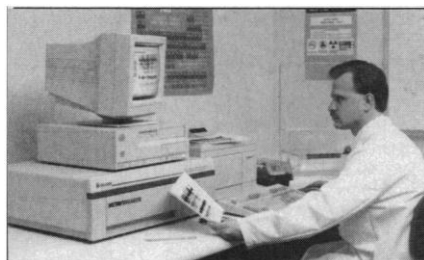


DNA Synthesizer

With the Oligo 1000 DNA Synthesizer, primers and probes are available within 4 hours, and the DNA can be used without additional purification for most research applications, including polymerase chain reaction. Coupling efficiency is determined automatically, and the user is notified should efficiency drop below an acceptable level. Reagent usage is monitored and synthesis is paused when an empty bottle is detected; reagent age, flow rate, and gas pressure are also monitored automatically. **Beckman Instruments. Circle 140.**

Notebook Computer with Built-in Printer

The NoteJet 486 is a notebook computer with a built-in micro Bubble Jet printer that prints laser-quality text and graphics on plain paper. An optional fax modem can be added. NoteJet 486 features Texas Instruments' 25-MHz 486SLC microprocessor with 1 kilobyte of cache; 4 megabytes of random access memory (expandable to 12 megabytes);



two personal computer memory card interface association-type II slots; 9.5-inch VGA backlit monochrome LCD screen; 3.5-inch floppy disk drive; 2.5-inch hard disk drive; NiCad battery; handheld input device; AC adapter/recharger; serial, parallel, and PS/2 mouse/keypad ports; factory-installed Windows, DOS, and NoteJet tutorials; and integrated printer. The printer features a resolution of 360 dots per inch and a 10-page automatic sheet feeder and prints on all types of paper including labels and transparencies. Note-

Jet weighs 7.7 pounds and is 12.2 inches wide, 10 inches deep, and 2.2 inches high. **Canon Computer Systems. Circle 141.**

Plasmid Kits

A set of kits for plasmid DNA preparation includes the following kits. The QIAprep-spin Plasmid Kit can purify up to 20 µg of plasmid DNA without the use of phenol or chloroform extractions. The QIAwell-8 Plus Plasmid Kit can prepare 8 to 48 pure double-stranded DNA templates for fluorescent sequencing in under 1 hour. DNA is purified on QIAwell-8 strips from a cleared bacterial lysate. Templates are desalted and concentrated in-line using QIAprep-8 strips. Sequencing-ready double-stranded DNA is then eluted in water or tris. QIAprep-8 Plasmid Kit allows simultaneous preparation of 8 to 48 minipreps, without phenol or chloroform, in under 1 hour. **QIAGEN. Circle 142.**

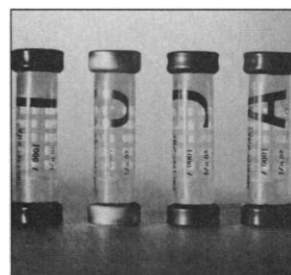
Polyclonal Chicken Antibodies

Polyclonal chicken antibodies are now available. Because of evolutionary differences between chicken and mammalian species, chicken antibodies to mammalian immunoglobulins have no cross-reactivity with other mammalian immunoglobins. This offers many advantages for immunoassays by eliminating the need for cross-species immunoadsorptions and reducing undesirable reactions in which anti-immunoglobulin G (anti-IgG) antibodies are used. Rheumatoid factor (RF) is a common source of interference in immunoassays where mammalian antibodies are used in the detection of proteins. RF can react with IgG from

mammalian species, causing false positive results. Because of structural differences between chicken and mammalian IgG, chicken IgG does not react with RF. **Pierce. Circle 143.**

Prepacked Columns

Prepacked reaction columns for DNA and RNA synthesizers are available for use on MilliGen syn-



thesizers. MilliGen-style columns are packed with DNA and RNA monomers bound to CPG or WPS solid supports. Supplied with either 500 or 1000 Å pore-size supports to accommodate oligomers of different lengths, the columns are offered with either 1.0 or 0.2 mmol of bound monomer for different scales of synthesis. The columns are made of inert plastic that is resistant to the corrosive reagents and solvents used for automated synthesis. **BioGenex. Circle 144.**

UV/VIS Spectrometer

The Lambda Bio Ultraviolet/Visible (UV/VIS) Spectrometer enables bioresearchers to run more than 50 predefined methods with a single keystroke, providing fast results for DNA and protein characterization. Users can run methods for nucleic acid, protein, kinetic, and general quantitative and qualitative analyses without programming or method development. The Lambda Bio

can also run methods developed for specific applications. Accessories include auto cell changers and sippers and temperature-controlled cell holders. The unit can also be hooked up to a standard personal computer. **Perkin-Elmer. Circle 145.**

AMCA Conjugates

A new range of antibodies conjugated to AMCA (7-amino-4-methylcoumarin-3-acid) is now available. AMCA conjugates optimally absorb light at 350 nm and emit at 450 nm, producing a blue fluorescence that is easier to photograph than other fluorochromes and that does not fade as rapidly as fluorescein isothiocyanate (FITC). AMC conjugates make good second or third labels for multiple-labeling experiments because there is minimal overlap in fluorescence with FITC and no overlap with other fluorochromes. **Serotec. Circle 146.**

Literature

Advances in Cell Signalling explains the recent techniques and developments in this field. **Amer-sham International. Circle 147.**

PC Systems Handbook for Scientists and Engineers: 1993 New Products Supplement offers a broad assortment of more than 300 hardware and software components and turn-key systems. **CyberResearch. Circle 148.**

1992-1993 Biotechnology Catalog New Product Supplement provides 12 pages of new polymerase chain reaction (PCR) products and an updated PCR bibliography. **Perkin-Elmer. Circle 149.**

OligoTechniques: Innovative Chemistry for Biological Applications is a newsletter describing novel techniques and applications for nonisotopically labeling oligonucleotides. **Clontech Labs. 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

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POSITIONS OPEN

MOLECULAR-CELLULAR NEUROSCIENTISTS. The Neuroscience Program at the Loeb Research Institute and the Division of Neurology at the Ottawa Civic Hospital, a University of Ottawa teaching hospital, is seeking 2 qualified candidates, one at the **ASSISTANT PROFESSOR** level (Ph.D. and/or M.D. with at least 3 years of postdoctoral training), and one at the level of **ESTABLISHED INVESTIGATOR** (with an internationally competitive track record). Candidates must demonstrate excellence, originality and productivity in molecular and/or cellular neurobiology. You will join a program whose clinical foci in stroke/ischemia and degenerative/movement disorders are supported by a neuroscience research group (8 Pls) who use cell and molecular biology and electrophysiology to study cell-cell communication and neurotransmission, membrane trafficking, mechanisms of neuron/glia response to ischemia, CNS regulation of hydromineral and cardiovascular homeostasis. Preference will be given to applicants using **molecular approaches directed to postreceptor signal transduction.** *In accordance with Canadian immigration regulations, this advertisement is directed first, but not solely, to Canadian citizens and permanent residents.*

Please forward curriculum vitae with names of three references and a statement of goals/interests by August 31, 1993, to: **Dr. Leo Renaud, Director, Neurology/Neurosciences, Ottawa Civic Hospital and Loeb Research Institute, 1053 Carling Avenue, Ottawa, Ontario, CANADA K1Y 4E9.** We support Equal Opportunity and a smoke-free environment.

The Swiss Federal Institute of Technology in Zurich (ETHZ) invites applications for the position of:

PROFESSOR OF AQUATIC BIOLOGY/ECOLOGY

The location is at the Limnology Department of the Swiss Federal Institute for Water Resources and Water Pollution Control (EAWAG). The duties are teaching, research, and consulting in the area of structure and function of aquatic ecosystems.

The experimental research should focus on biological and ecological processes in aquatic systems and the relation between these systems and their environment. The research objectives should be directed towards the development of new ecological concepts for a sustainable use of water resources, and the improvement of the role of lakes and rivers as habitats for organisms and as part of the environment. Teaching responsibilities include classroom, laboratory, and field work with biology, environmental science and environmental technology students. The professor should be actively involved in bridging the gap between research and practice.

Applicants should have an outstanding, internationally competitive academic record in either ecology, limnology, zoology, plant sciences, or similar disciplines. They should be ready for interdisciplinary collaboration with natural and social scientists, and engineers.

Please submit your application together with curriculum vitae and a list of publications to: **President of ETH Zurich, Prof. J. Nüesch, ETH Zentrum, CH-8092 Zurich**, no later than September 30, 1993. *The ETHZ specifically encourages women to apply with a view towards increasing the proportion of female professors.*

ASSISTANT/ASSOCIATE PROFESSOR OF ANATOMY AND CELL BIOLOGY

The Department of Anatomy and Cell Biology at the University of Florida College of Medicine invites applications for a tenure-track position at the assistant or associate professor level beginning on or after January 1, 1994. Applicants should have a Ph.D. or equivalent degree, a minimum of two years of postdoctoral experience, and the ability to develop an independent research program in the area of cell, developmental and/or molecular biology. The successful candidate will participate in the teaching of gross anatomy and must have experience or demonstrated interest in this teaching discipline. Salary is negotiable. It is expected that the candidate will take an active role in the departmental graduate program.

Interested applicants should forward complete curriculum vitae, brief description of research interest and teaching experience, and names of three references by September 30, 1993, to: **Kyle E. Rarey, Chairman Search Committee, Department of Anatomy and Cell Biology, University of Florida College of Medicine, Box 100235 JHMC, Gainesville, FL 32610.**

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

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR POSITION is available in the Department of Cell Biology and the Lombardi Cancer Research Center, Georgetown University School of Medicine, for molecular biological studies on newly discovered plasma membrane proteases. The successful candidate will be expected to lead a group of cell biologists to clone, sequence, and express plasma membrane protease genes. Send curriculum vitae, statement of current and future research, publications, and names and telephone numbers of three references to: **Dr. Wen-Tien Chen, Professor of Cell Biology, Georgetown University School of Medicine, 3900 Reservoir Road, N.W., Washington DC 20007.** *An Affirmative Action/Equal Opportunity Employer.*

RESEARCH ASSISTANT PROFESSOR CELLULAR BIOMECHANICS

A (non-tenure-track) position as a research assistant professor is available in the general area of cellular mechanics. Liposomes and blood cells in a resting state and white blood cells in phagocytosis and locomotion are to be studied. The applicant should be skilled in the use of conventional light and fluorescent microscopy and the micromanipulation and micropipet aspiration techniques that are used to mechanically deform individual blood cells and liposomes. The applicant should be able to use the equations of fluid and solid mechanics to model the deformation and flow of cells and membranes. Applications should be sent by September 1, 1993, to:

Robert M. Hochmuth
 Professor and Chairman
 Department of Mechanical Engineering and
 Materials Science
 Box 90300
 Duke University
 Durham, NC 27708-0300

The Institute of Paper Science and Technology (IPST) has an immediate opening for a faculty position of **ASSISTANT or ASSOCIATE PROFESSOR.** The position involves research project leadership and publication, participation in industry-sponsored research on tree propagation, graduate student advising, and teaching at the graduate level. Qualifications include a Ph.D. in biology with a record of scientific publication in the areas of molecular biology and plant physiology or biochemistry. Applicants should send a cover letter and résumé by September 15, 1993, to: **IPST Personnel Manager, 500 10th Street, N.W., Atlanta, GA 30318.** *Equal Employment Opportunity/Affirmative Action Employer, M/F/V/H.*

FACULTY POSITIONS IN COMPUTATIONAL BIOLOGY AND BIOMEDICAL ENGINEERING

The Institute for Biomedical Computing at Washington University in St. Louis invites applications for tenure-track faculty positions at the rank of **ASSISTANT or ASSOCIATE PROFESSOR** for scientists [Ph.D. or equivalent] applying computational approaches to biological and biomedical research. The Institute for Biomedical Computing is an independent unit within Washington University with eight tenure-track faculty and over 30 actively collaborating faculty from medical, biological, mathematical, engineering, and computer science disciplines. Current research areas at the Institute include genome analysis, computational neurosciences, medical informatics, quantitative image analysis, optical sectioning microscopy, and molecular biophysics. Successful candidates will be expected to establish an independent extramurally funded research program; to interact with and teach students at the undergraduate and graduate levels; and to foster interactions with other research groups in engineering, computer science and medicine. Particular attention will be given to candidates integrating experimental and computational techniques. To apply, send curriculum vitae, list of publications, one copy of each of three of the most significant publications, a brief statement of research interests, and arrange to have three letters of reference sent to:

Dr. David J. States, Director
 Institute for Biomedical Computing
 Washington University Box 8036
 700 South Euclid Avenue
 St. Louis, MO 63110

The deadline for applications is September 1, 1993. *Washington University is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

FACULTY POSITIONS NEUROSCIENCE/NEUROBIOLOGY

Applications are invited for tenure-track positions at the **ASSISTANT and ASSOCIATE PROFESSOR** level. We seek faculty who will have primary appointment in the Department of Physiology as well as those with a potential for joint appointment in a clinical department. Successful candidates should have evidence of research productivity and teaching in molecular, cellular or systems neuroscience and an M.D. or Ph.D. degree. Our current neuroscience research group has interests in mechanisms of sleep physiology and the neural control of breathing, adenosine receptor pharmacology and the biology of pre- and post-synaptic inhibition. Our clinical neurology and neurosurgery colleagues have interests in Alzheimer's and Parkinson's disease. Send curriculum vitae, a statement of research interests, two to three relevant reprints and the names of three references by October 15, 1993, to: **Dr. S. Sabatini, Ph.D., M.D., Chairman, Department of Physiology, Texas Tech University HSC, 3601 4th Street, Lubbock, TX 79430. An Equal Opportunity/Affirmative Action Employer.**

FACULTY POSITIONS CARDIOVASCULAR SCIENCES

Applications are invited for tenure-track positions at the **ASSISTANT and ASSOCIATE PROFESSOR** level. We seek faculty who will have primary appointment in the Department of Physiology as well as those with a potential for joint appointment in a clinical department. Successful candidates should have evidence of research productivity, cardiovascular teaching and an M.D. or Ph.D. degree. Applicants with research interests in molecular and biochemical mechanisms of angiogenesis, hypertension, intracellular Ca^{++} and transport preferred. Send curriculum vitae, a statement of research interests, two to three relevant reprints and the names of three references by October 15, 1993, to: **Dr. S. Sabatini, Ph.D., M.D., Chairman, Department of Physiology, Texas Tech University HSC, 3601 4th Street, Lubbock, TX 79430. An Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR OF PHARMACOLOGY AND TOXICOLOGY. A non-tenure-track research position is available, to conduct animal research on central neural mechanisms of cardiovascular regulation and to participate in collaborative clinical studies in this area. M.D. or Ph.D. and at least 4 years of relevant postdoctoral experience required, as is experience in clinical cardiovascular studies. Send curriculum vitae and name and telephone number of three references, by September 1, 1993, to: **Dr. George Kunos, Box 613, MCV Station, Virginia Commonwealth University, Richmond, VA 23298-0613. VCU is an Equal Opportunity/Affirmative Action Employer and encourages women, minorities and persons with disabilities to apply.**

Medgar Evers College/CUNY seeks **ASSISTANT/ASSOCIATE PROFESSOR** of Genetic/Molecular Biology and Mathematics. Candidates with an earned doctorate in a related area and possessing related teaching experience should apply prior to July 27, 1993. Salary range for Assistant Professor is \$28,630 to \$46,176 and for Associate Professor is \$37,308 to \$55,179, dependent upon qualifications. Résumés should be sent to: **Ms. Norma Goodman, Personnel Director, Medgar Evers College of the City University of New York, 1650 Bedford Avenue, Brooklyn, NY 11225. Equal Opportunity/Affirmative Action Employer.**

RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER/ RUSH MEDICAL COLLEGE

ASSISTANT or ASSOCIATE PROFESSOR in research areas related to lung and vascular biology. Applications will be considered in the following areas: endothelial biology, epithelial/endothelial cell-cell interactions at the vessel wall, signal transduction mechanisms, matrix biology, and adhesion molecules. Applicants are expected to have extramural funding and a research program. Expertise in cell and molecular biology is essential. Submit curriculum vitae with names of three references to: **A.B. Malik, Chairman, Department of Pharmacology, Rush Medical College, 1653 West Congress Parkway, Chicago, IL 60612. Rush Medical College is an Equal Opportunity Employer.**

POSITIONS OPEN

PROFESSOR POSITIONS IN THE MARINE RESOURCES DEPARTMENT

Professor positions are immediately available to work in the following research areas:

PHYTOPLANKTON. Applicants with research experience in phytoplankton/microalgae communities in tropical coastal and estuarine systems.

