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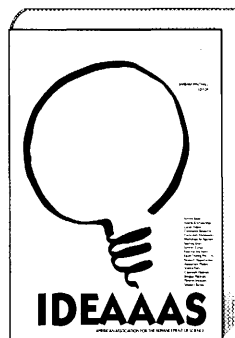
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PRODUCTS & MATERIALS

Electrophoresis Software

ONE-Dscan is Windows-based software for the analysis of images from one-dimensional electrophoresis experiments. It provides densitometric and radiometric quantitation of bands or spots contained in one-dimensional lanes from gels, blots, and thin-layer chromatography plates. Lanes and peaks are detected automatically. Gaussian deconvolution of peaks provides accurate quantitation of bands. Additional features include gel desmiling, multilane and multigel comparisons, and auto-calibration of bands for molecular weight. Image data in the form of a TIFF (tagged image file format) file from virtually any scanning densitometer, flat-bed scanner, charge-coupled device camera, storage phosphor screen, or AMBIS imager can be analyzed with ONE-Dscan. Scanalytics. Circle 142.

Data Acquisition and Analysis System

MacLab/s system for data acquisition and analysis offers an easy and cost-effective digital alternative to traditional laboratory recording devices. Running on an Apple Macintosh computer, the flexible system can be easily configured for a wide range of physiology, neurophysiology, and pharma-



cology studies. It works seamlessly with most existing transducers and signal conditioners, as well as with the manufacturer's own selection of front-end modules. Data can be analyzed in real time or stored to disk or tape drive and instantly retrieved for post-run analysis. Built-in data manipulation routines

include integration, statistical analysis, and computed functions. Results can be printed, transferred across a network, or exported to other applications. MacLab. Circle 143.

Image Acquisition and Analysis Kit

The Grab-It Image Acquisition Kit is designed for researchers who are building an image acquisition and analysis system around an existing personal computer. The card fits into a vacant full-size slot and is linked directly to a UVP camera. Control software allows images to be loaded into the computer for manipulation and analysis. Applications include documentation and analysis of DNA, RNA, and protein gels, autoradiographs, spots, and blots. The image is captured by the camera, grabbed into the computer, and viewed on the monitor. Manipulation procedures include camera exposure control; adjustment of the image's brightness, contrast, and sharpness; and zoom. The final image can be saved to either a floppy or hard disk and a hard copy can be printed. UVP. Circle 144.

BubbleBuster for DNA Sequencing

The BubbleBuster removes bubbles found after pouring acrylamide or Long Ranger gels for blemish-free DNA sequencing gels. It is designed for 0.4-mm spacers. J.T. Baker. Circle 145.

Nitric Oxide Monitor

The IVEC-10-NO is a new system that can measure nitric oxide in vivo in real time, with excellent spatial resolution. Because nitric oxide is released in only minute quantities and has a short lifetime in tissue, it is necessary to measure low concentrations quickly and at precise locations. The IVEC-10-NO accomplishes this through the use of specially designed carbon fiber microelec-

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.

trodes together with a computerized electrochemical protocol. The carbon fiber electrode tip is only 35 μm in diameter and is 100 to 200 μm long, thus assuring local measurements. Concentrations as low as 10 nM can be detected. The electrode response time is



less than a second, and the sampling rate is up to 25 samples per second. **Medical Systems.** Circle 146.

Fluorescence Imaging System

The Lasertrak-3000 is a high-performance, cost-effective imaging system that makes use of laser-induced fluorescence to detect and quantitate DNA and proteins separated by

gel electrophoresis. It also functions as a laser transmission densitometer for scanning visibly stained gels and autorads. The unit scans a sample up to 25 cm by 20 cm in minutes. DNA fragments between 0.005 and 400 ng can be detected on a gel in a single scan using ethidium bromide as the fluorescent stain. Changing sample holders is all that is required to operate the laser in densitometer modes. Absorbance measurement over a 4.0 O.D. range is possible. **Instrumentation Development.** Circle 147.

Exploratory Data Analysis Software

Cornerstone for Windows is exploratory data analysis software for engineers and technical professionals that combines the power of statistical software with the ease and familiarity of a spreadsheet. The program transcends spreadsheets by bringing large volumes of data to life in an interactive, graphical environment. With simple mouse clicks, megabytes of data can be transformed into graphical representations, allowing users to visualize data relationships and then perform numerical analysis. The graphics are dynamically linked to let users explore data and visu-

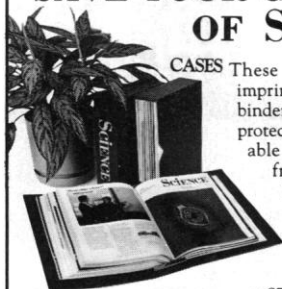
alize relationships through a range of graphs, including line plots, scatter plots, box plots, histograms, bar graphs, interval plots, and three-dimensional graphs. **BBN Software Products.** Circle 148.

Literature

1994/95 *Products for Molecular & Cellular Biology* features many new enzymes, kits, reagents, and other products for purification and recovery of DNA and RNA, nucleic acid sequencing, in vitro transcription, molecular cloning and analysis, and protein studies. **Epicentre Technologies.** Circle 149.

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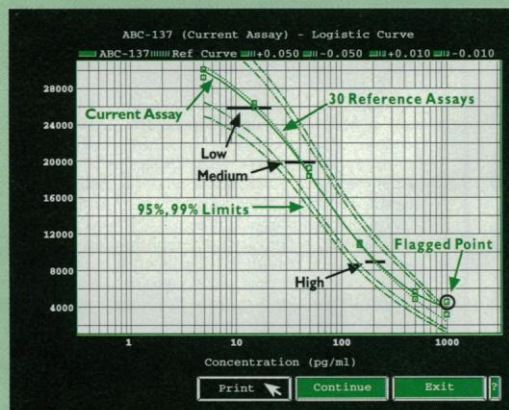
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POSITIONS OPEN

ASSISTANT PROFESSOR MARINE MICROBIOLOGY

The Center for Deep-Sea Ecology and Biotechnology at Rutgers University seeks candidates for a tenure-track ASSISTANT PROFESSOR position in Marine Microbiology. The successful candidate should have expertise in isolation, culture and biochemical characterization of microorganisms from extreme environments, with special reference to industrial biotechnology and biodegradation. The individual will be expected to work with microorganisms from various deep-sea environments. Opportunities exist to collaborate with the Center for Agricultural Molecular Biology, the Center for Theoretical and Applied Genetics, and the Institute of Marine and Coastal Sciences. Participation in teaching microbiology courses at the undergraduate and graduate levels is required and development of independent extramural research funding will be expected. Academic line will reside within the Department of Biochemistry and Microbiology at Rutgers. A letter of application, curriculum vitae, and the names of three references should be sent by May 15, 1995, to: Dr. Richard A. Lutz, Center for Deep-Sea Ecology and Biotechnology, Institute of Marine and Coastal Sciences, Dudley Road, Cook Campus, P.O. Box 231, New Brunswick, NJ 08903. Telephone: 908-932-8959 ext. 200; FAX: 908-932-6557; Email: RLUTZ@zodiac.rutgers.edu. Rutgers is an Equal Employment Opportunity/Affirmative Action Employer.

CLINICAL AND LABORATORY FACULTY POSITIONS

Faculty positions at the ASSISTANT and ASSOCIATE PROFESSOR levels are available within the Bone Marrow Transplant Program at Thomas Jefferson University. The program is part of the NCI-designated Cancer Center located at Jefferson. Research programs are currently under development in the areas of mismatched allogeneic BMT, graft versus tumor effects, gene correction in hematopoietic stem cells, "intracellular immunization" of stem cells against retroviral pathogens, and other related areas. Individuals with backgrounds in transplantation immunology, hematopoiesis, molecular biology, retrovirology or other related basic disciplines, or in clinical investigation are encouraged to apply. Select candidates would also be given a joint appointment in the Center for Human Retrovirology, directed by Dr. Roger J. Pomerantz. For further information, contact: Neal Flomenberg, M.D., Thomas Jefferson University, 1025 Walnut Street, Suite 1014, Philadelphia, PA 19107-5083. Telephone: 215-955-1965; FAX: 215-923-9131. We are an Equal Opportunity Employer.

ASSISTANT/ASSOCIATE PROFESSOR

Applications are invited from individuals for a TENURE-TRACK POSITION in the Department of Pharmacology and Toxicology at the Medical College of Georgia. The successful candidate should have a Ph.D. and/or M.D. and will be expected to establish an independent extramurally funded research program utilizing cellular approaches. We desire applicants with an interest in neurosensory mechanisms who can collaborate with investigators from several disciplines to study neural regulation of cardiovascular function. However, individuals with outstanding research accomplishments in related areas will also be considered. Teaching responsibilities will be in medical and graduate courses. Competitive salary, laboratory space and start-up funds are available. Please send a curriculum vitae, a letter describing research plans and the names of three referees to: Dr. R. William Caldwell, Chair, Department of Pharmacology and Toxicology, Medical College of Georgia, Augusta, GA 30912-2300. The Medical College of Georgia is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR in Natural Resources—GIS/Remote Sensing. Tenure-track, academic-year position. Teach undergraduate courses in GIS and remote sensing; develop a graduate course and a research program in area of specialization. Screening begins on May 1, 1995, and continues until position is filled. Contact: Dr. David E. Capen, GIS/Remote Sensing Search Committee, School of Natural Resources, University of Vermont, Burlington, VT 05405. Telephone: 802-656-2684; Email: capen@gavia.snr.uvm.edu. The University of Vermont is an Equal Opportunity/Affirmative Action Employer with a strong institutional commitment to racial, cultural, and gender diversity.

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR

Two tenure-track faculty appointments at the ASSISTANT/ASSOCIATE PROFESSOR level are available for scientists whose research interests complement those of the faculty in the Division of Pharmacology and Experimental Therapeutics in the College of Pharmacy, University of Kentucky. Preference will be given to candidates who have research credentials in the areas of cardiovascular or neuropharmacology. Minimum requirements are a Ph.D. degree in pharmacology or related field of study and two or more years of postdoctoral experience. Responsibilities include the establishment of a strong extramurally funded research program and a commitment to innovative teaching at the professional and graduate level. Individuals will also be expected to mentor students in a graduate program which encompasses both basic and clinical pharmacology. Application deadline is June 1, 1995.

Send curriculum vitae, statement of teaching and research interests, reprints and three letters of recommendation to: Dr. Robert A. Blouin, Search Committee Chairman, Division of Pharmacology and Experimental Therapeutics, College of Pharmacy, University of Kentucky Medical Center, Lexington, KY 40536-0082. Telephone: 606-257-5736; FAX: 606-257-3270; Email: blouinr@uklans.uky.edu. An Equal Opportunity/Affirmative Action Institution.

OPHTHALMOLOGY

Molecular Biologist/Electrophysiologist

The Ophthalmology Research Unit of the Maisonneuve-Rosemont Hospital Research Center, affiliated with the University of Montreal, invites application for two tenure-track positions at the ASSISTANT/ASSOCIATE PROFESSOR level. Ph.D. required. The successful applicants will be expected to join one of our three research groups: cornea, glaucoma or diabetic retinopathy. Duties of the positions include the development of a vigorous independent research program employing modern methods and involvement in graduate training. Positions available July 1, 1995. Please forward curriculum vitae, names/addresses of three references, and full research plans to: Dr. H. Boisjoly, Director, Ophthalmology Research Unit, Maisonneuve-Rosemont Hospital, 5689 Boulevard Rosemont, Montreal, Quebec H1T 2H1 Canada.

MOLECULAR/CELLULAR IMMUNOLOGIST

The Virginia Mason Research Center in Seattle, Washington, is recruiting an ASSISTANT/ASSOCIATE PROFESSOR level investigator to establish an independent research program in immunobiology. Preference will be given to applicants with expertise in molecular and cellular immunology, and whose interests interface with the highly interactive research environment at Virginia Mason Research Center, which emphasizes human immunogenetics and autoimmunity. Please reply by June 15, 1995, with curriculum vitae and statement of research interests to: Gerald T. Nepom, M.D., Ph.D., Virginia Mason Research Center, 1000 Seneca Street, Seattle, WA 98101. An Affirmative Action/Equal Opportunity Employer.

