

Minigel System

The JSB-96 Ultrawide Mini Gelo-Submarine System enables the user to run large numbers of samples, such as those generated by polymerase chain reaction, plasmid screening, and other techniques. It can run up to 100 samples in a single gel, allowing the analysis of all 96 samples from a microtiter plate in as little as 90 min. Special combs permit quick sample loading with 8- or 12channel pipettes. The unit comes with the QuickCast System, which provides foolproof gel casting without tape, while ensuring that gels are cast evenly. Jordan Scientific. Circle 134.

Monoclonal Antibodies

A new line of monoclonal antibodies (mAbs) to Ras signaling pathway proteins includes mAbs to Ras, GAP, NF1, GAP-associated p190, Rap1, Rap2, Rap-GAP, CDC25, and Sos. **Transduction Laboratories. Circle 135.**

The addition of PE-Cy5 conjugated mAbs to a line of products for flow cytometry allows multiparameter analysis of lymphocyte populations with other fluorochromes and a single laser flow cytometer. Specificities include CD3, CD4, CD19, CD34, CD45, and immunoglobulin G₁ phycoerythrin-Cy5. **AMAC. Circle 136.**

MIB-1 mAb for the detection of the Ki-67 antigen in routinely fixed paraffin-embedded tissues, on frozen sections, and in cytological samples can be used to study cell proliferation in neoplastic cell populations and stimulated lymphocytes. AMAC. Circle 137.

Messenger RNA Isolation Kit

ON Track is a complete kit for the rapid isolation and purification of messenger RNA directly from eukaryotic cells and tissues, without intermediate total RNA isolation. The kit combines a proprietary 10-min guanidinium RNA extraction technique with the selectivity and speed of oligo (dT)-cellulose spin column chromatography. The guanidinium-based extraction method provides a high degree of protection from ribonucleases, and $poly(A)^+$ messenger RNA can be isolated in as little as 45 min. Biotecx Laboratories. Circle 138.

Statistics and Graphics Software

StatMost for DOS combines comprehensive statistical analysis with powerful graphics capabilities in an easy-to-use graphical interface environment. It features many statistical procedures used commonly in scientific research, such as math transforms. time series, nonlinear regression, and model development. Data can be exchanged with most popular spreadsheet file formats. It includes a full range of graphics such as bars, columns, pies, automatic error bars, three-dimensional grayscale surfaces, multiple axes, and more. It requires an IBM-compatible computer with 640K memory running under MS-DOS or PC-DOS version 3.0 or later, a hard drive with at least 3 megabytes of free disk space, and a graphics display and adapter. DataMost. Circle 139.

DNase Detection Kit

This kit can determine and quantify the presence of DNase in

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liquid samples. A simple incubation and agarose gel electrophoresis run results in DNase detection. Mo Bio Laboratories. Circle 140.

Antibodies

An expanded panel of monoclonal antibodies (mAbs) to the major proteins that regulate the cell cycle now includes three mAbs specific for the members of the D family of cyclins and two antibodies to the cyclin E protein. **Oncogene Science. Circle 141.**

Antibodies to markers of metastasis such as urokinase plasminogen activator, cathepsins (B, D, and L), bFGF, and nuclear matrix proteins such as lamin B are now available. **Oncogene Science. Circle 142.**

The p53 antibody provides the ability to stain mouse tissues without the high backgrounds often seen with mAbs and goat antimouse second steps. **Oncogene Science. Circle 143.**

Lab Gas Center

The LabGas Center supplies hydrogen, nitrogen, air, or any combination of these gases. For a



chromatography laboratory, the instrument could mean the elimination of gas cylinders. All units produce gas at pressures up to 60 psi with nitrogen at 550 cm³/min; hydrogen at 125, 250, or 500 cm³/ min; and air at 1500 cm³/min. Alltech Associates. Circle 144.

Antibody Purification

QUICKPure, a kit for the purification of polyclonal antibodies, incorporates the immobilization of the user's peptide/antigen, and the subsequent purification, buffer exchange, and concentration of the polyclonal antibody. It can also be used for monoclonal antibody purification if an antigen to the antibody is available. The entire process takes less than 3 hours. **Sterogene Bioseparations. Circle 145.**

Literature

Biochem.Service 2.93 is an application note that demonstrates that use of the unspecific endonuclease Benzoase can improve the resolution in two-dimensional gel electrophoresis of cell lysates from human fibroblasts. E. Merck. Circle 146.

HPLC Columns for Protein and Peptide Analysis describes an expanded line of BioSep high-performance liquid chromatography (HPLC) columns for biochromatography applications. **Phenomenex. Circle 147.**

Fisher Lab Equipment catalog contains more than 1300 products, with highlights including Isotemp ovens, Isotemp incubators, Accumet titrator systems, Compac personal microcentrifuges, and Accumet pH mixers. Fisher Scientific. Circle 148.

Nalgene Autoclave Ware is a fourpage brochure that lists a line of products that includes autoclavable pans, carriers, and baskets and containers, carboys, jars, and wash bottles. Nalge. Circle 149.

1994/95 Cytokine Product Catalog provides quick reference data and detailed information on a full range of nonisotopic immunoassays for cytokine research. Colored tab guides allow easy access to product topics including interleukins, interferons, growth factors, and receptors. **Incstar. Circle 150.**

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

Science

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POSITIONS OPEN

NEUROBIOLOGIST Department of Anesthesiology University of Maryland School of Medicine

Applications are invited for a tenure-track ASSIST-ANT or ASSOCIATE PROFESSOR position in the Department of Anesthesiology. We offer space, seed money, and a competitive salary commensurate with experience and rank. Candidates with an M.D. and/or Ph.D. are sought with training and research experience in cell and molecular neurobiology with special interest in electrophysiological methods coupled with recombinant DNA techniques. The faculty member will hold a secondary appointment in the Department of Pharmacology and Experimental Therapeutics and will participate in graduate and medical teaching programs. These are excellent institutional programs in molecular and cell biology, membrane biology, and cellular and integrative neuroscience that provide opportunities for collaborative research. Applications accepted through August 15, 1994. Send curriculum vitae, a summary of research experience and goals, and three letters of reference to: M. Jane Marjasko, M.D., Martin Helrich Professor and Chairman, Department of Anesthesiology, University of Maryland, 22 South Greene Street, Baltimore, MD 21201; or Dr. E. X. Albuquerque, Chairman, Department of Pharmacology Experimental Therapeutics, University of Maryland School of Medicine, 655 West Baltimore Street, Baltimore, MD 21201. The University of Maryland is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR LABORATORY FOR CANCER RESEARCH

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

HIV Immunologist/Virologist. A faculty position at the ASSISTANT or ASSOCIATE PROFESSOR level is available for an M.D. or Ph.D. interested in human immune response to HIV vaccines and the pathogenesis of HIV infections. This individual will direct an established immunology laboratory providing support for NIH-funded AIDS Vaccine Evaluation and AIDS Clinical Trials Units. In addition, he/she will be expected to develop an independent research program directed towards investigation of correlates of immunity to HIV. Send curriculum vitae to: Dr. Richard Reichman, Box 689, University of Rochester School of Medicine, 601 Elmwood Avenue, Rochester, NY 14642–8692. The University is an Equal Opportunity/Affirmative Action Employer.

ORGANISMAL BIOLOGIST

Princeton University invites applications for a tenuretrack position at the level of ASSISTANT PROFES-SOR in the Department of Ecology and Evolutionary Biology. We are interested in receiving applications from scientists who study animals, and with a strong program of laboratory research complementing field studies. Areas of special interest to the department include the interaction of physiology and biomechanics with ecology, behavior, and evolution. Applicants must have a strong commitment to teaching and research. A statement of research and teaching interests, three reprints, and three letters of recommendation should be sent to: Dr. Stephen W. Pacala, Department of Ecology and Evolutionary Biology, Princeton University, Princeton, NJ 08544–1003. We will begin screening applications on September 5, 1994. Princeton University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

The Division of Renal Diseases and Hypertension, Department of Medicine, University of Colorado Health Sciences Center, is seeking a faculty member at the ASSISTANT PROFESSOR (Research Specialty). Applicants should have a Doctorate degree or equivalent and postdoctoral training in Biochemical Pharmacology, Molecular or Cell Biology or closely related disciplines. Knowledge of receptor pharmacology, signal transduction mechanisms, and/or endocytosis as applied to the renal or vascular systems will be particularly attractive. The successful candidate will be required to expend 50% effort in collaboration with ongoing research in the division. Salary will be dependent on qualifications. This position will be available October 1, 1994. Send curriculum vitae, letters of reference, and a statement of interest as soon as possible and no later than October 1, 1994, to: Stuart L. Linas, M.D., University of Colorado Health Sciences Center, Box C281, 4200 East 9th Avenue, Denver, CO 80262. Affirmative Action/ Equal Opportunity Employer.

FACULTY POSITION IN AIDS RESEARCH

The Department of Microbiology and Immunology of the University of Oklahoma Health Sciences Center invites applications for a senior-level tenure-track position with a preferred interest in the areas of AIDS research. Rank will depend on the qualifications of the successful applicant and will be at either the ASSOCI-ATE or FULL PROFESSOR level. The applicant should have documented excellence in conducting independent research and obtaining extramural research support. Academic responsibilities will include instruction of medical, dental, and graduate students.

The position will provide excellent opportunities for conducting basic biomedical research in a department of 13 faculty members with a strong emphasis on the molecular genetics and immunology of infectious agents.

Please send curriculum vitae, a brief statement of research interest, copies of representative publications and the names of three references to:

Dr. Frank Waxman

Department of Microbiology and Immunology University of Oklahoma Health Sciences Center P.O. Box 26901 Oklahoma City, OK 73190

The University of Oklahoma Health Sciences Center is an Equal Opportunity/Affirmative Action Employer.

The Department of Physiology at Nova Southeastern University invites applications for a full-time ASSIST-ANT PROFESSOR position. Candidates must have a doctoral degree in physiology and a commitment to excellence in teaching. Please send curriculum vitae and list of three references by June 30, 1994, to: H. Jay Lyons, Ph.D., Department of Physiology, Nova Southeastern University, 1750 NE 167th Street, North Miami Beach, FL 33162.

ASSISTANT/ASSOCIATE PROFESSOR DEPARTMENT OF GENETICS HARVARD MEDICAL SCHOOL

The Department of Genetics invites applicants for the position of Assistant/Associate Professor. While qualifications for the position include a strong potential for imaginative research in any area of contemporary genetics, individuals whose scholarship is broadly relevant to human biology and medicine are particularly encouraged to apply. The successful candidate will be nominated for an appointment with the Howard Hughes Medical Institute Genetics Unit located within the Department.

This position offers very significant scholarly and scientific resources as well as the opportunity to teach medical students and fellows with strong interests in genetics research.

Applicants should submit, as soon as possible, but prior to October 1, 1994, curriculum vitae, bibliography, a brief (limit to 500 words) description of research interests and ask three references to send letters of recommendation. These materials should be directed to:

Dr. Philip Leder, Chairman Department of Genetics Harvard Medical School 200 Longwood Avenue Boston, MA 02115

Harvard University is an Equal Opportunity/Affirmative Action Employer and encourages the application of qualified women and minorities.