AQUATIC PATHOLOGY. Applicants with research experience in bacterial/viral and nutrition-related diseases of freshwater and marine cultivated organisms. Experience in histopathology and parasitology is advisable.

AQUATIC GENETICS. Applicants with research experience in genetics of cultivated marine and freshwater fish and crustaceans, including experience in population genetics, high-production lines selection, ploidy manipulation, hybridization and reproductive management.

The successful candidates will be expected to develop an externally funded research program and participate in teaching activities within the department postgraduate program. A working knowledge of Spanish would be an advantage but not required. Salary and position commensurate with experience. Applicants should submit curriculum vitae with reprints, a narrative of their suitability for one of the above positions, statement of research and teaching philosophy, date of availability and name and address of 3 references to: **Alejandro Flores Nava, Jefe del Departamento de Recursos del Mar, Centro de Investigación y de Estudios Avanzados del IPN-Unidad Mérida, Apdo. Postal 73-CORDE-MEX, 97310 Mérida, Yucatán, México. FAX: (99) 81-29-17. An Equal Opportunity Employer.**

FACULTY POSITION UNIVERSITY OF CALIFORNIA, IRVINE

The Department of Physiology and Biophysics invites applications for a faculty position at the **ASSISTANT PROFESSOR** (tenure-track) level. We are seeking candidates with the ability to define a significant research area in cell physiology, using modern techniques of cell biology, molecular biology, biochemistry, structural biology, or biophysics. Examples of research interests would include cell signaling, differentiation and growth control, regulation of gene expression, intracellular processing and sorting of biomolecules, membrane formation and turnover, and the relationship of molecular structure to biological function. The position also involves teaching of medical and graduate students. We will begin considering applications starting August 1, 1993, until the position is filled. Send curriculum vitae, a brief research description, and the names of three referees to: **Michael D. Cahalan, Chairman, Department of Physiology and Biophysics, University of California, Irvine, CA 92717.**

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

CHIEF RENAL PROGRAM

The Departments of Physiology and Internal Medicine at Texas Tech University HSC seek to recruit a Chief of their combined **Renal Program**. The **Renal Program** consists of faculty and space in both departments. In general, faculties with a Ph.D. will have a primary appointment in the Department of Physiology, while those with an M.D. will have their primary appointment in the Department of Internal Medicine. All appointments are in the tenure track; rank is dependent on prior experience. Approximately 8500 square feet of research space are currently available to the Renal Program, split between the Departments of Physiology and Internal Medicine. The Chief of the Renal Program must also be qualified to operate the clinical programs which are in the Department of Internal Medicine, thus, must be an M.D. The Division of Nephrology is responsible for a successful Dialysis and Transplant Program, a Renal Fellowship Program as well as for the day-to-day operations for the Clinics of Hypertension and Renal Disease. Send curriculum vitae, a statement of research interests, relevant reprints and the names of three references by October 15, 1993, to: **Dr. S. Sabatini, Ph.D., M.D., Professor of Medicine and Physiology, Chairman, Department of Physiology, or Dr. N. A. Kurtzman, Chairman, Department of Internal Medicine, Texas Tech University HSC, 3601 4th Street, Lubbock, TX 79430. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT PROFESSOR LABORATORY FOR CANCER RESEARCH

A tenure-track position is available in the Laboratory for Cancer Research, College of Pharmacy, at Rutgers, the State University of New Jersey. Candidates with outstanding research and teaching abilities are desired. Although applicants in all areas of cancer research will be considered, research areas of particular interest include mutagenesis, DNA synthesis and repair, nucleic acid structure and function, and epigenetic mechanisms of carcinogenesis. Members of the department have strong interests in the areas of chemoprevention of cancer, mutagenesis, chemical carcinogenesis, P450 regulation and function, DNA virus interaction with cellular targets, and molecular mechanisms of cell differentiation. Applicants should include curriculum vitae, three representative reprints, three letters of recommendation, and a summary of current research activities and future research plans. Please send applications to: **Dr. Allan H. Conney, Director, Laboratory for Cancer Research, College of Pharmacy, Rutgers University, P.O. Box 789, Piscataway, NJ 08855-0789. An Affirmative Action/Equal Opportunity Employer.**

The Medical Service and the Division of Rheumatology, San Francisco General Hospital, Department of Medicine, University of California, San Francisco, and the Gladstone Institute of Cardiovascular Disease seek an applicant at the level of **ASSOCIATE PROFESSOR**, in residence series. Applicants should have successfully completed clinical training in internal medicine and rheumatology, and be board-certified in these disciplines. The position will involve an 85% commitment for research activities. The applicant should have a strong background in thrombosis and cellular interactions in the vasculature, and should lead an independent research effort to understand the molecular and cellular biology of receptor-mediated processes leading to atherosclerosis and/or restenosis. Experience with human clinical trials and animal models is desirable. The applicant will also serve as an attending in general medicine and rheumatology at San Francisco General Hospital. Please submit current curriculum vitae and three letters of reference to: **Stephen G. Young, M.D., Search Committee Chair, Gladstone Institute of Cardiovascular Disease, UCSF, P.O. Box 419100, San Francisco, CA 94141-9100. UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

CHEMISTRY INSTRUCTOR

New Horizons Governor's School for Science and Technology has a ten-month faculty position open. The successful candidate will have a degree in chemistry, an advanced degree in chemistry or technology, and will hold or be eligible for a Virginia Teaching certificate. Three years of successful teaching at the high school level or five years of related experience required. Applicants should contact: **Personnel Department, New Horizons Technical Center, 520 Butler Farm Road, Hampton, VA 23666; Telephone: (804) 766-0000 or FAX: (804) 766-2458 no later than July 23, 1993. Equal Opportunity Employer.**

THE DEPARTMENT OF CHEMISTRY, YALE UNIVERSITY, invites applications for a junior position at the **ASSISTANT or ASSOCIATE PROFESSOR** level effective academic year 1994. We seek bright teacher-scholars who show promise for developing outstanding research programs in physical chemistry. Applicants should send curriculum vitae and a statement of research interests and plans, and arrange for the submission of three letters of recommendation. All materials are to be received by October 31, 1993. Send applications to: **Chair, Physical Chemistry Search Committee, Sterling Chemistry Laboratory, P.O. Box 6666, 225 Prospect Street, Yale University, New Haven, CT 06511-8118. Yale University is an Equal Opportunity/Affirmative Action Employer.**

SCIENCE

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POSTDOCTORAL POSITION

(At least 5 years experience)

Postdoctoral Position is available at the National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Public Health Service, to study the molecular mechanisms of ichthyoses. Position involves training in advanced techniques of molecular biology, cell biology and genetics. Applicant must be familiar with culturing of abnormal epidermal keratinocytes. Salary is \$30,000 to \$50,000 per year. Send curriculum vitae and names of three references to:

Dr. Peter Steinert
NIAMS, NIH
Building 6, Room 408
9000 Rockville Pike
Bethesda, MD 20892

NIH is an Equal Opportunity Employer

Research Assistants Molecular Biology

Regeneron Pharmaceuticals, Inc. is a biotechnology company dedicated to the research and development of treatments and therapies for neurological degenerative diseases.

Opportunities are now available for Research Assistants with a BS/MS in Biology or a related discipline with 3-5 years of experience in Molecular Biology. Background with proteins, probing libraries, expression cloning and design of DNA constructs.

Regeneron is located in Westchester County, 25 miles north of NYC. The highly collaborative and supportive Regeneron community offers considerable scientific and professional growth potential and a competitive compensation package. Interested candidates send resume to Human Resources Department, Box NS, 777 Old Saw Mill River Road, Tarrytown, N.Y. 10591. Equal Opportunity Employer.

REGENERON
Pharmaceuticals, Inc.

University of Michigan/ Parke-Davis Postdoctoral Program

PARKE-DAVIS and The University of Michigan have developed a unique joint postdoctoral program to promote molecular and cellular approaches to the study of human diseases. Common research interests will be explored using modern methods in biochemistry and biotechnology with an emphasis on collaborative, interdisciplinary research. Postdoctoral fellows will be directed by co-mentors, with one mentor from each institution. Current projects include the following:

Molecular Physiology of Potassium Channels David Dawson, UM and James Offord, PD

Inwardly rectifying potassium channels are involved in salt transport and cardiac excitability. This project will involve cloning inward rectifier isoforms, expression and characterization using molecular and electrophysiological assays; with the goal of understanding the significance of these K channel isoforms.

Protein Kinases in Signal Transduction KunLiang Guan, UM and Alan Saltiel, PD

Protein phosphorylation is a critical regulatory mechanism in cell growth and differentiation. Studies on the mitogen activated protein kinase (MAPK) indicate its important role. The mechanism of MAPK activation, biochemical characterization of the MAPK activating kinase, MEK and mechanistic studies on the activation of MEK will be explored.

Regulation of c-Raf-1 Serine/Threonine Kinase Activity Richard Jove, UM and Stuart Decker, PD

Specific cellular proteins regulate the c-Raf-1 kinase, which plays a key role in mitogenic signal transduction pathways. The project will involve isolation of putative regulatory proteins and determination of how these proteins interact with c-Raf-1 to regulate its kinase activity. Experimental approaches will include molecular, genetic and biochemical techniques.

Reconstitution of G-Protein Receptors Harry LeVine, PD and Henry Mosberg, UM

Truncated receptors will be reconstituted with synthetic peptides to restore biologic function. The project will initially involve peptide synthesis and purification. Subsequently, these peptides will be reconstituted with the truncated recombinant receptors in a membrane environment and function assessed by ligand binding studies.

Molecular and Functional Analysis of Transcription Elongation Proteins in E.coli and S. aureus David Friedman, UM and Eric Olson, PD

The primary emphasis of this work will be directed toward defining molecular interactions involved in transcription elongation. This project involves two approaches to the study of transcription elongation proteins in prokaryotes, one will focus on the molecular characterization of the active sites of an E. coli transcription elongation protein, and a second approach will focus on identifying genes encoding functions involved in transcription elongation in S. aureus.

Constructing a Synthetic Gene for MethH Rowena Matthews, UM and Jeff Scholten, PD

The MethH gene from E. coli encodes cobalamin-dependent methionine synthase. This large monomeric enzyme (136 kDa) is a structural mosaic of domains with independent functions in binding of substrates and cofactors and in catalysis. This project will explore fundamental questions about factors controlling the expression of large proteins, and will also involve the characterization of mutant protein by kinetic and spectroscopic methods.

Interested scientists should forward a curriculum vitae and a list of references to Dr. Jack E. Dixon, Chair, Department of Biological Chemistry, The University of Michigan, 5416 Medical Science I Building, Ann Arbor, MI 48109-0606.

Wellcome Senior Research Fellowships in Basic Biomedical Science - 1994

The purpose of these Fellowships is to support outstanding young investigators who have shown special promise in their initial studies of basic biomedical problems. This scheme includes all scientifically or medically qualified graduates who have worked for the past three years in British or Irish universities, or who did so before taking up an appointment overseas. The Trust does not support cancer research.

Fellowships, which are tenable for five years in the first instance, must be held in an appropriate academic department in the United Kingdom or Republic of Ireland, but not in Research Council units or institutions. Candidates should not normally be over 35 years of age. However, equal consideration will be given to those over this age where their career has been affected either by a late start, or by interruption for personal or family reasons. Salary, according to age and experience, will be at the appropriate point on the non-clinical academic salary scale. The Trust is also prepared to consider providing funds for the essential costs of the research programme, as a rule not more than one technical or research assistant and essential research expenses.

Applications may be made on behalf of the Fellow by the head of an appropriate sponsoring laboratory in the United Kingdom or Republic of Ireland, or by the prospective Fellow with the support of the head of the sponsoring laboratory. The Trust is particularly interested to receive applications from candidates not already working in the sponsoring laboratory. Applications from eligible candidates currently working abroad are especially welcome.

Successful candidates will be able to take up the awards on, or after, 1st October 1994.

Preliminary applications for the Fellowships should be submitted by 1st October 1993.

LATE APPLICATIONS WILL NOT BE ACCEPTED.

Application forms are available from: Mr C D J Sainty, Grants Section (SBBF), The Wellcome Trust, 183 Euston Road, London NW1 2BE. Tel: 071-611 8438. Fax: 071-611 8528.



Registered Charity No: 210183

UNITED ARAB EMIRATES UNIVERSITY FACULTY OF MEDICINE & HEALTH SCIENCES

The Faculty of Medicine and Health Sciences was established by Royal Decree in 1986 with the clear remit of becoming an international centre of excellence both in terms of teaching and research. To this end, applications are invited from suitably experienced individuals to hold the position of:

Professor and Chairman Department of PHYSIOLOGY

The Department presently has an established complement of academic, technical, and support staff. An active research programme is currently in place.

Candidates should possess an approved basic Degree in Medicine, Veterinary Science, Dentistry or Anatomy. Additionally, a higher University Degree (e.g. Ph.D., M.D.) or a Membership of one of the Royal Colleges of the U.K. (or a Commonwealth equivalent), or certification of the American or the Arab Board, is essential.

Applicants for this position must be able to demonstrate leadership experience in the development and implementation of teaching and research. Fluency in English is essential as this is the language of instruction.

Benefits for the successful appointee include an extremely competitive tax-free salary, free accommodation, furniture allowance and assistance with children's school fees. The University will also provide an interest free car loan and business class tickets from the point of recruitment at the beginning and at the end of the contract and once during the academic year. An award of 8.6% of the gross annual salary is payable at the end of each year of service.

The Emirates has one of the most enviable life-styles of the Gulf Region with all the amenities of any modern society.

Interested candidates can apply by sending a comprehensive curriculum vitae, a list of publications, copies of certificates and the names and addresses of four current referees to:

Professor Iain McA Ledingham
Dean - Faculty of Medicine
United Arab Emirates University
PO Box 17666
Al Ain, United Arab Emirates
Fax No. 00971-3-657649.

Applications will be closed 6 weeks after the date of publication.

RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY

The Department of Biotechnology Research is seeking applicants for our ongoing program of crop improvement. Pioneer offers competitive salaries, excellent facilities and a highly cooperative research environment. Successful candidates will be expected to interact extensively with ongoing programs in transformation, gene expression, gene isolation or RFLP programs.

PROJECT LEADER, PROTEINS (JOB #1370-A) - The scientist in this position will be responsible for leading a research team to obtain accumulation of proteins in seeds of monocots and dicot crops. The initial emphasis will be on proteins critical for nutritional enhancement. The ideal candidate should be experienced in protein biochemistry, especially with seed-storage proteins. This individual will work closely with researchers involved in gene expression and transformation to obtain optimally expressed genes in transgenic seed. **EDUCATION/EXPERIENCE:** PhD or equivalent experience in biochemistry plus 5 years relevant lab experience in seed protein biochemistry, plant molecular biology or related field. Candidates must be experienced leaders of a research team. **CONTACT PERSON:** Jane Blacketer

SENIOR RESEARCH ASSOCIATE, PROTEIN EXPRESSION (JOB #1380-B) - The person in this position will have responsibility for the expression and purification of proteins for use in various projects in the department. Although expression in *E. coli* will fulfill most experimental requirements, use of other culture systems is likely. We are seeking a skilled and experienced individual to work closely with molecular biologists and biochemists to fulfill this role. **EDUCATION/EXPERIENCE:** MS in biochemistry or equivalent in related field plus 2 years directly related lab experience in protein expression and purification, or 4 years experience with BS degree. Familiarity with computers, good communication and organizational skills, and skill in project management are also required. **CONTACT PERSON:** Dawn Meyer

RESEARCH ASSOCIATE, SEED-SPECIFIC EXPRESSION (JOB #1370-B) - This position will be part of a group working to obtain optimal expression of seed-specific genes in monocots and dicots. This individual will be responsible for cloning and vector construction. **EDUCATION/EXPERIENCE:** BS degree or equivalent lab experience plus 2 years directly related experience. Should have familiarity with computers and DNA analysis programs. **CONTACT PERSON:** Jane Blacketer

Applications received by **AUGUST 16, 1993** will be assured of consideration. However, applications will be considered until the positions are filled.

Pioneer Hi-Bred International, Inc. is an Equal Opportunity employer. Please send **TWO (2)** resumes and indicate in your correspondence the JOB #, the names, addresses and telephone numbers of three references to:



PIONEER HI-BRED INTERNATIONAL, INC.
Plant Breeding Division
Department of Biotechnology Research
Attn: Contact Person JOB # _____
P.O. Box 38
Johnston, IA 50131-0038

Bristol-Myers Squibb Pharmaceutical Research Institute is the R&D Division of Bristol-Myers Squibb, a worldwide leader in the discovery and development of innovative pharmaceuticals.



Bristol-Myers Squibb

CARDIOVASCULAR RESEARCH PRINCETON, NJ

GROUP LEADER Cardiovascular Diseases

This cardiac electrophysiologist should have broad experience in single cell/patch recording techniques; knowledge of arrhythmias, arrhythmia models, and antiarrhythmic drugs. This position will also work closely with biochemists and pharmacologists to establish scientific expertise in antiarrhythmic drug discovery research which will support ongoing programs and enhance new programs.

The successful candidate will supervise a staff of 7 to 9 scientists including two Ph.D.s and must be willing to conduct personal research and provide scientific leadership to this group. We seek individuals with a Ph.D. and 5-10 years industry or related experience. **Reply to Dept. PRI-JW-707B**

PRINCIPAL SCIENTIST Cardiovascular Drug Discovery

The candidate will lead a molecular biology team in cardiovascular drug discovery focusing on one of the following areas: cardiac ion channels, proteins involved in ischemia related events, genes involved in cardiac hypertrophy and CHF, or the study of vascular receptors. Extensive experience in library screening, cloning and expression techniques is required. A working knowledge of transcriptional regulation, site-directed mutagenesis, generation of monoclonal antibodies and fusion protein synthesis is necessary. A Ph.D. with postdoctoral experience in addition to 5 - 10 years experience in Molecular Biology is a prerequisite. **Reply to Dept. PRI-JW-099B**

RESEARCH SCIENTISTS Metabolic Diseases

We are seeking 2 BS/MS level scientists to work on various aspects of cholesterol and lipoprotein metabolism. Candidates should have a strong background in molecular and cell biology including cDNA cloning and expression, nucleic acid and protein analysis and RNA characterization. Experience in the use/maintenance of cultured cells and the ability to plan and execute experimental protocols and analyze results are necessary. **Reply to Dept. PRI-JW-215B**

For opportunities in Princeton, please send resume (indicating dept. number) with salary requirements to: **Human Resources Department, Bristol-Myers Squibb Pharmaceutical Research Institute, P.O. Box 4000, Princeton, NJ 08543-4000.**

HIV DRUG DISCOVERY RESEARCH WALLINGFORD, CT

HIV VIROLOGISTS

Requirements include a Ph.D./M.S. in Biology or related field and a minimum of 1 year experience in HIV virology. Candidates should be able to work in the Biosafety Containment Laboratory. Experience in the isolation, preparation and characterization of HIV from cell culture and clinical samples and hands-on familiarity with anti-HIV research are necessary. A background in biochemistry is highly desirable. **Please reply to HDSC-311**

HIV MOLECULAR BIOLOGISTS

Requirements include a BS/MS in Biology or related field plus a minimum of 2 years research experience in molecular biology. Candidates should have experience in gene cloning, site-directed mutagenesis, DNA sequencing, Northern, Southern and Western blotting, transfection and cell culture techniques. In addition, candidates should have some experience in protein purification and enzyme assays with willingness to work with HIV. **Please reply to HDSC-310**

For opportunities in Wallingford, please forward your curriculum vitae (indicating dept. number) to: **Human Resources Department, Bristol-Myers Squibb Pharmaceutical Research Institute, 5 Research Parkway, P.O. Box 5101, Wallingford, CT 06492-7661.**

RESEARCH INVESTIGATORS Core Facilities SEATTLE, WA

Candidates should have experience in developing and applying animal models to evaluate agents for treatment of autoimmune and inflammatory diseases as well as for facilitating organ transplants. A doctoral degree in an appropriate discipline such as experimental pathology, immunology or veterinary sciences, 5+ years experience, and a strong teamwork orientation are necessary.

Our facility offers open and well-equipped laboratories overlooking beautiful Puget Sound and the Olympic Mountains from our downtown site. Please forward your resume to: **Bristol-Myers Squibb, Human Resources Dept. TBD-IH, 3005 First Avenue, Seattle, WA 98121.**

EQUAL OPPORTUNITY EMPLOYER, M/F/D/V

POSTDOCTORAL TRAINING IN CELL AND MOLECULAR BIOLOGY OF MALE REPRODUCTION

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

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

The Center for Biomedical Research is located on the campus of Rockefeller University and provides excellent facilities for research and an outstanding scientific environment for postdoctoral training. Applications from women and minorities are encouraged. Please send curriculum vitae and names and addresses of three references to the faculty member(s) of interest, c/o The Fellowship Secretary, The Population Council, Center for Biomedical Research, 1230 York Avenue, New York, NY 10021, USA.

An EOE/AA Employer M/F

SUPERVISORY CARDIOVASCULAR PHYSIOLOGIST

A position is available in the Cardiology Section at the Brooklyn VA Medical Center for a Supervisory Cardiovascular Physiologist. Responsibilities will include coordinating and developing various programs for cardiac electrophysiology and other cardiac non-invasive laboratories. Applicant must have completed at least a 4-year course in an accredited college leading to a bachelor's degree with major study in physiology. Applicant must have extensive knowledge and expertise in cardiac hemodynamics, cardiac electrophysiology techniques including programmed stimulation, cardiac mapping studies, microelectrode techniques, voltage and patch clamp techniques.

Applications should be forwarded to:

Nabil El-Sherif, M.D.
Cardiology Dept. (111A)

The Department of Veterans Affairs

800 POLY PLACE

BROOKLYN, NY 11209

An Equal Opportunity Employer. U.S. Citizenship Required. Position Subject to Random Drug Testing.



A new focus on aging.

Geron Corporation is pioneering new approaches to treat age-related degenerative diseases including cancer. Our advances in cellular and molecular biology will allow us to develop entirely new categories of therapeutics targeting the mechanisms of cellular senescence.

Geron seeks talented Scientists and Research Associates to work in:

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Our innovative company offers a competitive salary, benefits and stock incentive program. Send your curriculum vitae, indicating position of interest to: Geron, Human Resources, Dept. 50793, 200 Constitution Drive, Menlo Park, CA 94025. Equal Opportunity Employer.



THE JOHN D. AND CATHERINE T. MACARTHUR FOUNDATION

The program seeks to broaden the scope of discussion in the field and thus encourages applicants from a variety of disciplines. Grantees have included scholars, journalists, policy analysts, and others interested in pursuing approaches which move beyond disciplinary boundaries and which are currently underfunded. Younger women and men and non-U.S.

Research and Writing Grants for Individuals researchers are encouraged to apply. Grants last up to eighteen months. They range up to \$65,000 for an individual application, and up to \$100,000 for a two person project. For more information about the Research and Writing Grants, contact: Research and Writing Grants The John D. and Catherine T. MacArthur Foundation Program on Peace and International Cooperation 140 South Dearborn Street Chicago, Illinois 60603

Application Deadlines: Aug 1 & Feb 1 in 1993, 1994 and 1995

Program on
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International
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An open
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explore
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context of
economic,
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and
political
change.

CYTOGENETICS LABORATORY DIRECTOR

Integrated Genetics/Vivigen is seeking an M.D. or Ph.D. with ABMG Certification or eligibility in Clinical Cytogenetics. Candidates should have experience in managing and directing a human prenatal clinical cytogenetic testing laboratory.

This position is located at the Integrated Genetics/Vivigen high quality, state-of-the-art laboratories in the city of Santa Fe in Northern New Mexico, which offers clear skies, no congestion, spectacular sunsets and a wide variety of cultural, social and outdoor activities.

Please send CV to:

Robert F. Bachtell
Director, Human Resources
Integrated Genetics/Vivigen
2000 Vivigen Way
Santa Fe, NM 87505

Integrated Genetics/Vivigen is an Equal Opportunity Employer that is proud of the diversity of its work force.



SCIENTISTS

ENZYMOLGY • PROTEIN CHEMISTRY • MICROBIOLOGY • CRYSTALLOGRAPHY

GENENCOR INTERNATIONAL is a world leader in industrial biotechnology with its research center located in the San Francisco Bay Area. We specialize in the research, development and manufacturing of industrial enzymes and recombinant DNA technology. We are expanding our research capabilities and seek outstanding individuals who can make a significant contribution to our future success. We currently have openings for:

STAFF SCIENTIST: Enzymologist who will be responsible for developing new enzyme technology and products as well as providing enzymology expertise to various groups within the company. Ideal candidate will have a PhD in Biochemistry/Chemistry and a minimum of 8-10 years of independent research experience in enzyme kinetics, reaction mechanisms, enzyme structure-function and protein engineering. Outstanding publication/patent record and experience in training individuals and managing teams required. (AJ5)

SENIOR SCIENTIST: Enzymologist who will lead the enzymology efforts in cellulase research and product development. Ideal candidate will have a PhD in Biochemistry/Chemistry and a minimum of 4-6 years of research experience in enzyme kinetics, reaction mechanisms, enzyme structure-function and protein engineering of carbohydrases. Strong publication/patent record and supervisory experience required. (AJ6)

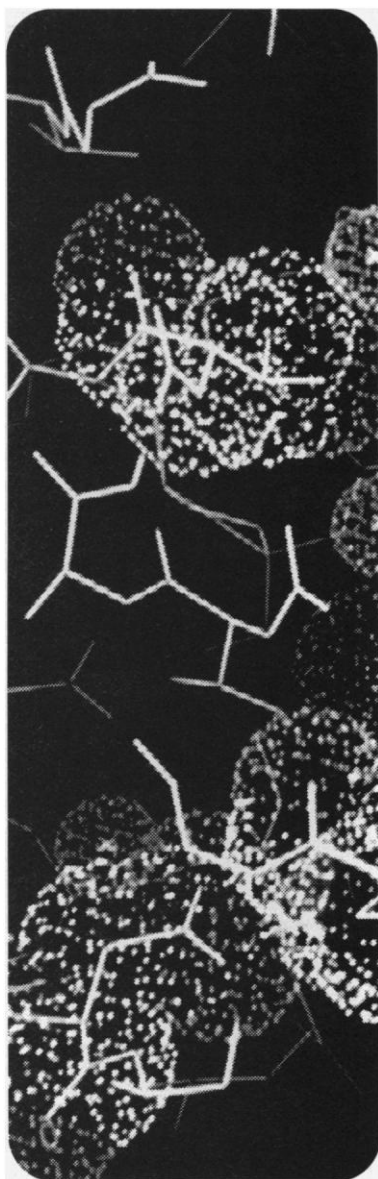
SCIENTIST: Enzymologist who will be responsible for developing new technologies to improve enzyme properties and identifying novel industrial enzyme applications. Ideal candidate will have a PhD in Biochemistry or related field with a minimum of 2 years of post doctoral enzymology experience with an excellent research record. (AJ7)

SCIENTIST: Protein chemist responsible for purification and characterization of proteins from natural and recombinant sources at microgram to kilogram scale, participating in an aggressive protein engineering program directed at novel enzymes. Ideal candidate will have a PhD in Biochemistry or related field with at least two years of post doctoral experience. Experience in large scale protein recovery and/or screening of novel organisms would be an asset. (SP75)

MICROBIOLOGIST SCIENTIST: This individual will work with enzymologists and protein chemists to identify and evaluate microorganisms as a source of novel enzymes. In addition, this individual will play a significant role in enhancing our automated screening capabilities. Ideal candidate will have a PhD in Microbiology/Microbial Genetics, and a minimum of 1-3 years of independent research experience in the isolation and characterization of enzymes from microbes. Experience in small scale fermentation would be an asset. (DC51)

POST DOCTORAL SCIENTIST: We seek a highly motivated individual to join an established crystallography group with the aim of initiating the study of a novel enzyme. The successful applicant will participate in a protein engineering effort aimed at improving this enzyme for industrial applications. We require a PhD and experience in macromolecular X-ray crystallography. (RB48)

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



GENENCOR
INTERNATIONAL



**SCHOOL OF
BIOLOGICAL
SCIENCES**

Chair in Animal Ecology

Salary: Negotiable in Professorial range £30K+

Applications are invited, from ecologists of international standing, for a new Chair in Animal Ecology. Applicants with research interests in Terrestrial Community Ecology are particularly welcome.

The person appointed will be expected to strengthen and expand ecological research and postgraduate training at Bangor. S/he will not carry heavy administrative or teaching loads but will be expected to engage primarily in his/her own research and to promote and develop collaborative research programmes. Two postdoctoral research fellowships, a technician and substantial start-up funds will be assigned to the Chair, which we see as offering a unique career opportunity for an outstanding younger scientist.

Prospective candidates may contact Dr R Whitbread (Head of School tel: 0248 382526 fax: 0248 370731) or Professor Roger Hughes (tel: 0248 382307) with informal enquiries.