NORTHEAST MISSOURI STATE UNIVERSITY Visiting Assistant Professors of Biology

Up to three, nine-month REPLACEMENT POSITIONS, starting August 1995. Each position will involve teaching lecture and laboratory sections of Introductory Biology for non-majors, and possibly other courses for Biology majors. Ph.D. strongly preferred. Applicants should send curriculum vitae, evidence of teaching effectiveness, three letters of reference, and all undergraduate and graduate transcripts to: Dr. Michael E. Nelson, Head, Division of Science, Northeast Missouri State University, Kirksville, MO 63501. Complete applications will be reviewed starting May 15, 1995. Northeast Missouri State University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR. The Infectious Disease Division at the Hospital of the University of Pennsylvania has an opening at rank of Assistant Professor in tenure track. Candidate must have a strong research program. Preference given to investigators interested in microbial pathogenesis or HIV molecular biology. Send curriculum vitae to: Harvey M. Friedman, M.D., Chief, Infectious Disease, 536 Johnson Pavilion, University of Pennsylvania, Philadelphia, PA 19104-6073. Equal Opportunity/Affirmative Action Employer/Minority/Female/Disabled/Veteran.

Explorations IN GENETIC RESEARCH

SCIENTIST (M.D. OR PH.D.) GENE EXPRESSION

The Lung Gene Therapy Program at The Hospital for Sick Children (HSC), a major teaching hospital affiliated with the University of Toronto, is looking for an individual to develop an independent research program investigating general aspects of gene expression with emphasis on the lung. Interactions with strongly established groups in Lung Biology and Genetics will be encouraged. Start-up support and laboratory facilities will be made available within the HSC Research Institute. This position leads to a permanent

staff position. Research Institute Scientists are normally cross-appointed to the University of Toronto.

.....

Applicants should submit their curriculum vitae, a brief description of research interests and the names of three referees by **July 31, 1995**, to: **Dr. Hugh O'Brodovich, Director of Respiratory Research, The Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, Canada M5G 1X8.**



THE HOSPITAL FOR SICK CHILDREN

POSTDOCTORAL FELLOW

Molecular Immunology

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The selected Postdoctoral Fellow will join a multi-disciplinary research group in the area of recombinant antibody technology with an initial focus on the application of phage display to search for novel surface antigens on subsets of hematopoietic and lymphoid cells.

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The National Center for Environmental Health, Centers for Disease Control and Prevention, Atlanta, Georgia, is seeking to fill a position in analytical equipment design and development, and for analytical method development to significantly improve environmental analyte separations, throughput and effective detector responses for a broad spectrum of toxicants that include chlorinated dibenzo-p-dioxins, dibenzofurans, biphenyls and agricultural chemicals. Candidates with a Ph.D. in Chemistry and 3-4 years postdoctoral experience with a solid record of accomplishment in chemical research and analytical instrument development are preferred. A strong background and experience in analytical chemistry including fast chromatography, two-dimensional gas chromatography/mass spectrometry (2D/GC/MS) with demonstrated expertise in thermal modulation design and construction, cyclodextrin-modified micellar electrokinetic chromatography with laser induced fluorescence detection (CD/MEKC/LIF) and a variety of integrated hyphenated techniques applicable to neutral organic environmental toxicants (to include isomeric and chiral analytes) in human biological matrices is required. The experience must also demonstrate computer proficiency in analytical systems development, innovative instrument design and an established proficiency in sensitivity enhancement techniques. A strong background in capillary electrophoretic instrumentation and separations, fast chromatography/mass spectrometry interfaces to include time-of-flight MS, high energy tunable continuous wave ultraviolet lasers, Fourier transform nuclear magnetic resonance spectroscopy (FTNMR), and Fourier transform infrared spectroscopy (FTIR) is strongly preferred.

Salary range is \$43,019 to \$55,924 depending on qualifications. Applicants may send a CV/resume and three letters of reference to Tom Runner, MS-K15, Human Resources Management Office, Centers for Disease Control and Prevention, 4770 Buford Highway, Atlanta, GA 30341-3724. Technical inquiries should be directed to Dr. James Grainger, at (404) 488-4815. Applications must be received within three weeks of publication notice.

CDC is an Equal Opportunity Employer and provides a smoke-free environment.



FACULTY POSITION BEIRNE B. CARTER CENTER FOR IMMUNOLOGY RESEARCH UNIVERSITY OF VIRGINIA

The Beirne B. Carter Center for Immunology Research seeks applicants for a tenure track junior faculty position in immunobiology. We seek candidates with expertise and interest in the cell and molecular biology of cytokine expression and cytokine receptor signaling, cell adhesion molecules, or in lymphocyte development. Applicants should have postdoctoral experience and are expected to develop a strong independent research program. Some teaching in graduate and medical courses will also be expected.

Current areas of research interest among Beirne B. Carter Center for Immunology Research faculty include Antigen Processing and Presentation, MHC and Antigen Receptor Structure, Lymphocyte Activation, Autoimmunity and Allergy, and the Immunology of Infectious Diseases. The University of Virginia provides excellent research facilities in an exceptional locale. Centers for research in Cancer Biology, Molecular Biology and Cell Signaling, Retrovirus and AIDS, and Cardiovascular Physiology are present on campus. Beirne B. Carter Center for Immunology Research faculty are actively encouraged to collaborate with faculty in these related disciplines.

Applicants should send a curriculum vitae, a summary of present and future research interests, and the names of 3 referees. Completed applications should be sent to:

Dr. Thomas J. Braciale
c/o Administrator
Beirne B. Carter Center for Immunology Research
University of Virginia
MR4/Box 4012 Health Sciences Center
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ALPHAGENE

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POSTDOCTORAL SCIENTIST RESEARCH ASSOCIATE SENIOR SCIENTIST

Candidates must possess a Ph.D. degree in molecular biology with extensive experience in cloning, DNA sequencing, and expression of heterologous genes in prokaryotic and eukaryotic cells. Experience in the synthesis of gene libraries, PCR, and in-situ mutagenesis is highly desirable. Scientific talent, dedication, achievement focus, and teamwork skills a must.

AlphaGene, founded by scientists from Harvard Medical School, is located in the Boston/Cambridge area, amidst strong academic institutions and a growing community of "leading-edge" biotechnology companies. AlphaGene offers a competitive salary, a generous benefits package, opportunities for growth, and an "environment of excellence" for professional and commercial success. Qualified candidates are requested to submit, in confidence, a cover letter, their curriculum vitae, and two references to: Dr. George Scheele, AlphaGene Resources, Building 96, 13th Street, Charlestown, MA 02129. An Equal Opportunity Employer M/F/D/V.

POSITIONS OPEN

ALBERT WILLIAMS PROFESSOR OF MEDICAL INFORMATICS Yale University School of Medicine

Yale University School of Medicine invites applications for the newly endowed **ALBERT WILLIAMS PROFESSORSHIP** in Medical Informatics. The successful candidate will have a record of achievement in research and education in Medical Informatics, and will have demonstrated a capacity for leadership and program development. The Williams Professor should have a commitment to scholarship that emphasizes the impact of information technologies on biomedical science and the practice of medicine. Potential areas of research include the role of information processing on clinical decision-making, on the management and outcomes of clinical care, and on the growing complexity of resource utilization in diverse biomedical settings. The Albert Williams Professor will be a key institutional leader in the development of clinical computing at the Medical School and in its relationship to Yale-New Haven Hospital.

Applicants should have an M.D. and/or Ph.D. degree, demonstrated success in obtaining competitive research funding and strong interpersonal skills. Please send curriculum vitae to: **Chair, Albert Williams Search Committee, Yale University School of Medicine, 333 Cedar Street, Room 1072 LMP, New Haven, CT 06510** by May 31, 1995. *Yale University is an Affirmative Action/Equal Opportunity Employer. Applications from women and members of minority groups are encouraged.*

MICROBIOLOGY FACULTY POSITION New York College of Podiatric Medicine

The Department of Microbiological Sciences seeks a qualified individual to teach full time on its **FACULTY**. As course director you will be responsible for teaching the Infectious Diseases course, participate in the Bacteriology Course Laboratory exercises with responsibility for administration/supervision of the teaching and research functions of the Microbiology Laboratories. The successful candidate will have the following qualities: a strong interest in teaching; commitment to academic excellence; and a sensitivity to the multicultural diversity of the College Community. Candidates must possess the following credentials: an earned Doctoral degree in Microbiology or closely related field; participation and achievements in professional organizations; and excellence in interpersonal and administrative skills. Ability to establish active research programs a plus. Application: a brief statement of interest; curriculum vitae; and the names of three to five references. References will not be contacted without applicant's prior permission. Applications will be accepted until position is filled. Applicants may consider their application unsuccessful if not contacted for interview. **Lillian Diaz, Director of Human Resources, New York College of Podiatric Medicine, 1800 Park Avenue, New York, NY 10035.** *An Equal Opportunity Employer/Minority/Female/Disabled/Veteran.*

FACULTY POSITIONS DEPARTMENT OF PHYSIOLOGY

The Department of Physiology at the Louisiana State University Medical Center (LSUMC) in Shreveport invites applications for two **TENURE-TRACK FACULTY** appointments beginning fall 1995. Although preference will be given to candidates at the rank of Assistant Professor, outstanding applicants at the Associate or full Professor levels will also be considered. Applicants must have a Ph.D. and/or M.D. degree and appropriate postdoctoral research experience. We are seeking individuals with demonstrated competence in the use of modern cell and/or molecular biological approaches and whose research interests complement existing areas of excellence in the physiology, biochemistry, and cell biology of the cardiovascular and gastrointestinal systems. Each appointee will be expected to establish a vigorous independent research program supported by extramural funding, and to participate in the teaching of graduate and medical students. Applicants must submit a curriculum vitae, a brief summary of current and future research plans, and the names of three references to: **Ms. Shari Boyett, Search Committee Coordinator, Department of Physiology, LSU Medical Center, 1501 Kings Highway, Shreveport, LA 71130.** The closing date for applications is May 31, 1995, or until the positions are filled. *LSUMC is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

DIRECTOR OF MEDICAL RESEARCH

Applications are invited for the position of **SCIENTIFIC DIRECTOR** of the Lawson Research Institute (LRI) and **VICE-PRESIDENT RESEARCH** at St. Joseph's Health Centre, London, Ontario, Canada.

The LRI has earned international renown in its chosen pinnacle research programs. This position offers interaction with outstanding researchers in the following areas: (1) maternal, fetal and newborn health; (2) medical diagnostic imaging; (3) hormones and cell regulation; (4) gerontology; and (5) clinical and outcomes research. Individuals with interests in these areas or in other related areas of medical and health research are invited to apply.

Applicants should have a Ph.D. and/or M.D. degree, extensive administrative experience, demonstrated leadership skills, and an internationally recognized and funded biomedical research program. An appointment will be offered in an appropriate department(s) of The University of Western Ontario. Salary and start-up funds are negotiable. The deadline for receipt of applications is May 5, 1995.