B.S./M.S. and Ph.D. Scientists

Several positions available in Drug Metabolism and Disposition Research

For more than a century, scientists at Eli Lilly and Company have been developing novel, high quality pharmaceuticals. With current yearly investment approaching one billion dollars in research and development programs, our continued success requires the finest talent available.

To further build our research capabilities, we are seeking innovative, self-motivated BS/MS and Ph.D. scientists to plan, organize, and manage programs in the area of pre-clinical and clinical drug metabolism and disposition. Successful Ph.D. senior scientist candidates will establish a laboratory program utilizing basic and applied approaches to study the disposition and metabolism of drug candidates, both small molecules and therapeutic proteins. Successful BS/MS scientists will work collaboratively with the senior investigators to develop analytical methods for compounds in biological samples and to study the transformation of the drugs in biological systems.

Applicants must have a BS, MS, or Ph.D. (postdoctoral experience is an asset) in biochemical pharmacology, biochemistry, medicinal chemistry, analytical chemistry, pharmacy or related field. A strong background in pharmacokinetics, pharmacological mechanisms related to drug disposition and chromatographic analysis is preferred. Experience with mass spectrometry, trace analysis, and a general knowledge of organic chemistry is required for one of the BS/MS positions. Experience in enzymology or cell culture techniques is required for another of the BS/MS positions. Excellent communication and organizational skills are required for all positions.

Eli Lilly and Company offers a competitive compensation package and a highly professional environment. For prompt consideration, please forward your resume to: Eli Lilly and Company, Scientific Recruitment, Dept. DMDSC, Lilly Corporate Center, Indianapolis, IN 46285

Eli Lilly and Company is an equal opportunity employer committed to diversity in the workplace.



BIOPROCESS RESEARCH

At Pfizer,

we're part

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of the cure.

What makes Pfizer a major force in pharmaceutical progress? The answer is to be found in real life–in people who thrive on developing new and better therapeutic answers to real-life needs. Such are the scientists of Pfizer's Central Re-

search Division. Located in seaside Connecticut, our Central Research Division is a place of state-of-the-art laboratories, invigorating discovery objectives, and

significant investment in R&D. Primarily, though, it's a place of individuals...individuals who work hard to make a difference. Join us. We are currently seeking:

Biotransformation Scientist

You will contribute to our exciting program of biotransformation research by working as part of a dynamic team equipped with the latest in highthroughput technology. Your challenge will be to use the synthetic capabilities of microbes and enzymes to support discovery, synthesis and metabolism of important new pharmaceutical agents. You will produce, isolate and identify these compounds as well as metabolic intermediates involved in the synthesis of natural products.

Qualifications include an M.S., or the equivalent, and at least 3 years experience in biotransformation, isolation and identification of natural products from complex mixtures. Your background must reflect proven strengths in microbiology, microbial biochemistry and natural products isolation/identification. Welldeveloped communication/interpersonal skills and a commitment to teamwork are essential.

Complementing the professional advantages of one of the world's finest corporate scientific communities are the many cultural, recreational and educational amenities easily accessible to our southeast Connecticut location. In exchange for your expertise we offer an excellent compensation, benefits and relocation package.

For confidential consideration, send your resume to: Lorraine C. Corr, Supervisor, Employee Resources, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340.

We are an equal opportunity employer. M/F/D/V



Central Research

The Division of Allergy and Infectious Diseases at the University of Washington is recruiting a full-time faculty member at the ASSISTANT/ASSOCIATE PROFES-SOR level. Applicants must have extensive laboratory-based research training in microbial pathogenesis. Appli-cants should also be ABIM certified in internal medicine and infectious diseases and will participate in the clinical activities of the division. Send curriculum vitae and three letters of reference to: Walter E. Stamm, M.D., Infectious Disease Division, Harborview Medical Center (ZA-89), 325 9th Avenue, Seattle, WA 98104. The University of Washington is an Affirmative Action/Equal Opportunity Employer. The closing date for applications is July 1, 1994.

PENN ASSISTANT PROFESSOR

The Department of Biochemistry and Biophysics and the Institute for Environmental Medicine of the University of Pennsylvania Medical Center seek an experienced biochemist/cell biologist for a research-track faculty po-sition based in the Institute. The successful candidate will sition based in the institute. The successful candidate will interact with an established program in ischemic lung injury and will develop an independent research program in biochemical mechanisms of oxidative injury. Special consideration will be given to candidates with current grant support. Excellent facilities are available. Salary will be commensurate with experience. Send curriculum vi-tae, a statement of research interests and the addresses of three references, by August 30, 1994, to:

Chairman, Faculty Search Committee INSTITUTE FOR ENVIRONMENTAL MEDICINE One John Morgan Building 3620 Hamilton Walk Philadelphia, PA 19104–6068 The UNIVERSITY OF PENNSYLVANIA is an Equal Opportunity/Affirmative Action Employer.

BASIC SCIENCE GERIATRICIAN. Full-time faculty position available at the Cleveland VA Medical Center, University Hospitals of Cleveland, and Case Western Reserve University for a physician scientist at the ASSISTANT or ASSOCIATE PROFESSOR level in aging research. Laboratory space and a minimum of 20 hours per week will be at the VA. Candidate will be eligible for VA grant support. The successful recruit will join existing divisional research in aging vascular and adrenal physiology, which is complemented by a large number of NIA-funded investigators on campus, and number of NIA-funded investigators on campus, and lead the further development of basic aging research. Additional recruitment opportunities will be made avail-able to the appropriate candidate. Geriatric Division is supported by an NIA Research Training Fellowship program, a Claude Pepper Center, and Hartford Center of Excellence. Send curriculum vitae and letter of inquiry to: Scott Mader, M.D., ACOS for Geriatrics and Extended Care (18W), VA Medical Center, 10701 East Boulevard, Cleveland, OH 44106. Department of Veterans Affairs is an Eaud Omortunity Employer. Amil-Veterans Affairs is an Equal Opportunity Employer. Appli-cant subject to random drug testing prior to employment.

MEDICAL ONCOLOGY ASSISTANT PROFESSOR OF MEDICINE TENURE-TRACK POSITION

The Division of Medical Oncology, Department of Medicine, University of Minnesota, seeks a tenure-track faculty member at the Assistant Professor level. The desired individual must have board certification in Internal Medicine and board eligibility in Medical Oncology. This individual must also have training and documented research expertise in developmental gene regulation in erythroid cells. Responsibilities, in addition to research, Medicine, including both inpatient and outpatient fol-low-up, medical outreach, teaching of medical students, residents and fellows, and will require general expertise in solid tumor oncology with particular emphasis on G.I. and neuroectodermal tumors, as well as training and experience in autologous and allogenic bone marrow transplantation. The start date for this position is August 15, 1994. Applicants must submit curriculum vitae, 15, 1994. Applicants must submit curriculum viac, summary of research plans and three letters of reference by August 1, 1994, to: Gordon D. Ginder, M.D., Professor of Medicine, Director, Division of Medical Oncology, Box 286 UMHC, University of Minneso-ta, Minneapolis, MN 55455. Telephone: (612) 624-7915. The University of Minnesota is an Equal Opportunity Determent of Employee. Educator and Employer.

POSITIONS OPEN

ENVIRONMENTAL TOXICOLOGIST

The Department of Environmental Health Sciences, University of Alabama at Birmingham, invites applica-tions at the ASSISTANT/ASSOCIATE PROFES-SOR level. This is a tenure-track, 12-month position. Basic or applied scientists with research interest in human biological monitoring/biological markers and research expertise in immunotoxicology, pulmonary toxicology, neurotoxicology, or risk assessment are encouraged to apply. Candidates must have demonstrated excellence in conducting independent research, significant postdoctorconducting independent research, significant postdoctor-al training, and an interest in interdisciplinary studies. Send applications (including curriculum vitae, state-ment of research and teaching interests, and three refer-ences) to: Dr. Deodutta Roy, Department of Envi-ronmental Health Sciences, University of Alabama at Birmingham, Birmingham, AL 35294. Review of applications will begin July 1, 1994, and continue until position is filled. Salary commensurate with training and experience. *LIAB* is an Equal Opnotumity/Affirmative Acexperience. UAB is an Equal Opportunity/Affirmative Ac-tion Employer and encourages applications from qualified women and minorities.

ASSISTANT PROFESSOR, Yale University. Applications are being solicited for a tenure-track position in the Molecular Psychiatry Division of the Department of Brychiary. The successful candidate is expected to con-duct independent and collaborative research on the molecular neurobiology of stress, anxiety and drug addic-tion. Experience in transgenic and gene knockout meth-odologies is preferred. Complete curriculum vitae, statement of research interests and goals, and three references should be sent by October 1, 1994, to: Dr. George Heninger, Director, Laboratory of Clinical and Mo-lecular Neurobiology, 34 Park Street, New Haven, CT 06510. Yale University is an Affirmative Action/Equal Opportunity Employer. Applications from women and minor-ity groups are specifically invited.

ANIMAL PHYSIOLOGIST CARLETON COLLEGE

Applications are invited for a one-year position begin-ning September 1, 1994, at the rank of ASSISTANT **PROFESSOR** in the Department of Biology. Teaching responsibilities include a course in animal physiology, a seminar or course in area of special interest, and participa-tion in laboratory instruction for introductory courses. Ph.D. preferred—ABD considered. Women and minority Ph.D. preferred—ABD considered: Women and minority candidates are strongly encouraged to apply. Send application, curriculum vitae, undergraduate and graduate transcripts, a statement of teaching philosophy, a summary of research and three letters of reference to: G. E. Wagenbach, Department of Biology, Carleton College, Northfield, MN 55057–4025 by July 1, 1994. Carleton College is an Event Omerchanic Action Evaluate. Equal Opportunity/Affirmative Action Employer.

DEPARTMENT HEAD-BIOLOGICALS

Senior Scientist (M.S., Ph.D. preferred) wanted for position as Head of Biological Products. This position is in a Gaithersburg, Maryland, biotechnology company that provides custom research products and services. Candidate must have demonstrated laboratory expertise (5 to 10 years) in several of the following areas: cell culture and virus production, development of monoclo-nal and polyclonal antibodies, protein purification, ELISA technology, bioassays, and gene expression sys-tems. In addition, candidate should have supervisory/ management experience and the ability to handle multiple projects. Competitive salary (commensurate with experience) and benefits. Please send curriculum vitae and three references to: Box 51, Science Classified Advertising, 1333 H Street, N.W., Room 814, Wash-ington, DC 20005. Equal Opportunity Employer.

ASSOCIATE DIRECTOR of Vincent Center for Reproductive Biology is sought to manage day-to-day affairs of the Center, Candidate must be an M.D. and/or Ph.D. with advanced training and research accomplishments in Reproductive Biology and assisted reproductive technologies.

Salary and medical school faculty appointment commensurate with education and achievements. Massachusetts General Hospital is an Equal Opportunity

Employer.

Please send curriculum vitae to: Isaac Schiff, M.D., Chief, Vincent Memorial Gynecology Services, Massachusetts General Hospital, Boston, MA 02114. FAX: (617) 726-7548.