Application forms and further particulars should be obtained by contacting the Personnel Office, University College of North Wales, Bangor, Gwynedd LL57 2DG (tel: 0248 382926). Candidates should provide 10 copies of their C.V. together with one copy of the College's application form.

Closing date for applications: 30 July 1993.

Please quote reference number: 93/49 when applying.

Women are currently under represented at the Professorial level within the College and applications are particularly welcomed from female candidates. Selection will be based upon merit.

An equal opportunities employer

ATTENTION SCIENCE RECRUITMENT ADVERTISERS...

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Place your classified ad in any July or August 1993 issue of *Science* and get double exposure. We'll display the same position announcement at the **Employment Exchange during Science Innovation '93: The Conference on New Research Techniques--for only \$50 more.**

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

The Employment Exchange will take place at **Science Innovation '93** at the Hynes Convention Center in Boston, August 6-10. Thousands of scientists have been invited to participate. Act fast and you can reach this unique pool of candidates.

You can also take advantage of the special if you have recently advertised in *Science*.

To obtain more information or to find out how you may interview candidates during the Employment Exchange at **Science Innovation '93**, contact: Jacquelyn Roberts at 202-326-6737.

POSITIONS OPEN

ONCHOCERCIASIS PROGRAM COORDINATOR. Manage health delivery Onchocerciasis Control Program for international non-profit organization. Duties include: writing grant proposals; preparing progress reports for donor agencies; traveling to Africa and Latin America on a regular basis to provide field staff with logistic and technical support in the areas of parasitology, molecular biology, primary health care, epidemiology, statistics, and administrative and financial procedures; developing techniques to improve quality of the project such as survey techniques, health education materials, training tools, and management information systems; collecting, processing and disseminating background data pertaining to the implementation and evaluation of projects, such as the development of diagnostic techniques using molecular biology tools, and the development of new anti-onchocerciasis drugs and entomology studies on vector *Simulium* (Black Fly); representing the organization at national and international conferences on onchocerciasis; networking with other agencies and health officials. Use PC skills including wordprocessing, spreadsheet and statistical programs. Supervise 4 to 6 employees. Ph.D. in Biochemistry and Master's in Public Health plus 2 years of experience in job offered. In lieu of 2 years of experience in job offered, 2 years of experience as a Postdoctoral Fellow performing research in molecular parasitology, is acceptable. Must have PC wordprocessing, spreadsheet and statistical program skills such as WordPerfect and Lotus 1-2-3. Must have published in established scientific journals. Must have proven grant writing, scientific writing and public speaking skills. Must speak French or Spanish. Forty hours per week. \$36,140 per year. Job Location: Bethesda, Maryland. Mail résumé and copy of ad to: **Department of Economic & Employment Development, 1100 North Eutaw Street, Room 212, Baltimore, MD 21201. Job Order Number 9150927.**

CHAIR

**Department of Genetics and Developmental Biology
University of Connecticut School of Medicine**

Applications are requested for the Chair of a newly created basic science department. The ideal candidate will be actively engaged in a research program in genetics or developmental genetics, and have the academic background required to ensure vigorous departmental growth. It is intended that the department should have a significant focus in mammalian, including human, genetics, but also substantial research on other organisms. Applications should include complete curriculum vitae and should be submitted by October 1, 1993, to: **Chair, Genetics and Developmental Search Committee, Medical Dean's Office, University of Connecticut School of Medicine, 263 Farmington Avenue, Farmington, CT 06030.**

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

DEAN OF OCEANIC AND ATMOSPHERIC SCIENCES

OREGON STATE UNIVERSITY (OSU) invites nominations/applications for the position of Dean, College of Oceanic and Atmospheric Sciences. This is a 12-month, full-time appointment. The Dean provides leadership to a graduate college with 84 scientists, 103 students, and an annual budget of \$20 million. Candidates should have a distinguished record of academic achievement possessing a Ph.D. or equivalent, and administrative expertise or demonstrated potential to provide effective management and leadership to a dynamic college. Research facilities include an ocean-going research vessel, a supercomputer center, and state-of-the-art analytical instrumentation. The College conducts research and instructional programs in Oceanography, Geophysics, Atmospheric sciences and Marine Resource Management. The successful candidate will be awarded an academic rank of Professor, tenured for nine months. Salary is dependent upon qualifications. Applications, including curriculum vitae, should be received by October 1, 1993. This position will remain open until filled. *OSU is an Affirmative Action/Equal Employment Opportunity Employer and is responsive to the needs of dual-career couples.* Applications and nominations should be sent to: Prof. Nicklas G. Pisas, Chairperson, Dean Search Committee, College of Oceanic and Atmospheric Sciences, Oceanography Administration Building 104, Oregon State University, Corvallis, OR 97331-5503.

POSITIONS OPEN

GENETIC/MOLECULAR MECHANISMS OF DISEASE

The University of Kentucky, Tobacco and Health Research Institute (THRI), invites applications for a tenure-track position from individuals with an established research track record in genetic/molecular mechanisms in disease pathogenesis. The applicant should have an M.D., Ph.D. or M.D./Ph.D. degree and qualifications for appointment at the **FULL PROFESSOR** level in a department in the College of Medicine. Salary will be commensurate with experience. A record of successful extramural grant support is essential and the applicant will be expected to establish and support a research program directed at identifying genetic/molecular mechanisms which are associated with tobacco smoking-related diseases. Areas of special interest are pulmonary cancer, chronic obstructive lung disease and cardiovascular disease. An initial allocation of \$250,000 has been made to support the development of this program. Send curriculum vitae and four references to: **Ms. Elaine Fisher, Secretary, University of Kentucky, Tobacco and Health Research Institute, Cooper and University Drives, Lexington, KY 40546-0236.** Deadline for applications is September 1, 1993.

*The University of Kentucky is an
Equal Opportunity Employer.*

DIRECTOR, VIRAL VACCINE RESEARCH

North American Vaccine, Inc. is a rapidly expanding company dedicated to the research, development and manufacturing of pediatric vaccines. Currently we have an immediate opening for a Director within our Virology Department. Qualified candidates must have a Ph.D. in Molecular Biology with 3 to 5 years of postdoctoral experience. In-depth experience with cloning, RNA and DNA is required. Individual will assist in the development of new viral vaccines. For immediate consideration, please send résumé to: **Manager, Human Resources**

**North American Vaccine, Inc.
c/o AMVAX, Inc.
Position #870-A
12103 Indian Creek Court
Beltsville, MD 20705-1260
FAX: (301) 470-6198**

Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS UNIVERSITY OF CALIFORNIA, SAN DIEGO

The Department of Pharmacology announces the availability of two tenure-track positions. One is open at the junior or senior level in the area of drug design. Research activities should encompass, but need not be restricted to, computational analyses with the San Diego Supercomputer Center (SDSC). Candidates with research interests in molecular and physical techniques to examine ligand-macromolecule interactions are encouraged to apply. Interest in coordinating group endeavors in drug design involving faculty in Pharmacology, Chemistry and SDSC is expected. The second recruitment is for an Assistant Professor. Preference is accorded to individuals with interests in molecular, biophysical or cellular aspects of signal transduction. Supervision of graduate students and a commitment to teaching medical students in the pharmacological sciences is essential. Salary commensurate with experience and based on U.C. pay scales.

Send curriculum vitae, a short description of research, future plans and names of three references. Mail to: **Chair, Drug Design Committee** or to: **Chair, Signal Transduction Committee, Department of Pharmacology, University of California, San Diego, La Jolla, CA 92093-0636.** Closing date is October 15, 1993. *UCSD is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH INSTRUCTOR IN DEVELOPMENTAL NEUROBIOLOGY. Ph.D., M.D. or equivalent degree and at least two years of postdoctoral research experience. Experience with electrophysiological and pharmacological studies of glutamate receptors in the developing vertebrate CNS is required. Send curriculum vitae and the names of three references to: **Dr. T. N. Parks, Department of Anatomy, University of Utah School of Medicine, Salt Lake City, UT 84132.** Deadline for applications is August 20, 1993, or until position is filled. *An Equal Employment Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

RESEARCH ASSOCIATES

Cell Genesys, a newly-public biotechnology company located in the San Francisco Bay Area, is pioneering the human therapeutic applications of gene targeting and related technologies. The company is applying these technologies to develop products in three areas: universal cell transplant products, human therapeutic protein products and human monoclonal antibody products. We are currently recruiting Research Associates/Senior Research Associates for the following new positions:

CELL CULTURE DEVELOPMENT

Essential functions include designing and carrying out experiments intended to optimize cell culture conditions for a wide variety of primary and secondary cell lines. Responsibilities include performing experiments to define culture media and optimize conditions for cell culture fermentation and manufacturing scale-up. BA/BS in a life science plus at least 3 years' experience in cell culture process development are required. (Job #9.1.2,21)

PROCESS RECOVERY DEVELOPMENT

Essential functions include performing experiments in chromatography and ultrafiltration needed to define and optimize recovery and purification processes for protein and antibody based therapeutic products. Responsibilities include performing assays including SDS-PAGE and HPLC and route purification process activities. BS/BA in a life science plus at least 3 years'

experience in purification process development or protein biochemistry are required. (Job #9.1.1,23)

ASSAY DEVELOPMENT/QUALITY CONTROL

Essential functions include performing analytical testing for research and manufacturing functions. Responsibilities include analytical techniques for qualitative and quantitative analyses of proteins, nucleic acid, and mammalian cell lines including HPLC, ELISA, enzyme assays, gel electrophoresis, IEF and other assay methods. BS/BA in a life science and at least 3 years of relevant research experience required. (Job #9.2)

Cell Genesys offers a competitive salary, excellent benefits, and equity participation. For immediate consideration, send your resume to **Paula Bogard (please indicate Job #), Cell Genesys, 322 Lakeside Drive, Foster City, CA 94404.** An equal opportunity employer.



CELL • GENESYS

NATURAL PRODUCTS CHEMIST



Tularik

Tularik is a rapidly growing biopharmaceutical company dedicated to the discovery and development of novel therapeutic products that regulate gene expression. We are currently assembling a multidisciplinary team and have an immediate opening for a Natural Products Chemist in the San Francisco Bay Area.

The successful candidate will work in collaboration with our Pharmaceutical Screening group to identify novel drugs that alter gene transcription. Responsibilities will include extraction, isolation and structure determination of active compounds identified through screening of microbial, plant and marine sources.

Qualified candidates will have at least 3 years' experience in the isolation of bioactive compounds from crude natural products extracts. Experience with chromatographic and spectroscopic techniques is essential.

Tularik offers productive and experienced leadership, equity participation, competitive salary and benefits, and a very exciting research environment. For consideration, please submit cv to: **Audrey Eisenstein, Tularik Inc., 270 East Grand Avenue, South San Francisco, CA 94080.** EOE.

TISSUE ENGINEERING

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Led by our three-dimensional tissue engineering technology, Advanced Tissue Sciences is taking biotechnology to the next level. Our core technology has vast potential for applications in transplantation therapies and research products that will enhance human life.

With products in the market and in clinical research, and several in the pipeline, Scientists will find the opportunity at Advanced Tissue Sciences to shape the growth of the tissue engineering field. We are truly a unique, multidisciplinary community of professionals committed to providing important products for our society.

► Cartilage Research

PhD required in a biomedical/biological science with experience in connective tissue growth or repair, cellular growth and differentiation, as well as extracellular matrix characterization. Research

projects involve the growth of chondrocytes/chondrogenic cells and the growth of cartilaginous tissues *in vitro* and *in vivo*. Postdoctoral experience is preferred.

► Bone Marrow and Liver Research

PhD required in Cell Biology, Immunology or a related life science with extensive experience in mammalian cell culture, preferably bone marrow and/or liver. Knowledge of cytokine assays, protein purification, recombinant DNA techniques, basic molecular techniques and bioassays are important. Postdoctoral work in stem cell biology is preferred.

Competitive compensation and benefits packages along with a creative, inspired environment support the people who make our company. Please mail your c.v. to: Recruiting Manager, Advanced Tissue Sciences, 10933 N. Torrey Pines Road, La Jolla, CA 92037. AA/EOE.



ADVANCED TISSUE SCIENCES

UNITED ARAB EMIRATES UNIVERSITY FACULTY OF MEDICINE & HEALTH SCIENCES

The Faculty of Medicine and Health Sciences was established by Royal Decree in 1986 with the clear remit of becoming an international centre of excellence both in terms of teaching and research. To this end, applications are invited from suitably experienced individuals to hold the position of:

Professor and Chairman Department of ANATOMY

The Department presently has an established complement of academic, technical, and support staff. An active programme of research is in place and facilities for electron microscopy are available.

Candidates should possess an approved basic Degree in Medicine, Veterinary Science, Dentistry or Anatomy. Additionally, a higher University Degree (e.g. Ph.D., M.D.) or a Membership on one of the Royal Colleges of the U.K. (or a Commonwealth equivalent), or certification of the American or the Arab Board, is essential.

Applicants for this position must be able to demonstrate leadership experience in the development and implementation of teaching and research. Fluency in English is essential as this is the language of instruction.

Benefits for the successful appointee include an extremely competitive tax-free salary, free accommodation, furniture allowance and assistance with children's school fees. Also included is an interest free car loan and business class tickets from the point of recruitment at the beginning and at the end of the contract and once during the academic year. An award of 8.6% of the gross annual salary is payable at the end of each year of service.

The Emirates has one of the most enviable life-styles of the Gulf Region with all the amenities of any modern society.

Interested candidates can apply by sending a comprehensive curriculum vitae, a list of publications, copies of certificates and the names and addresses of four current referees to:

Professor Iain McA Ledingham
Dean - Faculty of Medicine
United Arab Emirates University
PO Box 17666
Al Ain, United Arab Emirates
Fax No. 00971-3-657649.

Applications will be closed 6 weeks after the date of publication.

IOWA STATE UNIVERSITY

OF SCIENCE AND TECHNOLOGY

Director, Office of Intellectual Property and Technology Transfer

Iowa State University is seeking candidates to fill the position of Director of the Office of Intellectual Property and Technology Transfer (OIPTT). The Director, who reports to the Vice Provost for Research and Advanced Studies, is responsible for managing the university's process for commercializing new technology. Working closely with the Director of the Iowa State University Research Foundation, the Director of OIPTT: receives and evaluates invention disclosures; reviews and negotiates license agreements, confidentiality agreements, and memoranda of understanding; markets university technology and positions it for further development through business and industry; works with the Vice Provost to coordinate among university technology transfer programs and to coordinate university programs with local and state economic development and technology transfer organizations, including other state universities and community colleges.

The successful candidate must have at least three years experience in the commercialization of technology within industry and experience in technology commercialization and research within a research university. A Ph.D. in a technical field and strong written and spoken communication skills and interpersonal skills are required. Persons wishing to be considered for the position or wanting to nominate a candidate should write to:

Chair, OIPTT Director Search Committee, Vice Provost for Research, Iowa State University, 211 Beardshear Hall, Ames, Iowa 50011.

Applications should include a letter, a complete curriculum vitae, and the names and telephone numbers of five references. Review of applications will begin August 1, 1993 and the position will be available September 1, 1993, or as soon thereafter as the successful candidate is available. Women and minorities are especially encouraged to apply.

Iowa State University of Science and Technology is an equal opportunity, affirmative action employer.

