, 1530 East Jefferson Street, Rockville, Maryland 20852.

Pro-Neuron, Inc.

We are an equal opportunity employer.



Washington
WASHINGTON UNIVERSITY IN ST. LOUIS

Biology & Biomedical Sciences

*Graduate and postdoctoral training
opportunities in...*

Molecular Pathways of Signal Transduction

Nancy Baenziger - Mechanisms of signalling and regulation in human G-protein-coupled receptor systems.

Eric Beyer - Gap junction-mediated intercellular communication.

Ken Blumer - Signal transduction and cell cycle regulation.

Eric Brown - Leukocyte signal transduction.

Tom Deuel - Growth factors - signaling mechanisms in growth and differentiation.

Narasimhan Gautam - Molecular basis of G-protein mediated signalling.

Richard Gross - Enzymes mediating the release of lipid second messengers during signal transduction.

Maurine Linder - Mechanisms of transmembrane signalling; covalent lipid modifications of G-proteins.

Phil Majerus - Phosphatidyl inositol based signal transduction.

Aubrey Morrison - Signal transduction in renal epithelial cells; regulation of phospholipase A₂ and cyclooxygenase activity.

Alice Pentland - Mechanisms of UV injury: effects on signal transduction and eicosanoid synthesis.

Linda Pike - Phosphoinositides in signal transduction.

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

David Silbert - Membrane lipids in signal transduction.

Tom Steinberg - Intercellular communication in macrophages.

John Turk - Role of lipid mediators in the regulation of insulin secretion from isolated pancreatic islets.

...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.



FACULTY POSITION IN THE DEPARTMENT OF NEUROSCIENCES

**CLEVELAND CLINIC FOUNDATION
RESEARCH INSTITUTE**
Excitable CNS Membranes

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 cellular and molecular biological techniques to investigate excitable CNS membranes, with the focus on synaptic structure and function, calcium imaging and analysis, and protein-protein interactions. 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: Dr. Bruce D. Trapp, Chairman, Department of Neurosciences - NC30, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195. The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.

AMERICAN SOCIETY FOR MICROBIOLOGY
AND
NATIONAL CENTER FOR INFECTIOUS DISEASES

1994 POSTDOCTORAL RESEARCH
ASSOCIATES PROGRAM

Up to ten associate positions will be awarded by the American Society for Microbiology for full-time research on infectious diseases which cause significant public health problems. Associates will perform research in residence at the National Center for Infectious Diseases (NCID) which is headquartered at the Centers for Disease Control and Prevention (CDC) in Atlanta, GA. In addition to Atlanta, NCID operates laboratories in Ft. Collins, CO, Anchorage, AK, and San Juan, Puerto Rico.

Eligible fields of study include: Bacterial and Mycotic Diseases, Viral and Rickettsial Infections, Nosocomial Infections, HIV/AIDS, Vector-borne Infectious Diseases, Sexually Transmitted Diseases, and Parasitic Diseases.

The program is intended for individuals who have held a doctorate degree (Ph.D., Sc.D., or M.D.) since, but not earlier than, May 1, 1991. Exceptions may be made for those with more experience. The program is open to both U.S. and foreign citizens. Qualified applicants will receive consideration without regard to race, creed, color, age, sex, or national origin. Diversity among associates is encouraged. The program provides an annual stipend ranging from \$28,000 to \$33,000 and up to \$2,000 for professional development.

The application deadline is February 1, 1994. The Postdoctoral Research Program is administered by the American Society for Microbiology. All inquiries regarding this program should be addressed to: Coordinator, Postdoctoral Research Program, American Society for Microbiology, 1325 Massachusetts Avenue, N.W., Washington, D.C. 20005; (202) 942-9299.

ASM
AMERICAN SOCIETY
FOR MICROBIOLOGY

CDC/NCID
CENTERS FOR DISEASE CONTROL/NATIONAL CENTER FOR INFECTIOUS DISEASES
AND PREVENTION

GRADUATE PROGRAM
CELL AND MOLECULAR BIOLOGY
(INTER-DISCIPLINARY)

- GENE EXPRESSION AND REGULATION
- THE HUMAN GENOME AND GENE THERAPY
- DEVELOPMENTAL BIOLOGY AND GENETICS
- CELL CYCLE, GROWTH CONTROL AND CANCER BIOLOGY
- MOLECULAR VIROLOGY, IMMUNOLOGY AND AIDS
- STRUCTURAL AND COMPUTATIONAL BIOLOGY
- SIGNAL TRANSDUCTION AND MEMBRANE BIOLOGY
- LIPID METABOLISM AND CARDIOVASCULAR BIOLOGY

The Graduate School at BAYLOR COLLEGE OF MEDICINE has created a graduate program in CELL AND MOLECULAR BIOLOGY stressing basic research in the above areas. Students accepted for studies leading to the Ph.D. will receive financial support. For further information please contact Dr. Savio L. C. Woo, Director at the following address:

Graduate Program in Cell and Molecular Biology
Baylor College of Medicine
The Graduate School
One Baylor Plaza Room S-101
Houston, Texas 77030

Phone: (713) 798-6557

MINORITY APPLICANTS ARE ENCOURAGED

FACULTY POSITIONS IN BIOCHEMISTRY
St. Jude Children's Research Hospital

St. Jude Children's Research Hospital, Danny Thomas, Founder, a private research institute, is engaged in a major expansion of its facilities and scientific activities. A new research building which opened in August, 1991, provides 240,000 square feet of new laboratory space to house the institute's basic science programs. As part of the expansion, new faculty positions are now available in the Department of Biochemistry. Although preference will be given to applicants who have recently completed postdoctoral training and are seeking positions at the level of Assistant Member, investigators with appropriate research interests and qualifications will be considered for positions of higher faculty rank. Candidates with programs focusing on the regulation of cell growth, differentiation and transformation, the biochemistry and molecular biology of signal transduction, and mechanisms of gene regulation are particularly encouraged to apply. Opportunities exist for collaborative interactions with basic research programs in Virology and Molecular Biology, Immunology, Tumor Cell Biology and Pharmacology, as well as with clinical investigators in Hematology/Oncology and Infectious Diseases. In addition to new facilities and excellent start-up funds, salaries are nationally competitive and include a generous benefits package. A strong institutional commitment to its faculty ensures stability in program development and continuity of research activities.

Applicants should submit a curriculum vitae, a letter summarizing their research accomplishments and goals, and the names of three references to:



Dr. James N. Ihle, Chairman
Department of Biochemistry
St. Jude Children's Research Hospital
332 North Lauderdale
Memphis, TN 38105 USA

SJCRH IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER

In pursuit
of innovative
science.

Heartland BioTechnologies is a new company which uses yeast as a source of growth factors and related substances. The company utilizes yeast to seek cures for human diseases including diabetes, cancer and fungal infections. Bring your abilities to the forefront of breakthrough science.

Senior Research Scientists

We have several **project management** opportunities for doctoral level individuals with postgraduate training. You must have the ability to work both independently and collaboratively.

Molecular Biologist/Yeast Geneticist

Using standard **molecular biological techniques in *Saccharomyces cerevisiae***, you will be responsible for gene isolation, development of expression systems, and strain construction.

Biochemist/Cell Biologist

You must have experience in **receptor mediated signal transduction** experiments.

We offer a highly competitive salary, commensurate with experience, along with the advantages of a progressive, entrepreneurial environment. Located just one hour from Iowa City, we're tapped into the most advanced resources and a vibrant scientific community. Please send your C.V. to: **Personnel Director, Heartland BioTechnologies, 1035 Lincoln Road, Suite 315, Bettendorf, IA 52722; or call (319) 359-7170.** Committed to quality, diversity and equal employment opportunities.

Heartland BioTechnologies

POSITIONS OPEN

ASSISTANT/ASSOCIATE MEMBER

The Molecular Pharmacology and Therapeutics Program at Memorial Sloan-Kettering Cancer Center invites applicants for positions at the Assistant or Associate Member level. The candidate should have a Ph.D. and/or M.D. degree, and postdoctoral experience. We seek independent investigators with a background of scientific accomplishment who will use forefront molecular and biochemical techniques for the development of new cancer therapies. The position is available July 1, 1994. Start-up support will be provided. Candidates should send curriculum vitae along with a description of career goals, research objectives and names of three references by January 1, 1994, to: **Joseph R. Bertino, M.D., Program Chairman, Molecular Pharmacology and Therapeutics Program, Memorial Sloan-Kettering Cancer Center, Box 78, 1275 York Avenue, New York, NY 10021. Memorial Sloan-Kettering Cancer Center is an Affirmative Action/Equal Opportunity Employer.**

ASSISTANT RESEARCHER UNIVERSITY OF CALIFORNIA, IRVINE

The Department of Physiology and Biophysics, University of California, Irvine, is recruiting for a faculty position at the Assistant Researcher level. The candidate should have expertise and a publications record in signal transduction in the immune system. Specifically, the candidate should have previous experience in patch-clamp and intracellular calcium measurement using video imaging techniques. We will consider applications until the position is filled. Send curriculum vitae, a brief research description, and the names of three referees to: **Michael D. Cahalan, Ph.D., Department of Physiology and Biophysics, University of California, Irvine, Irvine, CA 92717-4560.**

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

Clarkson University, an independent university located in a college-town environment in northern New York, has an opening for the Spring Semester 1994 for a **ONE-YEAR VISITING POSITION** in the Biology Department. The principal teaching responsibility will be in general microbiology, microbiology for engineering applications and associated laboratories. The individual will be expected to also cover course offerings in related areas such as virology, immunology, molecular biology or biochemistry. While these are primarily teaching positions, postdoctoral research in the general area of cell biology may be possible. Applicants should send their letter of application, curriculum vitae, statement of teaching experience and interests and at least three letters of reference to: **A. E. Linkins, Dean, School of Science, Box 5800, Clarkson University, Potsdam, NY 13699-5800. Clarkson University is an Equal Opportunity/Affirmative Action Employer.**

CELL BIOLOGIST: One-year sabbatical replacement at Whitman College, August 1994 to June 1995. Ph.D. desired. Teach Cell Biology, Microbiology (both with labs), one other course compatible with the biology curriculum, and direct student research. Whitman College is a liberal arts college of 1,200 students committed to excellence in undergraduate teaching, scholarship and research. Send curriculum vitae, three letters of recommendation, transcripts, and statement of teaching and research interests to: **Dr. Kendra Golden, Biology Department, Whitman College, Walla Walla, WA 99362. Telephone: (509) 527-5210, 5225. FAX: (509) 527-5904. Application review begins January 3, 1994. Equal Opportunity Employer.**

CELL BIOLOGY FACULTY POSITIONS—The Cell Biology and Anatomy Department of the Mount Sinai School of Medicine continues to expand and is recruiting tenure-track faculty. Appointments will be made at the appropriate rank. We are interested in investigators studying intracellular protein translocation, vesicular transport, and membrane and organelle assembly, approached with molecular and genetic techniques. Newly renovated laboratories and extensive research support facilities are available. Ph.D.'s with demonstrated research prowess should send curriculum vitae, one-page summary of research plans, recent publications, and the names, addresses and telephone numbers of three references to: **Dr. Paul B. Lazarow, Chairman, Cell Biology and Anatomy, Box 1007, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574. An Equal Opportunity Employer.**

POSITIONS OPEN

DEPARTMENT OF ANATOMY Medical Sciences Campus University of Puerto Rico

Applications are invited for three tenure-track **FACULTY POSITIONS**, rank according to experience up to Associate Professor. Individuals are sought with research interests in one or more of the following fields: cell biology, developmental biology, neurobiology, and functional morphology. In addition to teaching graduate students, the Department's teaching needs include one individual each for the following medical courses: histology and cell biology, neuroanatomy, and gross anatomy. Successful candidates are expected to have an ongoing research program and willingness to seek external funding. Applicants should send curriculum vitae and summary of current research to: **John G. H. Cant, Director, Department of Anatomy, Medical Sciences Campus, University of Puerto Rico, G.P.O. Box 365067, San Juan, PR 00936-5067. (Telephone: 809-758-2525, extension 1501, FAX: 809-767-0788.)** Review of applications will begin immediately and continue until the positions are filled. *The University of Puerto Rico is an Equal Opportunity/Affirmative Action Employer.*

DEPARTMENT OF NUTRITION, Case Western Reserve University (CWRU)

We seek an experienced **FACULTY** to conduct basic and clinical investigations in nutritional biochemistry and metabolism, using stable isotopes (mass spectrometry, NMR). We are particularly interested in the intra- and inter-organ metabolism of nutrients and in the development of non-invasive probes for investigating these processes. The appointee will develop independent research programs and participate in the teaching and training of graduate and postgraduate students. Send curriculum vitae, representative reprints, outline of research program and three letters of references by January 30, 1994, to: **Dr. Henri Brunengraber, Chair, Department of Nutrition, Case Western Reserve University, Cleveland, OH 44106. CWRU is an Equal Opportunity Employer and encourages applications from minorities and women.**

FACULTY POSITIONS

Applications are invited for faculty positions in Biochemistry, Physiology, and Microbiology/Immunology. Principal duties involve the teaching of first- and second-year osteopathic medical students in a curriculum utilizing a systems approach. The individual will also be expected to develop a research program independently or in collaboration with other investigators. Individuals with evidence of excellence in teaching and/or independent research funding will be given priority. Rank is open based upon qualifications and experience. Review of applications will begin immediately and will continue until the positions are filled. Submit a letter of application, curriculum vitae, and the names and addresses of at least three references to: **Silvia Ferretti, D.O., Vice President of Academic Affairs and Dean, Lake Erie College of Osteopathic Medicine, 1858 West Grandview Boulevard, Erie, PA 16509. LECOM is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS, GENE MAPPING. USDA, Agricultural Research Service (ARS), U.S. Meat Animal Research Center, Clay Center, Nebraska, has Postdoctoral Research Associate positions available immediately in a group developing maps of the cattle, swine and sheep genomes. Candidates with a background and/or experience in genetics/molecular biology or cytogenetic techniques are encouraged to apply. Excellent facilities and established reference families provide a unique opportunity in this high priority ARS program. Minimum starting salary \$33,623. *USDA-ARS is an Affirmative Action/Equal Opportunity Employer.* Send curriculum vitae and names of three references to: **Dr. Craig W. Beattie, U.S. Meat Animal Research Center, P.O. Box 166, Clay Center, NE 68933.**