POSITIONS OPEN

The UAB Epilepsy Center Department of Neurology invites applications for a faculty position at the ASSIST-ANT or ASSOCIATE PROFESSOR level. The individual should have a Ph.D. and a strong background in *in vivo* Nuclear Magnetic Resonance imaging with postdoctoral experience and a proven track record of research and academic performance. The individual will have respon-sibilities for developing Nuclear Magnetic Resonancesibilities for developing Nuclear Magnetic Resonance-based human and animal epilepsy research protocols, including imaging, spectroscopy and functional Magnet-ic Resonance Imaging. The Nuclear Magnetic Resonance Center includes a 4.1 tesla instrument, several 1.5 tesla units and a 40 cm 4.7 Tesla for animal experiments. Collaborative research is expected. Strong support from a large comprehensive epilepsy center is available. Start-up funds and competitive salary and benefits are provided. Please send curriculum vitae to: Dr. Ruben Kuzniecky, Denortment of Neurology. 1719 6th Avenue South Department of Neurology, 1719 6th Avenue South, CIRC, Room 312, Birmingham, AL 35294–0021. UAB is an Equal Opportunity/Affirmative Action Employer.

Boston University School of Medicine is seeking to fill a position of a

DIRECTOR OF A TRANSGENIC MICE FACILITY

The facility is equipped with the newest technology, all located in the new Biomedical Research Building. Expe-rience with transgenic mice and preferably also with embryonic stem cells is required. A very competitive salary, excellent opportunities for promotion and aca-demic interactions are available. Please send curriculum vitae to; Drs. Katya Ravid and Jerome Brody, Biochemistry K225, Boston University School of Medi-cine, 80 East Concord Street, Boston, MA 02118. Affirmative Action/Equal Opportunity Employer.

DIRECTOR, UCR/UCLA PROGRAM IN BIOMEDICAL SCIENCES DIVISION OF BIOMEDICAL SCIENCES UNIVERSITY OF CALIFORNIA, **RIVERSIDE** (UCR)

Responsible for leadership of the research and educational activities of the Division of Biomedical Sciences at UCR. Duties include leadership of and active participa-tion in the research activities of the Divisional faculty at UCR and the Ph.D. program in Biomedical Sciences; supervision of an accelerated 7-year educational program leading to the B.S. degree from UCR and the M.D. degree from the UCLA School of Medicine; serving as Chairperson of the Division of Biomedical Sciences (15 ladder-rank faculty positions in basic Medical Sciences disciplines at UCR and seven adjunct positions at the associated Harbor/UCLA Medical Center teaching facilassociated Harbor/UCLA Medical Center reaching fach-ity); and maintaining liaison among UCR, UCLA, Har-bor/UCLA Medical Center, the UC Office of the Presi-dent, and other applicable state and national agencies. Requires: (a) Ph.D. or M.D. degree; (b) a strong and active research program in biomedical sciences; (c) famil-iarity with medical school basic sciences instruction; (d) evidence of success in managing strong academic pro-grams; (e) qualification for appointment as a Full Pro-fessor in the University of California system. Starting date: July 1, 1995.

date: July 1, 1995. Please send nominations or letter of application, ré-sumé and names of at least three references by August 15, 1994, to: BMSP Program Director Search Commit-tee, Division of Biomedical Sciences, University of California, Riverside, CA 92521-0121. The University of California is an Equal Opportunity/ Affirmative Action Employer.

FACULTY POSITIONS-The Division of Rheumatology of the Albert Einstein College of Medicine invites applications for academic faculty positions com-bining molecular and cellular immunology and rheuma-tology. Positions are available at all faculty levels. Candidates must have innovative independent research pro-grams and should be interested in collaborations that will make possible the translation of the research findings on the prevention, diagnosis, and treatment of rheumato-logic diseases in man. Applicants should submit curricu-lum vitae, a brief statement of future research interests, and the names of three references to: Dr. Betty Dia-mond, Division of Rheumatology, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. An Equal Opportunity Employer.



Tsukuba Advanced Research Alliance University of Tsukuba, Japan

University of Tsukuba invites applications for seven new Professors to lead innovative research in Tsukuba Science City



Leo ESAKI President University of Tsukuba Nobel prize for physics (1973)

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University of Tsukuba is now establishing a new research institution, the Tsukuba Advanced Research Alliance (TARA) Center, and wishes to appoint professors to conduct and coordinate frontier research. The function of TARA will be to stimulate interdisciplinary research in the following fields by integrating research in the University of Tsukuba with other public and private institutions. By the creation of research forums within TARA, we intend to catalyse and induce cross-fertilization to contribute to the global advancement of knowledge.

i) Biological Sciences

Research on fields such as gene regulation, cell-cell interaction, morphogenesis, molecular and cellular biology of signal transduction, integrative neural functions, and apoptosis.

ii) Material Sciences

Studies on electronic and optoelectronic properties in superlattices, quantum wires and dots, and other nanostructures, including exploitation of nanoscale technology and exploration of intriguing materials.

iii) Information Management through the Multimedia Research on hardware, software and networks, and the role of the multimedia in and with the information society.

iv) Human Beings in the Ecosystem

Scientific, technological and philosophical research on human interactions in the environment.

v) Liaison, Research Management, Intellectual Property and Technology Transfer

Development and promotion of interdisciplinary research by cooperation among universities, public and private institutions at national and international level.

English speaking ability is required. Appointments will be made independent of sex, belief, race or nationality. Salary will be in line with the regulations set out for Faculty of a Japanese National University, with retirement at 63 years. Subsidised housing is generally available to University staff. Tsukuba Science City is located 60 km North-East of Tokyo in an attractive environment. Further information is available upon request. Applications, including curriculum vitae, reprints of representative work, addresses of three referees, should be postmarked before 31 August, 1994 to:

Mr. H. Saito, Administrative Manager TARA Office, University of Tsukuba, Tsukuba Science City, 305 Japan Fax: +81-298-53-6074

DIRECTOR

The Hawaiian Sugar Planters' Association seeks a Director for its Experiment Station, located in Aiea, Hawaii, near Honolulu, on the island of Oahu. The position acts as the Chief Executive Officer of the Experiment Station and directs 20 scientists and 80 support staff. Research is conducted on sugarcane, coffee, forest-ry, pineapple, and horticultural crops in agronomy, plant breeding, cellular and molecular biology, factory technol-ogy, environmental sciences, insect and disease control. Applicants must be distinguished scientists with demonstrated leadership and administrative skills and must have the ability to direct basic farm application and applied research with emphasis on demonstration projects. Candidates in all areas of agronomy, horticulture, crop physiology and crop genetics will be considered. The position is available immediately and offers an

attractive salary and excellent benefits. Send curriculum vitae and names of three professional references to: Dr. Don J. Heinz, Hawaiian Sugar Planters' Association, Experiment Station, P.O. Box 1057, Aiea, HI 96701; Telephone: 808/487-5561, or FAX: 808/486-5020. Affirmative Action and Equal Opportunity Employer.

EAST TENNESSEE STATE UNIVERSITY Invites applications and nominations for the position of DEAN OF THE COLLEGE OF PUBLIC AND ALLIED HEALTH

Qualifications include: Earned doctorate in a healthrelated discipline with background and experience re-flecting an understanding of the principles and practices of public and allied health; academic credentials appro-priate for appointment to the rank of professor in one of priate for appointment to the rank of professor in one of the departments of the College; demonstrated successful administrative experience in an academic setting; achievement in the areas of scholarship and research; experience in undergraduate and graduate education

required. Nominations are encouraged. Minorities are strongly urged to apply. Position available January 1, 1995. Review of applications will begin immediately and will continue until position is filled. Applica-tions should include a statement of interest, curriculum vitae and five references. Please send to: Paul E. Stanton, Jr., M.D., Chair, College of Public and Allied Health Dean Search Committee, East Tennessee State University, Box 70424, Johnson City, TN 37614–0424. Affirmative Action/Equal Opportunity Employer.

CHAIR, DEPARTMENT OF MEDICINE School of Medicine University of California, San Francisco

The School of Medicine at UC San Francisco seeks an outstanding individual to lead its Department of Medicine, one of the preeminent departments in the nation. The successful candidate will have exceptional administrative and organizational skills and a national reputation as a leader in academic medicine. This individual must have a strong commitment to education and must be able to direct and continue to build the distinguished research activities of this great department. In addition, he or she should have a primary commitment to the strengthening and expansion of its clinical program in the context of health care reform. Applicants must be qualified for appointment as a professor in the Department of Medicine. Women and minority candidates are particularly encouraged to apply. Applicants should send curriculum vitae to: Dr. Stephen L. Hauser, c/o Joyce McKinney, Office of the Dean/School of Medicine, 513 Parnassus, Room LS100, San Francisco, CA 94143-0410.

BIOCHEMISTRY AND MOLECULAR BIOLOGY PERMANENT-TRACK FACULTY POSITION

Excellent facilities, support, and research environment available for an established or highly promising research investigator. Preference given to candidates studying molecular mechanisms and structure/function relationships in reproductive or developmental systems. An interest in teaching graduate biochemistry or molecular biology is desirable. Level of appointment commensurate with qualifications. Send curriculum vitae, bibliography, and three letters of reference by July 29, 1994, to: Dr. Donald J. Tindall, Department of Biochemistry and Molecular Biology, Mayo Medical School, Rochester, MN 55905. Mayo is an Affirmative Action/Equal Oppor-tunity Employer. Women and members of minority groups are encouraged to apply.

POSITIONS OPEN

HAIR CELL NEUROBIOLOGIST

The Johns Hopkins University School of Medicine

POSITION in the Department of Otolaryngology-HNS. Applicant must have an M.D. or Ph.D. plus at

appointment will be commensurate with applicant's experience. Candidates with outstanding research rec-ords studying cellular, biophysical, and/or molecular mechanisms of hair cell function are sought. The success-ful candidate is expected to maintain an active and

ful candidate is expected to maintain an active and extramurally funded research program. In addition, this individual will be involved in the training of medical and graduate students, residents, and postdoctoral fellows, will occupy laboratory space in the Center for Hearing Sciences, and will have the opportunity for a secondary appointment in one of the basic science departments.

Applications should include curriculum vitae, three

recent publications, and the names, FAX and telephone numbers of three references. Send materials by August

1, 1994, to: D.K. Ryugo, Search Committee, Johns Hopkins University School of Medicine, 510 Tray-lor, 720 Rutland Avenue, Baltimore, MD 21205.

The Johns Hopkins University is an Equal Opportunity

POSTDOCTORAL POSITION

Two postdoctoral positions are available in the De-

partment of Genetics in a research program elucidating the role of chromosome translocations in acute myeloid

leukemia. Ongoing research focuses on in vivo leukemo-

genesis of AML-derived fusion genes in transgenic mice as well as functional analyses of fusion products using

Candidates with a Ph.D. or M.D. with a strong interest in hemapoietic malignancies and experience in molecular biology should submit curriculum vitae and brief description of research interests to:

Gerard C. Grosveld, Ph.D., Chairman

Department of Genetics St. Jude Children's Research Hospital

Danny Thomas, Founder 332 North Lauderdale

Memphis, TN 38105

Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITIONS (two) are available immediately to investigate (i) the signal transduction mechanisms of neuronal dopaminergic receptors and (ii)

the regulation of expression of dopamine genes. Prior experience in receptor biochemistry or molecular biology desirable. Please send curriculum vitae and names and

telephone numbers of three references to: Dr. Anita Sidhu, Department of Pediatrics, Georgetown Uni-versity Medical Center, 4 Research Court, Room 127, Rockville, MD 20850. Affirmative Action/Equal

POSTDOCTORAL POSITION available immedi-

ately to study the influence of the epithelial cell cytoskel-eton on intestinal ion transport and junctional assembly/ permeability. Experience in fluorescence techniques and

microscopy is strongly preferred. Please send curriculum

Vitae along with names and address of two references to: Jeffrey B. Matthews, M.D., Department of Surgery, Beth Israel Hospital, Harvard Medical School, 330 Brookline Avenue, Boston, MA 02215. FAX: 617-278-7756. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION IN X-RAY CRYSTALLOGRAPHY

A postdoctoral position is immediately available to study cytokine and cytokine receptor structure. Data collection facilities include 2 Siemens electronic area

detectors and an R-axis II image plate system. A large number of workstations (SGI and DEC) and a super-computer are available for computational work and

graphics. Individuals with background in biochemistry candidates should send curriculum vitae, and the names

and telephone numbers of three references to: Dr. Mark

R. Walter, Center for Macromolecular Crystallogra-

phy, Room 268, Basic Health Sciences Building, 1918 University Boulevard, Birmingham, AL 35294.