2nd Announcement Conference

"Growth Factors and Tumor Promotion: Implications for Risk Assessment"

December 1-4, 1993
Barton Creek Conference Resort
Austin, Texas

Objectives

The overall objective of this conference is to review, analyze, and compare available data on the role of growth factors and tumor promoters in tumor development in both experimental animal models and humans. Emphasis will be on the biological, cellular, and molecular changes that occur under the influence of growth factors and tumor promoters during tumor development and to identify the possible importance of these factors to human cancer risk assessment. In addition, special attention will be given to those tumor promoters for which human case studies are available for comparison. This conference is the seventh international meeting in a series on research and contemporary issues on carcinogenesis and risk assessment.

Sessions

- Biological
- Mechanisms
- Growth Factors
- Animal Models: Strain Specificity
- Risk Assessment
- Panel Discussions

For additional information as it becomes available, send name and address to **P.O. Box 389, Smithville, Texas 78957. Telephone 512-237-2403 Fax 512-237-2522**

University of Illinois College of Medicine at Urbana-Champaign Assistant/Associate Professor of Pathology

The Department of Pathology at the University of Illinois College of Medicine at Urbana-Champaign (UICOM-UC) invites applications for an academic pathologist at the Assistant/Associate Professor level. Applicants must have an M.D. or M.D./Ph.D. and should preferably be Board certified or Board eligible in anatomic and/or clinical pathology. Individuals with research interests in neuropathology are particularly encouraged to apply; however, applicants with other interests will receive full consideration. The successful applicant will be expected to develop an independent research program and participate in medical student pathology education. Opportunities are also available for service work at the affiliated hospitals.

The University of Illinois at Urbana-Champaign (UIUC) has excellent research facilities which include the Beckman Institute for Advanced Science and Technology which emphasizes integrated research in the neural, cognitive and computational sciences. Facilities for confocal microscopy; genetic engineering; hybridoma and flow cytometry; molecular graphics; a National Center for Supercomputing Applications; and an NSF Science and Technology Center for Magnetic Resonance Technology for Basic Biological Research are available. A dominant feature of UICOM-UC is the Medical Scholars Program in which students study for an M.D. and another degree, usually the Ph.D.

Starting date and salary are negotiable. In order to ensure full consideration, applications should be received by August 16, 1993. Applicants are requested to send a curriculum vita, a summary of research interests, and three letters of reference to:

Dr. James A. Weyhenmeyer, Search Committee Chair
College of Medicine at Urbana-Champaign
University of Illinois
190 Medical Sciences Building
506 South Mathews Avenue
Urbana, Illinois 61801
Telephone (217) 333-4883

The University of Illinois is an AA/EOE.

S

SENIOR SCIENTISTS MOLECULAR & CELL BIOLOGY

PharmaGenics, Inc., is a research and development company investigating oligonucleotide-based therapeutics for cancer and viral diseases. Due to our continued growth we are seeking highly motivated professionals to conduct research in our Molecular & Cellular Biology Department. The positions listed below require a Ph.D., preferably with at least two years of post-doctoral research experience:

TUMOR SUPPRESSOR GENE MOLECULAR BIOLOGIST

Experience investigating the biochemistry and function of tumor suppressors and/or oncogene products. Research experience developing and using novel systems to study protein-protein interactions and transcription factors preferable. Refer to position tg-B.

CELL BIOLOGIST/VIROLOGIST

Research experience utilizing cell culture and fractionation procedures with an emphasis on the regulation of cellular or viral gene expression. Experience using genetic antisense or antisense/antigenic oligonucleotides to study gene function, or studies of oligonucleotide uptake and stability desirable. Refer to position cb-C.

BIOCHEMIST/MOLECULAR BIOLOGIST

Research experience studying Protein-Nucleic Acid interactions and/or Nucleic Acid structure. Refer to position cs-B.

PharmaGenics, Inc. is located in a pleasant suburban environment in Northern New Jersey with state of the art facilities. We offer a competitive salary and benefits along with the growth opportunities and challenges only a leading edge technology company can offer. Please send a current CV including the names & addresses of 3 references, indicating position of interest in confidence to: PharmaGenics, Inc., Attn: Ms. Joyce Mecionis, 4 Pearl Ct., Allendale, N.J. 07401.



PharmaGenics, Inc.

An Equal Opportunity Employer

Postdoctoral Training Toxicology and Carcinogenesis

Positions are available for studies in various aspects of cancer research and toxicology in the Center in Molecular Toxicology through the Departments of Biochemistry, Chemistry, Medicine, and Pharmacology. Areas of investigation relating to toxicology and carcinogenesis are: 1) enzymatic oxidation, 2) oxidative damage, 3) DNA adduct chemistry, 4) mechanisms of mutagenesis, 5) structural and regulatory biology, and 6) analytic method development. Salaries are negotiable.

FACULTY

Ian A. Blair
Raymond F. Burk
Peter Gettins
F. Peter Guengerich
Thomas M. Harris

Mark M. Jones
Lawrence J. Marnett
Michael P. Stone
Michael R. Waterman

Applicants should submit curriculum vitae and three letters of recommendation to Dr. F. Peter Guengerich, Director, Center in Molecular Toxicology, Vanderbilt University, School of Medicine, Nashville, TN 37232-0146

An Affirmative Action/Equal Opportunity Employer

VIRUS RESEARCH INSTITUTE

Founded in 1991, **Virus Research Institute, Inc. (VRI)**, is a biotechnology company committed to the development and production of novel immunological and pharmacological approaches for the prevention and treatment of infectious diseases. R&D activities focus on mucosally targeted vaccines, immunotherapeutics, and HIV gene therapy.

Mucosal Immunologist Vaccine Research

A major focus of VRI's Research is the development of mucosal targeted vaccines using both live recombinant and biodegradable microsphere delivery vehicles. Candidates must have a Ph.D. and advanced training in immunology with particular emphasis in mucosal immunology as well as the ability to work in a multifaceted team. An understanding of infectious disease and at least 2 years of postdoctoral experience is desirable.

VRI offers competitive salaries and benefits package and an incentive stock option plan. Applicants should send a resume and 3 references to: **Human Resources, Virus Research Institute, 61 Moulton Street, Cambridge, MA 02138.**

VRI Virus Research
Institute

APPLICATIONS AND NOMINATIONS ARE INVITED FOR THE POSITION OF DEAN COLLEGE OF VETERINARY MEDICINE Michigan State University

Michigan State University invites applications and nominations for the position of dean, College of Veterinary Medicine. An individual is sought who can provide leadership for the continuing excellent development of instructional, research, clinical, and outreach programs and who will serve as a representative of the college in its interaction with other MSU colleges, the public, and the veterinary community. The dean of the College of Veterinary Medicine is the chief executive officer of the college and is responsible to the provost and the president for the general administration of the College.

Michigan State University enrolls approximately 40,000 students and is a research-intensive, land-grant institution with 14 colleges, including the College of Human Medicine and the College of Osteopathic Medicine. Its 5,000 acre park-like campus is widely recognized as one of the most beautiful in the nation. The College of Veterinary Medicine consists of the departments of Large Animal Clinical Sciences, Small Animal Sciences, and the shared departments of Anatomy, Microbiology, Pathology, Pharmacology and Toxicology, and Physiology. In addition, the college contains the Animal Health Diagnostic Laboratory and the Veterinary Teaching Hospital, which is situated in a modern, state-of-the-art facility. The college's \$12 million annual general fund budget supports approximately 140 ranked faculty and 230 support staff. The 400 veterinary students and 65 graduate students are enrolled in the DVM professional program, masters or doctorate programs, or intern and residency programs in various clinical specialties. There is also a veterinary technician program. Both the DVM and veterinary technician programs are fully accredited by the AVMA.

Applicants must have the DVM degree (or its equivalent), and an earned doctorate is preferred. Evidence of scholarship in research, teaching, and service and evidence of dynamic leadership are also necessary. Candidates must meet standards for appointment at the rank of professor (with tenure) in an academic department in the college. Expected starting date is May 1, 1994, or as soon as possible thereafter.

Handicappers have the right to request and receive reasonable accommodation.

Applications and nominations are requested by October 1, 1993, and should be sent to: Dr. John Kaneene, Chairperson, Search and Rating Committee, Dean of College of Veterinary Medicine, c/o Office of the Provost, 212 Administration Building, Michigan State University, East Lansing, MI 48824-1046.

PARALLEL PROCESS, UNPARALLELED PROGRESS.

At Vertex Pharmaceuticals Incorporated, a leading structure based rational drug design company, it's how we work together that sets us apart. We unite the disciplines of biology, chemistry and biophysics in a collaborative approach to accelerate the discovery of novel, small-molecule therapeutics targeting autoimmune diseases, HIV infection & AIDS and inflammation. In this process, we've created an environment where you'll work directly with some of the top pharmaceutical research and development scientists in the industry.

PhD Pharmacologist

We are seeking a highly motivated scientist with a PhD in Pharmacology and 5+ years experience, preferably in industry, to play a key role in the development of a research group dedicated to pharmacological studies for all of our drug discovery programs. Reporting to the VP of Research, you will build a group at Vertex that will have overall responsibility for studies in pharmacokinetics, bioavailability, adsorption, distribution, metabolism and excretion of small molecule drug candidates.

Expertise in pharmacokinetic modeling, analytical chemistry methodologies and small animal microsurgical techniques is essential, along with a proven track record of independent productivity reflected in a body of critically reviewed publications. Experience in rodent models of inflammation and immune regulation is desirable. You should enjoy hands-on activities, as you will be closely involved in laboratory work.

PhD Immunologist/Cell Biologist

We are seeking a PhD Immunologist/Cell Biologist to participate in the characterization of novel immunosuppressive and anti-inflammatory drugs at the cellular and biochemical level. A PhD in biological sciences and 2+ years postdoctoral experience are required for an individual to design and execute experiments to define the function of novel drug receptors in cell activation and cytokine processing events. The successful candidate will have expertise with immunopharmacology, biochemistry and receptor-linked cell signaling mechanisms. Familiarity with eukaryotic cell culture and animal models of inflammation is desirable.

With our resourceful approach to structure-based rational drug design and a strong financial base, we invite you to take advantage of our excellent salaries, benefits and professional development potential. Please forward a detailed resume to: Vertex Pharmaceuticals Incorporated, c/o Recruiting Coordinator SCV7/93, 40 Allston Street, Cambridge, MA 02139-4211. We are an Equal Opportunity Employer.



VERTEX
PHARMACEUTICALS
INCORPORATED
We're Not Leaving Success To Chance.

IDEC Pharmaceuticals Corporation has gathered a dedicated scientific and administrative team focused on achieving our corporate mission of developing antibody-based therapeutics. Currently we are seeking an individual for the following position:

DIRECTOR, TUMOR IMMUNOLOGY

The Director will manage a group conducting research in antibody-targeted therapy of human tumors and in cancer vaccines. The successful candidate will have at least 10 years of post-doctoral experience in immunology and tumor biology. Expertise in immunotherapy of cancer and knowledge of cell biology and cellular immunology are also essential.

IDEC Pharmaceuticals is a leader in the development of immunologically active monoclonal antibodies for therapeutic application in cancer and autoimmune disorders. We pride ourselves in the excellence of our team members and invite you to join us. We offer a competitive compensation package and excellent working conditions. For consideration, please send your resume and reference to: IDEC Pharmaceuticals Corporation, AD TI, 11011 Torreyana Rd., San Diego, CA 92121. EOE.



Structure-based Drug Design

Arris Pharmaceutical is a leader in the use of structure-based drug design dedicated to the rapid development of novel human therapeutics. A hallmark of Arris' success is a synergistic approach to drug discovery combining the newest advanced and expertise in synthetic chemistry, molecular biology and machine learning technologies. We have the following opportunities:

Senior Scientist Biophysics/Biochemistry

Ph.D. in Biochemistry/Biophysics plus 4 to 8 years' postdoctoral experience and multidisciplinary project leadership experience in industry. Experience in HPLC, FPLC and affinity purification and microcalorimetry, CD, fluorescence or BiaCOR. Experience with protein refolding is highly desirable. Research will include characterization of proteins, protein/protein interactions and ligand/protein interactions, protein purification and protein refolding. Thermodynamic analysis of binding will be emphasized.

Scientist Molecular Pharmacology

Ph.D. in Biochemistry or Pharmacology with 2-5 years' industrial research experience. Requires experience developing and running pharmaceutical screening assays and designing high throughput assays. Will develop and execute in vitro biochemical assays based on isolated receptors and whole cells. Develop and execute ELISA, RIA, RIP and other assays for pharmaceutical screening projects. Will collaborate with university scientists in elucidation of receptor signalling mechanisms.

Senior Scientist Combinatorial Chemistry

Ph.D. in synthetic chemistry to lead a chemical research laboratory in the design and synthesis of combinatorial libraries. Preferred experience includes research in chiral syntheses and/or experience in peptide synthesis. Will conduct chiral synthesis of protected monomers and develop experimental protocol designs. As a key member of a project team, will represent chemistry and molecular diversity generation to other project teams in the company.

Scientist Peptide Chemistry

Ph.D. in organic/peptide chemistry to serve as a resource in peptide knowledge to support a broad based research effort in structure-based drug design. Requires experience in automated solid phase peptide synthesis in a multidisciplinary environment, synthesis and purification of peptides in a highly automated laboratory and automation of synthesis of novel peptidomimetics directed towards combinatorial libraries.

Arris offers an invigorating scientific environment, excellent salary and benefits, relocation to the San Francisco Bay Area and equity participation in the company as it grows. If you are interested in joining an interdisciplinary team of highly motivated scientists, please send your resume to:

ARRIS PHARMACEUTICAL CORPORATION
385 OYSTER POINT BLVD., SUITE 12
SOUTH SAN FRANCISCO, CA 94080

EOE



Miles Inc., Pharmaceutical Division, is a multi-faceted, continuously expanding campus in West Haven, CT. Our location offers employees Connecticut countrysides and nearby shorelines as well as easy access to the cultural advantages and diversity of New York, Boston and Yale University. As a highly progressive company, we can offer you exceptional growth and advancement opportunities in our highly interdisciplinary environment. We currently have two exciting career opportunities in our Institute for Molecular Biologicals.

Associate Research Scientists (2)

Positions available are for qualified individuals to participate in projects directed at the functional characterization of protein-protein interactions.

In the first position, we are looking for a **Protein Biochemist** with broad experience in the purification and characterization of novel and recombinant proteins, as well as some experience with mammalian cell culture.

In the second position, we are looking for a **Cell Biologist** with extensive experience in animal cell culture methodologies, including the development and characterization of novel cell lines and bioassay development.

For both positions, experience with some DNA/RNA methodologies is essential, and additional experience in protein ligand-receptor binding assays and/or structure-function studies would be desirable. A BS/MS degree in biochemistry, cell biology or chemistry with two or more years' experience is preferred.

We offer a competitive salary and comprehensive benefits package including health and dental insurance, paid holidays and vacation, tuition reimbursement, 401(k), relocation assistance and more. If you'd like to join our team, please send resume to: **Miles Inc., Pharmaceutical Division, Dept. ELAS, 400 Morgan Lane, West Haven, CT 06516.**

An Equal Opportunity Employer.



SECTION HEAD PROSPECTIVE BIOLOGY FOR ANTIBACTERIAL THERAPY

Present and active at the heart of Health, ROUSSEL UCLAF, pharmaceutical and fine chemical Group with an international reputation, is present in 3 sectors : Human Health, Animal Health and Crop Protection

Ph. D. Biologist, having post-doctoral experience in bacteriology, requiered to head a laboratory of Prospective Biology.