TWO POSTDOCTORAL POSITIONS available immediately to study mechanisms of neuronal differentiation, including function of growth factors and receptors. Molecular biology and neurobiology experience desired. Please send curriculum vitae, brief statement of research interests, and three references to: **Dr. Renping Zhou, Laboratory for Cancer Research, College of Pharmacy, P.O. Box 789, Rutgers University, Piscataway, NJ 08855-0789. FAX: (908) 932-0687. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

MOLECULAR BIOLOGY POSITION

Tenure-track position starting August 1994 in genetics, microbiology, and/or molecular biology. Requires Ph.D. in a biological or related science, 1 to 2 years of postdoctoral work and demonstrated expertise in principles and methods of contemporary molecular biology. Teach courses in introductory biology, genetics, bacteriology and cell-molecular biology, participate in Master's degree program. The ability to initiate a research program is required; the ability to obtain extramural funding is desired. Send résumé including three letters of recommendation and academic transcripts to: **Molecular Biology Search Committee, Department of Biological Sciences, HUMBOLDT STATE UNIVERSITY, Arcata, CA 95521. Telephone: (707) 826-3245.** Application must be postmarked by February 1, 1994. *Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSTDOCTORAL POSITION available immediately to study metabolism, energy balance and oxygen transport in isolated cells. Ph.D. in Biochemistry/Chemistry. A highly motivated individual with technical skills in biological dissection, HPLC, the use of instruments including fluorescence spectrophotometer, is required. Submit curriculum vitae to: **Dr. Beatrice Wittenberg, Department of Physiology and Biophysics, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION to study the molecular mechanisms involved in epidermal growth factor receptor-mediated stimulation of cardiac adenyl cyclase. Approaches include reconstitution of wild type and mutated signaling elements in cells and *in vitro*. Applicants must have a Ph.D. in Biochemistry or Pharmacology. Prior experience in the area of signal transduction is desirable. Please send curriculum vitae and arrange to have 3 letters of recommendation sent directly to: **Dr. Tarun B. Patel, Department of Pharmacology, University of Tennessee, Memphis; 874 Union Avenue; Memphis, TN 38163. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available to study gene expression related to apoptosis and memory deficits following brain injury in mouse. Experience in molecular biology and immunohistochemistry is required. Send curriculum vitae to: **Pramod Dash, University of Texas Medical School, Neurobiology and Anatomy, P.O. Box 20708, Houston, TX 77225. Telephone: (713) 794-4270.**

POSTDOCTORAL POSITION available immediately for genetic/molecular analysis of microtubule function in *Drosophila*, in particular to define tubulin structural requirements for differential isoform utilization in development. Candidates should have a strong background in molecular biology or genetics. Send curriculum vitae, description of research interests and experience, and arrange for three letters of reference to be sent to: **Dr. Elizabeth C. Raff, Department of Biology, Indiana University, Bloomington, IN 47405.**

POSTDOCTORAL POSITIONS IN DNA REPAIR

The Life Sciences Division of Los Alamos National Laboratory is seeking postdoctoral candidates to join a research group whose studies are focused on molecular mechanisms of nucleotide excision repair in mammalian cells. Current areas of research interest include the relationship of ERC5/XPGC protein structure to its function and development of transgenic animals with genetic deficiencies in ERC5/XPGC. **Individuals with a strong background in protein biochemistry, molecular cloning and/or protein structure analysis are encouraged to apply.** A Ph.D. completed within the last 3 years or soon to be completed required. Annual starting salaries range from \$39,660 to \$42,860 plus an excellent and comprehensive benefit package. For consideration: submit **TWO COPIES** of a curriculum vitae and publication list to: **Mary Anne With, MS P290, PD-93-141, Los Alamos National Laboratory, Los Alamos, NM 87545.** For additional technical information, contact **Drs. Min S. Park or Richard T. Okinaka at (505) 667-5701 or (505) 665-2743. Affirmative Action/Equal Opportunity Employer. Individuals with disabilities needing reasonable accommodation should call (505) 667-8622. A Teletype Device for the Deaf (TDD) is available by calling (505) 665-5357.** Los Alamos National Laboratory is operated by the University of California for the U.S. Department of Energy.

**NATIONAL ACADEMY OF SCIENCES
SUMMER PROGRAMS FOR YOUNG
INVESTIGATORS**

1994-95

**COLLABORATION WITH
CENTRAL EUROPE AND
EURASIA**

DEADLINE: FEBRUARY 11, 1994

The NAS will sponsor two Young Investigator Programs (YIPs) for the summers of 1994-95:

- 1) Water Resources Management with Turkmenistan and Uzbekistan
- 2) Agricultural Impacts on Water Quality with Latvia and Lithuania

Each program will consist of three-week sessions held during two consecutive summers. The American teams are selected with an eye to interdisciplinary representation so as to foster an integrated approach to the problems under study.

Only those individuals engaged in teaching and/or research careers or those planning such careers are eligible to apply. Individuals entering this competition must have earned the Ph.D. degree or achieved equivalent accomplishments after June 1, 1986, and not later than June 1, 1994.

For application details contact:
**Office for Central Europe and
Eurasia (FO 2014),
National Academy of Sciences,
2101 Constitution Ave., NW,
Washington, DC, 20418,
ATTN: YIP 94-95;
Tel: 202/334-2644; Fax: 202/334-2614.**

**CHAIRPERSON
DEPARTMENT OF INFECTIOUS
DISEASES AND MICROBIOLOGY**

Applications and nominations are invited for the position of Professor and Chairperson of the Department of Infectious Diseases and Microbiology at the Graduate School of Public Health at the University of Pittsburgh. This is a research and teaching department at a major University and Medical Center dedicated to the prevention, epidemiology and molecular pathogenesis of major infectious and communicable diseases. The successful candidate will have the unique opportunity of participating and initiating collaborative programs with investigators in other Departments of the Graduate School of Public Health, the Schools of Medicine, Dentistry and Arts and Sciences.

Candidates must have a distinguished record of scholarly activity, a strong commitment to graduate education and proven administrative skills. The salary range will be commensurate with experience. Applications will be accepted until the position is filled.

Send curriculum vitae, publication list, references, and brief synopsis of research, teaching and administrative experience to: **Dr. Herbert S. Rosenkranz, Chairperson, Infectious Diseases and Microbiology Search Committee, Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, 260 Kappa Drive, Pittsburgh, PA 15238.** The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.

MEDIMMUNE, INC.

**Process
Development/
Analytical Science
Opportunities**

MEDIMMUNE is a dynamic and successful biotechnology company involved in the discovery of novel molecular approaches to vaccines, recombinant proteins and monoclonal antibodies. With our expanding development effort, we currently seek highly motivated individuals with a strong technical background and excellent organizational and communication skills.

**CELL CULTURE AND
FERMENTATION**

This **PhD Cell Biologist** position requires 2+ years' experience in cloning and expression of recombinant proteins in animal and insect cells, development of serum-free media and optimization of biosynthesis and processing of recombinant proteins. Knowledge of GMPs and bioreactor operations is desirable.

PROCESS BIOCHEMISTRY

Two PhD and Two BS/MS level positions for Biochemists or Chemical/Biochemical Engineers are available. Responsibilities include process characterization, analytical methods development for process monitoring, purification, chromatography, microfiltration/ultrafiltration, scale-up, preparation of preclinical and clinical materials, pilot plant operations including set-up and validation of equipment and preparation of regulatory support documents. Knowledge of GMPs is highly desirable.

ANALYTICAL BIOCHEMISTRY

This **PhD Biochemist** position requires 2+ years' experience, and will develop and validate analytical methods for biopharmaceutical proteins and peptides. Experience with DNA hybridization and immunoassays of proteins and peptides is essential, along with knowledge of GLPs, computers and electrophoretic techniques for protein characterization. Previous supervisory experience is desirable. A **BS level Biochemist** position also exists, requiring experience in protein characterization techniques including SDS-PAGE electrophoresis, densitometry, size exclusion HPLC, and amino acid analysis. Computer skills are preferred.

**LABORATORY COMPUTING
AND SAMPLE MANAGEMENT**

This is a **BS level** position with Laboratory Manager-level knowledge of LAN installation and management, plus experience with databases such as FoxPro or Oracle. You will interact with both Analytical Scientists and Information Scientists to integrate technical and computing needs for analytical data such as HPLC, and densitometry as well as sample logging and tracking. Strong computer and communication skills are required; knowledge of analytical techniques is helpful.

MedImmune offers competitive salaries and benefits. Please send your CV, cover letter, salary history, three references and position of interest, in confidence, to: **Human Resources Manager, MedImmune, Inc., 35 W. Watkins Mill Road, Gaithersburg, MD 20878.** We are an Equal Opportunity Employer.



MedImmune, Inc.

**THE ODDS
WERE 2,000 TO
1 THAT WE'D
FIND THE HSC.
NOW WE'RE
LOOKING FOR
YOU.**

Take advantage of these unique opportunities to contribute to our next breakthrough in hematopoietic stem cell research.

RESEARCH

Research Scientist, Cell/Tumor Biology — Participate in early phase work of a tumor metastasis project. Animal model development, metastasis and clinical experience desirable.

DEVELOPMENT

Manager, Cell Processing — Develop cell isolation techniques and devices. Background in cell isolation and selection, hematopoiesis and process development.

Manager, Device Development — Develop new devices for cell purification and characterization. Background in Biochemical Engineering and Cell Biology.

OPERATIONS

Manufacturing Engineer, Cell Culture — Supervise cell culture activities under GMP.

Process Validation Engineer — Validate MABs manufacturing at process scale and scaled-down systems.

Product Formulation Scientist — Develop formulations for MABs products. Strong analytical/protein chemistry background plus industry experience with formulations, stability testing and shelf life determination.

Additional positions are available in the areas of Flow Cytometry and Analytical Biochemistry methods development.

To learn more about this chance to beat the odds, please send your resume to: **SyStemix, Inc., Dept. SCYD1210, 3155 Porter Drive, Palo Alto, CA 94304** or via FAX to (415) 856-4919. We are proud to be an equal opportunity employer.

SYSTEMIX



POSTDOCTORAL RESEARCH OPPORTUNITIES

The Lankenau Medical Research Center currently has three openings in its Postdoctoral Fellowship Program in the following areas:

Epithelial Cell Biology *Rebecca Morris, Ph.D.*

The stem cell model of cellular replacement is explored in normal epidermis and in cutaneous hyperplasia and neoplasia. Approaches include flow cytometry, epidermal cell culture, light microscopic autoradiography and carcinogenesis experiments. Applicants with experience in epithelial cell biology are preferred.

Cell Adhesion *Karen Knudsen, Ph.D.*

This laboratory is investigating the mechanism of cell-cell adhesion and the role cadherins and catenins play in cardiac and skeletal myogenesis. Applicants with a strong background in molecular biology are preferred.

Molecular Carcinogenesis *Susan Gilmour, Ph.D.*

This laboratory is investigating the regulation of ornithine decarboxylase gene expression during mouse epidermal carcinogenesis, as well as the effect of polyamines on the modulation of DNA-protein interactions in epithelial cells. Qualified candidates will have expertise in molecular biology, as well as cell culture related to mammalian gene expression.

The Lankenau Medical Research Center, composed of interactive research groups in the areas of molecular, cellular and developmental biology, is housed in a new building designed to conduct state-of-the-art biomedical research. We are located in suburban Philadelphia on the campus of The Lankenau Hospital, a member of the Main Line Health System. Applicants should submit their curriculum vitae, 3 letters of recommendation and a brief sketch of research interests and experience to: **Thomas O'Brien, Ph.D., Chairman, Postdoctoral Fellowship Committee, The Lankenau Medical Research Center, 100 Lancaster Avenue, West of City Line, Wynnewood, PA 19096, (215) 645-3475. EOE M/F/D/V.**



George Mason University

The Department of Geography and Earth Science (GESS) and the Institute for Computational Sciences and Informatics (CSI) invite applications for a senior faculty appointment. We seek an innovative, interdisciplinary scientist interested in developing joint research opportunities with GESS and CSI faculty who have already begun to explore global change issues.

The ideal candidate will have extensive experience in computational techniques and modeling with applications to earth systems sciences and global change. The specific area of research is open.

We especially encourage applicants with specialization in computer modeling of atmospheric, biospheric, climatological, geomorphologic, oceanographic, or hydrologic processes. For example, possible successful candidates include: an expert in environmental processes modeling employing remotely sensed data, or an expert in the application of geographic information analyses to global change issues.

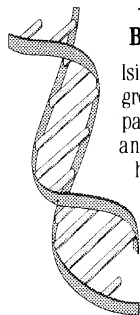
Only senior faculty will be considered for this position. Candidates should have a well-defined program of research and be able to demonstrate the capacity to provide research leadership and gain external funding; they should also demonstrate an ability for high quality graduate teaching.

George Mason is a rapidly growing state university in the metropolitan Washington DC area, convenient to funding agencies and major government and industry facilities. Candidates for this position should submit a letter of application detailing experience, a curriculum vitae, and names of three references. Review of applications will begin December 15, 1993. No application will be considered beyond May 15, 1994.

George Mason University is an Affirmative Action/Equal Opportunity Employer. We strongly encourage women and minority candidates to apply for this position. Availability of the position depends on budgetary approval.

Applications should be sent to: Dr. Deborah A. Boehm-Davis, Chair, CSI/GESS Search Committee, Mail Stop 3A2, George Mason University, Office of the Provost, 4400 University Drive, Fairfax, VA 22030-4444.

POSTDOCTORAL RESEARCH



Bioinorganic Chemistry

Isis Pharmaceuticals is a rapidly growing biopharmaceutical company with products in Phase II and Phase I clinical trials, headquartered in Carlsbad, CA. Innovative research programs, strong funding, excellent facilities and strong academic ties make Isis an excellent opportunity for outstanding individuals.