Opportunity Employer.

Employer.

biochemical and gene knockout approaches.

least 3

Employer.

Applications are invited for a TENURE-TRACK

years of postdoctoral research experience. Level of

FACULTY AND POSTDOCTORAL POSITIONS ROSWELL PARK CANCER INSTITUTE (RPCI), **BUFFALO, NEW YORK**

The Photodynamic Therapy Research Group and the Department of Dermatology are inviting applica-tions for FACULTY or POSTDOCTORAL POSI-TIONS to study molecular mechanisms of photody-namic therapy effects at the tissue and cellular level. Candidates should have a strong background in molecular biology or molecular immunology. An interest in photobiology is desirable. Candidates are expected to have the potential for developing an independently fund-ed research project, and to collaborate closely with the entire interdepartmental photodynamic research group. Applicants should send or FAX curriculum vitae,

description of research interests and names of three references to either: Allan Oseroff, M.D., Ph.D., Department of Dermatology (Telephone: 716-845-8816, FAX: 716-845-5780), or to Thomas Dough-erty, Ph.D., Department of Radiation Medicine (Telephone: 715-845-4426, FAX: 716-845-8920) at Roswell Park Cancer Institute, Elm and Carlton Streets, Buffalo, NY 14263. RPCI is an Equal Opportunity Employer.

POSTDOCTORAL POSITION (fellow or senior research associate) to study structure function relationships in cation transport ATPases. Research involves protein expression in cells transfected with wild type and mutated cDNA, enzyme purification and detailed functional characterization, modulation of intracellular Ca2+ ATPase in situ, and effect on signalling and cell prolifer-ArPase in sun, and elect of signaling and cen promer-ation. Experience in cell and molecular biology required. Forward curriculum vitae to: Dr. G. Inesi, Department of Biological Chemistry, University of Maryland at Baltimore, 108 North Greene Street, Baltimore, MD 21201.

POSTDOCTORAL POSITION at Thomas Jefferson University (Philadelphia) to conduct research on molecular biology of immunophilins, steroid receptors or programmed cell death. Traineeship position on an N.I.H. training grant for up to three years and requires citizenship or permanent residency. Stipend depends on years of postdoctoral experience. Send curriculum vitae and names of three references to: Dr. G. Litwack, Department of Pharmacology and Jefferson Cancer Institute, 233 South 10th Street, Philadelphia, PA **19107.** Thomas Jefferson University is an Equal Opportu-nity/Affirmative Action Employer.

POSTDOCTORAL POSITION available to study regulation of signal transduction in neutrophils. Candidates should have a Ph.D. with a strong background in molecular biology. Send curriculum vitae and names of three references to: Dr. Kenneth R. McLeish, Department of Internal Medicine, 615 South Preston Street, University of Louisville, Louisville, KY 40292. (FAX: 502-852-7643). Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION with funding available immediately with a newly established investiga tor to study the structure and function of the recently cloned melanocortin receptors (PNAS 1993, 90:8856-8860, Cell 1993, 72:827-834), as well as cloning and characterization of novel members of this receptor family. Experience in molecular biology is desirable. Send or FAX curriculum vitae, letter of interests and experience, and a list of three references to: Dr. Linda Roselli-Rehfuss, Institut de recherches cliniques de Montréal, 110 Pine Avenue West, Montréal (Québec) CANA-DA H2W 1R7. FAX: 514-987-5575.

POSTDOCTORAL POSITION available immediately to study functional properties of bacterial ion channels with electrophysiological techniques. Projects include the use of patch clamp to investigate the modu-lation and structure/function relationships of E. coliporins. Experience with electrophysiology, preferentially patch clamp, required. Send curriculum vitae and three letters of recommendation to: **Dr. Anne Delcour, De**partments of Biology and Biochemical and Biophysical Sciences, University of Houston, Houston, TX 77204–5513. The University of Houston is an Equal Opportunity/Affirmative Action Employer. Minorities, women, veterans and persons with disabilities are encouraged to apply.



Postdoctoral Researchers Ecologists or population biologists are required for the

following positions:

NERC Centre for Population Biology

1. A NERC-funded project on the importance of biomass allocation patterns and herbivory for the invasion of exotic plants. A 3-year contract is offered to a researcher with interest or experience in insect-plant ecology and biological weed control.

IMPERIAL COLLEGE

University of London

2. A researcher with theoretical or experimental interests in one or more areas, especially the interface between population dynamics and population genetics; population biology; community ecology. A 2-year contract is offered, with the possibility of renewal.

Applicants should have a PhD and relevant research experience. Salary range £12,828 - .20,442.

Further details from Miss C Challis, Tel: +44 (0) 344 294475; Centre for Population Biology, Imperial College at Silwood Park, Ascot, Berks SL5 7PY, UK.

Applications to be received by 11th July 1994.

The College is striving to be an Equal Opportunities Employer.

NEW RESEARCH TEAMS AT THE INSTITUTE OF HAEMATOLOGY UNIVERSITY PARIS VII - SAINT-LOUIS HOSPITAL

CALL FOR APPLICATIONS

The Institute of Haematology, a statutory composant of the University Paris VII located on the SAINT-LOUIS University Hospital Campus in Paris, develops interdisciplinary research programs in haematology, oncology, immunology, virology and genetics. The Institute of Haematology includes INSERM, CNRS, CEA and academic research groups.

The SAINT-LOUIS HOSPITAL includes 800 beds with specialized medical teams notably devoted to the treatment of haematological, immunological and cancer disorders and to organ transplantation. The SAINT-LOUIS HOSPITAL is also a "Assistance Publique - Hôpitaux de Paris" centre for the treatment of AIDS and one of its major priorities is research in human genetics. A Clinical Investigation Centre (phase I clinical studies) will be founded on the campus in 1994.

The Institute would be happy to welcome one or several research groups interested in the basic research themes developed on the campus and their clinical applications. A surface of 200-600 m² will be available to these new research teams.

Candidate research groups are invited to send a proposal comprising a description of their scientific profile, their areas of interest and the results they have obtained, and the scientific interactions they would like to develop within the Institute to Professor Laurent DEGOS, Director of the Institute of Haematology, SAINT-LOUIS Hospital, 1 avenue Claude Vellefaux, 75010 Paris, France **before October 1, 1994.**

All applications will be submitted to evaluation between October and December 1994 by the Institute's Scientific Committee presided over by Professor François SIGAUX.

POSTDOCTORAL POSITIONS available to candidates with experience in quantitative studies of gene expression or calcium imaging to study the regulation of voltage-dependent calcium channels by kinases, particularly protein kinase C (PKC). We also are studying the role of PKC in increased expression of L-type calcium channels during chronic exposure to alcohol and identifying which L channel stubunits are regulated. Additional studies involve regulation of other calcium channels by PKC and alcohol. Annual salary is \$26,500 and \$30,000 and includes health insurance. Send curriculum vitae, summary of research experience, and names of references to: Dr. Robert O. Messing, University of California, Department of Neurology, Building 1, Room 101, 1001 Potrero Avenue, San Francisco, CA 94110. An Equal Opportunity Employer.

POSTDOCTORAL POSITIONS available to study the biological roles of malarial proteases and immune responses to protease-like malarial antigens. Experience with molecular biology, protein chemistry, and/or immunology is required. Experience with heterologous protein expression and/or structure-function studies is desired. Please send curriculum vitae and the names and telephone numbers of three references to: Dr. Philip Rosenthal, Department of Medicine, Box 0811, University of California, San Francisco, CA 94143. FAX: (415) 206-6015. UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION available immediately to study the molecular mechanisms underlying small intestinal epithelial growth and differentiation. Experience in molecular biology is essential. Please send curriculum vitae along with the names and addresses of two references to: Richard A. Hodin, M.D., Department of Surgery, Beth Israel Hospital, Harvard Medical School, 330 Brookline Avenue, Boston, MA 02215. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITIONS available to candidates with experience in signal transduction or regulation of gene expression. Opportunities include characterization of novel signaling proteins and identification of transcriptional mechanisms regulating ethanol-responsive gene expression in neural cells. Annual salary is \$26,500 to \$30,000 and includes health insurance. Send curriculum vitae, summary of research experience, and names of references to: Dr. Michael Miles, University of California, Department of Neurology, Building 1, Room 101, 1001 Pottero Avenue, San Francisco, CA 94110. An Equal Opportunity Employer.

POSTDOCTORAL POSITION available to study neuronal signal transduction at the molecular level in a diversified group of individuals taking a multidisciplinary approach to understanding neuronal signal transduction. The laboratory is well equipped with resources to pursue many different avenues of research focused on neuronal signal transduction. Research areas include structural biology using crystallography/microscopy, molecular and cell biology, and chemistry. Research interests focus on understanding the structure and function of G-protein coupled membrane receptors involved in signal transduction and neurotoxins that alter signal transduction. Applicants must have a Ph.D. in biochemistry, biophysics, molecular biology, or related field. Send résumé and three references by July 15, 1994, to: Professor Raymond Stevens, Department of Chemistry, University of California, Berkeley, CA 94720. The University of California is an Equal Opportunity/Affirmative Action Employer.

PROTEIN BIOCHEMISTS/ MOLECULAR BIOLOGISTS

Two **POSTDOCTORAL POSITIONS** open. (1) Research addressing role of posttranslational modifications in regulating microtubule structure and function. Experience in protein purification, characterization, and in basic molecular biology techniques preferred. (2) Research leading to the discovery of therapeutic interventions in neurodegeneration. Preferred skills include the study of protein structure and function, yeast genetics and mammalian gene expression. Submit curriculum vitae and three professional references to: **Personnel Manager**, **101 Waukegan Road, Suite 970, Lake Bluff, IL 60044**. (Northern lakeside surburb of Chicago.)

POSITIONS OPEN

POSTDOCTORAL FELLOW/ RESEARCH ASSOCIATE

A position is available for a scientist interested in studying synaptic signal transduction mechanisms in the Laboratory of Neurobiology at the Guthrie Research Institute. The Institute offers outstanding facilities and opportunities for both collaborative and independent work in a supportive environment. This position requires experience in neuroscience, cell biology, molecular biology, pharmacology or biochemistry. Candidates should send curriculum vitae and two letters of reference to: Dr. Robert S. Aronstam, Director, Guthrie Research Institute, Guthrie Square, Sayre, PA 18840.