Applications should be addressed to: **Mr. P. Maurice, Chair, LRI Board, c/o Room F143, St. Joseph's Health Centre, 268 Grosvenor Street, London, Ontario N6A 4V2 Canada.** *In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents. St. Joseph's Health Centre is an Equal Opportunity Employer.*

MOLECULAR NEUROSCIENCE

The newly charted Center for Investigative Neuroscience at The Bowman Gray School of Medicine invites applications for a **TENURE-TRACK FACULTY** position in molecular neuroscience. We seek an outstanding scientist with a background in molecular biology who is committed to developing a vigorous research program related to neural mechanisms of adaptation, degeneration, and regeneration. The individual would be joining an active group of neuroscientists with expertise ranging from transmitter receptor and signal transduction mechanisms to ensemble analysis of neuronal firing in behaving animals. As an interdepartmental unit, the Neuroscience Center has as its mission the integration and coordination of basic and clinical research efforts at The Bowman Gray School of Medicine. Members of the Center hold joint appointments in the Center and in one or more basic science or clinical departments. Please send curriculum vitae, a statement of research interests, two recent representative publications and the names of three references to: **Dr. Donald Woodward, Director, Center for Investigative Neuroscience, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC 27157-1010.** *Affirmative Action/Equal Opportunity Employer.*

Position in RNA Biology. The Molecular Biology Department in the Research Institute of The Cleveland Clinic Foundation has a position available, at the **ASSISTANT** or **ASSOCIATE** level, in the area of RNA biology with an emphasis on post-transcriptional events. The new member will interact with existing programs in RNA synthesis and processing at the Institute and with a large community of RNA researchers in the Cleveland area. The Research Institute is a rapidly growing, well-equipped, basic research organization with laboratories studying many aspects of molecular and cellular biology. Please send a curriculum vitae, a summary of your research plan, and the names of at least three references to: **Dr. Amiya K. Banerjee, Chairman, Department of Molecular Biology, Research Institute, The Cleveland Clinic Foundation, 9500 Euclid Avenue, NC20, Cleveland, OH 44195.** *The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.*

EAST TENNESSEE STATE UNIVERSITY RESEARCH FACULTY

Ph.D., M.D. or equivalent degree in Biomedical Science. Potential to design and write research grants and manuscripts. Knowledge in cardiovascular research with at least five years of experience in molecular biology. Familiar with Southern and Northern blots, hybridization, gene expression, RT-PCR, and sequencing. Experience in using isotopes for metabolic dynamics helpful. Interested applicants are invited to send current curriculum vitae to: **Dr. Race L. Kao, Department of Surgery, East Tennessee State University, James H. Quillen College of Medicine, Box 70,575, Johnson City, TN 37614-0575.** *Women and minority groups are encouraged to apply. East Tennessee State University is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY

A **TENURE-TRACK POSITION** is available beginning July 1, 1995, in the Biology Department at Saginaw Valley State University for an animal physiologist. Teaching responsibilities include undergraduate human anatomy and physiology, introductory biology, and an upper level elective in his or her area of expertise. Candidate should have a Ph.D. with a strong commitment to undergraduate teaching and directing undergraduate research. For full consideration, an application including a curriculum vitae and three letters of reference should be received by May 15, 1995. Applications will be accepted until the position is filled. Application materials should be submitted to: **Lawrence Fitzpatrick, Personnel Office, Saginaw Valley State University, University Center, MI 48710.** *Saginaw Valley State University is an Equal Employment Opportunity/Affirmative Action Employer.*

VERTEBRATE PHYSIOLOGIST

Wesleyan College has a one-year, **POTENTIAL TENURE-TRACK** position in vertebrate physiology. Teach: comparative physiology (w/NSF-ILU instrumentation), vertebrate, developmental, introductory. Ph.D., commitment to undergraduate teaching and research required. A selective liberal arts college for women, Wesleyan emphasizes critical thinking, connected learning, and writing across the disciplines. Application, curriculum vitae, transcripts, and three letters of recommendation to: **Ronald Toll, Chair, Biology, Wesleyan College, Macon, GA 31297,** by May 8, 1995. *Affirmative Action/Equal Opportunity Employer.*

CLEVELAND CLINIC FOUNDATION RESEARCH INSTITUTE Assistant Staff Position in Receptor Signaling Mechanisms

The Department of Molecular Cardiology, Research Institute, The Cleveland Clinic Foundation seeks applicants for the position of **ASSISTANT STAFF**. The successful candidate must hold a Ph.D. or M.D. degree and must have completed a minimum of two years of postdoctoral training in molecular biology of receptor signaling mechanisms. Applicants will be expected to establish an independent, funded research program in signaling mechanisms of adrenergic receptors in broad cardiovascular areas of study. Start-up funds and some ongoing support would be available. The Department of Molecular Cardiology currently has 13 faculty members investigating various aspects of basic cardiovascular research, including protein structure and function, cardiovascular remodeling, receptor signaling, thrombolytic mechanisms, and cardiac muscle physiology. The Cleveland Clinic's Research Institute is comprised of eight departments: Molecular Cardiology, Molecular Biology, Cancer Biology, Cell Biology, Neurosciences, Immunology, Biomedical Engineering, and Biostatistics and Epidemiology. Collaboration among these departments and with clinical disciplines is strongly encouraged. Applicants should send a curriculum vitae, including areas of research interest, and names of three references to: **Dr. Subha Sen, Chair, Search Committee, Department of Molecular Cardiology-FF40, Research Institute, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195.** *The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.*

DIRECTOR of R&D. Philadelphia company manufacturing scientific equipment seeks creative electronics engineer to take charge of manufacturing and of research in UV radiation measurement and other new products development. Familiar with CAD in respect to electronics, software, and optics. Experience with embedded applications and their programming (C, assembler). Digital and analog circuitry design necessary. Knowledge of radiometry, calibration techniques and biological effects of UV. Create and implement test and quality control protocols. Experience with project planning and supervision in a networked environment. Able to communicate research results at conferences and in publications. Applicant must have at least a Master's degree in Electrical Engineering and six years of experience in areas related to our requirements. \$53,500 per year, 40 hours per week. Submit résumé or curriculum vitae to: **Philadelphia Job Bank, Job Order 4543408, 444 North 3rd Street, 3rd floor, Philadelphia, PA 19123.**

ORGANIZING COMMITTEE

JONATHAN S. STAMLER, USA
STEVEN S. GROSS, USA
SALVADOR S. MONCADA, UK

SCIENTIFIC SECRETARIATS

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40629 DUSSELDORF, GERMANY
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FAX: 49-211-286786

FOURTH INTERNATIONAL MEETING

Biology Of NITRIC OXIDE



Nitric Oxide '95

SEPTEMBER 17-21, '95
THE RITZ-CARLTON,
AMELIA Island, Florida

Deadline for:
ABSTRACTS - May 1, '95
PRE-REGISTRATION - AUGUST 28, '95



THE SALK INSTITUTE FOR BIOLOGICAL STUDIES

Assistant Professor

The Salk Institute for Biological Studies invites applications for a position in the area of molecular genetics of animal development. Candidates should have a Ph.D. and/or M.D., substantial training in molecular biology and genetics, and a record of significant research. We will consider applications from investigators working in both established (e.g. *C. elegans*, *Drosophila*, chick, *Xenopus* and mouse) and emerging (e.g., zebrafish) experimental systems.

The Salk Institute has extensive research programs in gene expression, molecular neurobiology, developmental biology, signal transduction, cell growth, structural biology and cancer, and is located within walking distance of other major basic and medical research facilities. Thus, the successful candidate will have access to a large number of colleagues and technical support facilities to aid in program development. Please submit a curriculum vitae, a description of present and future scientific endeavors. In addition, please arrange to have three confidential letters of recommendation sent directly to the Search Committee. Send all materials to: Developmental Genetics Search Committee, The Salk Institute for Biological Studies, 10010 N. Torrey Pines Rd., La Jolla, CA 92037.

The Salk Institute is an Equal Opportunity Employer.

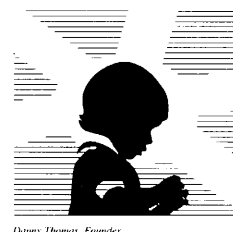
St. Jude Children's Research Hospital Department of Biochemistry

Postdoctoral Fellowships

The Biochemistry Department offers a highly interactive environment for postdoctoral research with a focus on the molecular and cellular biology of signal transduction. The research programs within the Department offer recent Ph.D. or M.D. graduates comprehensive training in a large variety of contemporary molecular and biochemical techniques. Laboratory facilities are housed in a new 220,000 sq. ft. research facility. SJCRH offers competitive salaries and fringe benefits. Current research programs within the Department include:

- Paul K. Brindle:** Regulation of transcription by T cell receptor and cytokine receptor signaling pathways.
- John L. Cleveland:** c-Myc function in control of apoptosis, cell cycle progression and transcription.
- James N. Ihle:** Mechanisms of hematopoietic stem cell growth regulation, differentiation and transformation.
- Paul A. Ney:** Transcriptional regulation of globin gene expression and erythroid differentiation.
- Suzanne Jackowski:** Cell cycle regulation of membrane phospholipid biosynthesis.
- Charles O. Rock:** Role of phospholipid-derived second messengers in growth factor signal transduction.
- Robert J. Rooney:** Regulatory mechanisms and biological properties of transcription factors regulated by the adenovirus E1A oncogene.
- Brian P. Sorrentino:** Use of drug-resistance vectors for hematopoietic cell directed gene therapy.
- Gerard P. Zambetti:** Function of p53 in tumor suppression and tumorigenesis.

Applicants should submit a brief statement of research interests, curriculum vitae and the names of three references to: **Biochemistry Departmental Fellowships, The Department of Biochemistry, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101.**



Darius Thomas, Founder

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POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE positions are available for recent Ph.D.'s with experience in molecular biology, immunology or protein biochemistry. Projects involve HIV vaccine development using novel fusion proteins and development of methods for targeting retroviral specificities. Send curriculum vitae, reprints of publications and names of three references to: **Dr. Abraham Pinter, Laboratory of Retroviral Biology, Public Health Research Institute, 455 First Avenue, New York, NY 10016.**

POSTDOCTORAL POSITION

A **POSTDOCTORAL ASSOCIATE** position is available to work in a research laboratory whose current research involves studies of DNA replication, mechanisms of *E. coli* and human chromosomes. Projects include biochemistry of initiation and its regulation, mechanism of fork propagation, and analysis of protein structure by X-ray crystallography techniques. Qualified candidates should possess an M.D. or Ph.D.

Please forward your curriculum vitae and three letters of recommendation to: **Michael O'Donnell, Ph.D., Microbiology Department, Cornell University Medical College, 1300 York Avenue, New York, NY 10021;** and **John Kurlan, Ph.D., Laboratory of Molecular Biophysics, The Rockefeller University, 1230 York Avenue, New York, NY 10021.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITION MOLECULAR MEDICINE

University of Connecticut Health Center

Position available for project aimed at selected delivery of specific ribozymes by receptor mediated delivery systems. Research experience in molecular and/or cell biology is necessary. Interested applicants should send a brief description of research experience, curriculum vitae and name/address of three references to: **Petros Tsipouras, M.S., Department of Pediatrics, University of Connecticut Health Center, Farmington, CT 06030-1515.** *An Affirmative Action/Equal Opportunity Employer/Minority/Female/People with Disabilities/Veteran.*

BACTERIAL SIGNAL TRANSDUCTION

POSTDOCTORAL POSITION available immediately to study the molecular mechanisms of signal transduction in bacterial chemotaxis. Will use genetic, biochemical, and biophysical techniques to investigate the impact of phosphorylation on protein structure-function, and the mechanism of protein phosphorylation and dephosphorylation reactions. Send letter describing interests and experience, curriculum vitae, and the names and telephone numbers of three references to: **Dr. Bob Bourret, Department of Microbiology and Immunology, University of North Carolina, Chapel Hill, NC 27599-7290.** Email: bouret@med.unc.edu; FAX: 919-962-8103. *UNC Chapel Hill is an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR MICROBIOLOGY POSTDOCTORAL POSITION

Available for an enthusiastic Ph.D. to study the regulation of mRNA processing in prokaryotes. The position will pursue ongoing studies on the cloning of known ribonuclease genes and investigation of their function, and will use genetic methods to identify other proteins that are involved in mRNA processing. Ph.D. with experience in molecular biology and protein purification is required. Submit curriculum vitae and arrange for three letters of reference to be sent to: **Dr. David Bechhofer, Department of Biochemistry, Box 1020, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION-ECOLOGY

Theoretical and empirical modeling of geographic scale habitat associations of North American birds. Two year period, starting June 1995. Expertise in GIS, population biology, ornithology, and spatial statistics desired. Ph.D. or near completion required. Must be willing to adhere to University standards of conduct. Send curriculum vitae and three letters of recommendation to: **Dr. Brian A. Maurer, Department of Zoology, Brigham Young University, Provo, UT 84602.** Telephone: 801-378-2426; Email: maurerb@acd1.byu.edu.