We seek a synthetic bioinorganic chemist at the postdoctoral level with a solid understanding of metal biocoordination chemistry and reaction mechanisms. Experience in the synthesis and analysis of biomolecules, e.g. peptides, oligosaccharides, and/or oligonucleotides, is advantageous. The selected individual will be part of a multidisciplinary team working on the discovery and development of novel antisense oligonucleotides which target the 5' cap structure of messenger RNA.

Isis Pharmaceuticals offers competitive salaries and excellent benefits, including equity participation. Please send resume to: Human Resources, Code 102, 2292 Faraday Ave., Carlsbad, CA 92008. No phone calls. EOE



ISIS PHARMACEUTICALS

Faculty Positions Department of Pharmacology The University of Michigan

The Department of Pharmacology is seeking applications for three tenure-track positions at the ASSISTANT, ASSOCIATE, or FULL PROFESSOR level. Applicants should have a Ph.D. and/or M.D., significant postdoctoral experience, and a record of excellent research accomplishment. We are seeking outstanding individuals with research experience and interests that augment current departmental programs in the areas of cancer biology and therapeutics, cardiovascular pharmacology, drug metabolism and pharmacogenetics, endocrinology and receptor pharmacology, neuropharmacology, and site-specific drug delivery. The successful candidates will be expected to establish and maintain active, externally funded research programs and to participate in teaching medical students and other health professionals, as well as graduate and postdoctoral students. An attractive start-up package including new facilities and generous start-up funds will be available. Send curriculum vitae, a brief description of current and future research directions and request at least three letters of reference be sent to: Dr. Paul F. Hollenberg, Chair Designate, Department of Pharmacology Search Committee, Department of Pharmacology, The University of Michigan Medical School, 6322 Medical Science I, Ann Arbor, MI 48109-0626.

The University of Michigan is an Affirmative Action/Equal Opportunity Employer. Applications from qualified women, minorities and/or disabled individuals are encouraged.

Department of Genetics Center for Human Genetics Case Western Reserve University School of Medicine

The Department of Genetics invites applications for several tenure-track positions at the Assistant Professor or Associate Professor rank as part of its continuing expansion. Applicants should have demonstrated expertise and productivity in human genetics, with ability to develop a strong, independent research program. Existing laboratories in the department focus on the genetics of *Drosophila*, *C. elegans*, mouse, and humans. Areas of concentration are in developmental genetics, chromosome structure and function, genome organization and mapping, and the genetics of inherited disease. Expansion of the department, which began in 1992, is supported by significant new resources, including 40,000 square feet of state-of-the-art research space in a new Biomedical Research Building, with generous equipment and start-up funds provided by the Markey Center for Developmental Genetics and by the Center for Human Genetics. Clinical genetics activities are coordinated through the Center for Human Genetics (Dr. S. Cassidy, Clinical Director) and joint appointment in an appropriate clinical department is possible. The Department of Genetics participates in the multidisciplinary Biomedical Sciences Training Program for Ph.D. students. Candidates are expected to participate in the teaching of medical and graduate students. Strong interdepartmental interactions at Case Western Reserve University School of Medicine and University Hospitals of Cleveland are encouraged and provide for an unusually supportive research environment and opportunity for achievement in human genetics.

Applicants should send curriculum vitae, description of research plans, and names of three references (with contact numbers) to: Dr. Huntington F. Willard, Chairman, Department of Genetics, Case Western Reserve University School of Medicine, Cleveland, OH 44106-4955.

Case Western Reserve University is an Equal Opportunity/Affirmative Action employer.

CELL AND MOLECULAR BIOLOGY

Postdoctoral Positions

Postdoctoral positions are available at the Worcester Foundation for Experimental Biology to study cellular and molecular aspects of development. These positions are supported by an NIH Training Grant and individual investigator awards. The faculty and their research interests are:

F. Rob Jackson: Molecular genetic analysis of circadian rhythms and other neural functions in *Drosophila*.

Daniel Kilpatrick: Cell-specific transcriptional regulation during differentiation of spermatogenic and somatic cells.

Elizabeth Luna: Structure and regulation of cytoskeleton-membrane attachment.

Clare O'Connor: Regulation of protein stability during gametogenesis.

Thoru Pederson: Molecular and cell biology of gene expression, with emphasis on RNA-protein interactions and RNA processing.

Joel Richter: Gene expression during early *Xenopus* development.

Alonso Ross: Nerve growth factor receptors and differentiation of neural tumors.

Greenfield Sluder: Timing and molecular control of mitotic events during early development.

Richard Vallee: The role of microtubule motors in mitosis and organelle transport; the role of GTPases in receptor-mediated endocytosis.

Yu-li Wang: Assembly and dynamics of actin and myosin in living cells.

George Witman: Molecular basis for flagellar movement; sensory transduction in *Chlamydomonas*; control of sperm maturation and capacitation.

David Wolf: Structure, function, and dynamics of nerve growth factor receptor.

Paul Zamecnik: Synthesis of modified oligonucleotides for chemotherapy.

Send curriculum vitae and names of references to the faculty member(s) of interest, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545, USA.

An Affirmative Action/Equal Opportunity Employer M/F/H



**Worcester Foundation for
Experimental Biology**

Graduate Program In Genetics.

**National Institutes of Health
The George Washington University**

Program Features

- Cooperative program which includes dissertation research at the National Institutes of Health and course work at The George Washington University.
- Full-time graduate study leading to the PhD in areas such as molecular genetics; developmental genetics; cytogenetics; genetics of populations; human medical genetics and gene therapy; and behavioral and neurogenetics.
- Full tuition waiver and annual fellowship.

Application Information

Applications may be obtained from the National Institutes of Health Office of Education.

Application Deadline: February 15, 1994. Applicants must be US citizens or permanent residents.

National Institutes Of Health

Office of Education

Building 10, Room 1C129, 9000 Rockville Pike,
Bethesda, MD 20892 • 301-496-2427 • FAX 301-402-0483
Equal Opportunity Employer

Position Description

CHAIR, DEPARTMENT OF ENTOMOLOGY UNIVERSITY OF MARYLAND AT COLLEGE PARK

The College of Life Sciences at the University of Maryland at College Park invites applications for the position of Chair of the Department of Entomology. The Department of Entomology, one of five departments in the College, has 18 faculty with programs in teaching, research, and Extension. The Department participates in an undergraduate program in biological sciences. Graduate degrees are offered at the M.S. and Ph.D. levels. Faculty research strengths include physiology, morphology, toxicology, biosystematics, ecology, behavior, medical entomology, biological control, insect pathology, and pest management. The faculty conduct nationally recognized Extension programs in agricultural, ornamental, turf, and structural IPM. A key component of the Department is the Maryland Center for Systematic Entomology, a collaborative program with the USDA Systematic Entomology Laboratory and the Smithsonian Institution.

Candidates should have primary commitment to academic excellence and the administrative and leadership abilities necessary to guide the Department in meeting public needs and future opportunities. Applicants should have a distinguished record of strong research and/or Extension. Demonstrated commitment and/or involvement in encouraging ethnic, cultural, and gender diversity is desirable.

To be assured of full consideration, applications should be received by February 15, 1994. The preferred appointment date is on or before August 1994. A curriculum vitae and the names of five references should be sent to Richard E. Just, Chair, Search Committee for Chair of Entomology, Department of Agricultural and Resource Economics, The University of Maryland at College Park, College Park, MD 20742-5535. The University of Maryland is an affirmative action equal opportunity employer. Women and minorities are encouraged to apply.

The University of Maryland at College Park is the principal land-grant institution and the flagship campus of the University of Maryland System. The UMCP campus is located in the Baltimore-Washington corridor and has convenient access to and collaborative projects with the USDA's Beltsville Agricultural Research Center, Maryland Biotechnology Institute's Center for Agricultural Biotechnology, the National Institutes of Health, the Smithsonian Institution, and Walter Reed Army Institute of Research.

Ph.D. Programs

*Macromolecular & Cellular Structure and
Chemistry*

Chemistry

The Scripps Research Institute will admit highly qualified students in the fall of 1994 to two Ph.D. programs: one integrating cell and molecular biology with structure and chemistry, and the other in chemistry.

Together, graduate studies at Scripps provide an exceptional training opportunity in a uniquely multidisciplinary environment with an emphasis on individualized learning for each student.

Candidates must have a bachelor's degree and a strong background in biology and/or chemistry. Qualified applicants will be invited to visit the Institute. Financial support will be provided to all accepted students.

Since its establishment in 1961, the Institute has gained international recognition for its basic research into molecular biology, immunology, chemistry, neurosciences, synthetic vaccine development, cell biology and plant biology.

Individuals interested in applying to either program should contact the Office of Graduate Studies for a brochure and application: The Scripps Research Institute, Office of Graduate Studies, IMM 21, 10666 North Torrey Pines Road, La Jolla, CA 92037. Tel. (619)554-8469. Fax. (619)554-6602. The graduate programs are accredited by the Western Association of Schools and Colleges. TSRI is an equal opportunity institution.



THE SCRIPPS RESEARCH INSTITUTE

FACULTY POSITION IN CELL/MOLECULAR BIOLOGY

The Department of Biology, Indiana University-Purdue University at Indianapolis invites applications for a tenure-track position beginning August, 1994 at the level of **Assistant or Associate Professor**. We seek a highly qualified individual working on the cellular or molecular aspects of membrane receptors and signal transduction with training in any of the traditional biological disciplines, including physiology, neurobiology, endocrinology or developmental biology. Postdoctoral training is essential. The successful candidate will be expected to establish an externally funded research program and demonstrate a strong commitment to undergraduate and graduate education. Laboratory space in a new research facility adjacent to the Indiana University School of Medicine, a competitive salary and substantial start-up funds are available. The Department of Biology offers both Master's and Ph.D. degrees and has 20 full time faculty of professorial rank whose research interests include immunology, oncology, membrane biochemistry, cell/molecular biology, and developmental biology. Opportunities for collaborative research with faculty in the Department of Biology, other School of Science Departments and the School of Medicine are available and encouraged.

Applicants should send a curriculum vitae, three letters of recommendation and a statement of teaching and research interests to:



**Indiana University
Purdue University
at Indianapolis**

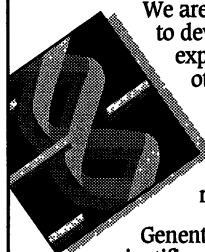
Chair, Search & Screen Committee
Department of Biology
Indiana University-Purdue University
723 West Michigan Street
Indianapolis, IN 46202-5132

Applications must be received by
January 20, 1994.

Indiana University is an Equal Opportunity-Affirmative Action Employer. Women and minority candidates are particularly encouraged to apply.

SCIENTIST CELL GENETICS

The research interests in the Department of Cell Genetics at Genentech include the regulation of gene expression in mammalian cells and in *E. coli*; the development of antibody technologies, and targeted gene disruption in embryonic stem cells.



We are seeking a motivated and creative Scientist to develop novel approaches to regulate the expression of genes in eukaryotes or prokaryotes, and/or understand the molecular basis for homologous recombination in eukaryotes. Candidates should have a Ph.D. in Molecular Biology or related field, with a minimum of 3 years' post-doctoral research.

Genentech offers an environment committed to scientific excellence in our new state-of-the-art research center. Scientists are encouraged to publish their work, and our citation record ranks competitively with the top research institutes in the world.

We offer exceptional compensation as well as a benefits package for you and your dependents. For immediate consideration, please send your resume to: Genentech, Inc., Human Resources Dept. NS/PG, 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.

CHAIR Department of Biology

The University of Delaware invites applications and nominations for the position of Chair of the Department of Biology. One of 24 departments in the College of Arts and Science, Biology has 39 faculty in the areas of Ecology/Evolutionary Biology, Genetic/Molecular Biology, Microbiology, Neurobiology, and Physiology/Anatomy. The Department offers the Ph.D. and M.S. degrees in Biological Sciences. Currently, there are 52 graduate students and over 1000 undergraduate majors in the Department.

The appointment of a chair will be at the rank of professor. The successful candidate will have demonstrated leadership ability in working with faculty and students with diverse interests, a nationally recognized research program, and a commitment to undergraduate and graduate teaching. Appointment is available September 1994. The deadline for applications is February 1, 1994. Applicants should send a curriculum vitae with names of five references and a personal statement of administrative philosophy. Salary and benefits are competitive. Applications should be sent to: **Dr. Jean Futrell, Chair, Search Committee, Department of Chemistry and Biochemistry, University of Delaware, Newark, DE 19716-2522.**

The UNIVERSITY OF DELAWARE is an Equal Opportunity Employer which encourages applications from
Minority
Group
Members
and Women.



CELL BIOLOGIST



Tularik

We are actively seeking an experienced Cell Biologist.

Tularik is a rapidly growing biopharmaceutical company dedicated to the discovery and development of novel therapeutic products that regulate gene expression.

This scientist will assume a high-profile position as a member of a team employing cell-based approaches and automated high throughput screening to identify drug candidates that alter the transcription of clinically important genes. We are presently focusing on genes central to the inflammatory process, viral replication and hypercholesterolemia.

The ideal candidate will have a Ph.D. in Cellular Biology or a related field and several years of postdoctoral experience. Expertise in mammalian cell culture, transfection and cellular physiology is required. We are particularly interested in endothelial cell biology. Experience in molecular biology would be a definite asset.

Tularik offers an exciting, multidisciplinary research environment, where the latest developments in the understanding of gene regulation find practical application as novel ethical pharmaceuticals. For consideration, please submit your cv to: L. Medin, Tularik Inc., 270 East Grand Avenue, South San Francisco, CA 94080. EOE.

Faculty Positions Baylor College of Medicine

The Department of Cell Biology announces the availability of two tenure track positions. Both are at the Assistant Professor level but more advanced candidates will also be considered. We seek individuals with research interests in molecular and cellular aspects of signal transduction. Suitable areas include: cell growth and division; cell type determination and differentiation; cell communication, adhesion and migration; or intracellular signalling mechanisms.