POSTDOCTORAL FELLOW Molecular Oncology Program

Position available to conduct studies on the molecular basis of cellular resistance to cytotoxic drugs. Experience in molecular biology preferred. Please send curriculum vitae and two letters of reference to: Gary Kruh, M.D., Ph.D., c/o Human Resources Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer, M/F.

INTERNATIONAL FELLOWSHIP

The Dan Charitable Trust Fund for Research in Biological Sciences provides financial support for collaborative research between Japan and other countries or participation in international conferences or workshops held in Japan or other countries. A total of 6 fellowships (1- or 3-month duration) will be awarded every year. Applications for fellowships must be submitted to the address listed below by October 31, 1994. For more information, write: Kiyo Yamauchi, The Dan Charitable Trust Fund for Research in the Biological Sciences, Nippon Trust Bank, 3-1-8 Nihonbashi, Chuoku, Tokyo 103, Japan. FAX: (03) 3271-2843.

POSTDOCTORAL FELLOWSHIPS. Departments of Molecular and Cellular Biology and Organismic and Evolutionary Biology, Harvard University. A limited number of postdoctoral research positions become available from time to time. Some appointments are funded through research grants awarded to faculty members and are ordinarily for 1 year, sometimes renewable; other appointments are possible through postdoctoral fellowships. For a list of faculty members who may have postdoctoral positions available, write to the respective department office (do not send applications): Molecular and Cellular Biology, 7 Divinity Avenue, Cambridge, MA 02138; Organismic and Evolutionary Biology, 26 Oxford Street, Cambridge, MA 02138. Harvard University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL/ASSOCIATE RESEARCH SCIENTIST

Position available to study molecular aspects of radioresistance and radiation-induced changes in cell cycle progression in yeast and mammalian systems. Candidate should have a Ph.D. in molecular biology or a related field. Experience with recombinant DNA and yeast preferred but not essential. Send curriculum vitae and names of three references to: Dr. Howard B. Lieberman, Center for Radiological Research, Columbia University College of Physicians and Surgeons, 630 West 168 Street, New York, NY 10032. We are an Equal Opportunity/Afjirmative Action Employer.

3 POSTDOCTORAL RESEARCH ASSOCI-ATES. One position is open to study the expression of lipoxygenases (particularly the 12-lipoxygenase) in tumor cells with an emphasis on cis- and trans-regulation of its promoter activity. Another position is available to clone a novel eicosanoid receptor. A third position is sought to study integrins in metastasis with emphasis on cell signaling. Applicants should have a Ph.D. or equivalent degree and a background in molecular biology. Experience in recombinant DNA techniques, expression cloning, polymerase chain reaction, CAT assay and subtractive hybridization is desirable. Please send curriculum vitae, a statement of research interest, and names of three references to: Dr. Kenneth V. Honn, Wayne State University, Cancer Biology Division, Department of Radiation Oncology, 431 Chemistry Building, Detroit, MI 48202. Wayne State University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

HUMAN CANCER GENETICS

POSTDOCTORAL/RESEARCH ASSOCIATE position is available to study the molecular genetic basis of inherited human cancers. Send curriculum vitae, research goals and objectives and names of three references to: Dr. Robert Burk, M.D., Genetics Division, Pediatric Department, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, Ullman 625, 1300 Morris Park Avenue, Bronx, NY 10461.

PRODUCT RESEARCH ENTOMOLOGIST

Ph.D. Entomologist with at least 5 years of insecticide product development experience wanted. Candidates need expert knowledge of biting insects and experience in tropical insect pest management and biting insect repellant formulation. Cross training is required in neural physiology or insecticide toxicology, human behavioral analysis, and tropical medical entomology. A thorough, first-hand understanding of cultural/social traits in key vector and diseaseprone region (i.e., particularly Africa and the Middle East) is critical. Knowledge of EPA good laboratory practices is essential. Research must be able to develop products from new idea to marketing. This includes chemistry, efficacy testing, global usage pattern analysis, statistics and registration. Position requires technology presentations to global consumers. International experience, foreign language and communication skills are desired. The successful candidate must be able to function in a multidisciplinary research team that supports a global insect control business.

Midwest location. Application deadline is June 30, 1994. Interested candidates should forward their résumés and three references to: Department PRE, 303 West Erie, #210, Chicago, IL 60610.

An Equal Opportunity Employer.

STAFF ASSOCIATES—Three positions available to join the Immunogenetics Division with interest/experience in HLA and/or lymphocyte differentiation antigens. Duties and requirements for each position are as follows: (1) computer programming and clinical histocompatibility testing; M.S. with 8 years of experience; (2) organization and performance of serology, cellular and molecular immunology; M.D., Ph.D. or M.S. with 5 years of experience; (3) molecular immunology of HLA and lymphokines; B.S. with 5 years of experience. Send cutriculum vitae and bibliography to: Dr. Nicole Suciu-Foca, Columbia University, Department of Pathology, 630 West 168 Street, New York, NY 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE. A non-tenure-track position to maintain and operate sequential ICP instrumentation and to assist the Director in nutritional, environmental and research analyses. Familiarity with GLP regulations and strong oral and written communications considered valuable assets. M.S. in analytical chemistry, chemistry, biochemistry or equivalent, is a minimum, with extensive analytical experience to include ICP, GLC and HPLC. Salary range is \$25,000 to \$30,000 annually. Interested applicants please send a cover letter, résumé and three letters of reference to: Dr. Thomas Mawhinney, Director, Experiment Station Chemical Laboratories, College of Agriculture, Food & Natural Resources, Room 4, Agriculture Building, University of Missouri, Columbia, MO 65211. The search will continue until position is filled. Females and minorities are encouraged to apply. The University of Missouri is an Equal Employment Opportunity/Affirmative Action Employer.

The JOHNSON SPACE CENTER VISITING SCIENTIST PROGRAM IN SPACE BIOMEDI-CINE supports up to six months of on-site research and additional follow-on research at the Visiting Scientist's home institution. Sponsoring laboratories offer research projects in the following discipline areas: (1) Psychological functioning in isolated environments, (2) Neurovesital function and spatial orientation, (3) Exercise physiology, (4) Radiation biology, (5) Physiology of renal stone formation, (6) Neurohumoral control of cardiovascular function, (7) Microbiology/host-parasite relationships, (8) Nutritional biochemistry. For additional information or application materials, contact: Barbara Railsback (S), USRA, Division of Space Life Sciences, 3600 Bay Area Boulevard, Houston, TX 77058; 713-244-2000 (Telephone), 713-244-2006 (FAX).



Postdoctoral positions are avail-

able for (a) an immunologist to study cellular immune respons-

es to novel recombinant anti-

cancer vaccines, both in experi-

mental systems and in clinical trials, and (b) a molecular biolo-

gist to develop novel recombi-

nant im-munoglobulin forms

and novel recombinant vac-

cines. Two to three years rele-

vant previous postdoctoral experience desired. Salary

range is from \$28,000 to \$40,000 commensurate with

To apply, please send curricu-

lum vitae and reference letters

Dr. Jeffrey Schlom, NIH/NCI, Laboratory of

Tumor Im-munology and

Biology, Bldg. 10, Rm 8B07, 9000 Rockville Pike, Bethesda, MD, 20892.

Telephone: 301-496-4343

NIH/NCI is an Equal Opportunity Employer

FAX: 301-496-2756.

experience desired.

to:

Is seeking qualified candidates for a position of

FULL PROFESSOR

expected to lead a FUNCTIONAL NETWORK CENTERED ON THE **RESPIRATORY SYSTEM.**

The teaching and research activities of this network will be carried out by members of the departments of medicine, surgery, pathology, physiology and paediatrics. The future head of this network will simultaneously occupy a professorial position in the department of medicine or physiology, according to his/her training and main interests.

For application, please send your curriculum vitae to:

> Office of the Dean Faculty of Medicine Centre Medical Universitaire Rue Michel-servet 1 CH - 1211 Geneva 4

Additional information can be obtained on request.

Imagine The **Possibilities**

At Berlex, we've built our reputation on FDA-approved product successes and a proven track record in the pharmaceutical industry. To meet the challenges before us, we're seeking the following professionals to contribute to our science. If you've been looking to join forces with an internationally recognized pharmaceutical team, imagine building your career with Berlex in the beautiful San Francisco Bay Area.

ASSOCIATE SCIENTIST/ **RESEARCH ASSOCIATE Antiviral Assays**

Your working familiarity with antiviral assays, including cytopathic effect (CPE) assays and other bioassays such as ELISA and reporter gene assays, will be vital to this research role. PhD applicants without postdoctoral training or MS/ BS prepared candidates with 2-5 years of experience will be considered. Tissue culture experience is required; molecular biology background desired. Dept. B94-016.

ASSOCIATE SCIENTIST **Monocyte Activation**

Contributing to the ongoing development of our Multiple Sclerosis therapeutics, you will study the cellular and molecular mechanisms of monocyte activation, employing molecular biological techniques to identify proteins and receptors. Along with practical experience in immunology or in the use of molecular techniques applied to the study of protein interactions, you should also possess at least 2 years' relevant experience and/or a Master's degree in the area of transient gene expression of recombinant proteins. Dept. B94-12.

ASSOCIATE SCIENTIST **Drug Screening Bioassays**

You will automate high-capacity drug screening bioassays as well as assist in the development, transfer and organization of bioassays from various research groups to our Molecular Pharmacology Lab. Your BS degree (MS preferred) in the biological sciences or equivalent should be supported by some bioassay automation and execution experience, ideally in biochemistry, diagnostics, or a QA/QC lab. Excellent interpersonal skills and mechanical aptitude are also desired; PC literacy with spreadsheet and database skills highly preferred. Dept. B94-018.

As a US subsidiary of an international Fortune 500 company, Berlex is proud to offer competitive salaries and a generous benefits package. To apply, send your resume, indicating department number corresponding with the position of your interest, to: BERLEX, HUMAN RESOURCES EM-PLOYMENT, 15049 SAN PABLO AVE., RICH-MOND, CA 94804-0099. EOE. Principals only please



Program Director Environmental Studies & Toxicology

The Board on Environmental Studies and Toxicology (BEST) of the National Research Council (NRC) is seeking a Program Director for its Human Toxicology and Risk Assessment Program. Responsibilities include management, development, and oversight of the program, which currently includes the Committee on Toxicology, Committee on Naturally Occurring Carcinogens, Committee on Biologic Markers, and several studies under development. Duties of the position include supervision of scientific and administrative staff.

Requirements are a Ph.D. or equivalent and at least 5 years of professional experience, prefer substantially longer relevant experience, in toxicology, risk assessment, environmental health science, or a closely related biological or biomedical field. The position also requires the ability to write technical material and to analyze and develop chemical and toxicologic data in scientific reports. We offer an excellent benefits package and a salary commensurate with experience.

Applicants should submit in confidence a cv/resume and a recent publication or writing sample and names of references to: NRC/BEST, HA 354 (JR), 2101 Constitution Avenue, NW, Washington, DC 20418. EOE



$\underbrace{Massachusetts}_{A M H E R S T}$

ASSOCIATE DEAN/Staff Associate College of Natural Sciences & Mathematics

The College of Natural Sciences & Mathematics has a culture of academic excellence, achieved by partnership between a vigorous faculty and students committed to maximizing their opportunities for success. We are expanding our interdisciplinary approaches in both research and teaching, and are positioned to play a leadership role in technology-supported instruction. The College's funded research is growing, as are our interactions with industry. A new position has been developed to provide wide-ranging administrative support to the Dean. The Associate Dean will work with faculty, and with agencies and constituencies outside the University to coordinate the College's outreach activities, to discover sources and obtain funding for multidisciplinary activities, and to maintain information about the College for both decision making and public relations. We seek candidates with strong communication skills, experience in managing complex activities, sufficient scientific background to understand the College's work and to present scientific information to diverse audiences, and facility in working with standard database systems. Doctoral degree preferred, butbachelor's or master's degree accepted with appropriate experience. The salary is competitive, and commensurate with qualifications and experience.