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP Hormone Action/Reproductive Biology

Positions available in an NIH-sponsored training program on the cellular and molecular mechanisms of hormone action relating to reproduction. Eleven laboratories participate in this intradepartmental program having expertise in the action of androgens, estrogens, progestins, gonadotropins, cell division, proliferation, gene regulation, and structural biology. Please send curriculum vitae and three letters of reference to:

Dr. David Toft
Department of Biochemistry and Molecular Biology
Mayo Graduate School
200 First Street SW
Rochester, MN 55905

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

POSTDOCTORAL POSITION

POSTDOCTORAL POSITION available to investigate the vitamin K-dependent carboxylase and its importance to hemostasis and to other biological systems. Studies will include biochemical and molecular genetic approaches to understanding the mechanism of carboxylation and the relationship of this post-translational modification to the secretion of vitamin K-dependent proteins. Send/FAX curriculum vitae and names of three references to: **Dr. Kathleen Berkner, Department of Cell Biology, NC 10, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195.** FAX: 216-444-9404.

POSTDOCTORAL/RESEARCH ASSOCIATE

Immediate opening for three-year position on NIH-funded project to study the bacterial cell cycle with emphasis on chromosome structure, termination of replication, and cell division in *E. coli* (See *Proc. Natl. Acad. Sci.*, 92:1352-1356; 1995). Requires a strong background in molecular biology. Send curriculum vitae and names of three references, by June 1, 1995, to: **Dr. P. Kuempel, MCDB Box 347, University of Colorado, Boulder, CO 80309.**

The University of Colorado at Boulder strongly supports the principle of diversity. We are particularly interested in receiving applications from women, ethnic minorities, disabled persons, veterans and veterans of the Vietnam era.

POSTDOCTORAL POSITIONS

Positions are now available to study either the involvement and mechanism of activation of cell cycle-related protein kinases in apoptotic signal transduction (**Lahti et al., Mol Cell Biol**, 15:1-11, 1995; **Xiang et al., J Biol Chem**, 269:15786-15794, 1994) or the physical alteration of the genes encoding these protein kinases in childhood neuroblastoma (**Lahti et al., Nature Genetics**, 7:350-375, 1994). Individuals are needed to work on all aspects of these projects involving biochemical, molecular, cellular, and molecular genetic analyses. Recent Ph.D., M.D., or M.D./Ph.D. with experience in molecular biology, molecular genetics, biochemistry, cell biology, or related field is required. Send curriculum vitae and three references to: **Dr. Vincent Kidd, St. Jude Children's Research Hospital, P.O. Box 318, Memphis, TN 38101-0318.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS in a laboratory that focuses on developing excellent independent investigators, and studies molecular genetics of inherited diseases: gene identification, regulation, diagnosis and therapy. Position (1) concerns functional analysis of HPRT gene regulatory elements in transgenic mice and isolation of factors involved in neuronal expression by one-hybrid methodology towards understanding the pathophysiology of and developing gene therapy for Lesch-Nyhan syndrome. Position (2) concerns identification of gene(s) by cDNA selection and exon-trapping, and dissection of the mechanism underlying Smith-Magenis syndrome associated with a microdeletion on chromosome 17. Strong working experience and publication record in molecular biology (positions 1 and 2) and protein chemistry (position 1) preferred. The interactive Baylor community offers tremendous opportunities for collaboration and networking. Send curriculum vitae and three references to: **Pragna I. Patel, Ph.D., Departments of Neurology and Molecular and Human Genetics, Baylor College of Medicine, Houston, TX 77030.** FAX: 713-798-8526; Email: pragna@bcm.tmc.edu. *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL RESEARCHER with an M.D., Ph.D., or Master's in Molecular Biology, Biology or related field plus a minimum of two years of lab experience is required. Qualified candidates should have experience with mRNA isolation, Northern hybridization, gel electrophoresis, PCR, cloning, sequencing and cell cultures. Familiarity with use of lab animals is desired. Strong molecular biology background necessary. Focus of lab is stem cell transplantation and hematopoietic regulation. The initial appointment will be for one year. Send curriculum vitae and names of three references to: **Dr. Renee Gardner, Department of Pediatrics, Hem/Onc Division, LSU Medical Center, 1542 Tulane Avenue, New Orleans, LA 70112.** Telephone: 504-568-3150; FAX: 504-568-7532. *Louisiana State University, New Orleans is an Affirmative Action/Equal Opportunity Employer.*

One **POSTDOCTORAL POSITION** is available for studies exploring the physiology, cell and molecular biology and biochemistry of the urinary tract. This position is supported by an NIH training grant in Urology. This position is available July 1, 1995. Send curriculum vitae, brief summary of research interests, and the names of three references to: **Dr. Robert M. Levin, Director of Basic Research, Division of Urology, Hospital of the University of Pennsylvania, 3005 Ravdin Courtyard, 3400 Spruce Street, Philadelphia, PA 19104.** NIH Training Grants require U.S. citizenship or permanent residency. *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately. Focus is on the biology of the intestinal H⁺/dipeptide cotransporters relevant to drug absorption; involves study of cellular trafficking, site directed mutagenesis for structure function, and genetic analysis of mutant alleles in poor absorbers. Experience in cell and molecular biology is desirable. Funded by NIH grant. Send application and names of three references to: **Dr. W. Sadée, Departments of Pharmacy and Pharmaceutical Chemistry, University of California, San Francisco, CA 94143-0446.** *University of California, San Francisco is an Equal Opportunity Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATE position in immunology to study cytokine and phenotypic cell responses of ovine lentivirus-infected sheep treated with recombinant interferon. Applicants must have a D.V.M./Ph.D., a Ph.D., or training in cellular immunology. Experience in cytokine determination, FACS analysis and classical and molecular virology is preferred. Position available immediately. Applications will be reviewed until position is filled. Send curriculum vitae and three letters of reference to: **Dr. Andrés de la Concha, Texas Agricultural Experiment Station, 7887 North Highway 87, San Angelo, TX 76901 USA.** *Texas A&M University is an Equal Opportunity Employer.*

BIOLOGY LABORATORIAN

DePaul University is currently seeking a biology laboratorian to teach laboratories for our three quarter course in Introduction to Biology, supervise teaching assistants, maintain stockroom and purchase supplies. Individual will also teach three additional course equivalents per year and act as department safety officer. This is a 12 month staff position. Requirements: Ph.D. or Ed.D. in Biological Sciences and lab teaching experience preferred. DePaul offers a competitive salary and excellent benefits package. Qualified candidates should submit a cover letter, curriculum vitae and three references to: **DePaul University, Attn: DMW, Job Code: BL, 25 East Jackson Boulevard, Chicago IL 60604.** *DePaul is an Equal Opportunity Employer/Educator.*

Maternal-Fetal Medicine **SPECIALIST** and Molecular Geneticist (Board-eligible/Board-certified in Clinical Genetics by American Board Medical Genetics) for the Divisions of Maternal-Fetal Medicine and Reproductive Genetics, Baylor College of Medicine. Experience and full training in both Maternal-Fetal Medicine and Molecular Genetics is required. Candidate will be required to direct a Molecular Genetics research lab and initiate independent laboratory research programs. Must have at least two years of molecular laboratory experience including single cell molecular analysis. Salary \$120,000 to \$175,000 plus benefits commensurate with experience and academic rank. Please send curriculum vitae to: **Joe Leigh Simpson, M.D., Chairman, Department of Ob/Gyn, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030.** *Baylor is an Equal Opportunity Employer.*

The Population Council

VICE PRESIDENT
CENTER FOR BIOMEDICAL RESEARCH

The Population Council, a non-profit independent research organization devoted to research and training in reproductive health and population sciences, is seeking a Vice President to direct its Center for Biomedical research. The Center, which is located on the campus of Rockefeller University, has a staff of over one hundred scientists and support personnel who undertake studies in basic and applied aspects of reproductive biology and medicine. Its objective is to achieve advances in reproductive health research that could be applicable to the needs of people throughout the world. The Vice President is responsible for the scientific direction of the laboratory, establishment of fund-raising priorities, general supervision of the laboratory, and integration of the Center's work within the overall international program of the Population Council. Candidates should have an M.D., Ph.D. or equivalent degree and a strong record of scientific achievement and leadership, successful administrative experience and demonstrated ability to form consensus in establishing and achieving policy objectives. Please address expressions of interest, accompanied by resumes, in confidence to:

Margaret Catley-Carlson, President
Chair, Search Committee
The Population Council
One Dag Hammarskjöld Plaza
New York City, NY, 10017

All resumes should be received prior to June 30, 1995. The Population Council is an Affirmative Action/Equal Opportunity Employer.

MACROMOLECULAR CRYSTALLOGRAPHY

SmithKline Beecham Pharmaceuticals, a world leader in pharmaceutical research, is seeking a Protein Crystallographer as part of its expanding program in structure-based drug design. As part of this multidisciplinary team of scientists, the selected candidate will be expected to initiate a viable research program in the area of protein crystallography in collaboration with other scientists. The candidate will work on proteins of interest to SmithKline Beecham, which include recombinant human proteins, receptors and enzymes of therapeutic interest.

Qualified candidates must have a Ph.D. in a relevant discipline and a strong background in the practical aspects of Macromolecular Crystallography, including crystallization, data acquisition, structure solution and refinement and molecular modeling.

SmithKline Beecham's state-of-the-art research facility is equipped with area detectors, rotating anode generators, an extensive network of computers and modern graphic systems. Located in suburban Philadelphia, SmithKline Beecham offers a competitive compensation/benefits/relocation package. For confidential consideration, please send your CV and names of three references to: SmithKline Beecham Pharmaceuticals, Job #H5-0083, PO Box 679, Conshohocken, PA 19428. We are an Equal Opportunity Employer, M/F/D/V.



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September 20-24, 1995

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- Carroll (Wisconsin)
- Raff (Indiana)
- Cavener (Vanderbilt)
- Shaffer (UC-Davis)
- DeSalle (Amer. Museum)
- Swalla (Vanderbilt)
- Hanken (Colorado)
- Templeton (Washington)
- Jeffery (UC-Davis)
- Vacquier (UC-San Diego)
- Holland (UC-San Diego)
- Walbot (Stanford)
- Lord (UC-Riverside)
- and others

Organizer: William R. Jeffery

Sponsored by National Science Foundation
and Society for Developmental Biology

Stipends are available on a competitive basis for advanced graduate and postdoctoral students to participate in this conference. Please request application materials from the address below.

For registration information contact:

Trisha Pedroia
Bodega Marine Laboratory
University of California
P. O. Box 247
Bodega Bay, CA 94923 USA

Tel: 707-875-2001 Fax: 707-875-2009

Dana Foundation Scholars in Neuroimaging and Developmental Neurobiology

UCLA School of Medicine's Crump Institute for Biological Imaging has two postdoctoral openings for neuroscientists. The Crump Institute is committed towards developing new bioimaging methods with direct collaborations with Pharmacology and Nuclear Medicine Clinic. We are building a neuroimaging component comprised of young scientists with backgrounds in physical principles of PET, biological image probe development, biological assays, neuroscience, neurology, and nuclear medicine.