Supervision of graduate students and a commitment to excellence in research and teaching is essential. Applicants should send a curriculum vitae, a summary of the proposed research, and the names of three scientists who can evaluate the candidate's accomplishments and future research and teaching potential.

Applications should be sent by March 1, 1994 to:

**Jeff Rosen, Chairman
Cell Biology Search Committee
Department of Cell Biology
Baylor College of Medicine
Houston, Texas 77030**

Baylor College of Medicine is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.

MOUNT SINAI SCHOOL OF MEDICINE DEPARTMENT OF HUMAN GENETICS

Applications are invited for the positions of Director of Clinical Cytogenetics and Human Molecular Geneticist in the Department of Human Genetics at the Mount Sinai School of Medicine.

DIRECTOR OF CLINICAL CYTOGENETICS

The successful candidate will be responsible for the operation of a large clinical cytogenetics service laboratory and will participate in Departmental research and teaching activities. Extensive experience with the cytogenetic analysis of chorionic villi, amniocytes and blood samples is required, along with demonstrated expertise in the use of FISH and other molecular cytogenetic techniques. Candidates must have a Ph.D. or M.D. degree and be ABMG board-certified/eligible in Clinical Cytogenetics. At least five years of postdoctoral experience is required.

Mount
Sinai

HUMAN MOLECULAR GENETICIST

The successful candidate will be expected to maintain an active, independent research program in genome-related research projects and/or molecular cytogenetics, and participate in Departmental educational, research and service activities. Experience with positional cloning, FISH, flow sorting, digital imaging instruments and/or cell hybrid technology is required. Candidates must have a Ph.D. or M.D. degree and postdoctoral experience.

These positions are available immediately; salary and rank are commensurate with experience. To apply, please send a curriculum vitae and three letters of reference, indicating position of interest, to: **Dr. Robert J. Desnick, Chairman, Department of Human Genetics, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.** An Equal Opportunity Employer.

The Mount Sinai Medical Center of New York

SENIOR ECOLOGIST

The Department of Biological Sciences is seeking an established scientist in ecology to join the faculty and serve as Director of the Pymaturing Laboratory of Ecology, a field station located 100 miles north of Pittsburgh, which has undergone significant recent renovation. The Laboratory is a residential field station, fully-equipped for research and teaching with field sites, dormitories, faculty cabins, a full dining hall, a library, research buildings, teaching laboratories and lecture hall. A full-time staff of four, including a resident manager, report to the Director who reports to the Department Chair. The Laboratory is fully integrated into the research and teaching programs of the Department. We are seeking a person with a funded research program, a strong teaching record, and good interpersonal skills who will provide leadership for the research and teaching mission of the Laboratory, train graduate students, and participate in undergraduate education. The Department has just hired two additional ecologists and intends to recruit one or two more after this senior appointment. The appointment will be made at the level of tenured Associate or Full Professor and will be available as early as September 1994, subject to budgetary approval. In order to ensure full consideration, applications must be received by January 14, 1994. Applicants should send a curriculum vitae, copies of recent publications, a statement of research interests and future plans, and arrange to have at least three letters of reference sent to:

Dr. William Searcy
Ecology Search Committee
Department of Biological Sciences
University of Pittsburgh
Pittsburgh, PA 15260
(412) 624-4266

The University of Pittsburgh is an Equal Opportunity/Affirmative Action employer. Women and minorities are especially encouraged to apply.

DESIGNED FOR GREAT SCIENCE.

Genentech's Postdoctoral Fellowship Program is designed to produce great science. Our commitment to

the quality and diversity of our research efforts combined with our unparalleled facilities and funding creates an ideal environment for scientific discovery.

Postdoctoral Scientists

We are continually seeking new Postdoctoral Scientists to join us in our highly collaborative and well-funded postdoctoral program.



A critical component of our remarkably varied research efforts, Genentech Postdoctoral Fellows comprise 1/3 of our PhD-level staff. To support their efforts, our R&D facilities are designed to foster an open, highly interactive atmosphere.

Combined, these elements create an outstanding environment for top talent in many

fields of biological science. Consider the following areas:

- Leukocyte Cell Adhesion
- Immunobiology
- Cell Genetics
- Cell Biology
- Molecular Biology
- Protein Engineering

If our research interests you, please forward your C.V. to Human Resources, Dept. NS/PD, 460 Point San Bruno Blvd., South San Francisco, CA 94080. We promote and actively support affirmative action and equal opportunity employment.

Genentech, Inc.



TENURE-TRACK FACULTY POSITIONS IN BIOMEDICAL ENGINEERING

Applications are being accepted for tenure-track faculty positions in the Department of Biomedical Engineering at Duke University. Although all faculty ranks and sub-disciplines of BME will be considered, preference will be given to candidates having a PhD or equivalent in either materials, chemical, or biomedical engineering and research interests in either macromolecular architecture, surface/membrane engineering, tissue engineering, medical imaging, and biomechanics.

In addition to maintaining a vigorous research program, new faculty would be expected to participate in graduate and undergraduate instruction in one or more of the following areas: surface and interfacial phenomenon, biomaterials, tissue engineering, medical transducers, biomechanics, biosensors, chemical thermodynamics, and transport in biological systems.

A curriculum vitae including a list of publications, current research funding, and a brief description of proposed research activities should be sent to: **W.M. Reichert, Chair, Search Committee, Department of Biomedical Engineering, Duke University, Box 90281, Durham, NC 27708-0281.**

Duke University

Duke University is an Equal Opportunity/Affirmative Action Employer.

VIROLOGY R&D POSITIONS

Intervet Inc. is an innovative veterinary health company devoted to the continued development and manufacture of quality biologicals and pharmaceuticals for food and companion animals. Intervet, based in Millsboro, Delaware and employing over 250 people, is a subsidiary of AKZO which employs 80,000 people worldwide in a variety of manufacturing and health related fields. As a result of Intervet's commitment to long term growth in the animal health field, career opportunities for qualified applicants are now available in the Virology section of the Research and Development Department for the following positions.

RESEARCH ASSOCIATE

Applicants must possess a M.S. plus experience in virology, preferably within an industrial setting. Individuals with a B.S. plus 4 or more years of post-graduate work in vaccine development will also be considered. The successful candidate will participate in an aggressive program of research and development regarding viral vaccines. Experience with virus propagation, cell culture, and diagnostic techniques (ELISA, SDS-PAGE Electrophoresis, Western Blot, serological and virological assays, etc.) associated with viral vaccine development is essential. Knowledge of statistical methods and experimental design for *in vitro* and *in vivo* studies are desired but not necessary. Responsibilities include the planning and performing of studies designed to satisfy USDA regulatory requirements for licensure of an animal vaccine. This position requires an individual who is goal oriented and enjoys the synergism of a project team approach.

PROJECT LEADER

Applicants must possess a Ph.D. plus experience in virology, preferably within an industrial setting. Applicants with a DVM or Master's plus post-graduate experience in vaccine development will also be considered. Experience with multiple virus systems, cell culture, standard laboratory diagnostic techniques (ELISA, SDS-PAGE Electrophoresis, Western Blot, serological and virological assays, etc.) and an understanding of the pathogenic mechanisms associated with viral diseases of veterinary importance are essential. Expertise in experimental design and application of statistical methods for *in vitro* and *in vivo* studies is an asset. Licensing experience is highly desirable. Responsibilities are to lead multiple vaccine project teams in conducting and completing studies to satisfy USDA regulatory requirements for licensure of animal vaccines. This position requires an individual with excellent supervisory, organizational and communication skills to effectively champion these vaccine projects through to product launch.

Intervet offers excellent working conditions, competitive salaries, and an outstanding benefits package. Please call (302) 934-8051 (X232), or forward resumes to: Human Resources Department, Intervet, Inc., P.O. Box 318, Millsboro, DE 19966.

POSITION IN CONSERVATION BIOLOGY

Department of Forest Sciences
The University of British Columbia

Applications are invited for a tenure-track position in Conservation Biology at the Assistant Professor level tenable from July 1994. This position is subject to final budgetary approval. We are seeking applicants whose research interests and experience are in terrestrial conservation biology. The individual will participate in the Centre for Applied Conservation Biology at UBC and will have a major role in delivering courses for our new B.Sc. programme in Natural Resource Conservation. The successful applicant will be expected to establish an active research program, demonstrate good teaching ability in conservation biology, and to participate in developing interdisciplinary programs in teaching and research. Preference will be given to individuals with Postdoctoral experience.

The University of British Columbia welcomes all qualified applicants, especially women, aboriginal people, visible minorities, and persons with disabilities. Appointment may be considered at a higher rank for a woman with exceptional qualifications. In accordance with Canadian immigration requirements priority is given to Canadian citizens and permanent residents of Canada. Further information may be obtained from Dr. Gene Namkoong (Phone: (604) 822-8275; E-Mail: gene_namkoong@mtsg.ubc.ca). Salary will be determined by qualifications and experience. The closing date for applications is January 31, 1994. Letters of application, curriculum vitae, statement of research and teaching interests, and three letters of reference should be sent to:



**Dr. Gene Namkoong, Head
Department of Forest Sciences
University of British Columbia
270-2357 Main Mall
Vancouver, B.C. CANADA V6T 1Z4**

TENURE TRACK FACULTY POSITIONS

Department of Pharmacology
UNIVERSITY OF TEXAS
Houston Health Science Center -
Medical School

TENURE TRACK FACULTY POSITIONS are available at all levels as part of a departmental growth program. Primary interests for expansion are in the broad areas of **NEUROPHARMACOLOGY** and **TOXICOLOGY**, but applicants with outstanding research records in all areas related to cell regulation and signalling are welcome. Recruitment of 2-3 independent investigators as a group in one area may be possible. Candidates must be using state-of-the-art approaches to define molecular mechanisms affecting cell function. Responsibilities include the development/conduct of an internationally recognized research program plus participation in graduate and/or professional education. Positions are in the Texas Medical Center, an outstanding research environment that includes the UT Houston Health Science Center, Baylor College of Medicine, and the M.D. Anderson Cancer Center. Send applications including CV, 2-3 page summary of research plans, and names/addresses/phone numbers of 4 potential references to **Dr. Agnes Schonbrunn, Pharmacology Department, University of Texas Medical School at Houston, P.O. Box 20708, Houston, Texas 77225.** The review of applications will begin on February 15, 1994.

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



ENDOWED PROFESSORSHIP
IN VETERINARY OPHTHALMOLOGY
UNIVERSITY OF MISSOURI-COLUMBIA

The College of Veterinary Medicine, University of Missouri, announces the Ruth M. Krauchi Professorship in Veterinary Ophthalmology. This newly endowed position has recently been approved by the University with an anticipated starting date of July 1, 1994. The Krauchi Professorship offers a unique opportunity for a highly motivated academician to develop a focused research effort to contribute substantially to established veterinary ophthalmology programs at the University of Missouri. The successful candidate will be charged with developing a sustained, extramurally-funded research program investigating spontaneous or experimental eye diseases. Development of animal models of human eye diseases will be encouraged.

The Krauchi Professor should be a program builder and an active team member as he/she will be expected to provide leadership in developing and coordinating unit-wide research programs and in contributing to graduate training programs. Presently the unit consists of 3 ACVO board-certified veterinary ophthalmologists (2 clinicians, 1 pathologist/clinician), 2 postgraduate trainees (1 resident/graduate student, 1 graduate student) and 1 veterinary technician. An ACVO board-certified veterinary ophthalmologist with dual training and interest in research and clinical ophthalmology is desired as an opportunity exists within the unit to develop state-of-the-art clinical ophthalmologic procedures such as laser therapy and implant/transplant surgery. However, highly qualified basic scientists with well-established research programs are also strongly encouraged to apply.

Candidates must be qualified at the academic level of Professor or Associate Professor. Applicants should send a letter of intent, curriculum vitae, and the names of 3 references by February 15, 1994, to Dr. Cecil P. Moore, A337 Clydesdale Hall, 379 E. Campus Drive, University of Missouri, Columbia, MO 65211, (314) 882-7821.

The University of Missouri is an affirmative action, equal opportunity employer.

APRIL 1993	AUGUST 1993	SEPTEMBER 1993	SEPTEMBER 1993	OCTOBER 1993	FEBRUARY 1994	FEBRUARY 1993	MAY 1993
▲ Completion — Phase I Clinical Trial of CDP571 (U.K.), a novel recombinant antibody	▲ Construction of 43,000 sq. ft. mfg. facility begins in NH	▲ Celltech and Roche form major strategic partnership	▲ Bayer exercises option on Celltech antibody	▲ Hired V.P., U.S. Operations, David E. Jadson	▲ Management team hired for projected 100-employee base	▲ Manufacturing facility is fully operational	▲ Clinical trials projected to be completed for CDP771, a leukemia therapeutic

additions are with the so lue of the nd of the : industry may have : off with to com- of being ny lease falling, 1 years ss and 'come when ed to have

Making The Commitment In New Hampshire

By David A. Martin

PORTSMOUTH, NH—Celltech Europe's leading biotechnology is finding new opportunity in NH. Celltech Biologics is building a state-of-the-art, 43,000 sq. ft. manufacturing facility at Pease International. With the promise of more jobs, Celltech is planning to expand its manufacturing base in New Hampshire.

Building on a foundation of strong science

Manager of Document Control

➤ Requires 7-10 years' biopharmaceutical experience (CDER licensed drugs), and 2-3 years' supervisory experience with an understanding of GMP documentation and batch record review. Applicant should have a BS in a related science.

Manager of Quality Control

➤ Responsible for analytical chemistry, microbiology, and environmental monitoring departments. Requires 7-10 years' biopharmaceutical experience (CDER licensed drugs), and 5 years' supervisory experience in a pharmaceutical QC laboratory. A strong background in testing and release of raw materials and finished goods is required. Applicant should have a BS/MS in Analytical Chemistry (Ph.D. preferred).

Manager of Fermentation

➤ Requires 5-10 years' biopharmaceutical experience (CDER licensed drugs), and 2-3 years in mammalian cell culture. A background in scheduling, budgeting, and training in a manufacturing department is required. Experience with FDA/MCA audits is beneficial. Applicant should have a BS in Microbiology/Immunology.