You will be responsible for :

- *the creation of the necessary tools and the formulation of general concepts aimed a improving the pharmacological performance of our research based antibiotic molecules*
- *the identification and exploration of new specific sites of antibacterial action.*

You will equally participate in the definition of future strategies against bacterial infections. You will already possess a solid knowledge of bacterial biology and an experience of molecular biology. The previous use of these techniques in the antibacterial domain and in the study of bacterial resistance will be an additional advantage.

The position is based at our Research Centre in the Paris suburbs.

Send your C.V. and a list of publications to Mr René-Henri DONNAY, CPM Search, 11 rue de l'Amiral d'Estaing, F 75116 PARIS.

ROUSSEL UCLAF



POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study the molecular mechanisms which inhibit the terminally differentiated cardiac muscle cell from reentering the cell cycle and dividing. The eventual goal is to be able to repair damaged heart muscle by controlled myocyte proliferation. Experience in cellular and molecular biology preferred. Send curriculum vitae and 3 letters of reference to: **William C. Claycomb, Ph.D., Department of Biochemistry and Molecular Biology, LSUMC, 1901 Perdido Street, New Orleans, LA 70112; Telephone: (504) 568-4737, FAX: (504) 568-3370. LSUMC is an Equal Opportunity/Affirmative Action Employer.**

HEMATOLOGY/ONCOLOGY—The Division of Hematology/Oncology at the University of New Mexico and Albuquerque Veterans Affairs Medical Center seeks two full-time, tenure-track **FACULTY MEMBERS**, academic rank commensurate with qualifications. Applicants must be BC/BE in Oncology, Hematology, or both. Responsibilities will include teaching, patient care and scholarship. Academic clinicians as well as basic or clinical investigators are highly desired. Send curriculum vitae and statement of scholarly interests to: **Robert G. Strickland, M.D., Chairman, Department of Medicine, University of New Mexico School of Medicine, 2211 Lomas NE, Albuquerque, NM 87131. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION. Full-time, federal funds, to begin after September 1, 1993, for two years pending availability of funds, renewable for one additional year subject to performance and availability of funds. To collaborate in structure/function studies on sodium channels expressed in *Xenopus oocytes* using patch clamp techniques. **MINIMUM QUALIFICATIONS:** Ph.D. with strong background in electrophysiology and/or molecular biology, experience with patch clamp recording methods, proven record of research from publication in refereed journals. **MINIMUM ANNUAL SALARY:** \$33,312. Send curriculum vitae and names of three referees before August 16, 1993, to: **Dr. Martin D. Rayner, Békésy Laboratory of Neurobiology, University of Hawaii, 1993 East-West Road, Honolulu, HI 96822. Equal Opportunity/Affirmative Action Employer.**

CELL AND MOLECULAR BIOLOGY OF THE NEURONAL CYTOSKELETON. POSTDOCTORAL POSITION to study regulation of cytoskeletal protein dynamics and molecular motors involved in neuronal motility and plasticity. Projects employ molecular and biophysical approaches to address target protein function. Successful candidates should have demonstrated expertise in molecular biology and biochemistry. Training opportunities exist in high resolution and fluorescence-based digital imaging techniques. Send curriculum vitae, 3 references and research interests to: **Dr. Paul Forscher, Department of Biology, Yale University, P.O. Box 6666, New Haven, CT 06511. (FAX: 203-432-6161).**

POSTDOCTORAL POSITION ECOTOXICOLOGY

A postdoctoral position is available October 15, 1993, or until filled. Study involves allometric and physiological modeling of metal bioaccumulation in fish. Candidate should have experience with radiotracers, gamma-counting instrumentation, atomic absorption spectrophotometry, and statistical methods associated with bioaccumulation modeling. *Applicants must be U.S. citizens.* Send curriculum vitae, names of three references, and selected reprints by August 15, 1993, to: **Michael Newman, University of Georgia, Savannah River Ecology Laboratory, P.O. Drawer E, Aiken, SC 29802. The University of Georgia is an Equal Opportunity Employer.**

DROSOPHILA CIRCADIAN RHYTHMS

POSTDOCTORAL POSITION to study *Drosophila* genes required for behavioral rhythmicity. Research concerns molecular genetic and behavioral analysis of the *Drosophila* circadian timing system. Experience in molecular biology and/or *Drosophila* genetics is essential. Submit curriculum vitae and names of three references to: **Dr. F. Rob Jackson, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545, USA.**

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

POSITIONS OPEN

HIV RESEARCH POSTDOCTORAL

Position available immediately in well-equipped NIH- and Pediatric AIDS Foundation-funded laboratory studying HIV pathogenesis. Projects focus on the molecular and viral determinants of HIV transmission from mother to child and disease progression in adults and children (see Burger, H. et al., *PNAS* **88**:11236, 1991). Seeking individual with training and/or interest in molecular virology. Experience in basic molecular biology, DNA sequence analysis, PCR, and viral cultivation preferred. Stipend dependent on experience and qualifications. The Wadsworth Center houses the graduate program of the Department of Biomedical Sciences of the State University of New York at Albany, and maintains centralized state-of-the-art core resources in molecular genetics, biochemistry, immunology, structural analysis, and computer sciences. Send curriculum vitae with names and addresses of references and publications or research summary to: **Drs. H. Burger and B. Weiser, The David Axelrod Institute of Public Health, Wadsworth Center for Laboratories and Research, New York State Department of Health, P.O. Box 22002, Albany, NY 12201-2002.**

POSTDOCTORAL POSITION

Immediate unexpected opening on an NIH Training Grant to study (1) molecular and cellular regulation of T cell function in organ-specific autoimmunity or (2) Ca^{++} signalling processes in pathophysiologic states. Applicants should have an M.D. and/or a Ph.D. degree and be a U.S. citizen or permanent resident. Send curriculum vitae and names of three references to: **Carolyn Kelly, M.D., Division of Nephrology, UCSD 111-H, 3350 La Jolla Village Drive, San Diego, CA 92161. FAX: 619-552-7452.**

POSTDOCTORAL SCIENTIFIC RESEARCH OPPORTUNITIES IN INDIA.

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

POSTDOCTORAL POSITION in immunology to study mechanisms that control T cell development and function, T cell repertoire selection, and cellular signals which determine cell fate. Emphasis on comparative studies of $\alpha\beta$ and $\gamma\delta$ T cells. Experience in molecular biology, biochemistry, and/or immunology desirable. Starting date negotiable. Send curriculum vitae to: **Dr. A. Augustin, Division of Basic Immunology, National Jewish Center for Immunology and Respiratory Medicine, 1400 Jackson Street, Denver, CO 80206.**

POSTDOCTORAL POSITION

Position available in the laboratory of Dr. John Krupinski at the Weis Center for Research in Danville, Pennsylvania. The successful applicant will have a Ph.D. in biochemistry, cell biology, or pharmacology, with experience in molecular biology. The project will involve the expression and characterization of novel forms of adenylyl cyclase (see *J. Biol. Chem.* **267**:24858-24862). Emphasis will be placed on determining those structural features of the adenylyl cyclases responsible for mediating unique physiological effects.

The Weis Center is a well-equipped, modern research facility in a semi-rural environment. Competitive salary and fringe benefits are available. Please send curriculum vitae with the names and telephone numbers of three references to: **Geisinger Human Resources (JK), 100 North Academy Avenue, Danville, PA 17822-1529. Equal Opportunity Employer, M/F/H/V.**

POSTDOCTORAL POSITION available immediately for X-ray crystallographic studies of eukaryotic transcription factors bound to DNA (see *Cell* **67**:517 (1991)). Candidates with experience in molecular biology and protein biochemistry are particularly encouraged to apply. Prior experience in X-ray crystallography is desirable but not essential. Please send curriculum vitae and names of three references to: **Dr. Cynthia Wolberger, Department of Biophysics and Biophysical Chemistry, Johns Hopkins School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205.**

POSITIONS OPEN

POSTDOCTORAL POSITION. A position is available immediately in Enzymology/Molecular Biology/Crystallography to study the interrelationship between protein structure and function. Molecular Biology techniques will be utilized for creating altered enzymes to study specific aspects of their catalytic and regulatory mechanisms. Mutant proteins will be characterized by kinetics, NMR, UV and CD spectroscopy, as well as X-ray diffraction. Candidates with a Ph.D. degree in Enzymology or Molecular Biology or Crystallography who want to extend their experience to the other areas are particularly encouraged to apply. Send curriculum vitae, names and telephone numbers of three references to: **Dr. Evan R. Kantrowitz, Department of Chemistry, Boston College, Chestnut Hill, MA 02167.**

POSTDOCTORAL POSITIONS MOLECULAR BIOTECHNOLOGY

Postdoctoral positions are available immediately to study metaphase and interphase chromatin organization, gene amplification, chromosome polymorphism, and/or cytogenetic abnormalities with the aid of fluorescence *in situ* hybridization (FISH) and flow cytometry. We seek candidates with experience in molecular/cellular biology, cytogenetics or biophysics. The positions are for 2 years. Please send curriculum vitae and 3 letters of reference to: **Barbara Trask, Ph.D., Department of Molecular Biotechnology, FJ-20, University of Washington, Seattle, WA 98195; (FAX: 206-685-7354, Telephone: 206-685-7347). The University of Washington is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION available in biophysics to study the mechanism of electron transfer and redox-linked proton pumping in mitochondrial respiration. Ph.D. in Chemistry or Biochemistry is required. Experience in the areas of time-resolved spectral techniques and protein biochemistry is desirable. Start date will be between September and November 1993. Send curriculum vitae and three letters of recommendation by 13 August 1993 to: **Dr. 'Olaf Einarsson, Department of Chemistry and Biochemistry, University of California, Santa Cruz, CA 95064.**

Ph.D.—**POSTDOCTORAL POSITION** is available in the Division of Gastroenterology at our 581-bed major teaching hospital affiliated with SUNY Stony Brook School of Medicine. Primary focus of research is the study of mechanisms and control of epithelial and muscle function in animal models of inflammatory bowel disease. Candidate should have a Ph.D. with experience in cell biology, molecular biology and/or immunology. The position is funded for at least two years. Send curriculum vitae and the names of three references to: **Employment Specialist, Human Resources Department, Winthrop-University Hospital, 259 First Street, Mineola, LI, NY 11501. Equal Opportunity Employer, M/F/D/V.**

POSTDOCTORAL POSITION available immediately to study mechanisms of transcriptional regulation in the maintenance of cholesterol homeostasis. Highly motivated hard-working individuals holding a Ph.D. or M.D. degree with experience in cDNA cloning, protein purification and methods to study gene regulation are encouraged to apply. Deadline for application is August 15, 1993. Please send curriculum vitae and the names, telephone numbers and addresses of three references to: **Dr. Tim Osborne, Department of Molecular Biology and Biochemistry, University of California at Irvine, Irvine, CA 92717-3900. The University of California is an Equal Opportunity/Affirmative Action Employer, committed to excellence through diversity.**

POSTDOCTORAL POSITIONS, GENE MAPPING. USDA, Agricultural Research Service (ARS), Meat Animal Research Center, Clay Center, Nebraska, has Postdoctoral Research Associate positions available immediately in a group developing a map of the swine genome. Candidates with a background in genetics/molecular biology and experience in 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. Send curriculum vitae and names of three references to: **Dr. Craig W. Beattie, Roman L. Hruska U.S. Meat Animal Research Center, P.O. Box 166, Clay Center, NE 68933. Telephone: 402-762-4359; FAX: (402) 762-4148. USDA-ARS is an Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATES

Cell Genesys, a newly-public biotechnology company located in the San Francisco Bay Area, is pioneering the human therapeutic applications of gene targeting and related technologies. The company is applying these technologies to develop products in three areas: universal cell transplant products, human therapeutic protein products and human monoclonal antibody products. We are currently recruiting Research Associates/Senior Research Associates for the following new positions:

MOLECULAR BIOLOGY

Essential functions include designing and carrying out experiments involving the expression and characterization of novel gene products. Responsibilities include performing a wide range of molecular biology experiments as well as mammalian cell culture. Experience with receptor binding assays is desirable. A BS/MS degree in biochemistry/molecular biology or related discipline plus at least 3 years of research experience in molecular biology research are required. (Job #11.1.3,13)

CELLULAR IMMUNOLOGY

Essential functions include designing and carrying out cellular immunology experiments with specific emphasis on lymphocyte characterization and analysis of function *in vivo* and *in vitro*. Responsibilities include performing experiments involving *in vitro* immunologic assays and *in vivo* hematopoietic transplantation studies. BA/BS in a life science plus at least 3 years' experience in relevant research are required. (Job #11.3.3,34)

MOLECULAR IMMUNOLOGY

Essential functions include molecular and cellular analysis of genetically-modified B lymphocytes including purification and culture of B lymphocytes and analysis of function including evaluation of antibody expression. Responsibilities include hybridoma production and antibody screening and carrying out flow cytometry, ELISA, immunoblotting and immunoprecipitation assays. BS/BA in a life science plus at least 3 years' experience in cellular immunology and molecular biology are required. (Job #11.3.3,25)

Cell Genesys offers a competitive salary, excellent benefits, and equity participation. For immediate consideration, send your resume to **Paula Bogard (please indicate Job #), Cell Genesys, 322 Lakeside Drive, Foster City, CA 94404**. An equal opportunity employer.



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IBEX Technologies

Ph.D. Cell Biology

A position is immediately available for a Cell Biologist with 3-5 years post-doctoral experience. This person's responsibilities will include the development and maintenance of tissue culture model systems for cardiovascular and wound healing related diseases.

Ph.D. Carbohydrate Chemistry

This person will be involved with a research group focusing on the biochemical characterization of glycosaminoglycans and GAG modifying enzymes. Experience with HPLC, capillary zone electrophoresis, NMR spectroscopy and mass spectroscopy will be considered.

IBEX Technologies is an equal opportunity employer located in the Montreal metropolitan area. We offer a competitive compensation package that is combined with challenging work and the opportunity to make significant contributions to a growing company. To apply please send curriculum vitae to:

IBEX Technologies, Human Resources, 5485 Pare, Montreal, Quebec, H4P 1P7.

Linton Bishop Professorship in Human Genetics
Department of Genetics and Molecular Medicine
Emory University Medical School

Through the generosity of Dr. Linton Bishop's family, the Department of Genetics and Molecular Medicine is searching for an internationally recognized geneticist who will hold the appointment as the Linton Bishop Professor of Human Genetics. Individuals specializing in gene therapy, the molecular basis of disease, or population and quantitative genetics are of special interest.

The Department of Genetics and Molecular Medicine occupies newly remodeled and equipped space which includes research laboratories, a diagnostic laboratory, a molecular histology laboratory, a developmental genetics laboratory, and a departmental genetics clinic. Within the context of the University's Clinical Research Facility, the department also has access to an ultra-modern gene therapy suite which includes two operating rooms which communicate with a biohazard containment laboratory as well as three patient isolation rooms.

Emory's suburban campus encompasses the Medical School, the undergraduate college, and three of five affiliated hospitals which draw patients from throughout the region.