One position is for individual to work in general area of neuroimaging with PET and MRI. Individual will be involved with use of PET to study brain development and plasticity. Involvement with research projects related to neurogenetic diseases is possible. Candidate should have M.D. with neurology training and research experience in or Ph.D. in neurosciences. Experience with PET is not a prerequisite; strong knowledge in basic neuroimaging plus. Candidate should possess solid foundation in basic neuroscience and strong analytical skills, including computer literacy. Will interact with various scientists; excellent communication skills required. Interested candidates should contact **S.S. Gambhir M.D., Ph.D., Crump Institute, UCLA, B2-086 CHS, 10833 Le Conte Ave., LA, CA 90095-6948.**

Second position is for a basic neuroscientist to investigate role of neurotrophic factors in CNS development and plasticity. Both in vivo and in vitro model systems are being used. Background in molecular neurobiology is important; but all candidates will be considered. Interested candidates should contact **H. Kornblum M.D., Ph.D., UCLA, Dept. of Molecular and Medical Pharmacology, 10833 Le Conte Ave., LA, CA 90095-1735.**

Salary range for both positions is \$27,012-\$29,484/year plus benefits. AA/EOE

POSTDOCTORAL POSITION IN MOLECULAR PATHOLOGY

St. Jude Children's Research Hospital

Departments of Pathology and Tumor Cell Biology

A postdoctoral position is available immediately to investigate the role of specific genetic alterations in the etiology of childhood cancers with a particular focus on pediatric brain tumors. Studies will center on the isolation of genes specifically altered in tumors through the use of standard reverse genetic approaches, representational difference analysis, and comparative genomic hybridization. Identified genes will be analyzed for their normal functions and transforming activities. These studies will be performed in a highly interactive environment which includes members of the Departments of Experimental Oncology, Genetics, Tumor Cell Biology, and Pathology. In addition, opportunities are available for the rapid application of discoveries to direct medical applications in the areas of cancer diagnostics and therapeutics. Candidates must have a Ph.D. and/or M.D. and prior experience in molecular biology. Interested applicants should send their curriculum vitae, reprints, and the names of three references to: **Dr. James R. Downing, Department of Pathology, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38101. An Equal Opportunity/Affirmative Action Employer.**



POSITIONS OPEN

COLUMBIA UNIVERSITY Human Genetics Postdoctoral Research Fellows

Applications are invited for two positions to study the genetics and pathogenesis of heritable disorders in humans. Projects include genetic mapping of single-locus and multigenic disease loci; positional cloning of disease genes; expression of disease genes in model systems; and development of mouse models for human disorders using ES cells and homologous recombination. The collaborative projects include two laboratories in the Department of Genetics and Development with experience and expertise in each area. Candidates should hold a Ph.D. degree or M.D. degree with solid background and training in a related area. Preference will be given to those candidates with a demonstrated mastery of techniques relevant to gene mapping/expression/or knock-out strategies.

Applicants should send their curriculum vitae and the names and addresses of three referees to: **Dr. Conrad Gilliam, College of Physicians and Surgeons at Columbia University, 722 West 168th Street—Unit 23, New York, NY 10032.** *Columbia University is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION Molecular and Cellular Tumor Immunology

To study molecular and gene therapy approaches to cancer immunotherapy in animal systems and in human translational research, available July 1995. Applicants must possess a Ph.D. and demonstrated experience in molecular and cellular immunology. Send curriculum vitae and arrange for three letters of recommendation to be sent to: **Jonathan J. Lewis, M.D., Ph.D., Immunology Program, Box 126, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.** FAX: 212-794-5847. *Memorial Sloan-Kettering Cancer Center is an Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS UNIVERSITY OF SOUTHERN CALIFORNIA

POSTDOCTORAL POSITIONS are available to study molecular biology of gene expression and RNA transcription of several viruses, including mouse hepatitis virus, human hepatitis delta virus and hepatitis C virus. A background in molecular biology, virology or biochemistry is desirable. Please send curriculum vitae to: **Dr. Michael Lai, Department of Molecular Microbiology and Immunology, University of Southern California, 2011 Zonal Avenue, HMR-401, Los Angeles, CA 90033.** FAX: 213-342-9555. *Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS in Cytochrome P450 Research. Studies of P450 monooxygenases with the aim of defining the catalytic site of insect P450s responsible for the metabolism of plant furanocoumarins, chemical/biophysical mechanisms of bacterial P450 monooxygenases, and visualization of mammalian cytochrome P450s by atomic probe mechanisms. Experience with molecular biology/biochemistry is desirable. Please send curriculum vitae and names of three references to: **Dr. Mary Schuler, Department of Plant Biology, University of Illinois, 190 PAB, 1201 West Gregory Drive, or Dr. Stephen Sligar, Beckman Institute, Urbana, IL 61801.** *The University of Illinois at Urbana-Champaign is an Affirmative Action/Equal Opportunity Employer.*

TRAINING PROGRAM IN MEMBRANE RECEPTORS AND TRANSPORT PROTEINS Columbia University

We invite applications for **PRE- and POSTDOCTORAL TRAINING** in this NIH-sponsored, interdisciplinary program involving biochemical, biophysical, cell biological, and molecular genetic approaches to membrane proteins and processes. The training faculty are **Myles Akabas** (physiology), **Qais Al-Awqati** (medicine), **Barry Honig**, **Thomas Jessell**, **Arthur Karlin** (biochemistry), **Jonathan Javitch** (psychiatry), **Norman Latov** (neurology), **Martin Low** (physiology), **Frederick Maxfield** (pathology), **Lorna Role** (cell biology), **Howard Shuman** (microbiology), and **Steven Siegelbaum** (pharmacology). To qualify for NIH training-grant support, applicants must be U.S. citizens or permanent residents. Applicants should send their curriculum vitae and three letters of reference to any of the faculty or write for more information to: **Arthur Karlin, Center for Molecular Recognition, Columbia University, 630 West 168th Street, New York, NY 10032.** *Columbia University takes Affirmative Action to ensure Equal Opportunity.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS

POSTDOCTORAL POSITIONS are available to study eukaryotic cell cycle control. Studies focus on the kinases and phosphatases that regulate cell cycle progression as well as their upstream regulators and downstream targets. Studies incorporate techniques in molecular biology, biochemistry, cell biology and genetics. Qualified candidates should possess a M.D. and/or Ph.D. in a related field.

Please send curriculum vitae and three letters of recommendation to: **Helen Piwnicka-Worms, Ph.D., Department of Cell Biology and Physiology, Washington University School of Medicine, 660 South Euclid Avenue, Box 8228, St. Louis, MO 63110.** *Equal Opportunity Employer.*

ASSOCIATE RESEARCH SCIENTISTS and POSTDOCTORAL FELLOWS in Gene Therapy and Molecular Neurosurgery at Yale University School of Medicine. Positions available for individuals with strong backgrounds in molecular biology and/or neuroscience including virology/vectorology (HSV, adeno- and AAV), molecular neurobiology, molecular mechanisms of neurological disorders and cognition, and genetic models of disease. Send curriculum vitae, representative reprints, future interests, and letters of reference to: **Dr. Matthew During, Director, Gene Therapy and Neurogenetics Laboratory, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06520-8039.** FAX: 203-785-6916; Email: Matthew_During@qm.yale.edu.

POSTDOCTORAL FELLOW and RESEARCH ASSOCIATE positions in Molecular and Cellular Biology. The Institute of Genomic Medicine, a nonprofit organization, founded by scientists from Harvard Medical School and dedicated to understanding the genetic causes of human disease, has positions available to study the role of GPI-linked membrane proteins and compartmental pH in membrane trafficking in polarized epithelial cells, with applications to cystic fibrosis and chronic diseases of the pancreas, lung, and kidney. Candidates should have a Ph.D. degree and experience in cell fractionation, protein chemistry, and molecular biology (cloning, DNA sequencing, and gene expression). Submit a cover letter, a curriculum vitae, and two letters of reference to: **Dr. George Scheele, Institute of Genomic Medicine, Building 96, 13th Street (Navy Yard), Charlestown, MA 02129.**

POSTDOCTORAL FELLOWSHIPS are available in the Cardiovascular Biology Laboratory at the Harvard School of Public Health beginning July 1995. The goal of these research projects is to identify cellular and molecular events in platelets and foam cells that lead to vascular occlusion. Previous research experience in molecular biology or cell biology is preferred. Please reply in letter form with curriculum vitae, and the names of three referees to: **Dr. Guy L. Reed, Harvard School of Public Health, II-127, Boston, MA 02115.**

RESEARCH ASSOCIATE for university in central Ohio. Design and conduct processing experiments to produce refractory ceramics and composites by the oxidation of metallic precursors containing alkaline-earth metals; characterize specimens via electron microscopy, X-ray diffraction and various thermal analyses (DTA, TGA, DSC, etc.) (samples are analyzed by TEM, SEM and EPMA); advise graduate students on metallic precursor processing; prepare reports and write papers for peer-reviewed journals; main focus is the processing and characterization of Ba-aluminosilicates (Celsian) and the effect of dopants such as Zr, Mg, Sr will be studied; the net-shape processing of monolithic and composite celsian and other ceramic matrix composites will be performed. M.S. in metallurgy or materials science and three years of experience in above-described duties or in TEM, SEM, EPMA, XRD, Thin Film processing by PVD (MBE); of the three years, two years in High Temperature Oxidation of metals and alloys including metallic alkaline-earth-bearing precursor to produce ceramics and ceramic composites and in Synthesis of Celsian, Ossulite through net-shape processing. Or, in the alternative, a Ph.D. and one year of experience in the above-described duties or requirements; experience may have been gained concurrent with degree. 40 hours per week, 8 am to 5 pm, Monday to Friday, \$27,232 per year. Send two résumés and cover letters (no calls) to: **T. Do, JOB No. 1055, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

POSITIONS OPEN

PROTEIN BIOCHEMIST/ENZYMOLOGIST POSTDOCTORAL POSITION

A two-year **POSTDOCTORAL FELLOWSHIP** position is available (salary, \$26,000 per year) at the University of California at Berkeley-Plant Gene Expression Center, Albany, California. The project is to carry out biochemical characterization and structural function analysis of 1-aminocyclopropane-1-carboxylic acid (ACC) synthase isoenzymes of *Arabidopsis* expressed in *E. coli*. ACC synthase is a pyridoxal phosphate-containing enzyme with structural and functional similarities to aminotransferases. The enzyme is responsible for the biosynthesis of ACC, the precursor of the plant hormone ethylene. Qualified individuals should send a curriculum vitae to: **Dr. Athanasios Theologis, Plant Gene Expression Center, 800 Buchanan Street, Albany, CA 94710.** The position is available from September 1, 1995. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH SCIENTIST. Two-year position available July 1, 1995, for a Marine Chemist or Geochemist to study the sediment geochemistry, paleoceanography and paleoclimatological impact of global ocean nutrient cycles (N, P, Si). Applicants must have a recent Ph.D. in Chemical Oceanography or a related field with a background in stable isotope, trace element and/or nutrient geochemistry. Send résumé, statement of research interests and the names and addresses of three references to: **Dr. Philip N. Froelich, Director, School of Earth and Atmospheric Sciences, Georgia Institute of Technology, Atlanta, GA 30332-0340.** *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSISTANT position is available in southwest Ohio for interdisciplinary research on microbial degradation. Duties include analysis of microbial DNA and chemical metabolites. Requirements include a B.S./B.A. in biology or chemistry, plus three years of experience in an area complementary to the Bachelor's training. The two areas should be from among basic or public health microbiology, genetics, toxicology and biochemistry. Part of this experience may be obtained through a double degree or advanced courses in instrumentation. Salary for this 40 hours per week position starts at \$23,000 per year. Please send two résumés and cover letters (no calls) to: **J. Davies, JOB No. 00637, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

RESEARCH ASSOCIATE for university in central Ohio. Conducts anticancer drug research; establishes screening methods and procedures for antitumor drug evaluation *in vitro* and *in vivo*; establishes alkaline elution assay and DNA-end labeling methods; performs enzyme isolation and purification; develops drug assay procedures using HPLC, GC/MS, TLC, spectrophotometry and other modern analytical techniques; performs pharmacokinetic studies in animals and analyzes clinical specimens; prepares reports and manuscripts; teaches and supervises students in the laboratory. M.S. in biomedical sciences or pharmaceutical sciences and one and one-half years of experience in above-described duties. 40 hours per week, 9 am to 6 pm, Monday to Friday, \$24,720 per year. Send two résumés and cover letters (no calls) to: **K. Shockey, JOB No. 00953, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

RESEARCH ASSOCIATE for university in central Ohio. Conduct scholarly research in coordinate metrology using Computer Aided Design (CAD) tools and Coordinate Measuring Machine (CMM); develop theoretical basis for uncertainty analysis in precision engineering; advise undergraduate students on related research projects; coordinate group research activities; prepare reports and publish articles in peer-reviewed journals; attend professional conferences; supervise undergraduate students and graduate research associates. M.S. in mechanical engineering and three years of research experience in above-described duties or in coordinate metrology, uncertainty analysis for precision engineering, and use of CAD tools and operation of CMM; of the three years, one year of industrial experience. Or, in the alternative, a Ph.D. and one year of experience in the above-described duties or requirements; experience may have been gained before, during or after degree. 40 hours per week, 8 am to 5 pm, Monday to Friday, \$26,136 per year. Send two résumés and cover letters (no calls) to: **L. Eggleston, JOB No. 989, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

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SENIOR SCIENTIST/ MACROMOLECULAR CRYSTALLOGRAPHER

Structure-Based Drug Design

An excellent opportunity is now available for a PhD Macromolecular Crystallographer with 2-4 years of related experience to be involved in both the determination of new protein structures and the iterative structure-based drug design process. You will also participate in integrating the crystallography component of the Structural Chemistry Department into our drug discovery programs. This department already includes a computer-aided drug design group in addition to a team of biophysical chemists specializing in purification, characterization and crystallization of target proteins. To be considered for this position, you must reference Dept. DD-94-33.