Manager of Facilities

➤ Requires 10 years' biopharmaceutical experience (CDER licensed drugs), with 7-10 years' in a management role. A background in contract negotiations and facility troubleshooting is beneficial. Applicant should have a BS in a related science or equivalent work experience.

Manager of Validation

➤ Requires 5-10 years' pharmaceutical validation experience in a biotech environment, with 3-5 years' management experience. Familiarity with validation protocols, master plans, and ELA filings is required. Applicant should have a BS in Microbiology/Chemistry.

Driven by a history of leadership

and accomplishment in the scientific arena, we're creating a future filled with opportunity at Celltech Biologics. We're the world's largest independent manufacturer of monoclonal antibodies, one of the U.K.'s first biotech companies, and a pioneer in antibody synthesis technologies. We're also backed by substantial scientific and financial partnerships with pharmaceutical giants such as Bayer and Roche.

With our sights set on enhancing our presence worldwide and taking our products to market, we're expanding into New Hampshire — bringing with us a wealth of energy and opportunity.

Put our strength behind you.

We're looking for the industry's leading managers to build a team that will take us into the future, translating our global accomplishments into manufacturing success in the U.S. You'll enjoy a competitive salary and comprehensive benefits, as well as the affordable and attractive lifestyle offered in Portsmouth, just under an hour from Boston. Please send your resume to: **Celltech Biologics, Inc., 601 Spaulding Turnpike, Suite 16, Portsmouth, NH 03801-2833; FAX (603) 334-6262.** We are committed to quality, diversity and equal opportunity employment.

CELLTECH
biologics

POSITIONS OPEN

POSTDOCTORAL POSITION/IMMUNOLOGY YALE UNIVERSITY SCHOOL OF MEDICINE

Position for Ph.D. or M.D. to study mechanisms of T cell tolerance and autoimmunity. Studies will examine the role of various antigen processing cells (B cells, macrophages, and dendritic cells) and the nature of self peptides or molecular mimics in breaking T cell tolerance to autoantigens. Experience/interest in cellular immunology, T cell cloning, co-stimulatory factors, and/or animal models of autoimmune disease helpful. Send curriculum vitae, letter of research interests, and 3 letters of reference to: Mark J. Mamula, Ph.D., Yale University School of Medicine, 333 Cedar Street, LCI 610, New Haven, CT 06520. Supported by an NIH Training Grant. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION. Available immediately for investigation of the role of carbohydrate in follicle-stimulating hormone action. Experience with glycoprotein hormone isolation and purification, chemical characterization, *in vivo* and *in vitro* biological characterization and immunological characterization of purified hormones, oligosaccharide isolation and characterization, and with construction and characterization of hybrid hormones from gonadotropin subunits desired. Send curriculum vitae and names of three references to: Dr. George Bousfield, Department of Biological Sciences, Wichita State University, 1845 North Fairmount, Box 26, Wichita, KS 67260-0026. Deadline January 14, 1994, or the 14th of each subsequent month until position is filled.

POSTDOCTORAL POSITION—MOLECULAR BIOLOGIST: Candidate will be a member of a research team whose objective is to identify the proteinases involved in the degradation of muscle (myofibrillar) proteins. The candidate will be responsible for completion of an ongoing project to determine the genomic organization of bovine skeletal muscle calpastatin. Individuals with sufficient knowledge and skill in molecular techniques to complete the project are encouraged to apply. Excellent opportunities exist to participate in and/or initiate other projects. Two-year appointment with benefits. Minimum starting salary \$33,623. For information or to submit application contact: Mohammad Koohmaraie, U.S. Department of Agriculture, Agricultural Research Service, Roman L. Hruska U.S. Meat Animal Research Center, P.O. Box 166, Clay Center, NE 68933. Telephone: 402/762-4221. *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION is available immediately to study the role of renal adrenergic receptors in hypertension, focusing on signal transduction, G-protein and mRNA analysis, and renal function studies. Applicant should have a Ph.D. degree in a related field with a strong background in biochemistry or molecular biology. Send curriculum vitae, and names, addresses, and telephone numbers of three references to: Dr. Cynthia Ann Jackson, University of Mississippi, Department of Biology, University, MS 38677. *The University of Mississippi is an Affirmative Action/Disabled/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS to study transcriptional regulation during normal myocyte development and in the pathophysiology of cardiovascular diseases. The laboratories are expanding into new space and provide an interactive environment for studies on the molecular control of myocyte proliferation and differentiation. The long-term goal of these studies is to contribute to the development of new strategies for the genetic therapy of cardiovascular diseases. Send curriculum vitae and the telephone numbers of 3 references to: Kenneth Walsh, Ph.D., or Jeffrey M. Isner, M.D., Division of Cardiovascular Research, St. Elizabeth's Medical Center, 736 Cambridge Street, Boston, MA 02135. *Equal Opportunity Employer.*

POSTDOCTORAL POSITION p53 Antioncogene Research

Position available immediately for studies on the biochemical and molecular functions of the p53 antioncogene. Interested individuals should forward curriculum vitae and three letters of reference to: James L. Shirley, M.D., Ph.D., c/o Human Resources Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. *Equal Opportunity Employer.*

POSITIONS OPEN

MEDICAL

DOCTORATES, any field considered. Mature attitude, excellent teaching ability, congenial personality, and professional presence necessary. We train you for intensive laboratory instruction of surgeons. Permanent instruction sites in New York City; St. Louis, Missouri; and Anaheim, California. Some travel required. Not a sales position. Beginning salary commensurate. Write for application information to: Director, Midas Rex Institute, 3000 Race Street, Fort Worth, TX 76111-4116. New applicants only, please.

POSTDOCTORAL POSITION. Available immediately to study the biochemical and molecular aspects of bioactive peptide hormone action and structure-function of membrane receptors. Candidates familiar with molecular and cellular biology should send curriculum vitae and three references to: Dr. K. N. Pandey, Department of Biochemistry and Molecular Biology, Medical College of Georgia School of Medicine, Augusta, GA 30912-2100. (FAX: (706) 721-6608, Telephone: (706) 721-7651). *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION in molecular immunology to study B cell differentiation and selection in normal and autoimmune mice. Particular emphasis is on the segregation of B cell specificities to different B cell subsets and the development of autoimmune responses using transgenic mouse models. Experience in molecular biology is preferred. Send curriculum vitae and 3 letters of recommendation to: Dr. Stephen Clarke, Department of Microbiology and Immunology, CB#7290, University of North Carolina, Chapel Hill, NC 27599.

ACHemS MINORITY TRAVEL FELLOWSHIP PROGRAM

The Association for Chemoreception Sciences (ACHemS) is pleased to announce the availability of travel fellowships, funded by the NIDCD, for graduate students and scientists interested in the chemical senses to attend the annual meeting of ACHemS in Sarasota, Florida, April 13-17, 1994. *Members of African-American, Hispanic-American, Native American, Pacific Islander, or other ethnic or racial groups underrepresented in chemosensory research will be considered. Applicants need not be members of ACHemS, but must be U.S. residents.* Applicants should submit a brief statement of their research interests, curriculum vitae, two letters of recommendation and indicate the minority group with which they identify. Materials should be sent to: Travel Fellowship Committee, ACHemS Business Office, 220 Westridge Drive, Tallahassee, FL 32304 by January 10, 1994. Awardees will be notified in writing by March 1, 1994.

POSTDOCTORAL FELLOWSHIP IN COMPUTATIONAL NEUROSCIENCE. The Yale Center for Medical Informatics in collaboration with the Section of Neurobiology is offering a postdoctoral research fellowship in neuroscience informatics, sponsored by the National Library of Medicine. The research will involve developing models, databases, and informatics tools in support of a multi-institutional project on integration of neuroanatomical and electrophysiological data in sensory systems, supported by the Human Brain Project. Applicants should have training in experimental neuroscience, considerable computer experience, and a desire to pursue a research career in computational neuroscience or neuroscience informatics. Starting date is negotiable. Contact: Prof. Gordon Shepherd, Section of Neurobiology, Yale School of Medicine, New Haven, CT 06510. (Telephone: 203-785-4336, shepherd@yalemed.edu), or Prof. Perry Miller, Yale Center for Medical Informatics (Telephone: 203-785-6753, perry_miller@yale.edu). *Funding is restricted to U.S. citizens and permanent residents. Applications from women and members of minority groups are encouraged.*

Immediate need for a **POSTDOCTORAL FELLOW** to study structure/function relationships of recombinantly produced ATP synthase subunits, with the ultimate aim to understand molecular mechanisms of ATP synthesis. The applicants should have strong background in enzymology and protein chemistry and some expertise in Biophysical techniques and Recombinant DNA Technology. Send résumé and names of three references to: Dr. S. Joshi, Boston Biomedical Research Institute, 20 Staniford Street, Boston, MA 02114. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP. Available for studies on the molecular basis of cell differentiation and cell lineage. Limited to those with recent Ph.D.'s. Prefer background in molecular biology. *Stanford is an Equal Opportunity Employer through Affirmative Action.* Send curriculum vitae and letters of reference to:

Frank E. Stockdale, M.D., Ph.D.
Stanford University School of Medicine, M211
Stanford, CA 94305-5306

POSTDOCTORAL RESEARCH FELLOW—Exciting opportunity for Ph.D. in Biological Sciences to conduct research in vascular biology. Projects include development of morphometric techniques to analyze cytoskeletal protein expression in pulmonary hypertension, by ultrastructural immunohistochemical and *in situ* hybridization procedures. Position available immediately; salary commensurate with experience. Submit a letter summarizing current research interests and activities, curriculum vitae, and the names of three referees to: Rosemary C. Jones, Ph.D., Department of Anesthesia, Massachusetts General Hospital, 149 13th Street, Charlestown/Boston, MA 02129.

Support for POSTDOCTORAL FELLOWS engaged in basic urologic research is available through an NIH training grant. Areas of current investigation include:

Domain-specific membrane proteins in spermatozoa (James R. Bartels, Ph.D.); Developmental gene expression during prostate morphogenesis (Wade Bushman, M.D., Ph.D.); ECM and CAM's in polycystic kidney disease (Frank A. Carone, M.D.); LDH C₄ Immunologic contraceptive technology (Erwin Goldberg, Ph.D.); Effect of shock wave energy on organogenesis (John B. Graham, M.D.); Non-androgenic testicular factors in prostatic growth (John T. Grayhack, M.D.); Gonadotropin signal transduction mechanisms (Mary Hunzicker-Dunn, Ph.D.); Stromal/epithelial interaction in prostate growth and differentiation (James M. Kozlowski, M.D.); Reginal heterogeneity in prostate ductal systems (Chung Lee, Ph.D.); Molecular biology of embryonic uterine development and obstruction (Max Maizels, M.D.); Spinal cord control mechanisms in sexual function (Kevin E. McKenna, Ph.D.); Mechanisms of diabetes-induced sexual dysfunction (Kevin T. McVary, M.D.); Growth factors, LPS, and cytokines in urothelial malignancy (Ryoichi Oyasu, M.D.); Lewis blood group phenotypes and susceptibility to UTI (Anthony J. Schaeffer, M.D.).

U.S. citizenship or permanent resident status required. Interested candidates should submit curriculum vitae and names of three references to: Dr. Chung Lee, Northwestern University Medical School, Department of Urology, Room 11-715, Tarry Building, 303 East Chicago Avenue, Chicago, IL 60611-3008.

Northwestern University is an Equal Opportunity/Affirmative Action Educator and Employer.

HOLLAENDER POSTDOCTORAL FELLOWSHIPS available to conduct energy-related research in the life, biomedical, and environmental sciences. Fellowships are tenable at Department of Energy laboratories with programs sponsored by the Office of Health and Environmental Research. Stipend is \$37,500. A doctoral degree received after April 30, 1992, is required as is U.S. citizenship or PRA status. Deadline is January 15, 1994. Contact: Hollaender Postdoctoral Fellowships, Science/Engineering Education Division, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831-0117; Telephone: (615) 576-9975.

ARNOLD RESEARCH FELLOWSHIPS

The Arnold Arboretum of Harvard University announces the availability of fellowship appointments and support (Putnam or Mercer Fellowships, Arnold Arboretum Associates, Deland Awards) of variable, renewable duration for specific research projects utilizing the landscapes (335 acres) or the library (260,000 volumes), herbarium (2,600,000 specimens) and living (5,000 taxa) collections of the Arnold Arboretum. The number of awards each year will depend upon the availability of funds. Applications should include a letter of introduction briefly describing the proposed project and prior contacts with Harvard staff or faculty, and a résumé listing three references. Send by 1 March 1994 to: Dr. Robert E. Cook, Director, Arnold Arboretum, 125 Arborway, Jamaica Plain, MA 02130. For information brochures, call: 617-524-1718, extension 100.

**VICE CHANCELLOR FOR
GRADUATE STUDIES AND RESEARCH
THE UNIVERSITY OF NORTH CAROLINA
AT CHAPEL HILL**

Applications and nominations are invited for the position of Vice Chancellor for Graduate Studies and Research at the University of North Carolina at Chapel Hill (UNC-CH). The Vice Chancellor reports directly to the Chancellor of UNC-CH, and together with the other senior campus administrators, serves as an advisor to the Chancellor. The Vice Chancellor coordinates their activities in support of research, graduate and professional studies with the Provost, the Vice Chancellor for Academic Affairs and the Vice Chancellor for Health Affairs.

The Vice Chancellor has institution-wide administrative responsibility for the provision of support services to the research efforts of the faculty in the University's academic units and research centers. The Vice Chancellor is expected to provide strong and effective advocacy for research within the University's administration and the state, and to represent the University with federal and state funding agencies, foundations, and corporate research organizations. The Office of Research Services as well as the Institute for Research in the Social Sciences reports directly to the Vice Chancellor. In addition the Vice Chancellor has responsibility for the provision of services in support of the University's graduate and some professional schools. The Dean of the Graduate School reports directly to the Vice Chancellor.