The University of Massachusetts is in a scenic rural setting in the Connecticut River Valley. The Five-College community (Smith, Mount Holyoke, Amherst, and Hampshire Colleges as well as UMass provides diverse intellectual and cultural activities.

Send a letter describing your interest in this opportunity, your resume, and 3 letters of reference to: Search 35026, Employment Office, 167 Whitmore Administration Bldg., University of Massachusetts, Amherst, MA 01003-8170. Review of applications to begin June 24, 1994 and continue until position is filled.

The University of Massachusetts, Amherst is an Affirmative Action/Equal Opportunity Employer.

LIMNO-GEOPHYSICS AND GEOCHEMISTRY

The UNIVERSITY OF MINNESOTA has established as part of its institution-wide lake studies initiative the LARGE LAKES OBSERVATORY (LLO) on its Duluth Campus located on the shore of Lake Superior. The mission of the LLO is to use an integrated systems approach to study large lakes of the world. Six new tenure-track positions will be filled in the next five years in the physical marine/lake sciences. The LLO invites applications for two positions to be filled in the 1994-1995 academic year at the Assistant or Associate Professor level. A significant record of research, publication, and external funding will be required for appointment at the Associate Professor level.

The first opening is for Limno-geophysics with emphasis on application or marine seismic reflection or other acoustic methods of mapping large lake basins. The second opening is for Limno-geochemistry either with emphasis on the dating of sediments using short-lived radionuclides or in the investigation of the water column and sediments using stable isotopes.

For both positions, demonstrated expertise in the acquisition and analysis of data is required. Candidates are expected to establish field oriented research programs with strong analytical capabilities. Candidates should hold Ph.D.'s in oceanography, the geosciences or a related field.

hold Ph.D.'s in oceanography, the geosciences or a related field. The appointments will be split between the LLO and the Geology Department at the Duluth Campus, where the tenure-line will reside. A commitment to teaching at the graduate and undergraduate levels is required. The teaching load will be commensurate with the departmental portion of the appointment.

The mission of LLO is global, and candidates will be encouraged to apply their expertise not only to the North American Great Lakes but to large lakes world-wide. Research is currently in progress on several of the large lakes of the East African Rift Valley, Russia, the U.S., and Canada.

Send a statement of research and teaching interests, curriculum vitae, and names, addresses and phone numbers of at least three references by August 1, 1994, to Prof. Thomas C. Johnson, Director, Large Lakes Observatory, Department of Geology, University of Minnesota, Duluth, MN 55812. Prospective candidates with questions about the position may contact Tom Johnson (in France until July 1) by telephone at (33) 91 26 96 49, fax at (33) 91 26 66 38 or by e-mail at 100332.2171@CompuServe.COM.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

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

Bristol-Myers Squibb

RESEARCH INVESTIGATOR NEUROBIOLOGIST

The Department of Molecular Biology has a position available for a Neurobiologist who has a Ph.D. or M.D. and a minimum of 3 years postdoctoral experience to work in the characterization of transgenic/gene targeted mice defective in neurotrophic factors and their receptors. Candidates must have a strong background in neuroanatomy. Additional knowledge of basic molecular biology techniques is an asset. The successful candidate will join an established Exploratory Research Program under the direction of Dr. Mariano Barbacid and it is expected that he/she will supervise an Associate Research Scientist and one or two Postdoctoral Fellows. **Reply to Dept. #300**.

ASSOCIATE RESEARCH SCIENTIST

The Department of Molecular Biology has a position available for an individual who has a BS or MS degree with at least two years of experience in histology-related techniques including immunofluorescence and immunocytochemistry. Additional expertise in basic rodent anatomy will be considered as an asset. The successful candidate is expected to work in an exploratory, highly competitive research environment to study the role of neurotrophic factors and their receptors in the development and maintenance of the mammalian nervous system. **Reply to Dept. #301.**

For confidential consideration, please forward your resume to: Bristol-Myers Squibb Pharmaceutical Research Institute, P.O. Box 4000, Princeton, NJ 08543-4000. Equal Opportunity Employer, M/F/D/V.



Biogen is a dynamic young biotechnology company principally engaged in developing genetically engineered human pharmaceuticals. Now in our 16th year, we are one of the few profitable biotech companies in the U.S. Revenues come from five products – including Intron (R)A alpha interferon and hepatitis B vaccines and diagnostics – sold throughout the world by licensees or affiliates. Current research is directed toward the discovery and development of proprietary products to treat inflammation, cardiovascular disease, AIDS and certain cancers.

MISSION

Senior Process Scientist - Assays This hands-on process scientist will provide technical leadership, project and laboratory management in the area of general assays. Primary responsibilities involve independently developing new general assay methods for quantitating decomposition products, process contaminants, process intermediates and raw materials. Methods for these procedecomposition products, process containing intermediates and raw materials. Methods for these proce-dures will include gel electrophoresis, ELISAs, colorimetric assays and bioassays. Additional responsibilities entail directing, planning and documenting method development, validation, technology transfer and troubleshooting. Candidates must have a PhD in Chemistry or Biochemistry, 5 years' industrial process development/quality control experience, and knowledge of GMPs. A thorough understanding of biochemical methods, analysis of protein binding and kinetics, as well as the validation of analytical methods involving protein chemistry is required. Bioassay experi-ence and 2-5 years' post-doctoral research in related area is desireable.

Senior Process Scientist - Chromatography This is an ideal opportunity for a motivated scientist to provide technical leadership, project and laboratory manage-ment in the area of analytical chromatographic methods. In this capacity, you will develop new chromatographic methods for the purpose of quantitating decomposition products, process contaminants, process intermediates and raw materials. Specific methods will include all forms of HPLC, capillary electrophoresis, amino acid analysis, protein sequencing, peptide mapping and mass spectroscopy. Additionally, the individual will direct, plan and document method development, validation, technology transfer and troubleshooting related to chromatographic methods. Candidates must have a PhD in Chemistry or Biochemistry, 5 years' industrial process development/quality control purposition of GPDs. Storeg abromatographic approximation statistical experience and knowledge of GMPs. Strong chromatography, spectroscopy, computer, lab automation, statistical analysis and experimental design skills are essential. 2-5 years' post-doctoral research in related area desireable.

Senior Process Scientist - Protein Purification

As a critical member of our Process Development group, you will provide scientific expertise in the area of protein chemistry, protein purification and biochemistry. Primary responsibilities involve the development and refinement of methods of recombinant protein purification for use in human clinical trials; developing/executing validation studies; as well as providing effective technical leadership, training and supervision to the development team. Candidates must have a PhD in Biochemistry or Chemistry and a minimum 5 years' industry experience in a supervisory capacity. Knowledge of GMPs related to biologicals.

Process Associate - Protein Purification

This is an ideal opportunity for a proven scientist to participate in the design, development and optimization of recom-binant protein purification methods for use in human clinical trials and commercial production. You will also participate in the design and execution of validation studies which support the regulatory filings from our Process Development group. Candidates for this position must have a BS/MS in Chemistry, Biochemistry, Biology or related area and a minimum 4 years' industrial protein purification experience, preferably in a process development group. The ideal appli-cant will also have a strong understanding of GMP's related to Biologicals and excellent laboratory skills.

Biogen offers what few companies in our industry can - Professional Challenge, Stability, Profitability, and Growth. In addition, our compensation and benefits package is one of the best in the industry, and is designed to attract and retain the finest talent available. If you are one of the best, you have an opportunity to join us now. Please forward your resume to: Joe Mini, Dept.-SCI, Biogen Inc., 14 Cambridge Center, Cambridge, MA 02142, FAX: (617) 252-9595. Biogen is an Equal Opportunity Employer.



Director Center for Agricultural Biotechnology University of Maryland Biotechnology Institute

Applications and nominations are invited for the position of Director, Center for Agricultural Biotechnology (CAB). Founded in 1987, CAB is one of four major research centers of the University of Maryland Biotechnology Institute (UMBI), an independent research component of the University of Maryland System (UMS). CAB faculty conduct research on the molecular biology of plant and animal protection in four areas: plant-pathogen interactions, insect biotechnology, poultry viruses and vaccines, and biochemical engineering as it relates to the other areas. In Fall 1995, CAB will move to a newly constructed research building on the campus of University of Maryland College Park. CAB has an annual budget of approximately \$1.7 million with a current staff of 45, including 16 faculty, and plans to recruit 3-6 new faculty during the next five years.

The Director is the chief scientific and administrative officer of CAB and is responsible for developing and evaluating CAB's scientific programs, recruiting outstanding faculty, increasing CAB's extramural funding, and fostering strong ties with other UMBI centers, affiliated programs with the UMS, and with Maryland biotechnology companies. Candidates should have demonstrated leadership and administrative abilities and have achieved scientific distinction appropriate for a tenured position in the UMBI in an area relevant to CAB's research interests. The position will be available Fall 1995, or shortly thereafter.

The Search Committee will begin reviewing applications on September 30, 1994. Applications should consist of a current curriculum vitae, letter of interest, and the names and addresses of at least 3 current references and should be sent to:

CAB Director Search Committee 2113 Agriculture/Life Sciences Surge Building University of Maryland College Park, MD 20742

UMBI is an affirmative action employer.

Transdermal Research Scientist San Francisco Bay Area

Nicoderm[®], Procardia XL[®], Duragesic[®], Estraderm[®]...some of the most recognizable products in the pharmaceutical industry. We're ALZA, the company that developed these popular products. If you would like to participate in the most exciting breakthroughs in pharmaceutical therapy, join ALZA today.

You will carry out mechanism definition and structure-effectiveness evaluation, as well as generate and maintain predictive models for permeation enhancers and transdermal mass-transfer rates. Additionally, you will supervise work on transdermal permeation enhancer screening, communicating the results and data to the scientific staff of the TIS groups, while keeping them up-to-date on new permeation enhancers, test methods, and predictive models. You will also serve as a member of all our transdermal feasibility project teams, working closely with formulation groups to generate integrated transdermal systems.

The ideal candidate will have 5-10 years' hands-on research experience, preferably in transdermal drug delivery, membrane separation, structure-property of polymeric membranes, and/or colloid/surface chemistry. A PhD in Chemistry, Chemical Engineering or Pharmaceutical Science with a strong background in physical/physical organic/interfacial/colloid chemistry, mass-transport phenomena, mathematical modeling, or computer science is required. Extensive experience and an active interest in this field is essential, as is a working knowledge of neural network techniques.