SENIOR SCIENTIST **Structural Chemistry**

As a member of a dynamic team of scientists involved in structure-based drug design, you will contribute your talent and knowledge of enzymology to elucidate the mechanism of catalyses and define substrate specificity of enzymes that are targets for drug development. You will also have ample opportunity for interaction with experts in x-ray crystallography, molecular modelers and other scientists involved in the design of enzyme inhibitors.

To qualify, you will need a PhD in Biochemistry, Chemistry or Biophysical Chemistry and 2-4 years of postdoctoral experience. Background must include training in enzymology combined with a high level of expertise in enzyme catalysis, design of inhibitors, protein purification and application of physical analytical methods for protein characterization. To be considered for this position, you must reference Dept. DD-95-08.

ASSOCIATE SCIENTIST **Biochemistry/Protein Chemistry**

Join a team of scientists responsible for the examination and characterization of enzyme targets in drug research. To qualify, you will need a BS degree and at least 4 years of related experience or an MS and 2 years of related experience. Background to include ability to use classical biochemical techniques such as methods purification, refolding of proteins and physicochemical characterization of proteins in addition to thorough knowledge of enzyme mechanisms, kinetics and the structural chemistry of proteins. To be considered for this position, you must reference Dept. DD-95-10.

SENIOR SCIENTIST **Drug Metabolism**

Our Exploratory Drug Metabolism Group, which is responsible for all drug metabolism activities related to drug discovery, has a newly created position for a Senior Scientist to be involved in the development of bioanalytical methods for the analysis of drug

candidates in biological matrices. You will also design and conduct *in vivo* and *in vitro* studies to answer specific questions regarding absorption, distribution, metabolism, elimination and pharmacokinetics of drug candidates.

To qualify for this exceptional career opportunity, you will need a PhD in Chemistry, Biochemistry or related discipline and at least 3 years of postdoctoral experience in drug metabolism and pharmacokinetics research. Background must include strong method development skills with modern analytical techniques such as capillary electrophoresis, HPLC-electrochemical detection, micropore HPLC and GC in addition to excellent written and oral communication skills. To be considered for this position, you must reference Dept. DS-95-04.

ASSOCIATE SCIENTIST **Drug Metabolism**

Join our Exploratory Drug Metabolism Group where you will participate in a variety of studies such as analytical method development, and analysis of biological samples for drug candidates and metabolites. You will also conduct *in vivo* and *in vitro* studies to answer specific questions regarding absorption, distribution, metabolism, elimination and pharmacokinetics of drug candidates. To qualify, you will need a BS degree and 4-7 years of experience or an MS and 2-5 years of experience in drug metabolism and bioanalytical method development. Must be able to use modern analytical techniques (HPLC, GC, CE). Knowledge of *in vitro* techniques and *in vivo* surgery in addition to computer skills are desirable. To be considered for this position, you must reference Dept. DS-95-03.

ASSISTANT SCIENTIST **Drug Metabolism/Drug Safety** **Lafayette, NJ Location**

Our Drug Safety Evaluation Center in Lafayette, NJ has an excellent opportunity for a qualified scientist to be responsible for *in vitro* and *in vivo* studies involving the induction and inhibition of drug metabolizing enzymes. To qualify, you will need a BS degree and 2-4 years of related experience or an MS and 0-2 years of experience. Background must include experience with organic and/or protein biochemistry plus knowledge of electrophoresis/immunoblotting techniques and analytical methods development including HPLC. Experience with radiochemicals and computers is preferred. To be considered for this position, you must reference Dept. DS-05-07.

We offer an excellent compensation package including a competitive salary and comprehensive benefits. For prompt, confidential consideration, we invite you to forward a resume indicating the Dept. Code for your position of interest and salary requirements to: Human Resources Department-KB, K-15-1, MS#1255, Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ 07033-0539. We are an equal opportunity employer. *We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.*



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U s i n g S c i e n c e F o r H u m a n A d v a n t a g e



POSTDOCTORAL RESEARCH OPPORTUNITIES

CENTER FOR BIOLOGICS EVALUATION AND RESEARCH DHHS/PHS FOOD AND DRUG ADMINISTRATION

The Center for Biologics Evaluation and Research is searching for outstanding candidates to conduct biomedical research to provide a strong scientific base for the regulation of biological products. The Center's mission is to regulate blood, vaccines, biological therapeutics and related products according to statutory authorities in order to protect and enhance the public health. The regulation of these products is founded on science and law to ensure their purity, potency, safety, efficacy, and availability.

Research: The Center's overall research includes investigations in the areas of viral and bacterial diseases and vaccines, mechanisms of pathogenesis, cytokines and growth factors, allergy and immunology, parasitic diseases, AIDS and related diseases, and developmental biology. Examples of current investigations and studies are as follows: (1) antigen processing and presentation of polysaccharide-protein conjugate vaccines. Emphasis will be placed on compartmental localization of various epitopes of these vaccines; (2) bacteriology, especially *Bordetella Pertussis*, and the defining of antigens and new vaccine delivery systems that stimulate protective mucosal immune responses; (3) mechanisms by which viral envelope glycoproteins mediate cell fusion. This includes mammalian cell expression systems and gene cloning; (4) recombinant DNA techniques such as expression of recombinant proteins, *in vitro* mutagenesis, signal transduction, and gene cloning; (5) cytokine networks as they relate to vaccines and vaccine development; (6) molecular basis for the regulation of apolipoproteins, lipids and the development of atherosclerosis *in vitro* and *in vivo*. Specific areas include ontogeny/phylogeny, hormonal, heavy metal and cytokine regulation, particularly as affecting apoB mRNA editing.

Requirements: (1) Ph.D., M.D., or Sc.D. in the biological or physical sciences or hold other earned research doctoral degree in the biological or physical sciences that is recognized in US academic circles as equivalent to the Ph.D. is preferred; (2) no more than five years post-doctoral at the time of appointment is preferred.

In addition, interested candidates should have training and/or experience in one or more of the following or related areas: cell biology, cytokines, cytokine biology, growth factors, molecular biology, microbiology, immunology, cellular immunology, molecular immunology, immunochemistry, biochemistry, protein chemistry, protein biochemistry, and virology. Preference will be given to candidates with specific experience relevant to the topics listed under research above. Candidates should also have highly developed analytical, written and oral skills.

Location: Offices and laboratories are strategically located on the campus of the National Institutes of Health in Bethesda, Maryland, or in close proximity to the campus. **Length of Appointments:** Appointments are made initially for one year and may be extended to a second and third year. **Salary:** Salary range is \$28,860 to \$54,960 depending on years of relevant postdoctoral experience. **Apply:** Send a Curriculum Vitae along with bibliography, statement of research interest, transcripts, names of three references, plus name of dissertation and/or thesis advisor to:

**FDA/Center for Biologics Evaluation and Research (169),
1401 Rockville Pike, Suite 200N, HFM-50,
Rockville, MD 20852-1448.**

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Boston College Department of Biology

Applications are invited for a tenure track faculty position in molecular cell biology and biochemistry. We anticipate filling this position at the advanced Assistant or Associate Professor level. We are particularly interested in those individuals focusing on cell-cell interactions or protein function in a eukaryotic system, e.g. signal transduction, post-translational modification, protein transport. A strong record of extramural funding and a commitment to undergraduate and graduate teaching are essential. We have a vigorous graduate program that presently has 35 doctoral students. The department has excellent research facilities with strengths in neurobiology, molecular cell biology and genetics. Applicants should forward a curriculum vitae, a brief description of research accomplishments, plans for future research, and the names of three individuals who can serve as references to:

**Search Committee
Department of Biology
Boston College
321 Higgins Hall
Chestnut Hill, MA 02167**

Toxicology: Two Positions

1) Texaco's Environment, Health and Safety Division is seeking an experienced toxicologist with at least ten years experience in the petroleum industry. The successful candidate will have a minimum of an MS degree in Toxicology or a related discipline and will be responsible for evaluating potential health and environmental hazards of a variety of petroleum based products, and administering toxicology studies conducted by Texaco, various trade associations, or technical groups. Additional responsibilities include responding to customer and emergency personnel requests for toxicological information, reviewing material safety data sheets, and representing the company at various trade associations.

The successful candidate will have knowledge of the GLPs, as well as expertise in the critical evaluation of protocols, test methods, test reports, and data interpretation. Excellent written and oral communication skills and familiarity with computers are required. Some travel, seasonally as much as 25 percent, may also be required.

(Indicate Applying for Position 1)

2) Texaco's Environment, Health and Safety Division is seeking an entry level toxicologist to assist in the evaluation of potential health and environmental hazards associated with petroleum based products. Other responsibilities include responding to customer and emergency personnel requests for toxicological information, conducting literature searches, reviewing test protocols and test reports, and reviewing material safety data sheets. The candidate should have an MS in Toxicology or a related discipline. The applicant must be well trained in chemical toxicology with good written and oral communication skills. Knowledge of database and wordprocessing software is desired. Some travel, seasonally as much as 25 percent, may be required.

(Indicate Applying for Position 2)

This career opportunity is located approximately 60 miles north of NYC at TEXACO's campus in the Hudson River Valley. Qualified individuals should send their resume, official transcript(s), and three letters of recommendation to: Human Resources Department, Texaco Inc., P.O. Box 509, Beacon, NY 12508
(An EEO Employer).

DIRECTOR, OFFICE OF DIETARY SUPPLEMENTS RESEARCH

National Institutes of Health, Public Health Service, Department of Health and Human Services

The National Institutes of Health (NIH) invites applications for the position of Director, Office of Dietary Supplements Research, Office of Disease Prevention within the Office of the Director. This position may be filled through (1) Civil Service appointment, (2) leave from an institution of higher education, state, local or Indian tribal government or other eligible organization to serve on an Intergovernmental Personnel Act (IPA) assignment or (3) appointment as a Special Expert. The position is classified as a Nutritionist/Medical Officer, GS-630/602-15, with a salary range of \$71,664 to \$93,166 per year which includes locality pay. Physicians may be eligible for a Physicians Comparability Allowance.

Serves as a principal advisor on the issues of dietary supplements to the NIH, Centers for Disease Control and Prevention and Food and Drug Administration of the Public Health Service and to other Departments of the Federal Government. Represents NIH on interdepartmental committees. As a recognized expert in nutrition and prevention research, establishes and promotes liaisons with scientific societies, academic institutions and commercial interests to communicate the commitment of NIH to conduct research on scientific issues related to the use of dietary supplements to improve health care in the United States. Develops a database on NIH intramural research and extramural-funded grants for research on dietary supplements and for reviews of published literature that addresses the impact of dietary supplements on human diseases including heart disease, cancer, birth defects, osteoporosis and cataracts. The Director will work with NIH Institutes and Centers to develop new research initiatives through Requests for Applications, Requests for Proposals and Program Announcements related to dietary supplements research and to appropriate training activities.

Applicants must possess a Ph.D. or M.D. or equivalent graduate degree in the field of nutrition or a related science with broad biomedical expertise, or an equivalent combination of education and experience which has equipped the individual with the specific knowledge, skills and abilities to successfully perform the duties of the positions. Desirable factors which should also be addressed: (1) knowledge of nutrition research and issues in nutrition supplements research; (2) knowledge of national nutrition policies and regulations; (3) demonstrated experience in compiling and summarizing databases; (4) demonstrated experience and skill in writing and editing technical reports for review by scientists and for publication; (5) demonstrated skill and experience in initiating research activities; and (6) skill in organizing and directing formal conferences and meetings. Applicants are encouraged to address the desirable factors in their applications.