Interested individuals should send their curriculum vitae and the names of three references to:

Douglas C. Wallace, Ph.D.
Robert W. Woodruff Professor of Molecular Genetics
Chairman, Department of Genetics and Molecular Medicine
1462 Clifton Road, Room 403
Emory University School of Medicine
Atlanta, GA 30322

*Emory University is an Equal Opportunity/
Affirmative Action Employer.*

LABORATORY DIRECTOR

A position is open for a Director of Parentage Testing. This highly visible position entails scientific direction and management of a national testing laboratory, direction of related research and product development. An M.D. or Ph.D. with expertise in DNA-based testing is required. Experience in paternity testing, genetics, statistics, and laboratory management preferred. Excellent communication skills essential.

The Blood Center of Southeastern Wisconsin, Inc., is a non-profit service organization which offers specialized laboratory services on a regional and national level and is recognized internationally as a leader in blood-related research. The Blood Center provides all of the blood and blood components used by patients in 29 southeastern Wisconsin hospitals.

The Blood Center of Southeastern Wisconsin offers an excellent wage and benefit package. Send curriculum vitae and names and addresses of three references to:



The Blood Center
of Southeastern Wisconsin

Attn: Debra Endean, Ph.D.
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Milwaukee, WI 53233
Equal Opportunity Employer
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M/F/H/V

Principal Scientist

Biological Research & Development

Wyeth-Ayerst Research, a major division of Fortune 100 American Home Products Corporation, currently has an opportunity available at our pharmaceutical research facility in Radnor, Pennsylvania.

The successful candidate will participate in a program of research and development regarding new antimicrobials. Responsibilities will include the planning and performing of studies designed to define in vitro and in vivo competitive advantages of selected agents. We seek an individual with experience in determining the mechanism of action of antibacterials and antifungals and in establishing novel animal models of infectious disease.

Requirements include a Ph.D. in Microbiology/Biochemistry and a minimum of 5 years experience in general and clinical microbiology as well as general and microbial biochemistry.

Please send your resume with salary requirements to: **Wyeth-Ayerst Research, Position #I-111-S, P.O. Box 8299, Philadelphia, PA 19101.**
Equal Opportunity Employer, M/F/D/V.



Leading The Way for a Healthier World

MANAGER

TECHNICAL SERVICES

QUALITY BIOTECH INC. is a leading international biotechnology service company providing contract research and biosafety testing for the biopharmaceutical industry. As part of our expansion, we have an opening in our Sales Department for a Manager of Technical Services.

The successful candidate will assume full responsibility for QBI's interaction with the clients and prospects in an assigned territory. Ongoing duties will include maintaining contact with current clients and maximizing sales of testing services to those clients, opening up new accounts, preparing testing proposals for clients and prospects and generally serving to enhance QBI's presence and reputation within the assigned territory. This individual will also provide technical back-up to Account Managers (i.e. giving seminars and presentations). A PhD in the Biological Sciences is required. Training in virology, molecular biology or cell biology and prior experience in sales/marketing is desirable. Position requires 25-50% travel.

Quality Biotech is located in the Greater Philadelphia region-an area rich in scientific, cultural and recreational diversity. We offer a competitive salary, relocation assistance, medical and dental benefits, 401(k) and Flexible Benefit plans. Please send resume and salary history, to: Quality Biotech Inc., Human Resources-MTS1, 1667 Davis Street, Camden, NJ 08104. An AA/EEO Employer.



Quality Biotech®

Innovative Science. International Scope.



STAFF SCIENTISTS

Gene Therapy

Targeted Genetics Corporation is a biopharmaceutical company developing integrated gene therapy systems for the treatment of acquired and inherited diseases. The focus of clinical trials currently underway is the reconstitution of immunity to infectious disease by *ex vivo* genetic modification and the adoptive transfer of cytotoxic T cells. We are extending this work to the treatment of cancer and also expanding our programs to develop adeno-associated virus (AAV) based vectors for both *in vivo* and *ex vivo* gene therapy. Continued growth has created opportunities for scientists in the following areas:

GENE EXPRESSION

Two positions are available for candidates with several years of post-doctoral experience in mammalian gene expression. Areas of focus include:

- Develop expression vectors for use in adoptive immunotherapy of malignancies using genetically modified tumor-specific CTL. (Job #SL7/93).
- Analyze AAV regulatory mechanisms and develop regulatable expression systems for production of recombinant AAV particles. (Job #SL7/93A).

GENE TRANSFER

- Study the molecular virology of AAV vectors and helper functions to improve transduction of specific target cells. Several years post-doctoral experience in molecular virology preferred. (Job #RO7/93).

DEVELOPMENT

- Develop processes for the scale-up, purification, and concentration of retroviral and AAV vector particles. The ideal candidate has 2-5 years post-doctoral industry experience with a background in viral vectors or gene transfer. (Job #DEV7/93).

The successful candidates will join a highly interactive group dedicated to the aggressive pursuit of research programs leading to therapeutic products. Targeted Genetics offers competitive salaries and an excellent benefits package. For consideration, please submit resume with the appropriate job number and the names of three references to:

TARGETED GENETICS CORPORATION

1100 Olive Way, Suite 100, Seattle, WA 98101.
Equal Opportunity Employer.

Deputy Director

Lawrence Livermore National Laboratory, one of the nation's premier research and development organizations, is seeking a Deputy Director. Reporting directly to the Director of the Laboratory and acting first for him in his absence, the Deputy Director is the senior member of the Director's top management team which is responsible for Laboratory-wide direction, vision setting and standard setting functions.

The successful candidate will be responsible for the development of policy, administrative oversight for Laboratory planning and associated budget matters; quality assurance; and liaison with senior UC/government officials and program sponsors. In addition to these institutional responsibilities, will have custody of financial, human and facility resources. This includes maintaining a work environment that is in compliance with LLNL safety and ES&H policies and with applicable health, safety and environmental regulations; personnel growth and productivity as well as near-term program accomplishment; meeting established commitments for equal employment opportunity, affirmative action and workforce diversity; and meeting security, classification and property management standards and requirements.

Requirements include a Ph.D. or equivalent experience in a scientific or engineering discipline and a background in senior management in a scientific/technical institution such as a national laboratory. Experience in management of defense-related technology activities is desirable. Also required are demonstrated leadership and management skills, program and project planning experience, excellent communication skills and the ability to interact effectively with high-level government, university and industry personnel. Additional requirements include knowledge and working understanding of national issues and policies and a familiarity with Department of Energy and University of California policies and regulations.

Lawrence Livermore National Laboratory offers a highly competitive salary and benefits package. Interested applicants should send their resume and salary requirements to: Kristine Kansa, Professional Employment Division, Lawrence Livermore National Laboratory, PO Box 5510, L-725, Dept. #A93224, Livermore, CA 94551. U.S. citizenship required. We are proud to be an Equal Opportunity Employer. M/F/D/V.

University of California

 **Lawrence Livermore
National Laboratory**

POSITIONS OPEN

POSTDOCTORAL POSITION. Available immediately to study the molecular mechanisms of synaptic plasticity in the vertebrate retina. NIH-funded project employs patch clamp and gene cloning to investigate the modulation of chemical and electrical synapses between zebrafish retinal neurons. Previous experience in electrophysiology and/or molecular biology preferred. Please send curriculum vitae, description of previous research experience and three letters of reference to: **Dr. Douglas McMahon, Department of Physiology and Biophysics, University of Kentucky, Lexington, KY 40536-0084.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION funded by NSF available immediately to study molecular indicators of condition in zooplankton. Biochemical and sea-going experience are assets. Send curriculum vitae, selected reprints, and names, addresses, telephone numbers of references to: **Dr. Patrick J. Walsh, Chairman, Division of Marine Biology and Fisheries, Rosenstiel School of Marine and Atmospheric Science, 4600 Rickenbacker Causeway, Miami, FL 33149.**

The University of Miami is an Equal Opportunity/Affirmative Action Employer and smoke/drug-free workplace. We do not discriminate on the basis of race, religion, color, sex, age, national origin or disability. We encourage applications from females, veterans, disabled and minority group applicants.

POSTDOCTORAL POSITION: Available immediately to study transcription factors in leukemia. A Ph.D. and molecular biology experience required. Send curriculum vitae and 3 references to: **Dr. D. Prager, Endocrinology Division Becker B131, Cedars-Sinai Medical Center, 8700 Beverly Boulevard, Los Angeles, CA 90048.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIP available in September 1993 to study the structure and chemical properties of immunoglobulin light chains that deposit in tissues. Experience in protein purification and biochemistry is essential. Address résumé and references to: **Dr. Gloria Gallo, Department of Pathology, New York University Medical Center, 560 First Avenue, New York, NY 10016.** (FAX: 212-263-7916).

Special **POSTDOCTORAL FELLOWSHIPS** (2) for three- or four-year joint research program to study function of recently cloned gene in human neoplasia and hematopoiesis.

New York and London or New York and Shanghai. Please respond to: **Dr. Samuel Waxman, Division of Medical Oncology, Box 1178, The Mount Sinai Medical Center, New York, NY 10029;** or FAX: 212-996-5787.

Applicant must be U.S. citizen or permanent resident.

FELLOWSHIPS IN REPRODUCTIVE BIOLOGY VANDERBILT UNIVERSITY

Predoctoral and postdoctoral fellowships are available in reproductive biology, biochemistry and endocrinology.

Participating faculty includes **Graham Carpenter** (growth factors/signal transduction), **Frank Chytil** (cellular differentiation of epithelial tissue), **Benjamin J. Danzo** (hormone regulation of the male reproductive tract), **Loren H. Hoffmann** (endometrial and trophoblast biology/ovo implantation), **William J. Kovacs** (mechanism of androgen action), **Michael M. Melner** (mechanisms of gonadotropin regulated gene expression), **Marcia E. Newcomer** (protein structure/vitamin A binding proteins), **Gary E. Olson** (sperm development and function), **David E. Ong** (function and metabolism of vitamin A), **Marie-Claire Orgebin-Crist** (fertilization/sperm maturation/epididymal function), **Mark Seyfred** (chromatin structure and steroid hormone regulated gene expression), **William L. Taylor** (developmental specificity of gene expression), **Daulat R.P. Tulsiani** (sperm maturation/sperm-egg interactions/zona glucocorticoids/sperm associated enzymes), **Michael R. Waterman** (regulation of steroid hydroxylase gene expression).

Only U.S. citizens and permanent residents are eligible for appointment. For further information, please write: **Frank Chytil, Program Director, Department of Biochemistry, Vanderbilt University, Nashville, TN 37232-0146.**

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POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP

NIH/NRSA postdoctoral position available in the Center for Functional Imaging, Life Sciences Division, Lawrence Berkeley Laboratory, for a Synthetic Organic Chemist, Medicinal Chemist, or Radiochemist to design and synthesize short-lived PET radiopharmaceuticals. The candidate will interact with a multidisciplinary group of scientists and physicians to develop new metabolic tracers and/or receptor agents for studies of physiologic function in brain, heart, and tumor tissue. Ph.D. in Chemistry within the last 3 years with experience in synthetic organic chemistry and HPLC preferred. Experience handling radioactive isotopes is desirable. U.S. citizenship or permanent resident status required. Send résumé and names of three references to: **Dr. Henry Van Brocklin, Center for Functional Imaging, Life Sciences Division, Lawrence Berkeley Laboratory, Mail-stop 55/121, Berkeley, CA 94720.** *An Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH POSITION at EPA's Risk Reduction Engineering Laboratory in Cincinnati, Ohio. Position involves research to develop cost effective separation systems to remove organics and/or metals from liquid wastestreams and solid media. Appointee will also identify and design separation techniques. A doctoral degree in chemistry, chemical engineering, or a related discipline within last three years preferred. U.S. citizenship is required. For additional information: **Postgraduate Research Program/RREL, Science Engineering Education Division, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831-0117; Telephone: (615) 576-3456.**

POSTDOCTORAL RESEARCH ASSOCIATE. Position available immediately for molecular studies of neuronal ischemic reperfusion injury. Molecular biology training essential. Join an active and exciting interdepartmental program. Send curriculum vitae and names of three references to: **Dr. Lawrence I. Grossman, Department of Molecular Biology and Genetics, Wayne State University School of Medicine, 540 East Canfield, Detroit, MI 48201; FAX: 313-577-5218.** *Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATES (2). One position requires expertise in protein analysis (Western blots, immunoprecipitation, etc.) and monoclonal antibody production. Second position requires expertise in molecular cloning techniques. Three-year NCI-funded project on novel mechanism of drug resistance. Three references must be provided on request. Cut-off date October 1, 1993. Contact: **Dr. Jonathan Nyce, Department of Molecular Pharmacology & Therapeutics, School of Medicine, East Carolina University, Greenville, NC 27858.** *East Carolina University is a constituent institution of the University of North Carolina, and an Equal Opportunity/Affirmative Action Employer.* Proper documentation of identity and employability required at the time of employment.

BIOTECHNOLOGY/ PHARMACEUTICAL Nationwide Career Opportunities RESEARCH ASSISTANT ASSISTANT/ASSOCIATE SCIENTISTS

James E. Iannoni and Associates

P.O. Box 66

Hampton, CT 06247

Telephone: 203-455-0151

Fee company paid.

PH.D. MICROBIOLOGIST

Dedicated researcher with industrial experience is sought to work for a small company on development, production and applications of biotechnologies for bioremediation. Candidate should have experience in fermentation, biodegradation and use of Macintosh. Speaking knowledge of Spanish and/or French is beneficial. Salary \$35,000 to \$50,000 CDN. Send curriculum vitae, a letter describing career goals and their relation to offered position and names and telephone numbers of three references to: **Aquaresearch Ltd, P.O. Box 208, North Harley, Quebec, Canada J0B 2C0.**

POSITIONS OPEN

RESEARCH TECHNICIAN RNA BIOCHEMISTRY University of Colorado-Boulder

A Research Technician position is available September 1, 1993 at the Howard Hughes Medical Institute laboratory located at the University of Colorado in Boulder. You will be part of a team making breakthroughs in X-ray crystallography of catalytic RNA. Qualified applicants should possess a Bachelor's degree and experience in RNA purification and analysis.

HHMI offers a salary commensurate with ability and experience (to \$26,000), a generous retirement plan and flexible benefits, including health insurance. Please send curriculum vitae including GPA and names of three references by July 25, 1993, to: **Dr. Thomas Cech, HHMI, University of Colorado, Boulder, CO 80309-0215; FAX: (303) 492-6194.**

Howard Hughes Medical Institute

An Equal Opportunity Employer.



UNIVERSITY OF ZÜRICH

The Department of Zoology invites applications for a **RESEARCH POSITION IN ECOLOGY**

Community ecology, behavioral ecology, physiological ecology, population genetics or evolutionary biology. Our research projects aim at combining theoretical and empirical as well as ultimate and proximate approaches to the study of adaptation. A major research goal is directed at amphibians, but birds and other vertebrate taxa are also under study.

Applicants must possess a Ph.D. and should have some postdoctoral experience. Individuals experienced with amphibians will be especially considered. The successful candidate is expected to participate in ongoing research and teaching programs and to develop his/her own program.

The position is available from 1 January 1994 for a period of three years. If you are interested, please send me your application with curriculum vitae, list of publications, summary of research goals and three letters of reference.

Prof. Dr. Heinz-Ulrich Reyer, Zoologisches Institut der Universität Zürich, Winterthurerstrasse 190, CH-8057 Zürich, Switzerland.