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

alza

FACULTY POSITIONS IN COMPARATIVE MEDICINE BASIC SCIENTISTS Department of Comparative Medicine Stanford University school of Medicine

The Department of Comparative Medicine has tenure track faculty positions in the basic sciences as Assistant or Associate Professor. Candidates must have received the Ph.D. degree and have a demonstrable record of research productivity as evidenced by grant support and publications in peer reviewed journals. The D.V.M. or V.M.D. degree from an institution accredited by the American Veterinary Medial Association is highly desirable, and preference will be given to veterinary candidates with board certification in recognized specialities of veterinary medicine. The Department of Comparative Medicine is a basic science department within the School of Medicine. Areas of particular relevance to the mission of the department include pathology, neuroscience, infec-tious diseases, transgenic mouse biology, molecular biology, and gene therapy. In addition to its academic functions, the Department of Comparative Medicine provides the clinical care and management for a large, modern, AAALAC-accredited, central animal facil-ity which includes a 24 hour critical care unit staffed by veterinary technicians. Research strengths at Stanford include organ transplantation, immunology, genetics, infectious diseases, molecular biology, noninvasive nuclear and magnetic imaging, canine inherited diseases, anesthesia, primate behavior, and transgenic mouse studies among others. Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candi-dates. Interested candidates should send a letter containing a description of their career goals and research interests, their curriculum vitae, and names and addresses of 5 references. to: Linda C. Cork, D.V.M., Ph.D., Chairman, Department of Comparative Medi-cine, Quad 7 Building 330, Stanford University Medi-cal Center, Stanford, CA 94305-5410. Applications will be reviewed upon receipt and searches will be continued until all positions have been filled.

NIH POSTDOCTORAL POSITION

Postdoctoral position for US citizen or permanent resident, starting Oct. 1, 1994, in Sect. on Connective Tissue Disorders, NICHD. Lab studies molecular biology or heritable disorders of bone matrix, esp. osteogenesis imperfecta. Major projects include antisense suppression, generating murine model non-lethal OI, & molecular biol and biochem of OI osteoblasts. Broad knowledge of molecular & biochemical techniques desired. Send resume and three references to Dr. J Marini, Bldg. 10; Rm 9S242, 9000 Rockville Pike, Bethesda, MD 20892. NICHD is an equal opportunity employer.

CLINICAL LABORATORY DIRECTOR

The Blood Center of Southeastern Wisconsin seeks a molecular biologist to provide scientific direction and administrative leadership to a high-volume clinical laboratory utilizing DNA-based methods for HLA Class II typing and engraftment monitoring. This is a national reference laboratory, which supports an active unrelated bone marrow transplant program. Ability to communicate effectively is essential.

Candidates should have a Ph.D. or M.D. and experience with molecular techniques, PCR, and histocompatibility. Experience in clinical laboratory direction strongly preferred.

nistocompatibility. Experience in clinical laboratory direction strongly preferred. Qualified applicants should send a curriculum vitae and the names and addresses of three references to Debra Endean, Ph.D., Vice President Clinical Laboratories, The Blood Center of Southeastern Wisconsin, 1701 West Wisconsin Avenue, Milwaukee, WI 53233.

DIRECTOR: MOLECULAR DIAGNOSTICS

The Clinical Laboratories of The Blood Center of Southeastern Wisconsin, providing a range of specialized laboratory services, seeks to recruit a qualified scientist to develop and direct a clinical laboratory specializing in molecular diagnostics. Ph.D. or M.D. with a strong background in molecular biology, genetics, or oncology required. Board certification or eligibility and previous experience in establishing a clinical diagnostic laboratory strongly preferred. Ability to communicate effectively is essential.

to communicate effectively is essential. Qualified applicants should send a curriculum vitae and the names and addresses of three references to Debra Endean, Ph.D., Vice President Clinical Laboratories, The Blood Center of Southeastern Wisconsin, 1701 West Wisconsin Avenue, Milwaukee, WI 53233.

The Blood Center of Southeastern Wisconsin offers an excellent wage and benefit package.

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> The Blood Center of Southeastern Wisconsin

CENTER FOR ENGINEERING PLANTS FOR RESISTANCE AGAINST PATHOGENS

UNIVERSITY OF CALIFORNIA, DAVIS

National Science Foundation sponsored Science and Technology Center has several postdoctoral positions available immediately.



We are seeking highly qualified applicants experienced in biochemistry, molecular biology, molecular genetics, biophysics, and cell biology to study basic mechanisms involved in pathogen recognition and plant response to infection. Research projects include biochemical and molecular characterization of signal transduction mediated events leading to plant cell death, development and applications of advanced cloning technologies, analysis of infection-specific macromolecular interactions by *in vivo* surrogate systems, and development of transient gene expression systems in plants based on virus replicons.

Candidates must have a record of research experience documenting outstanding accomplishment and promise.

Letters of application are to include curriculum vitae, bibliography, statement of research interest and names of three references. Applications should be sent to Sharon Berg, CEPRAP, University of California, Davis, CA 95616. The positions are available until filled. The University of California is an equal opportunity/ affirmative action employer.

Senior/Principal Staff Scientist

Miles Inc. seeks a Senior/Principal Staff Scientist to lead company-wide efforts towards virus inactivation in biological and biotechnology products. This will involve exploration and development of new techniques in-house and collaboration with external agencies and organizations. The Senior/Principal Staff Scientist will lead a group of 6 people (2 Ph.D.'s and 3 Associates) in GLP based clearance/inactivation studies to support licensing of new products. The group will evaluate feasibility of new cell culture based infectivity and PCR assays. Miles Inc. in Berkeley maintains a leading worldwide position in the field of Human Biologicals. In your search for an exciting career opportunity, consider joining our well funded state-of-the-art biotechnology site.

A Ph.D. in a relevant science and significant experience and expertise in classical virology of human viruses is required, along with substantial supervisory experience.

Excellent salary and benefits package. Interested candidates are invited to submit resumes to:

PHARMACEUTICAL DIVISION

Human Resources Miles Inc. P.O. Box 1986 Berkeley, CA 94701 EOE/AA/D



ARIAD, a fast-growing biopharmaceutical company located in Cambridge, MA, combines the most recent advances in molecular cell biology with the sophisticated tools of structure-based drug design to develop a new class of pharmaceuticals. The Company is developing small molecules which selectively target intracellular communication pathways to alter the course of disease. We are seeking highly motivated and qualified scientists to contribute to our exciting research and development programs.

ASSOCIATE RESEARCH SCIENTIST PROTEIN BIOCHEMISTRY/ CRYSTALLOGRAPHY

In this position you will be responsible for protein characterization and crystallization. A strong background in protein purification and analysis is required. Candidates must have experience in standard chromatography, HPLC/FPLC, and gel electrophoresis. Previous experience in crystallization of proteins is highly desirable. A BS or MS degree in biochemistry or chemistry and 2+ years of laboratory experience required. **Dept. MH**

SENIOR RESEARCH SCIENTISTS PRECLINICAL DEVELOPMENT

We are currently searching for qualified individuals in the areas of pharmacology, pharmacokinetics and drug metabolism to join the Company's Preclinical Development Group. The successful individuals will be responsible for supporting the development of innovative pharmaceutical products which act by controlling intracellular signal transduction, gene transcription and protein trafficking. The positions will involve extensive interactions with the Company's chemists and biologists in evaluating and studying lead compounds. Applicants should have a Ph.D. and 3 to 5 years of relevant academic or industrial experience. Excellent oral and written communication skills are required.

Pharmacology – Applicants should have a Ph.D. in pharmacology, physiology or other related area and have research experience in immunity, inflammation or pulmonary disease. Responsibilities will include developing appropriate *in vivo* models. Experience in small and large animal surgery is required.

Pharmacokinetics – Applicants should have a Ph.D. in pharmacology, chemistry or other related area and have experience in determining pharmacokinetic profiles of drugs following a variety of routes of administration. Experience with proteins or peptides will be beneficial.

Drug Metabolism – Applicants should have a Ph.D. in a relevant pharmaceutical science and have experience in performing *in vivo* drug metabolism studies in several animal species. Experience in mass spectroscopy for quantitation of drug molecules in biological fluids is required.

For the above senior research positions, please respond to Department I.

ARIAD offers an excellent salary and benefits package, incentive stock participation and the opportunity to contribute to a new and exciting area of drug discovery. Interested individuals should send a resume and the names of three references to: **ARIAD Pharmaceuticals, Inc., Human Resources Office, Dept.___, 26 Landsdowne Street, Cambridge, MA 02139.**

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Cardiovascular **Research Center Training Program** Funding sources include

NIH Hypertension Training Grant

M.D., Ph.D. POSTDOCTORAL OPPORTUNITIES IN: Hypertension • Diabetes • Neural/endocrine circulatory control Renal physiology • Electrophysiology of cardiac, vascular and endothelial cells • Lipid mediators • Genetics, molecular biology of transcription factors, Cyt. P450 enzymes • Mathematical modeling Microcirculation • Signal transduction mechanisms

- Theodore Kotchen, MD Salt sensitivity in African Americans; hypertension and insulin resistance.
- Jane Kotchen, MD Hypertension control in African American communities.
- Ahmed Kissebah, MD Obesity, insulin dynamics and progression to NIDDM.
- Allen Cowley, PhD Renal and vascular physiology - from genes to integrated organ system analysis. Richard Roman, PhD - Renal
- vasculature; molecular genetics in hypertension. William Campbell, PhD -
- Regulation of vascular tone and steroid secretion by endotheliumderived mediators.
- Julian Lombard, PhD -Structure and function of the microcirculation.
- Andrew Greene, PhD -

Contact Dr. David R. Harder, Director, CVRC

Mechanisms of vascular growth and rarefaction.

- Bruce Markham, PhD -Cardiovasc. transcriptional regulatory mechanisms.
- David Harder, PhD Vascular muscle signal transduction, ion channels, molecular biology of lipid mediators.
- Owen Griffith, PhD Nitric oxide synthases; chemical mechanisms and isoform-selective inhibitors.
- Garret Gross, PhD Role of ATP-sensitive K⁺ channels in ischemia.
- Nancy Rusch, PhD Vascular muscle ion channels in hypertension. David Warltier, PhD - Coronary
- collateral circulation; ventricular diastolic function.
- Zeljko Bosnjak, PhD Actions of anesthetics on ion channels in
- cardiac and smooth muscle. Kirkwood Pritchard, PhD - LDL; monocyte adhesion to endothelium.

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FACULTY POSITIONS AVAILABLE UNIVERSITY OF NEBRASKA MEDICAL CENTER Department of Biochemistry and Molecular Biology

The Department of Biochemistry and Molecular Biology at the University of Nebraska Medical Center invites applications for tenure-leading positions made available as part of a planned expansion and enhancement of current research programs. Preference will be given to candidates employing bio-chemical, structural and/or molecular biology approaches to investigate fundamental processes in the following areas:

- Tissue-specific gene expression
- 2) Cell cycle and/or apoptosis
- 3) Post-receptor events in signal transduction
- Tissue or tumor targeting of DNA and development of tissue-4) specific viral vectors.

Outstanding applicants in related areas of research are also encouraged to apply. Although it is expected that most appointments will be at the rank of ASSISTANT or ASSOCIATE PROFESSOR, appointments at the rank of PROFESSOR will be considered depending on research experience and background. Qualifications include a Ph.D. or M.D. degree and relevant postdoctoral experience. The successful applicant will be expected to have or develop a funded, independent research program and to contribute significantly to the teaching programs of the department.

Collaborative research opportunities exist with the faculty at the Eppley Institute for Research in Cancer and Allied Diseases, UNMC Transplant Center, University of Nebraska-Lincoln, Creighton University, and the V.A. Medical Center. UNMC is located in a metropolitan area of more than onehalf million people with diverse business, educational, cultural and recreational opportunities.