A copy of the vacancy announcement, OD-95-1042, may be obtained by phoning (301) 402-4111. Applications must be postmarked by June 12, 1995. Send the application materials to:

**National Institutes of Health, Office of the Director Personnel Office
Attn: Deborah Kraut, Building 31, Room 1C27
31 CENTER DR MSC 2264 BETHESDA MD 20892-2264**

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

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Move into the exciting field of diagnostics sales and step up to a world of opportunity.

Our Diagnostics Group serves the clinical diagnostics market worldwide. Continued introduction of new products has created a need for sales representatives in several U.S. cities. Career paths include sales and product management leading to general management.

We require a B.S. or equivalent in a Life Science (MS, PhD or MBA is a real plus). Successful candidates must be willing to relocate.

For consideration, please send your resume to: Bio-Rad Laboratories, 4000 Alfred Nobel Dr., Dept. 304, Hercules, CA 94547. EOE MFDV.

BIO-RAD

Bio-Rad Laboratories

SCIENTIST/SR. SCIENTIST Hemostasis R&D

Ortho Diagnostic Systems Inc. provides diagnostic reagents and instrument systems to hospital and commercial clinical labs and blood donor centers. Products include diagnostic systems for coagulation, infectious diseases, immunology and blood banking.

We have an immediate opportunity in central New Jersey for a candidate with good oral and written communication skills and the ability to interact effectively on a multifunctional team. To qualify at the Scientist level, you should have a BS/MS with 5+ years experience or a Ph.D. with 0-3 years experience. The Senior Scientist level requires a BS/MS with 7+ years experience or a Ph.D. with 3-5 years. At least one year of laboratory experience in hemostasis and knowledge of thrombosis are required, as is familiarity with *in vivo* diagnostic product development. Experience with laboratory instrumentation and computers, and knowledge of cGMPs are also requisite.

The successful candidate must be able to plan, conduct and direct experimentation for assigned projects; participate in the design of chemical or plant equipment and/or processes for manufacturing reagents/products; and coordinate phases of work with outside suppliers. We will look to you to investigate/create and develop new methods and technologies for project advancement.

We offer a competitive salary and comprehensive benefits including medical/dental insurance, 401(k) plan, and the Johnson & Johnson LIVE FOR LIFE Wellness Program with on-site fitness center. Please forward a copy of your resume, suitable for scanning and input into our database (i.e., clean/clear, no graphics and preferably unfolded), to: Dept. 259, Johnson & Johnson Recruiting, P. O. Box 16597, New Brunswick, NJ 08906-6597.

We are an equal opportunity employer and support diversity in the workplace.



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BIOMEDICAL RESEARCH

SAIC Frederick, a Division of Science Applications International Corporation, has immediate opportunities under the direction of Dr. Matthew A. Gonda in the Laboratory of Cell and Molecular Structure at the National Cancer Institute's Frederick Cancer Research and Development Center (NCI-FCRDC) located in Frederick, MD.

TRANSGENIC MOUSE TECHNOLOGY

Scientist/Postdoctoral Fellow: Ph.D. w/ 0-3 years experience in manipulating mouse embryos to produce transgenic mice. Will produce a variety of transgenic mouse models for Cancer- and AIDS-related projects in an established facility and participate in the development of knock-out gene technology in ES cells for the production of chimeric mice. Some supervisory responsibilities.

IMMUNOTOXINS

Scientist/Postdoctoral Fellow: Ph.D. (molecular biology) to participate in a project to genetically engineer antibody binding domains to lytic peptides for use in the clinical treatment of cancer.

MOLECULAR BIOLOGY

Sr. Research Technician: BS/MS w/2-5 years of experience in DNA sequencing, PCR, cDNA cloning, and gene expression in eukaryotic/prokaryotic vectors. Must have hands-on experience with use of computers in DNA/protein sequence analysis.

VIRAL RECEPTORS

Postdoctoral Fellow: Ph.D. (molecular biology) to participate in a project to identify, clone, and characterize cellular receptors used by lentiviruses and study molecular mechanisms of virus-host interactions that control virus entry.

IMMUNOPATHOGENESIS

Postdoctoral Fellow: Ph.D. (immunology) to characterize the involvement of the immune response in AIDS-related transgenic mouse models in the development of chronic inflammatory disease. Must have hands-on experience in blastogenesis, ADCC, CTL, and NK assays, knowledge of inflammatory cytokines, and tissue culture of primary cells.

The working environment provided by the NCI-FCRDC is a campus-like setting in Frederick, MD near Baltimore and Washington, DC. SAIC Frederick offers an attractive salary and benefits program, including insurances, 401(k) savings plan, relocation assistance, and more. For consideration, forward CV/resume, references, publications list, and salary requirements to: Barbara J. Norton-Gill, Technical Recruiter, SAIC Frederick, NCI-FCRDC, P.O. Box B, Frederick, MD 21702. EOE, M/F.



SAIC Frederick

A Division of Science Applications
International Corporation

POSTDOCTORAL ASSOCIATE POSITIONS THE UNIVERSITY OF IOWA

Please contact the appropriate department to express your specific interest:

ANATOMY: Dr. J.P. Long, Interim Head, Bowen Science Building.

BIOCHEMISTRY: Alan G. Goodridge, Professor and Head, Bowen Science Building.

DERMATOLOGY: Postdoctoral Associate in Dermatology for the study of cell biology of cutaneous cells including epidermal cells, sweat gland cells, and hair follicular cells. Basic qualifications: M.D., Ph.D. or equivalent. Desirable: expertise in cell culture, membrane transport of cultured cells and/or molecular biology of eukaryotic cells. Pay is \$18-21,000 plus fringe - one to three years depending on NIH funding. Send resume and references to Kenzo Sato, M.D., Ph.D., Department of Dermatology.

INTERNAL MEDICINE: Openings available in all disciplines in the Internal Medicine Department, College of Medicine, the University of Iowa. Contact Francois M. Abboud, M.D., Professor and Head, or Michele Pugh, Human Resources, SE320 GH, (319)356-7290.

MICROBIOLOGY: Dr. Michael Apicella, Professor and Head, Bowen Science Building.

OBSTETRICS/GYNECOLOGY/PHARMACOLOGY: Postdoctoral Associate position is available in the Gynecologic Oncology Research Laboratory. Research area includes molecular genetics of oncogene/tumor suppressor gene expression in ovarian cancer. Contact Richard E. Buller, M.D., Ph.D. Associate Professor, Director, Division of Gynecologic Oncology, Departments of Obstetrics & Gynecology and Pharmacology. Phone: 319:356-2015.

OTOLARYNGOLOGY: Dr. Bruce Gantz, Interim Head.

PATHOLOGY: Richard G. Lynch, M.D., Professor and Head, 144 Medical Laboratories. Research activity in all areas of pathology.

PEDIATRICS: Dr. Frank H. Morriss, M.D., Professor and Head.

PHARMACOLOGY: Dr. Arthur A. Spector, Professor and Interim Head, Bowen Science Building. Openings in all areas of pharmacology and toxicology.

PHYSIOLOGY & BIOPHYSICS: Robert E. Fellows, M.D., Ph.D. Professor and Head, Bowen Science Building.

UROLOGY: Position available to begin August 1, 1995 for research in a fully equipped basic science laboratory. Research is centered around the role of various growth factors in male germ cell maturation and the molecular aspects of male infertility. Background experience must include molecular biology techniques, e.g. in situ hybridization, RT-PCR, and plasmid cloning, morphological techniques, e.g. immunostaining, and RNA analysis/detection. Experience with mammalian embryo culture and transgenic mice is desirable, but not required. Send curriculum vitae and the names/ telephone numbers of 3 references to: Dr. Jay Sandlow, Department of Urology. FAX: (319) 356-3900.

A Ph.D. or equivalent is required. Desirable qualifications are based on Project Investigator's interest for research. Women and minorities are strongly encouraged to apply. *The University of Iowa, College of Medicine, Iowa City, Iowa, 52242, is an Equal Opportunity/Affirmative Action Employer.*

Senior Research Associate and Director DNA Sequencing and Molecular Biology Core

The University of Cincinnati College of Medicine is seeking an individual to direct a new, College-wide service oriented, DNA sequencing core facility. Primarily responsible for carrying out moderate-scale automated DNA sequencing from diverse templates for both basic research and diagnostic purposes. Supervision of a technician and some administrative duties are also required. The individual should have a doctorate degree (MD, PhD, or equivalent), proven expertise in the techniques of automated sequencing, more than two years of hands-on experience with an ABI (or similar) automated sequencer and associated hardware/software, and publications indicative of such expertise.

A letter outlining relevant experience, curriculum vitae and 3 letters of reference should be sent to:

Robert F. Highsmith, Ph.D.
Professor and Assoc. Dean for Research
University of Cincinnati
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The University of Cincinnati is an equal opportunity employer. Applications from minorities are encouraged.

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Work as part of a team providing metabolic and pharmacokinetic data to drug discovery programs. These studies will play a critical role in the selection of IND candidates.

Responsibilities include developing bioanalytical methods (HPLC, LC/MS) for quantitation of new drug candidates and their metabolites in biological matrices, performing in vitro and in vivo studies to determine the metabolism and pharmacokinetics of these compounds, and presenting research findings.

Requirements include a BS/MS degree in analytical chemistry, pharmaceutical chemistry, biochemistry or a related science, with a minimum of 3 years relevant research experience. Experience with quantitative bioanalytical techniques, laboratory data analysis and computer based data handling is essential. Experience with in vitro and in vivo models used in metabolism and pharmacokinetic studies is highly desirable.

Please fax/forward resume to: **Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources Dept. MH-0030, P.O. Box 5101, Wallingford, CT 06492-7660. FAX (203) 284-7762. Equal Opportunity Employer.**

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Background must include laboratory experience in animal behavior. Pharmaceutical sciences experience desirable. Some skill in surgical techniques in addition to excellent organizational and communication skills essential.

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For prompt, confidential consideration, we invite you to forward a resume with salary requirements to: Human Resources-BG, Dept. DD95-09, Schering-Plough Research Institute, K-15/ MS 1255, 2015 Galloping Hill Road, Kenilworth, NJ 07033-0539. We are an equal opportunity employer. *We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.*



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This experienced scientist will lead a team of Bioinformatics Support Analysts to support Discovery Research programs. Responsibilities will include overseeing collaborative research, support and training services for Pharmaceuticals R&D on all bioinformatics and computational molecular software systems. We are seeking a senior level scientist with proven success in leading a research group in computational molecular biology. Refer to Job Code A0073.

Bioinformatics Support Analysts

The selected scientists will be able to collaborate with discovery teams to assist in the identification of novel gene targets to support Discovery Research programs. Responsibilities include the analysis of DNA and protein sequence data, including interpreting the results of sequence and motif searching. We seek individuals with MS/Ph.D. or experienced individuals with a BS in Biochemistry or Molecular Biology with an in-depth knowledge of computational analysis and interpretation of DNA sequences and protein analysis. Experience with relational database technology is highly desirable. Refer to Job Code A0074.

Bioinformatics Software Engineers

Qualified candidates are talented and motivated computer professionals with a background in biological sciences and experience in a research environment. Skills required for these positions span all areas of genome informatics, including data management, graphical user interface design, client-server technology in a UNIX-Mac-PC environment, algorithm design and implementation, and genome analysis. Refer to Job Code A0076.

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The University of California invites nominations and applications for the new position of Vice President--Clinical Services Development.

The UC sponsors the nation's largest health sciences education program, and operates five academic medical centers (Davis, Irvine, Los Angeles, San Diego, and San Francisco campuses) with a total permanent asset base (plant and equipment) of \$1.8 billion which function in highly competitive health services markets with relatively high levels of managed care penetration, maximum pricing leverage exerted by large purchasing cooperatives, declining utilization rates, and accelerating integration and consolidation of providers.

Responsibilities include providing oversight and coordination for the development of UC's clinical enterprise activities (mergers, acquisitions, partnerships, contracts, product line development, marketing and related capital and other investment funding, etc.); support and coordination for preparation of medical center-specific and University-wide clinical enterprise strategic plans for clinical enterprise activities; review and analysis of clinical enterprise transactions requiring Regental or system-wide review, and communication with the Board of Regents relative to clinical enterprise activities.