Candidates for the position should have an earned doctorate or comparable academic credentials, a distinguished record of scholarly achievement and a substantial record of accomplishments and experience in academic administration. Applications and nominations must be received by January 22, 1994 and should include a curriculum vitae, three letters of recommendation, a letter describing relevant qualifications and interests and addressed to:

Prof. Ralph Quatrano
Chair, VC Search Committee
CB#3280
UNC-CH
Chapel Hill, NC 27599-3280

The anticipated starting date is July 1, 1994. All inquiries, nominations, and applications will be held in strictest confidence.

The University of North Carolina at Chapel Hill is an Equal Opportunity/Affirmative Action Employer.

DHHS, PHS, FOOD AND DRUG ADMINISTRATION (FDA), CENTER FOR BIOLOGICS EVALUATION AND RESEARCH (CBER), Rockville, Maryland, is searching for outstanding scientists to be part of a multidisciplinary team of reviewers to participate in the development and approval process for new biological products. Some positions offer the unique opportunity to conduct biomedical research at the post doctoral level in combination with review responsibilities. These positions have a high degree of independence and opportunity for professional development. Qualifications: doctoral level degree in biological or physical sciences, pharmacology, toxicology, or related disciplines. Advanced training and/or experience in the development, manufacture or testing of biologics is desirable. Candidates should have highly developed analytical, written and oral skills, and the ability to research problems and issues using mature judgement. Positions may be filled by Civil Service, appointment in the U.S. Public Health Service, Commissioned Corps, or in the Fellowship program, with commensurate salary and benefits. Candidates for Civil Service or Commissioned Corps appointments must be U.S. citizens. Candidates for Fellowships may be either U.S. citizens or Resident Aliens eligible for citizenship within four years. Salary: Civil Service salary range for GS-11 through GS-15 is \$33,623 to \$86,589 per annum. Salary, benefits, research support, and level of responsibility are commensurate with education and experience. Interested candidates should send a detailed Curriculum Vitae with bibliography, statement of regulatory/research interest, transcripts, and names of three references to: Food and Drug Administration, Center for Biologics Evaluation and Research, 1401 Rockville Pike, Rockville, MD 20852-1448, Attention: General Recruitment Coordinator (129) and/or Equal Employment Opportunity Recruitment Coordinator (116). FDA IS AN EQUAL OPPORTUNITY EMPLOYER AND IS SMOKE FREE.

ANNOUNCEMENT



The Health Effects Institute Request for Applications

The Health Effects Institute is a non-profit corporation that supports studies to evaluate the health effects of automotive emissions. It is funded jointly by the U.S. Environmental Protection Agency (EPA) and the automotive industry.

Applications and Preliminary Applications are now being solicited in the following areas:

RFA 93-1: Novel Approaches to Extrapolation of Health Effects for Mobile Source Toxic Air Pollutants. This RFA solicits novel approaches to address the most pressing extrapolation issues for five mobile source toxic air pollutants:

acetaldehyde, benzene, 1,3-butadiene,
formaldehyde, and polycyclic organic matter.

Suitable areas for applications include research aimed at understanding the relationship among exposure, toxic metabolites, dose, and effects, as well as identifying sensitive subpopulations. Particularly encouraged are novel approaches using biomarkers to address these issues. Letters of intent are due by February 15, 1994; full applications by March 29, 1994.

RFA 93-2: Health Effects of Exposure to Motor Vehicle Emissions. This RFA solicits research in areas outside those listed above that are relevant to the HEI mission. Applications for RFA 93-2 will be accepted at any time and reviewed twice each year.

Requests for details and inquiries should be directed to:

Dr. Jane Warren, Director of Research
The Health Effects Institute
141 Portland Street, Suite 7300
Cambridge, MA 02139

Telephone: (617) 621-0266

Tenure Track Assistant Professor Cardiovascular Pharmacology

The Department of Molecular and Medical Pharmacology of the UCLA School of medicine invites applications for a full-time, tenure-track Assistant Professor position with primary research focus in vascular/cardiac biology and pharmacology. The department is committed to a rapidly expanding multi-disciplinary program in Molecular and Medical Pharmacology with a highly interactive and productive group of investigators. We are interested in an individual capable of establishing a scholarly research program. Areas of particular interest in blood-to-cell and cell-to-cell interactions, signal transduction and second messenger systems, drug-receptor interactions and the pharmacological modification of these processes as they pertain to vascular/cardiac biology and pathophysiology. The successful candidate will also participate in the education of graduate and medical students. Consideration of applications commences in early March. Please submit your curriculum vitae, representative reprints, three letters of reference and a one page statement of research and teaching goals to: Dr. C.B. Gundersen, Search Committee Chair, Department of Molecular and Medical Pharmacology, UCLA School of Medicine, Los Angeles, CA 90024-1735.

UCLA is an Affirmative Action/Equal Opportunity Employer.

The Center for the Evaluative Clinical Sciences Dartmouth-Hitchcock Medical Center

Dartmouth-Hitchcock Medical Center established The Center for the Evaluative Clinical Sciences (CECS) to foster interdisciplinary research in medical care epidemiology, health policy and health behavior. In addition, a graduate program in the evaluative clinical sciences has enrolled its first class and an executive program is being planned.

Senior faculty positions have been established. The successful applicants will qualify for appointment at the rank of Associate Professor or Professor at Dartmouth Medical School. Clinicians may hold joint appointments in the CECS and the clinical faculty of their specialty. Candidates should have a record of research achievement in such disciplines as medical care epidemiology, health behavior or improvement of health care and will spend at least half-time in research. Dartmouth Medical School is an EO/AA employer and encourages applications from women and members of minority groups.

Recruitment for these positions will take place over the next two years. Application materials will be reviewed beginning February 1, 1994. Applicants should submit a curriculum vitae, a statement of research and teaching interests and names of three references to:

John E. Wennberg, M.D., M.P.H.
Director, The Center for the Evaluative
Clinical Sciences,
7251 Strassenburgh Hall
Dartmouth Medical School, Hanover, NH
03755-3863

FACULTY of MEDICINE
CHAIR OF EXPERIMENTAL
PHYSIOLOGY

The University Court invites applications for appointment to the newly established Chair of Experimental Physiology. The successful candidate will be expected to take up the appointment at the earliest opportunity.

The University seeks to appoint an established researcher, who has made significant contributions to the field of neuroscience or cell physiology, to complement the existing research strengths of the department, although individuals with merit in other aspects of physiological research will be considered.

Please quote REF: SCI 930482.

Further particulars may be obtained from:
THE SECRETARY TO THE UNIVERSITY,
THE UNIVERSITY OF EDINBURGH,
1 ROXBURGH STREET, EDINBURGH EH8 9TB
FAX: 031-650 6509

with whom applications (14 copies) including names and addresses of three referees, should be lodged. Overseas applicants need send only one copy of their application. Applications by Fax should be confirmed by mail.

Closing date: 26th January, 1994.



The Max-Planck-Gesellschaft zur
Förderung der Wissenschaften e.V.
at the
Max-Planck-Institute of Psychiatry
Martinsried, Munich

offers the opportunity to set up an

INDEPENDENT RESEARCH
GROUP

Applicants should have already accomplished internationally recognized research in the fields of cellular or molecular neurobiology.

The duration of the contract will be 5 years, the salary being within the German university salary scale C3.

The Institute guarantees the salaries for one additional scientist and one technician, provides appropriate space and support for running costs and equipment. The possibility exists of extending this basic research potential by grant applications.

Applications should contain a tabular curriculum vitae, a list of publications and a short description of scientific work, both achieved and intended. These should be submitted not later than 28th February 1994 to:

G.W. Kreutzberg, Director
Max-Planck-Institute of Psychiatry
Am Klopferspitz 18a
821 52 Martinsried
Germany



INTERNATIONAL LABORATORY FOR RESEARCH
ON ANIMAL DISEASES (ILRAD)

Postdoctoral Vacancy Announcement (ref. PD 1/93)
Molecular Immunologist

ILRAD belongs to the Consultative Group for International Agricultural Research (CGIAR), a consortium of 17 international research centers working under the auspices of the World Bank, United Nations Development Programme and the Food and Agriculture Organisation. ILRAD's mandate is to develop and improve methods to control livestock diseases that constrain agricultural productivity in the developing countries. It is anticipated that impact of these efforts will shortly be increased by the restructuring of ILRAD's programmes and those of its sister CGIAR Institute, the International Livestock Centre for Africa, to form a new global strategic livestock research entity.

An opportunity has arisen at ILRAD Headquarters in Nairobi-Kenya, for a molecular immunologist to join a multi-disciplinary group working towards the development of improved cattle vaccines against tick-borne diseases. The successful candidate will be responsible for characterising class II MHC genes of cattle in immunisation trials using nucleic acid-based techniques, and evaluating the role of specific class II MHC sub-locus products in the induction of CD4+T cell subset responses. Additional areas will include analysis of T cell receptor gene usage in the responses of cattle to tick-borne disease pathogens. Candidates should have a Ph.D. degree in molecular immunology or a related discipline, and preferably be familiar with ruminant immunity.

This is an international staff position and salary will be paid in US dollars. Moving, housing, commutation and education allowances are paid, in addition to medical and retirement benefits. Interested applicants should send a statement of research interests along with curriculum vitae and names and addresses of three referees to: The Chief Personnel Officer, ILRAD, P.O. Box 30709, Nairobi, Kenya. Informal enquiries may be addressed to Dr. Declan McKeever, tel. +254 2 632311 #326; fax +254 2 631499.

Applications should be received before **January 31, 1994** and only applicants who reach the final shortlist will be contacted.

ILRAD is an equal opportunity employer.

Roche

DEPARTMENT OF BIOLOGY PHARMACEUTICAL RESEARCH NEW TECHNOLOGIES is looking for applications for the position of

SCIENTISTS with Ph.D. or M.D.
IN NEUROHISTOLOGY

This position is opened for a talented and dynamic scientist interested to build up a laboratory devoted to the histochemical analysis of the CNS. The successful candidate will have a background in neurobiology/anatomy and documented expertise in diverse cytochemical techniques which allow detection/localization of mRNAs and proteins in the CNS and periphery. Experience in mapping the distribution of neurotransmitter systems is desirable.

The candidate will join the Department of Biology, Pharmaceutical Research New Technologies, which is devoted to basic research and technology development and is located in Basel, Switzerland.

Interested principals may direct their complete application documentation to Dr. Suzanne Gräzer, quoting reference Science 157/93/Grä.

F. Hoffman-La Roche Ltd., P.O. Box, Ch-4002 Basel



GLAXO INSTITUTE FOR MOLECULAR BIOLOGY

Research at the Glaxo Institute in Geneva is directed towards the discovery of novel molecular mechanisms that can be used as drug targets to treat serious diseases. In particular, research is focused on the CNS, allergies and inflammatory conditions. We have an outstanding opportunity for a

POSTDOCTORAL BIOCHEMIST to work on G-protein linked receptor systems

The successful applicant will work within a multidisciplinary team identifying and characterizing novel seven transmembrane receptors. Experience of measuring receptor-linked G-protein activation and associated effector and second messenger systems is essential. Informal enquiries to Dr. Steve Arkinstall (tel. ++ 41 22 706 98 42).

The Institute has a strong publication record, which the appointee will be expected to maintain. Attendance and presentation at scientific meetings is encouraged, as well as collaborative research with academic groups.

We offer an excellent compensation and benefits package and significant opportunities for career development. Geneva, situated in a very attractive part of Europe, has many advantages as a place to live. The Institute for Molecular Biology is part of the Glaxo group, one of the world's most successful healthcare companies which has an outstanding reputation for the quality of both its research and products.

If you are interested in this position, please send your curriculum vitae with a list of publications and the names of three referees to : Rita Gloor, Personnel Manager, Glaxo Institute for Molecular Biology S.A., 14, chemin des Aulx, 1228 Plan-les-Ouates, Switzerland.



CENTRE FOR PLANT BIOCHEMISTRY & BIOTECHNOLOGY

Chair of Plant Molecular Science

**DEPARTMENT OF BIOCHEMISTRY & MOLECULAR BIOLOGY AND
DEPARTMENT OF PURE & APPLIED BIOLOGY**

Applications are invited for a Chair in the Centre for Plant Biochemistry and Biotechnology. The appointment will be jointly held in the Department of Biochemistry & Molecular Biology and the Department of Pure & Applied Biology.

The role of this chair will be to provide academic leadership in plant sciences in the two parent departments and to enhance the already high international research reputation of the Centre. The post offers an important opportunity for research within a university containing a well-developed supporting infrastructure and considerable opportunity for interdisciplinary activity within a community of more than 100 academic staff in the biological sciences. Applications are encouraged from those with an international scientific reputation in any fundamental or strategic area of plant molecular sciences. Funding is available for a second academic appointment in a similar area.

The salary will be within the non-clinical professorial range.

Candidates wishing to discuss the post informally should contact Professor Howard Atkinson (tel: 0532 332863), through whom arrangements can also be made to visit the Centre and the two parent Departments.

The University of Leeds is an Equal Opportunities employer. Women and members of ethnic minorities are under-represented in the University in posts at this level and the University would therefore particularly welcome applications from members of such groups whilst, however, affirming that the appointment will be made entirely on merit.

Further particulars may be obtained from the **Personnel Office (Academic Section), Office of the Registrar, The University of Leeds, Leeds LS2 9JT, UK. Tel: 0532 335775 (direct line)** quoting reference number 83/144. Closing date for applications: 15 January 1994.