RESEARCH POSITIONS

Applications are invited for **RESEARCH ASSOCIATE** positions in areas of membrane protein structure-function. Recent Ph.D. with background in bioenergetics, membrane protein chemistry, biophysical methods or molecular biology is desirable. Annual salary is \$18,000 to \$25,000 plus 30% fringe benefits, commensurate with experience. Send curriculum vitae, publication list and names of three references to: **Prof. Chang-An Yu, Department of Biochemistry & Molecular Biology, 246 NRC, Oklahoma State University, Stillwater, OK 74078.** *Oklahoma State University is an Affirmative Action/Equal Opportunity Employer.*

FREE PRODUCT INFORMATION SERVICE

Send a letter stating the specifics about your new laboratory and *Science* will put you in touch with the vendors whose products you will need.

Write to:

**Science New Lab Service Department
1333 H Street, NW
Washington, DC 20005**

SAN DIEGO SUPERCOMPUTER CENTER

San Diego Supercomputer Center is operated by General Atomics and the National Science Foundation to provide services and products to a nationwide supercomputing market. We are currently accepting applications for a Staff Scientist in computational ecology, computational neurobiology, or scientific databases to join our team of computational scientists.

Requirements include a Ph.D. plus postdoctoral experience in one of the above areas. For the computational ecology or neurobiology position, a willingness to initiate an outreach program in, and collaborative projects with, the research community is necessary.

General Atomics offers comprehensive salary and benefit plans as well as an exciting, dynamic environment well suited to applicants who are highly motivated and flexible.

Please submit your letter of application, curriculum vitae, list of publications and three references to: General Atomics, Dept. 93-23, P.O. Box 85608, San Diego, CA 92186-9784. EEO/AAE



**GENERAL
ATOMICS**

FACULTY POSITIONS ANATOMY, PHYSIOLOGY

The Department of Biomedical Sciences, Virginia-Maryland College of Veterinary Medicine, Virginia Tech is inviting applications for two calendar-year tenure-track Assistant Professor positions. The first is in Anatomy and is available immediately. The second is in Physiology and is available July 1, 1994. Minimum requirements for the positions include a D.V.M. and/or Ph.D. Participation in teaching in the D.V.M. curriculum is expected (Physiology or Gross and Developmental Anatomy), as is graduate teaching and establishment of an independent research program funded by extramural support. Prior teaching experience in the discipline is desirable. Research should be in a field which complements one of the department's areas of interest. The major disciplines in the department include: morphology, neuroscience, biochemistry, physiology, pharmacology, toxicology, and veterinary medical informatics. Applications from physiologists working with membrane receptors and/or utilizing *in vitro* approaches are especially encouraged. The college maintains staffed core facilities to help support research programs. Excellent opportunities exist for collaborative and interdisciplinary research within the department, college, and university. Virginia Tech has a strong commitment to the principle of diversity and, in that spirit, seeks a broad spectrum of candidates including women, people of color, and people with disabilities. The deadline for Anatomy applications is September 1, 1993. Physiology applications will be accepted until the position is filled; however, review of the latter will commence on November 1, 1993. Qualified persons should submit their curriculum vitae, a description of their research interests, current and proposed research funding, and the names and addresses of three references to the appropriate search committee. Individuals with disabilities desiring accommodations in the application process should notify the search committee chair by the deadlines indicated above. Send applications to: Dr. Larry Freeman, Anatomy Search Committee (703-231-7170) or Dr. Bradley Klein, Physiology Search Committee (703-231-7398) at: Department of Biomedical Sciences, VMRCVM - Virginia Tech, Blacksburg, VA 24061-0442. Virginia Tech is an "Equal Opportunity/Affirmative Action Institution".

POSTDOCTORAL SCIENTIST

SmithKline Beecham Pharmaceuticals, a worldwide leader in pharmaceutical research, has a challenging opportunity within the Department of Molecular Virology and Host Defense, a 40 member group whose activities encompass basic and applied research on many aspects of molecular virology and immunology of infectious diseases including immunomodulators, hematopoietic cytokine research, stromal cell biology, viral pathogenesis and discovery of novel anti-virals.

Your responsibilities will include using modern molecular biological techniques to study development and differentiation of cells, studying the regulation of gene expression of key growth factors involved in cell growth and differentiation, and characterizing transcriptional factors that regulate the transcription of specific growth factor genes.

Your qualifications must include a Ph.D. in Cell or Biological Sciences or an M.D. degree, and experience at the cell and molecular level in development or differentiation systems. Zero to two years of postdoctoral experience in a relevant field is desirable. Experience with molecular biological techniques for studying regulation of gene transcription and training in the role of growth factors in regulating hematopoietic differentiation are preferred.

Located in our state-of-the-art research facility in suburban Philadelphia, near Valley Forge, PA, SmithKline Beecham offers a competitive compensation. Interested applicants should forward resume to: Employment Administrator, #H053, PO Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer, M/F/D/V.



SmithKline Beecham
Pharmaceuticals

Challenging the natural limits.

Cardiovascular Disease

COR Therapeutics, Inc. is a publicly-held biopharmaceutical company located in the San Francisco Bay Area. We specialize in the discovery and development of novel therapeutics for the treatment of various aspects of atherosclerosis-induced cardiovascular disease. COR is actively recruiting highly qualified scientists with proven track records to join our multidisciplinary research teams.

Vessel Wall Biology • This position offers the opportunity to study the role of receptor tyrosine kinases in cardiovascular disease and to participate in an ongoing drug discovery program to identify and characterize growth factor receptor antagonists. Candidates with a strong background in the areas of molecular biology, immunohistochemistry and *in situ* hybridization techniques will be given preference. Applicants should have a Ph.D. and at least 2-3 years of postdoctoral experience in the vascular biology and/or tyrosine kinase/signal transduction fields. (Job Code R15-93)

Enzymology • We are seeking a Scientist with a background in protein chemistry/enzymology to work on characterization and structure/function relationships of coagulation inhibitors. This position requires a Ph.D. in biochemistry/pharmacology and 2-3 years applicable academic or industry research experience in enzymology. (Job Code R16-93)

COR Therapeutics, Inc. offers competitive salaries, benefits and attractive equity positions to its employees combined with the challenge and opportunity to make significant research contributions. To apply, please send curriculum vitae to: COR Therapeutics, Inc., Human Resources, 256 East Grand Avenue, South San Francisco, CA 94080. Please reference job code in correspondence. COR is an equal opportunity employer.

COR

COR THERAPEUTICS, INC.

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

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

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

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

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

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

EXECUTIVE DIRECTOR

Research Information Management

Merck, the world's leading pharmaceutical organization, seeks an individual to assume responsibility for scientific information resource management within its worldwide research operations. Overseeing a group of approximately 150 people, this executive will direct the program for the design, planning, implementation, and operation of information systems that support drug design and development efforts, including the organization, processing, dissemination and storage of information in ways that foster innovation.

The position required a person with a strong, clear vision of the use of computers and information systems within a medical/scientific research environment. Since this individual will work closely with the company's corporate computer resources group, as well as with a broad client base, candidates should have excellent team building skills and strong communication skills.

Candidates should have a science background and formal training in modern computers and information science. A Ph.D. is preferred. Individuals should be able to point to demonstrated success in managing significant information technology focused operations and have a strong personal track record of achievement.

Merck offers an attractive compensation and a generous benefits program. Resumes should be forwarded to:

Personnel Director
MRL Human Resources WP 42-2
Merck Research Laboratories
P.O. Box 4
West Point, PA 19486



MERCK

Research Laboratories

EEO/AA/V/Employer

Laboratory of Stem Cell Biology

The New York Blood Center

The Lindsley F. Kimball Research Institute of the New York Blood Center invites applications for **CELL BIOLOGISTS** and **MOLECULAR BIOLOGISTS** to join the newly established Laboratory of Stem Cell Biology to be headed by Dr. Jan Visser. This laboratory group will study the regulation of the proliferation and differentiation of hematopoietic stem cells. Research will focus on:

- The characterization and purification of stem cells from bone marrow, cord blood and peripheral blood;
- The molecular analysis of purified stem cells by cDNA libraries and in situ hybridization technology.

Applicants should have a Ph.D. or M.D. and a strong background in cell biology or molecular biology with experience in hematology or immunology, flow cytometry, the construction and analysis of cDNA libraries, PCR or in situ hybridization.

Appointments can be made at the **Postdoctoral Fellow, Associate Member** and **Visiting Scientist** levels. Salaries and titles will be determined based on qualifications and experience. Fringe benefits are excellent. Applicants should send their curriculum vitae, list of publications and the names and addresses of three references to: **Dr. Jan Visser, Head, The Laboratory of Stem Cell Biology, Lindsley F. Kimball Research Institute, New York Blood Center, 310 East 67th Street, New York, New York 10021, USA.** Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

The New York Blood Center is a not-for-profit institution with close academic ties to other research and medical institutions in the New York area.

Lindsley F. Kimball Research Institute

A Division of the New York Blood Center
Where concern for the community comes first.

SYMPOSIUM

Gene Therapy in the 1990's Moving from Animal Models to Human Trials

September 20, 1993

Co-Sponsored by The American Heart Association of Metropolitan Chicago
Funded through an educational grant from Mallinckrodt Pharmaceuticals

Conference Director: *Jeffrey M. Leiden, M.D., Ph.D.*

During the last five years there has been extraordinary progress in the area of somatic gene therapy. The development of novel techniques to deliver genes to multiple cell types *in vitro* and *in vivo* have significantly expanded the possible therapeutic applications of gene therapy. Based on these new technologies, multiple human trials have been initiated. This conference will explore the applications of somatic gene therapy approaches to the treatment of a variety of human diseases. Topics will include the use of adenovirus vectors for *in vivo* gene delivery, the use of genetically modified skeletal myoblasts to deliver recombinant proteins to the systemic circulation, novel techniques for gene transduction in the vascular wall, and *ex vivo* gene transfer as a novel treatment for inherited hyperlipidemias in humans. The meeting will be held at the University of Chicago Medical Center. Registration may be limited.

For registration information call (312) 702-1056 or FAX (312) 702-1736.

THE UNIVERSITY
OF CHICAGO
CARDIOVASCULAR
RESEARCH CENTER

ANNUAL
SYMPOSIUM

SYMPOSIUM
SPEAKERS

*Helen M. Blau
Jeffrey M. Leiden
Gary J. Nabel
Michel Perricaudet
Inder M. Verma
James M. Wilson
Savio L. Woo*



POSITIONS OPEN

ASSOCIATE DEVELOPMENT ENGINEER

The University of California, Irvine, is seeking a director who will be responsible for the daily operation of the Core Facility, which provides protein sequencing, peptide synthesis, peptide purification, amino acid analysis, DNA sequencing and oligonucleotide synthesis services to a large number of investigators in biochemistry and molecular biology. Ph.D. in an appropriate scientific discipline and 3 years of experience in protein sequencing and peptide purification are required. Experience with the operation of core facility instrumentation is essential. Starting salary between \$41,500 and \$51,900 per year. Salary is commensurate with experience. Please request required application materials for Job # CU-802 by calling (714) 856-4117. Resumes will not be accepted in lieu of application materials. Submit completed application materials to: UCI Campus, Human Resources Department, 250 Berkeley Place, Irvine, CA 92717-4600. UCI is an Equal Opportunity/Affirmative Action Employer committed to excellence through diversity.

CLINICAL MOLECULAR GENETICIST—Responsible for directing the Molecular Genetics Research Program in an active and growing Pediatric Research Laboratory at Carolinas Medical Center in Charlotte, North Carolina. Will work with Clinical Genetics faculty to develop genetics research projects and clinical molecular laboratory testing, and will assist other Department of Pediatrics faculty in research projects where appropriate. Must have Ph.D. with clinical molecular genetics laboratory training and/or experience, and be eligible for certification in Molecular Genetics by the ABMG. Carolinas is a tertiary care teaching hospital complex, and the Clinical Genetics Center is an active and growing program with a wide range of genetics services. Contact: Pam Buennemeyer, Allied Health Recruiter, Carolinas Medical Center, P.O. Box 32861, Charlotte, NC 28232-2861 or call 800-942-6898 or (704) 355-2101. Equal Opportunity Employer.

MAYO CLINIC

CAREER SCIENTIST staff position available immediately within the Thoracic Research Unit. The specific focus of research is secondary to demonstrated research excellence. Candidates working in the general areas of Cell/Molecular Biology, Enzymology/Protein Chemistry or Gene Therapy/Molecular Medicine are especially encouraged to apply. Academic appointment commensurate with experience available in any of the basic science departments in the Mayo Medical School. While more senior investigators are sought, for appointment as an Assistant Professor minimum requirements include a Ph.D. and/or M.D. degree and 2 to 3 years of postdoctoral research experience. The Mayo Foundation provides significant resources as well as a stimulating and challenging work environment. Interested applicants should submit curriculum vitae, description of research plans, and names and addresses of three references by October 1, 1993, to:

Ms. Debbie Pearson
Mayo Foundation
Guggenheim 1611
Rochester, MN 55905
Telephone: (507) 284-8417
FAX: (507) 284-9759

Mayo Foundation is an Affirmative Action and Equal Opportunity Educator and Employer.

SCIENCE WRITER—The Stanford University News Service has an opening for a full-time science writer, with experience equivalent to that of a top-grade beat reporter on a major metropolitan newspaper, to cover research in the physical sciences, physics, chemistry, applied physics, astronomy, biology, aeronautics and astronautics, earth sciences and computer science. A solid grasp of technology and the natural sciences is essential in addition to demonstrated writing and reporting skills. The job includes writing news releases, answering and servicing queries from local, national and international print and broadcast media, and supervising science writing interns. Qualifications: Minimum of five years of experience, preferably with a science publication or agency, or as a science writer for a daily newspaper. Send letter of application with résumé, clips and the names of three references to: Jack Hubbard, Stanford News Service, Press Building, Stanford, CA 94305-2245.

POSITIONS OPEN

ECOLOGIST—Ramon Science Center, Israel, seeks an ecologist with a Ph.D. experienced in population, community or ecosystem ecology, and with interest in conservation biology. Non-tenured position suitable for postdocs and those interested in one to five years of research on conservation and management of a desert national park. Applications will be considered as they are received until the position is filled. Send curriculum vitae, reprints, outline of research interests, and arrange for three letters of reference sent to: Prof. U. Safriel, Mitrani Center for Desert Ecology, Institute for Desert Research, Sede Boker Campus, 84993 Israel.

REPRODUCTIVE BIOLOGIST/ TOXICOLOGIST

BIOQUAL, Inc. is seeking a Ph.D. with 5 to 15 years of experience to supervise contraceptive research and development utilizing rodents, rabbits, and monkeys. Reproductive toxicology and computer experience desirable. Salary commensurate with experience. Full-time, full benefits. Submit curricula vitae to: Human Resources Manager, BIOQUAL, Inc., 9600 Medical Center Drive, Rockville, MD 20850. Equal Opportunity Employer.

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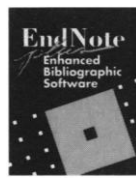
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1) Takeuchi, M. *Science* **251**:1451-1455, 1991.
2) Yoshida-Noro, C. et al *Developmental Biology* **101**:19-27, 1984.
3) Shiozaki, H. et al *American J. Pathology* **139**:17-23, 1991.



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