Candidates should have significant experience as the CEO of a hospital or medical/health sciences center; a broad understanding of health care economics; extensive knowledge of the managed care marketplace; and an appreciation of the unique goals and responsibilities of academic medical centers.

Send applications and nominations accompanied by current resumes to: **The President, University of California, 300 Lakeside Drive, 22nd Floor, Oakland, California 94612-3550. Deadline: May 31, 1995, to be assured full consideration. An Equal Opportunity, Affirmative Action Employer.**

THE INTERNATIONAL LIVESTOCK
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The International Livestock Research Institute (ILRI) has a global mandate for research to enhance the role of livestock in sustainable agricultural production systems in Africa, Asia and the Latin American/Caribbean region. ILRI is sponsored by the Consultative Group on International Agricultural Research (CGIAR), which supports sixteen agricultural research centres world-wide. ILRI incorporates the resources of the International Laboratory for Research on Animal Diseases (ILRAD) and the International Livestock Centre for Africa (ILCA).

ILRI is recruiting a highly motivated individual for a senior scientific position which offers excellent leadership and research opportunities in a development-oriented, science-based international research organization.

Immunologist - SC/95/1

An Experienced Immunologist is required for a senior position in the Trypanosomiasis Programme. The successful candidate will provide leadership to a group of scientists and their technical support staff, with active projects on regulation of bovine immune cell functions, as they relate to control of parasitaemia and genetically mediated disease resistance. The group is able to capitalise on the opportunities provided by comparisons of responses to infection in cattle of resistant and susceptible types, and also in a crossbred trypanotolerance resource population segregating disease resistance.

The successful applicant will have a first degree in an appropriate biological science and a Ph.D. in an area of contemporary immunology. Experience in molecular immunology, particularly in terms of cytokine function, is essential. Experience in immunology of haemoprotozoan infections of mammals would be an advantage.

Conditions for appointments:

Initial contracts will be for three years and may be renewed. ILRI offers internationally competitive terms of service. The salary is paid in US dollars. Relocation, housing, annual leave travel, and education allowances are provided in addition to generous pension and insurance benefits.

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Georgetown University
Medical Center

GUMC seeks junior and senior faculty candidates for its new Institute in Cognitive and Computational Sciences (GICCS).

Faculty applicants should exhibit demonstrated expertise, productivity, and originality in the Institutes's areas of interest: computational neuroscience, cognitive science, and brain imaging. A demonstrated track record in securing competitive grant support is highly desirable.

Review of applications will begin immediately. Send detailed Curriculum Vitae and names of at least three references (with both telephone and fax numbers) to: **Alan I. Faden, M.D., Dean of Research and Graduate Education and Director, GICCS, Georgetown University Medical Center, Medical Dental Building (Rm. NW103), 3900 Reservoir Road, NW, Washington, DC 20008. E-mail to afaden@macpost.odr.georgetown.edu**

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FERMENTATION SPECIALIST
The University of Iowa

Center for Biocatalysis and Bioprocessing

The University of Iowa Center for Biocatalysis and Bioprocessing (CBB) seeks a qualified fermentation scientist to assume hands-on responsibilities for the day-to-day operation of the Center's new fermentation/bioprocessing facility. The position also involves promoting facility capabilities and developing grant/contract opportunities. The candidate must possess:

- An advanced degree.
- Significant experience in small/large-scale microbial growth, fermentation optimization, fermentation & subcellular harvesting/fractionation procedures, and associated chemical/biochemical analyses.
- Excellent communication skills.
- GLP experience.

The CBB's new 13,000 sq. ft. facility serves the teaching, research and service needs of more than 30 faculty research teams, representing six UI departments. By fall 1995, the CBB labs will be completely equipped with 22 fermentors (2L experimental - 1500L pilot scale models) and a full range of harvesting/analytical instrumentation.

Proposed annual salary \$40,000 - \$50,000 plus significant fringe package, pending experience. Please send a curriculum vitae and three letters of reference to:

Dr. John P. N. Rosazza, Director, The University of Iowa, Center for Biocatalysis and Bioprocessing, Oakdale Research Park, 2501 Crosspark Road, Suite C100, Iowa City, IA, 52242-5000. Phone (319)-335-4900, FAX (319)-335-4901. Applications will be received until the position is filled by August 1, 1995.

The University of Iowa is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.

POSITIONS OPEN

POSTDOCTORAL POSITION Molecular Modeling/Simulation

A position is available immediately for computer modeling and simulations of proteins and peptides. A Ph.D. degree in computational chemistry or related fields is required. Experience in protein structure study is desirable. Send curriculum vitae and three letters of reference to: **Dr. S. Sung, Research Institute, FF3, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195.**

POSTDOCTORAL POSITION is available immediately to study male germ cell genetic modification (*Proc. Natl. Acad. Sci. USA*, 91: 11298; 11303). Experience in molecular biology is required. Send curriculum vitae, names of three references and a letter describing research skills and interests to: **R. L. Brinster, School of Veterinary Medicine, University of Pennsylvania, 3850 Baltimore Avenue, Philadelphia, PA 19104.**

INSTITUTE OF GENOMIC MEDICINE MOLECULAR BIOLOGIST/ GRANTS SCHOLAR POSITION

The Institute of Genomic Medicine (IGM), a nonprofit organization dedicated to mapping the human genome and understanding the genetic causes of disease, seeks to hire a molecular biologist with exceptional conceptual and writing skills, who has the desire and capacity to serve as **GRANTS SCHOLAR** for a highly qualified team of scientists. Candidates must possess a Ph.D. degree in molecular biology with strong interests in the cell biology and genetics of human disease. Recent postdoctoral experience is essential. Scientific talent, dedication, achievement focus, and teamwork skills are a must.

The IGM, founded by scientists from Harvard Medical School, is located in the Charlestown Navy Yard, amidst strong academic institutions. The IGM offers a competitive academic salary, opportunities for growth, and an "environment of excellence" for professional success. Qualified candidates should submit a cover letter, their curriculum vitae, samples of scientific writing, and two letters of reference to: **Dr. George Scheele, Institute of Genomic Medicine, Building 96, 13th Street, Charlestown, MA 02129. An Equal Opportunity Employer/Minority/Female/Disabled/Veteran.**

GENERAL SURGERY RESEARCH LAB TECH II

A **RESEARCH LAB TECH II** position is currently available with the Cannon Research Facility of the Carolinas Medical Center and the Charlotte-Mecklenburg Hospital Authority, a diverse and comprehensive premier teaching and research medical center. Perform and maintain cell cultures using a variety of experimental techniques including electrophoresis, chromatography, HPLC, and be responsible for growth media definition. Candidate will establish and update current lab procedures. Must have a B.S. degree in biological sciences with two years of documented experience performing tissue cultures; antibody purification experience is desired.

We offer excellent salary and benefits. Qualified candidates please send curriculum vitae to:

**The Charlotte-Mecklenburg
Hospital Authority
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P.O. Box 32861
Charlotte, NC 28232
Telephone: 800-942-6898
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THE BURROUGHS WELLCOME FUND

PROGRAMS OFFICER. The Burroughs Wellcome Fund (BWF), a private nonprofit foundation, is seeking individual to develop, implement, manage, and evaluate BWF competitive award programs in biomedical sciences. A doctoral degree (or equivalent) and knowledge of the academic research environment is strongly desired. Salary range is \$45,000 to \$55,000, with competitive benefits package. Interested applicants should submit a letter of application and curriculum vitae to:

**Martha Peck
Vice President, Programs
The Burroughs Wellcome Fund
4709 Creekstone Drive, Suite 100
Morrisville, NC 27560-9771**

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POSITIONS OPEN

GENETIC ANALYST MOLECULAR BIOLOGY TECHNICIAN

The Genetic Analyst position requires an M.S. or Ph.D. and experience in linkage analysis. The Technician positions require a minimum of two to three years of molecular biology experience and a B.S. or M.S. degree. Myriad is a biotechnology company focused on the isolation of significant disease causing genes and is located adjacent to the University of Utah. We offer a competitive compensation package and a highly stimulating, interactive environment. Please send your curriculum vitae to: **Barbara Berry, Myriad Genetics, Inc., 390 Wakara Way, Salt Lake City, UT 84108. FAX: 801-584-3640. Equal Opportunity Employer.**

PROGRAM ADMINISTRATION SPECIALIST in biomedical research available immediately. Experience in preparation of research grant applications and research administration required. Grant application review experience desirable. Successful candidate will be working with **Dr. Louis R. Cantilena** in the Department of Clinical Pharmacology at the Uniformed Services University of the Health Sciences in Bethesda, Maryland, and will be employed by the Henry M. Jackson Foundation. Send résumé, references, and salary requirements to: **Human Resources Department, ATTN: Position No. PL2950070, The Henry M. Jackson Foundation for the Advancement of Military Medicine, 1401 Rockville Pike, Suite 600, Rockville, MD 20852. Affirmative Action/Equal Opportunity Employer.**

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Send résumé/letter, and pay requirement to: **MJ Research, 149 Grove Street, Watertown, MA 02172. Write job code on envelope.**

ANNOUNCEMENTS

GRANT FUNDS FOR LONG QT SYNDROME

The SADS Foundation, a non-profit charitable foundation in Salt Lake City, Utah will make available during 1995 four \$20,000 research grants for study of the inherited long QT syndrome. Research areas which will be considered are 1) the molecular genetics of LQT and 2) LQTS phenotyping and phenotypic-genotypic correlations. Application materials can be requested from **The SADS Foundation, P.O. Box 58767, Salt Lake City, UT 84158.** Applications are due by July 31, 1995, and grants will be awarded about October 1, 1995.

COURSES AND TRAINING

INTRODUCTION TO DNA CLONING A Five-Day Intensive Introduction

This lecture/laboratory course offered by the University of New Haven in West Haven, Connecticut is designed as an introduction to molecular biology techniques including computer applications, DNA/RNA extraction, cloning, transformation of bacterial cells, electrophoresis, hybridization, detection, amplification and sequencing. May 15-19 and August 14-18, 1995. The cost of the workshop is \$500. For more information call **203-932-7107.**

MEDICAL SCHOOL IN AUSTRALIA

One of Australia's leading Medical Schools, the Flinders University of South Australia, is offering a four year medical degree from February 1996. The innovative course features problem-based learning, small classes, early patient contact and research opportunities. 20 percent of places are reserved for international students. Prerequisites: university degree and MCAT. Application close 31 May 1995. Enquiries: **Dr. J. Teubner; FAX: 61-8-277-0085.**

COURSES AND TRAINING

PLANT BIOCHEMISTRY 1995

The DOE/NSF/USDA Triagency-supported Plant Biochemistry Research and Training Center at Washington State University will conduct a training course in plant biochemistry July 15-28, 1995. The course is designed to teach fundamental principles as well as the latest advances in areas including structure-function of plant organelles; ion transport; photosynthesis; carbohydrate and lipid biosynthesis and metabolism; nitrogen fixation and amino acid metabolism; synthesis, catabolism, physiology and mechanism of action of plant hormones; synthesis and catabolism of unique plant products such as terpenoids, alkaloids, cyanoglucosides; phenylpropanoids; signaling mechanisms in plant defense responses toward pests and pathogens; metabolic regulation; protein synthesis and intracellular targeting of macromolecules. Funds have been allocated to partially offset travel and housing expenses for up to 40 participants. For further information and an application form, contact: **Ms. Karen Maertens, PBRTC, Institute of Biological Chemistry, Washington State University, Pullman, WA 99164-6430. Telephone: 509-335-5496; FAX: 509-335-7643; Email: maertens@wsuvm1.csc.wsu.edu.**

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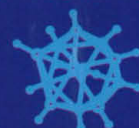
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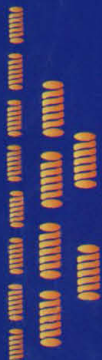
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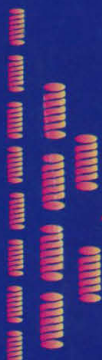
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