POSITIONS OPEN

RESEARCH FELLOWSHIPS—Mount Sinai School of Medicine, Department of Psychiatry, in conjunction with Pilgrim State Psychiatric Center, announces Research Fellowship Positions for physicians that combine training in Basic Biology and Clinical Treatment Trials of Schizophrenia. Training opportunities allow for joint training in molecular biology at the Mount Sinai Medical Center and in clinical treatment trials at Pilgrim State Psychiatric Center. Applicants will be eligible for faculty appointment at the Mount Sinai School of Medicine. Salary dependent on experience and credentials. Please send curriculum vitae to: **Robert L. Trestman, Ph.D., M.D., Director of Research Fellowship Training, Mount Sinai School of Medicine, Box 1230, One Gustave L. Levy Place, New York, NY 10029-6574. An Equal Opportunity Employer.**

POSTDOCTORAL SCIENTIFIC RESEARCH OPPORTUNITIES IN INDIA. 3 to 12-month fellowships in India awarded to U.S. citizens in 1993-94. For more information, contact: **Jeanine Marie Greene, Academy for Educational Development, 1255 23rd Street, N.W., Washington, DC 20037, or 1-800-545-8007.**

The University of Pennsylvania, Department of Pathobiology seeks to fill **POSTDOCTORAL RESEARCH POSITIONS** to study the molecular mechanisms that regulate the expression of contractile proteins in smooth muscle during growth and in pathological conditions. Candidates with backgrounds in cell biology and/or molecular biology are invited to apply. Our projects are to study the pathogenetic mechanisms for smooth muscle diseases at cellular and molecular levels. Trainees will have ample opportunities to collaborate, learn and to publish in a very exciting area. Send curriculum vitae and 3 references to: **Dr. Samuel Chacko, Department of Pathobiology, 389E Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104-6051. The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE

The Department of Neurological Sciences at Rush Presbyterian Medical Center is currently seeking a postdoctoral fellow/instructor experienced in molecular biology to join an active NIH-supported multidisciplinary research group studying the gene expression of neurotrophins in normal human aging, neurodegenerative disease and neural transplantation. Qualified applicants should have experience in molecular techniques including: *in situ* hybridization, PCR, Northern, Western and slot blotting techniques as well as RNA protection assay. This full-time research position is supported for two years with the possibility of a third. Send statement of research interests, curriculum vitae and names of 2 or 3 references to: **Dr. Elliott Mufson, Rush Presbyterian Medical Center, Department of Neurological Sciences, Tech 2000, 2242 West Harrison, Chicago, IL 60612.**

PURIFICATION SCIENTIST

A unique opportunity exists to become part of a self-directed work team designed to purify novel natural products for use in agriculture. This position is responsible for purification of small organic and aqueous molecules. Desirable qualifications include B.S., M.S., or Ph.D. in a science-related field with 3 to 5 years of purification experience and excellent interpersonal skills. Experience with HPLC, liquid chromatography, gel permeation and counter current chromatography is required. Novo Nordisk Entotech, Inc. is a biotechnology industry leader providing research, development and technical support for environmentally sound microbial pest control products. We are located in a northern California university setting near skiing, sailing, hiking and bike trails. Come join a fast-paced, innovative, team-oriented work environment. Please mail or FAX curriculum vitae immediately to:

**Novo Nordisk Entotech, Inc.
1497 Drew Avenue
Davis, CA 95616-4880
FAX: (916) 757-4789**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS IN GAMETE AND EMBRYO BIOLOGY at the University of Wisconsin, Madison

Training faculty and research topics are: **Barry Bavister**—fertilization and early development; **Gary Borisy**—cell motility and the cytoskeleton; **Neal First**—maternal/embryonic transitions; **Jeff Hardin**—gastrulation and morphogenesis; **John Hearn**—implantation; **Gary Lyons**—gene expression in embryonic stem cells; **John Parrish**—capacitation and acrosome reaction; **Gerald Schatten**—motility during fertilization and egg activation. Candidates must be U.S. citizen or permanent resident. Send curriculum vitae, three letters of recommendation, reprints/preprints, and a 2- to 3-page research proposal to: **Dr. Gerald Schatten, Gamete and Embryo Training Program, University of Wisconsin, 1117 West Johnson Street, Madison, WI 53706. FAX: (608) 262-7319. An Affirmative Action/Equal Opportunity Employer.**

W. ALTON JONES CELL SCIENCE CENTER

PROTEIN CHEMIST RESEARCH POSITION WITHIN A PROTEIN CHEMISTRY CORE FACILITY. Requires experience in peptide/protein purification, peptide synthesis, microsequencing, amino acid analysis and computer data analysis. Mass spectrometry experience desirable. Send or FAX résumé to: **Dr. John W. Crabbs, c/o Personnel Manager, PROTEIN CHEMISTRY FACILITY, W. ALTON JONES CELL SCIENCE CENTER, 10 Old Barn Road, Lake Placid, NY 12946; FAX: 518-523-1849. Equal Opportunity/Affirmative Action Employer.**

ECOLOGIST

The Center for Wildlife Ecology of the Illinois Natural History Survey (INHS) invites applications from persons with established research programs in one or more areas of applied or basic vertebrate ecology. A field-oriented research program is preferred. The successful applicant will: (1) develop or maintain a vigorous, extramurally funded research program, (2) administer or supervise one or more large research projects, and (3) develop productive working relationships with public, private, and academic resource agencies at local to international levels. The position is full-time and the successful applicant will be stationed on the campus of the University of Illinois. Applicants must hold a Ph.D. in an appropriate discipline and have eight or more years of relevant job-related experience. For full consideration, applications should be received by January 14, 1994. Please submit letter of application, résumé, statement of research interests, and the names, addresses, and telephone numbers of four references to: **Ms. Jacqueline Sanders, Personnel Officer, Illinois Natural History Survey, 607 East Peabody Drive, Champaign, IL 61820. Telephone: (217) 244-7790. FAX: (217) 333-4949. The INHS is an Equal Employment Opportunity/ADA Employer.**

RADIOCHEMIST

Qualifications: Nuclear Chemist or Radiochemist. Position and salary dependent on experience and qualifications. Candidate must have Ph.D. degree with experience in working with high levels of radioactive nuclides. Background in labeling with radio-halogens is desirable. Work entails labeling monoclonal antibodies with astatine for radioimmunotherapy of cancer. Research work will be performed in collaboration with **Drs. William Eckelman, Otto Gansow and Thomas Waldmann** at the NIH.

Send curriculum vitae, or for further information contact:

**Ms. Jean Decker
Metabolism Branch, WCI
National Institutes of Health
Building 10, Room 4N115
Bethesda, MD 20892
Telephone: 301-402-1898**

National Institutes of Health, Public Health Service. NIH is an Equal Opportunity Employer.

POSITIONS OPEN

COLUMBIA UNIVERSITY, Psychology Department, invites applications for two positions to start September 1994: **HUMAN COGNITION:** applications at any level will be considered, but of special interest is a senior scientist with a record of outstanding research contributions and a strong commitment to undergraduate and graduate teaching; send applications and recommendation letters to **BOX 28. BEHAVIORAL NEUROSCIENCE/ANIMAL COGNITION,** broadly defined: candidates should provide evidence of research excellence and strong commitment to graduate and undergraduate education; of particular interest are those who can contribute to other areas of Department strength; send curriculum vitae, relevant papers, and three letters of reference to **BOX 29.** Submit complete applications no later than January 1, 1994, to: **Search Committee, BOX 400, 406 Schermerhorn Hall, Columbia University, New York, NY 10027. Affirmative Action/Equal Opportunity Employer.**

Ph.D. PROGRAM IN VISUAL SCIENCES

The University of Louisville School of Medicine announces a newly established program of graduate studies leading to a Ph.D. in Visual Sciences. Based in the Kentucky Lions Eye Research Institute, this graduate program focuses on the anatomy, biochemistry, physiology and pharmacology of specialized tissues within the eye, and psychophysics of the visual system. Applications are being considered from individuals who wish to enter the program in August 1994. For information, contact: **Nicholas A. Delamere, Ph.D., Department of Ophthalmology and Visual Sciences, University of Louisville School of Medicine, Louisville, KY 40292. Telephone: (502) 588-5460. FAX: (502) 588-7298.**

MARINE BIOTECHNOLOGY/BIOMEDICINE

The Center for Marine Biotechnology and Biomedicine, a newly formed Center within the University of California, San Diego, and located at the Scripps Institution of Oceanography, seeks to appoint a **RESEARCH BIOLOGIST** with a demonstrated commitment to independent research in the area of marine biotechnology or marine biomedicine. We are primarily interested in, but are not limiting our search to, individuals whose research employs marine systems and focuses on one or more of the following areas: pharmacology, immunology, genetic engineering, molecular biology and environmental biotechnology. Candidates must have a Ph.D. or equivalent and have extramural support for salary and research. Level of appointment and salary depend on research achievements and are based on UC salary scales. It is institutional practice to provide 20% to 25% of the annual salary at the Associate and Full Research levels respectively, subject to availability of funds. Send curriculum vitae, statement of current and future research activities, and names of three references by 15 January 1994 to: **Director, CMBB, Scripps Institution of Oceanography, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0202. An Equal Opportunity/Affirmative Action Employer.**

PHARMACOLOGIST (B.S. or M.S.). Yukong Ltd. is a growing pharmaceutical company dedicated to the discovery and development of drugs to treat CNS-related disorders. Ideal candidate must have prior experience in neuropharmacology in pharmaceutical industry. Ability to perform preclinical *in vivo* procedures in pharmacology and/or toxicology is desirable (**Position # P94-2**). Send résumé indicating position # to: **Yukong Ltd., P.O. Box 10271, Fairfield, NJ 07004.**

COMPUTER MARKETPLACE



Software for Ecology

RAMAS®

- Ecological Research • Conservation Biology
 - Teaching Ecology • Environmental Assessments
- Free Catalog (800) 735-4350, Fax (516) 751-3435
Applied Biomathematics, Setauket New York

Circle No. 46 on Readers' Service Card

(Continued on page 1786)



Roche

Our Department of Biology, Pharmaceutical Research - New Technologies, has a challenging opportunity for a biologist as

Postdoctoral Fellow

in the team studying the molecular and cellular biology of G-protein- coupled receptor research.

A documented expertise in receptor biology and/or signal transduction is required and experience in molecular biological techniques is desirable.

Interested, appropriately qualified applicants should send their application with representative reprints and curriculum vitae to our personnel department, Mrs. S. Heimgartner, quoting reference Science 158/93/SH.

**F. Hoffman-La Roche Ltd.,
P.O. Box, Ch-4002 Basel**

MRC
Medical Research Council

TEAM LEADER OF THE MRC/ODA RESEARCH PROGRAMME ON AIDS IN UGANDA

Applications are invited for the position of Team Leader of the MRC/ODA Research Programme on AIDS in Uganda. The post will become vacant towards the middle of 1994 when Dr. Daan Mulder, the present Team Leader, plans to leave the Programme. The programme was established in 1988 and renewal of the joint MRC/ODA support for a second 5-year term (1993-1998) has recently been agreed. The Government of Uganda, the MRC and the ODA have a strong commitment to this important Programme, which is a key element of international studies on the behavioural and biological factors that influence HIV infection and disease progression.

The successful candidate will be an experienced scientist with a proven track record in research relevant to health in developing societies. Ideally, he/she should have an active interest in HIV/AIDS research, including epidemiological, behavioural and social aspects and strategies for translating research findings into sustainable public health measures. He/she will also need to demonstrate successful experience of managing substantial research activity together with the presentational and diplomatic skills necessary to lead an important multi-disciplinary Programme involving international interests.

This will be a 4-year appointment in the first instance. Salary will be based on age an experience and the total remuneration will include provision for relocation and overseas allowances as well as family accommodation in Entebbe, Uganda.

For further details and an application form, please contact Dr. Huw Jenkins at MRC Head Office, 20 Park Crescent, London W1N 4AL (Tel. 071 636 5422 Ext. 6213/Fax 071 636 3427).

Closing date for application is 17 January 1994.

The MRC is an equal opportunities employer.

**The University of Edinburgh is
seeking to fill two Chairs in
the Division of Biological Sciences
to enhance further the teaching
and research reputations of this
5-rated department**



REGIUS CHAIR OF BOTANY

Applications are invited for the Regius Chair of Botany, previously held by Professor M. M.

Yeoman, FRSE, which is being filled in collaboration with the Royal Botanic Garden Edinburgh. The Regius Professor will be

required to divide his/her time between the Royal Botanic Garden Edinburgh and the

Division of Biological Sciences at the University's King's Buildings site. The appointee will be expected to show leadership in research and to encourage collaboration between plant scientists in the Division, the Garden and elsewhere. The Regius Professor will also be expected to contribute to and lead in developments in the teaching of his/her subject.

Applications are invited from suitably qualified and enthusiastic plant scientists with established research backgrounds in higher plant biology.

Candidates should have demonstrated research excellence in one or more of the following fields: modern aspects of plant systematics, plant morphology, evolutionary and population biology of plants, plant conservation and biodiversity studies.

Please quote REF: SCI 930469.

CHAIR OF ZOOLOGY

Applications are invited for the Chair of

Zoology, previously held by Professor J. M.

Mitchison, FRS. The post will be held in the

Institute of Cell, Animal and Population Biology of the Division of Biological Sciences. The major research areas in the Institute are immunology, genetics, parasitology, evolution and animal behaviour. The successful candidate will have a distinguished research record and will be expected to develop strong research and teaching, preferably in or closely related to one of ICAPB's strengths.

Please quote REF: SCI 930470.

Informal enquiries about either Chair may be made to Professor W. G. Hill, FRS (telephone: 031-650 5525 or Fax: 031-650 6556).

Further information may be obtained from:

**THE SECRETARY TO THE UNIVERSITY,
THE UNIVERSITY OF EDINBURGH,
1 ROXBURGH STREET,
EDINBURGH EH8 9TB.**

with whom applications in writing (14 copies, except for candidates from overseas who need submit only one copy) including a curriculum vitae and giving the names and addresses of three referees should be lodged.

Closing date: 7th January, 1994.

COMPUTER MARKETPLACE

(Continued from page 1784)

"The New Statistics"

Resampling/bootstrapping has revolutionized statistics. Hypothesis-testing, confidence intervals, more. RESAMPLING STATS is easy-to-use, powerful, intuitive, for experts and non-statisticians. IBM/MAC. 30 day trial. \$195, \$95 personal or academic. Book, videos also avail.

RESAMPLING STATS

703-522-2713 • Fax: 703-522-5846
612 N. Jackson St., Ste. 1431, Arlington, VA 22201

Circle No. 36 on Readers' Service Card

MARKETPLACE

KEYSTONE Laboratories, Inc.