Applicants should submit curriculum vitae, selected reprints, a brief description of current and future research interests and teaching experience and the names, addresses and telephone numbers of three references to:

> Dr. J.K. Vishwanatha, Chair Biochemistry and Molecular Biology Search Committee University of Nebraska Medical Center 600 South 42nd Street Omaha, NE 68198-4525

Applications review will begin July 10 and continue until the positions are filled. UNMC is an Equal Opportunity/Affirmative Action Employer. Minorities and Women are Encouraged to Apply.

DIRECTOR

LAWRENCE LIVERMORE NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA LIVERMORE, CALIFORNIA

The President and The Regents of the University of California invite nominations and applications for the position of Director of the Lawrence Livermore National Laboratory (LLNL) which is managed by the University of California for the U.S. Department of Energy (DOE). The appointment will be effective at such time as is mutually agreeable to the appointee and the University of California.

The Laboratory was established in 1952 and is located 40 miles southeast of San Francisco in Livermore, California. It is one of three multipurpose laboratories managed and operated by the University under contract with the DOE.

The largest program at LLNL is research related to the design and development of nuclear weapons, with other programs in magnetically and inertially confined fusion, laser isotope separation, nuclear energy and fossil energy research, conservation and renewable energy, waste management and environmental restoratoos, and biological and biometration and renewable energy, wate management and environmental restora-tion, and biological and biometratic research. Extensive research in the disciplines is conducted in support of the programs, including experimental and theoretical physics, computational science, chemistry, materials science, and engineering. The Laboratory also performs the important function of fostering the rapid and effective transfer of unclassified research and technology to the private sector, in order to enhance the nation's economic competitiveness. Also, the Laboratory offers programs fostering science and engineering education, including encouraging students at various levels to pursue careers in mathematics and engineering. and science.

The Director is responsible for the management of the Laboratory and reports to the President of the University. Within University policy, the Director exercises broad delegated powers in the overall administration of the Laboratory, which employs approximately 7,300 staff members and has an annual operating budget over \$982 million. The principal duty of the Director is the management of the Laboratory's programs. This includes defining their technical aspects, negotiating their size and content with federal officials in the executive branch, and executing them with the highest quality. In addition to this programmatic role, the Director is responsible for the institutional health of the Laboratory through executive demonstrated administration of the laboratory through the programmatic role, the Director is responsible for the institutional health of the Laboratory through stewardship of its human and physical resources. Candidates should have demonstrated administrative experience in the conduct of the affairs of substantial organizations and should have an extensive record of scientific and technical accomplishments.

Applications, accompanied by current resumes, and nominations may be addressed to:

The President Attn: LLNL Search 300 Lakeside Drive University of California Oakland, California 94612-3550

and should be received no later than July 18, 1994, to be given full consideration.

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

FACULTY POSITIONS

DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

The Department of Materials Science and Engi-neering at the University of Illinois at Urbana-Champaign invites applications for regular, full time tenure-track and/or tenured faculty posi-tions. To be considered for a tenured position, the applicant must have recognized national and inter-national stature. The Department of Materials Sci-ence and Engineering does teaching and research in ceramics, electronic materials, metals and poly-mers. Successful candidates must have a strong record of accomplishment in one or more of these record of accomplishment in one or more of these areas and will be expected to perform well in both teaching and research activities.

Applicants must hold an earned Doctorate in an Applicants must hold an earned Doctorate in an appropriate field. Salary and rank are open and will depend on qualifications. The proposed starting date for each position is August 21, 1995. All interested applicants are asked to provide a profes-sional curriculum vitae including teaching experi-ence and a list of publications. Candidates for tenure-track positions should also request that three (3) letters of reference be sent directly to the dependent and in addition submit a one (1) page three (3) letters of reference be sent directly to the department and, in addition, submit a one (1) page outline of their proposed research program. Candi-dates for tenured positions should include the names, addresses and telephone numbers of at least three (3) references. To ensure full consideration, applications must be received prior to August 31, 1994.

Applications should be addressed to:

Chair, Faculty Search Committee Department of Materials Sciences and Engineering 1304 W. Green Street Urbana, Illinois 61801 (217) 333-1440

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

CAREER OPPORTUNITY



PIONEER HI-BRED PRODUCTION LTD.

Pioneer Hi-Bred Production Ltd., a subsidiary of Pioneer Hi-Bred International, Inc., Department of Canola Breeding, is seeking a Station Manager for their Edmonton, Alberta location to plant and execute a conventional and hybrid B. campestris breeding program

The candidate should possess the following qualifications:

EDUCATION: Ph.D. in Plant Breeding with experience in canola breeding preferred

EXPERIENCE: 3-5 years experience in canola breeding. The candidate should have experience in managing people. Good organizational, communication, statistical and computer data skills are also required.

Please submit resumes only by June 30 to:

Rose Nelmes, C.H.R.P. Pioneer Hi-Bred Limited P.O. Box 730 Chatham, Ontario N7M 5L1

This position offers competitive salary and benefits commensurate with experience.

Pioneer Hi-Bred International, Inc. is the world's largest seed marketing, sales, production and genetic research company.

PHARMACOLOGIST

Wyeth-Ayerst Research, a Division of Fortune 100 American Home Products Corporation, has an opportunity at our Princeton, New Jersey research facility for a Pharmacologist to function as a part of a multidisciplinary team in the Cardiovascular and Diabetes Division.

Responsibilities include performing in vivo studies using cystometric and urodynamic techniques to investigate bladder function and to develop new models/methods.

Requirements include a BS/MS degree in a biological discipline with up to 5 years related experience, which must include acute and chronic in vivo techniques and the use of physiological transducers and recorders. Experience in in vivo studies on bladder function using urodynamics techniques is a plus. Candidate must have computer experience with spreadsheet, graphic and word processing programs.

Wyeth-Ayerst offers an excellent compensation and benefits package in a highly professional environment. Send your resume with salary requirements to: Wyeth-Ayerst Research, Human Resources, CN 8000, Position #SCS-700, Princeton, NJ 08543-8000. An Equal Opportunity Employer M/F/D/V.



Leading The Way for a Healthier World

<u> Q</u> RPI **Biochemists** -Ph.D. and MS/BS

Ribozyme Pharmaceuticals is leader in the development of ribozyme-based pharmaceutical and agricultural products. We are seeking qualified applicants to join our Enzymology group. Two positions are available immediately; one at the level of Ph.D. with 2+ years of post doctoral experience, and the other at the level of Master's degree or equivalent (B.S. with 2-4 years research experience). Applicants should have experience in vector construction, RNA biochemistry and/or enzyme kinetics. Research experience with ribozymes or antisense is preferred. The successful applicant will be instrumental in helping RPI to define the biochemical and kinetic parameters that will transform ribozymes into potent human therapeutic agents.

We offer a competitive salary and benefits package, including stock options. For consideration, please send a Curriculum Vitae including the names of three references to: Ribozyme Pharmaceuticals, Inc., Attn: Dr. James McSwiggen, 2950 Wilderness Place, Boulder, CO 80301, or FAX to (303)449-6995. We are an Equal **Opportunity Employer**

SENIOR SCIENTIST

U.

S.

Toxicology,

SmithKline Beecham, a worldwide leader in pharmaceutical research, has an immediate opportunity for a Senior Scientist in the Department of Toxicology, U.S. to provide scientific and managerial direction

to the renal safety pharmacology staff and develop toxicity profiles on therapeutic candidates. Successful applicants must have a Ph.D. in toxicology, pharmacology or physiology; 2-5 years experience in pharmacology research and a demonstrated expertise in renal pharmacology through scientific

publication. Located in our state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham offers a stimulating environment in which to grow and excel, as well as a competitive compensation/relocation/ benefits package. For confidential consideration, please forward your C.V. to: SmithKline Beecham Pharmaceuticals, Sr. Employment Administrator, #M115, PO Box 799, Conshohocken, PA 19428. We are an Equal Opportunity Employer, M/F/D/V.



Challenging the natural limits.

RESEARCH ASSOCIATE or **JUNIOR-LEVEL** FACULTY MEMBER specializing in cardiovascular physiology will be involved in studies of leukocyte function and adhesion, applying molecular biology tech-niques to the whole lung. Candidates should send a letter, curriculum vitae, and list of 3 references to: Dr. Joseph W. Barnard, Search Committee Chair, Department of Pharmacology, Lung and Vascular Biol-ogy Center, Rush Medical College, Suite 260, Tech 2000, 2242 West Harrison, Chicago, IL 60612. Rush Medical College is an Equal Opportunity/Affirmative Action Employer.

RESEARCH SCIENTIST

Position is immediately available to study the structure-function relationship of IL-1 receptors type I and type II. Specific requirements include strong background in molecular biology, including cDNA cloning and sequencing, vector construction, point mutations and PCR. Send résumé, names and addresses of three references and salary requirements to: David Benjamin, M.D., 1232 James Cancer Hospital and Research Institute, The Ohio State University Hospitals, 300 West 10th Avenue, Columbus, OH 43210–1228. Telephone: (614) 293-3716, FAX: (614) 293-3112.

CENTER FOR BLOOD RESEARCH, HARVARD MEDICAL SCHOOL AFFILIATE

A position of **INVESTIGATOR** at the Center for Blood Research Laboratories with an academic appoint-ment at Harvard Medical School is available starting September 1, 1994. The main tasks of the selected applicant would be the installation and operation of a laboratory for the visualization of structures, concentrations and molecular transport processes in single living cells, to work in the Blood Research and Development Laboratory (**Dr. C. Nicolau**). The candidate (M.D. or Ph.D.) blending physical with biological and medical interests, should be an established leader in the develop-ment and application of novel light microscopic techniques. Special expertise in membrane biophysics, intracellular transport and signal transduction is an advantage. Interested persons, please send application, curriculum

vitae, list of publications and the names of three referees to: Dr. Fred S. Rosen, President of Center for Blood Research, 800 Huntington Avenue, Boston, MA 02115.

ANNOUNCEMENTS

PRE-PROPOSALS-Deadline: 1 August 1994. International Foundation for Ethical Research (IFER) has grants available for research into alternatives to the use of live animals in research, testing and teaching. Projects must take into account the three R's: Refinement, Reduction, and Replacement plus a fourth R: Responsibility. For information and format write: IFER, 53 West Jackson Boulevard, Department J, Chicago, IL 60604; or call: 312-427-6025

MEETINGS

Association de Recherche pour le Traitement des Seropositifs (ARTS) Hôpital Laënnec, Université de Paris V First International Symposium on CELLULAR APPROACHES TO THE CONTROL OF HIV DISEASE Paris, July 11-12, 1994 Organizers: Jean-Marie Andrieu, Wei Lu, Philippe Cramer Topics

- Immune activation and pathogenesis of HIV infec-• Activation-induced apoptosis in the immune system
- and HIV, disease. Mediators of T-cell/macrophage activation, apoptosis, and HIV replication.
- Therapeutic implications.

Abstracts (one-page A4) are welcome by FAX (+33 1 4222-0384 or +33 1 4439-6465). Registration: all information can be obtained from: S'cape/HIV, 8 rue Severo, 75014 Paris; Telephone: +33 1 4542-8274, FAX: +33 1 4044-5257.



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