The Complete
Oligonucleotide
Company

CPG-Oligonucleotides: \$2.00/base

Attached to controlled-pore glass,
with instructions for hydrolysis.

Morning orders shipped the same day.

Tel. 1-800-788-4DNA • Fax 1-800-786-4DNA

Circle No. 21 on Readers' Service Card

CUVETTES PLUS™

Low Cost, Disposable
Electroporation Cuvettes
Each individual sterile package includes
a pipette for easy sample handling



1-800-289-2465
FAX 619-597-9594

Circle No. 57 on Readers' Service Card

Superior Quality

L-NMMA

100 mg - \$76 1 g - \$149 10 g - \$740

Other NOS Inhibitors Available

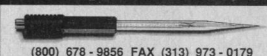
CHEM-BIOCHEM RESEARCH, INC.

Products for Research Since 1979
800-340-9479

Circle No. 27 on Readers' Service Card

YES WE HAVE NO !!!

Complete systems for In Vivo & In Vitro
measurements of nitric oxide, oxygen,
pH, PCO₂, calcium, potassium, & more!



DIAMOND
GENERAL Corp.

Your *one* source for all your micromerement needs.

Circle No. 25 on Readers' Service Card

\$2.⁵⁰
base

DNA



Includes all of the following

• no - set up • 5.0 OD's (165 µgs)

• Column purified • Gel picture Q.C

• Lyophilized • Synthesis Report

24 hour Shipping

BIO-SYNTHESIS

1-800-227-0627 Fax: 214-420-0442

Circle No. 15 on Readers' Service Card

MARKETPLACE

FLUORESCENT MICROSPHERES

Distinctive colors for biology, diagnostics, physiology, aerosols,
and filter testing. Diameters from 0.025 to 165 µm in red, green,
blue fluorescence. Assorted surface properties for protein
coupling. Free catalog available. Toll Free 800-334-3883.
In Calif. 415-962-1100. FAX 415-962-0718



Duke Scientific
Corporation

1135D SAN ANTONIO ROAD
PALO ALTO, CALIF. 94303

Circle No. 38 on Readers' Service Card

CRYSTAL SCREEN

reagent kit for the crystallization of
proteins, peptides and nucleic acids

Hampton Research

800-452-3899 Fax (909) 789-8265

NEW FALL CATALOG!

Circle No. 22 on Readers' Service Card

HybriLogic Corp

Monoclonal Antibody Specialists

Custom Development • Gram-Scale Production
Highly Experienced • Personalized Service

800 / 643-6780 • Fax: 503 / 255-4891

Circle No. 49 on Readers' Service Card

2-D Electrophoresis Services

Fast - Reliable - Custom

1D & 2D Protein PAGE

Kendrick Labs, Inc

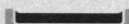
1 800 462-3417



Circle No. 35 on Readers' Service Card

HUMAN ENDOTHELIAL CELLS VENOUS, ARTERIAL, and MICROVASCULAR SYSTEMS

True pools of >50 donors, frozen @ <6 CPD *in vitro*,
>500,000 cells, complete CS growth medium system
characterized and tested for cytokine-stimulated leuko-
cyte adherence, negative for HIV-1 DNA by PCR



800-697-1211

cell systems

Circle No. 32 on Readers' Service Card

CUSTOM PEPTIDES

15-40 mg delivered in 10 days

8-20 residues • \$25 per amino acid

FREE HPLC ANALYSIS

ANTISENSE S-OLIGOS

2+ mg - \$299

Gel purified - Perfect for cell culture

Quality Controlled Biochemicals, Inc.

(800) 435-2080 FAX: (508) 435-2199

Circle No. 66 on Readers' Service Card

CUSTOM DNA SYNTHESIS

We use Applied Biosystems Synthesizers • Prices from \$2.50 per base plus setup

PAGE and HPLC Purification Available

The Midland Certified Reagent Company

800-247-8766 or FAX 915-694-2387

Circle No. 2 on Readers' Service Card

MARKETPLACE

Amino Acid Analysis for your HPLC

Complete post-column systems, buffers,
ninhydrin, OPA, columns, standards

PICKERING
LABORATORIES

800-654-3330 • FAX: 415-968-0749

Circle No. 33 on Readers' Service Card

Q *Monoclonal Antibodies*
E *are just the Beginning. . .*
D **MAB DEVELOPMENT**
SEQUENCING MODELING
Fax 619-451-0105 800-929-2114

A business unit of ImmunoPharmaceuticals, Inc.

Circle No. 72 on Readers' Service Card

X-GAL
\$88/gm
No. SB71800
BUY BOTH (1 gm each)
for **\$75.00**
total price
Research Products International Corp.
800-323-9814

Circle No. 58 on Readers' Service Card

**GET THE BIOREACTOR SYSTEM
YOU NEED!**
We'll customize it, 1-100L.



Applikon

1165 Chess Drive, Suite G
Foster City, CA 94404

FAX (415) 578-1396

(415) 578-1396

Circle No. 76 on Readers' Service Card

Activated For Protein Modification

PEGs

Shearwater Polymers, Inc.

(800) 457-1806

(205) 895-6756 (fax)

Circle No. 75 on Readers' Service Card

Germ-Free Incubators for \$1.-/Day in Every Cell Culture Lab

free of aldehydes • biodegradable • non volatile

12 x 200 ml Biocidal ZF Spraybottles US\$ 360.-*

disinfectant for use in cell culture laboratories

WAK - CHEMIE
MEDICAL GMBH
Germany



Tel. +49 (61 72) 2 20 73
Fax +49 (61 72) 2 03 17

Shipping
incl.

Circle No. 42 on Readers' Service Card

Custom DNA Purified and Delivered in 48 hours

\$5.00 per base • Purified
Guaranteed minimum 100 µg DNA

Research Genetics

1-800-533-4363

Circle No. 1 on Readers' Service Card

GENERELEASER

PCR* READY DNA IN 5 MINUTES

1993
R&D
100
WINNER



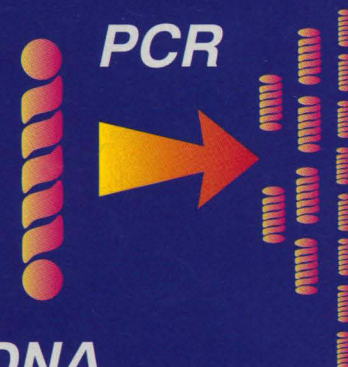
**SAMPLE
TYPES**



*** FIVE MINUTE PROTOCOL**

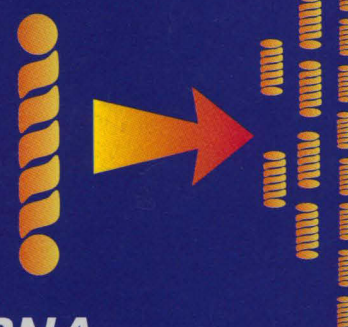
*** MULTIPLE ASSAYS**

*** KITS NOW AVAILABLE**



DNA

PCR



RNA

RT-PCR

IN ADDITION TO THE STOCK GENERELEASER REAGENT, KITS FOR DNA AND RNA PREPARATION FROM MOUSE TAILS, WHOLE TISSUES, YEASTS, PLANTS, AND PARAFFIN EMBEDDED TISSUES ARE AVAILABLE COMPLETE WITH PROTOCOLS, MICROWAVE RACK, DISPOSABLE PESTLES AND TUBES FOR 50 ASSAYS.

**CALL NOW FOR ONE OF THE MOST COST EFFECTIVE,
INNOVATIVE SAMPLE PREPS AVAILABLE**

BioVentures, Inc.

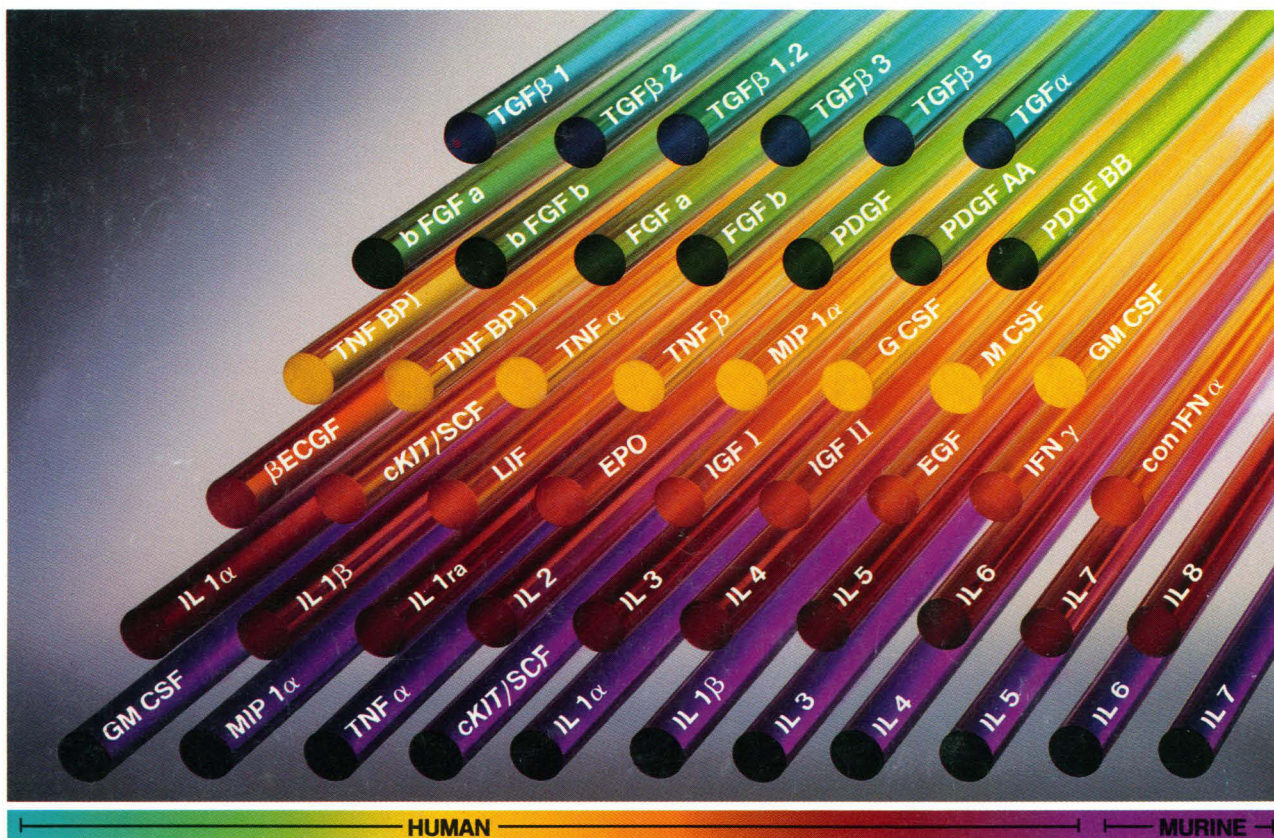
Phone 800-235-8938 FAX 615-896-4837

AUSTRALIA: Integrated Sciences Pty. Ltd. (02) 436-2611 AUSTRIA: Vienna Lab (1) 740-40-190 BELGIUM: Eurogentec (41) 66 01 50 CANADA: General Synthesis & Diagnostics (416) 978-8805 & Kara-Tech (604) 264-8844
CHINA: Jingmei Biotech 364-273 & T.W.C. BioSearch International (852) 699-6208 CZECH REPUBLIC: BioVendor sro (49) 69-6772127 FRANCE: ATGC Biotechnologie (1) 43 04 21 00 & Eurogentec (41) 66 01 50
GERMANY: Angewandte Gentechnologie Systeme mbH (6221) 831023 & Eurogentec (41) 66 01 50 & Syrinx-Vertriebsges mbH (69) 359686 or (6221) 161720 ISRAEL: Talron (8) 472563 ITALY: Polymed srl (55) 8071285
JAPAN: Tanakoshi (3) 5684-1622 KUWAIT: Boushahri Medtech 5729000 THE NETHERLANDS: Eurogentec (41) 66 01 50 NEW ZEALAND: Integrated Sciences Pty. Ltd. (02) 436-2611
SOUTH AFRICA: Whitehead Scientific (21) 981-1560 SPAIN: Bio-Synthesis (1) 352-63-99 & C.E. Durviz sl (6) 347-6409 TAIWAN: Pro-Tech (2) 3810844 UNITED KINGDOM: Cambio 223-66500

PCR IS COVERED BY PATENTS OWNED BY HOFFMANN-LA ROCHE

Circle No. 37 on Readers' Service Card

For CYTOKINE Research



The Broadest Spectrum of Premium Quality Cytokines

The cytokine laboratories of R&D Systems provide the most extensive line of both natural and recombinant cytokines. Each protein carries the following assurances:

Superior Quality

Each cytokine is produced and extensively tested in the laboratories of R&D Systems, ensuring extremely high and consistent quality.

Full Biological Activity

The biological activity of each cytokine is determined by bioassay. A description of the appropriate bioassay and the typical ED₅₀ range is included in each package insert.

Highest Purity

All are greater than 97% pure, as determined by N-terminus analysis as well as SDS-PAGE visualized by silver stain.

Additional Reagents

R&D Systems produces over 250 cytokine related reagents (e.g. neutralizing and detection antibodies, genes, probes, and cytokine ELISA assay kits) to provide investigators with a solid foundation on which to do cytokine research.

To obtain a catalog, detailed product information or to place an order call 1-800-343-7475.

In Europe contact:

British Bio-technology, Ltd.
4-10 The Quadrant, Barton Lane
Abingdon, Oxon OX14 3YS
Telephone: +44 (0865) 781045
Fax: +44 (0235) 533420

In Japan contact:

Funakoshi Co., Ltd.
9-7, Hongo 2-Chome
Bunkyo-ku, Tokyo 113
Telephone: +81 (03) 56841622
Fax: +81 (03) 56841633

R&D Systems
614 McKinley Place N.E.
Minneapolis, MN 55413
Telephone: 800-343-7475
Fax: (612) 379-6580

1-800-343-7475

Circle No. 60 on Readers' Service Card

R&D SYSTEMS