

Ambion is your source for innovative kits for all your nucleic acid labeling needs

NEW! Kinase Max[™]

5' End Labeling Kit produces 1.5-3 times the yield than kits utilizing standard kinase buffers.

DECAprime™ II

For high specific activity DNA labeling with the random priming method. Fast five minute reaction maximizes probe yield and specific activity.

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For strand specific DNA probe synthesis. The kit utilizes specific primers and your linearized plasmid DNA to produce high specific activity probes for S1, Southern or Northern assays.

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Circle No. 34 on Readers' Service Card

PRODUCTS & MATERIALS

Monoclonal Antibodies

Two new monoclonal antibody (mAb) panels for human immunology research, TCR Screening Panel–Purified and TCR Screening Panel–FITC, contain 10 mAbs to the variable regions of human T cell receptor. They can be used in flow cytometry, immunoprecipitaton, immunohistochemical staining, protein immunoblotting, and other studies. **T Cell Diagnostics. Circle 137.**

Several mAbs are available specific to the extra and internal domain of the epidermal growth factor receptor found in the A431 carcinoma cell line. Biodesign International. Circle 138.

The MIB 1 mAb specifically stains proliferating cell nuclei, but is completely unreactive with cells in Go. Unlike other Ki-67 antibodies, MIB 1 stains frozen and paraffinembedded tissue sections. Oncogene Science. Circle 139.

DNA Preparation Kit for PCR

In less than 30 min and only 10 steps, Split Second DNA Preparation Kit produces DNA ready for polymerase chain reaction (PCR) from whole blood. Because all preparation takes place in a single microfuge tube, the kit minimizes potential exposure to infectious agents. The kit eliminates hazardous phenol and chloroform extractions, lymphocyte separation gradients, and ethanol precipitations. **Boehringer Mannheim. Circle 140.**

Gel Matrices

New gel matrices for polyacrylamide gel electrophoresis provide higher resolution of nucleic acids than previously possible, according to the manufacturer. Page-Plus and Gene-Page Plus feature specially modified acrylamides and a novel crosslinking agent to form a gel that is more resistant to mechanical manipulations than standard acrylamide:bis-acrylamide solutions. The gels are designed for applications that require additional sequence information and resolution of low molecular weight nucleic acids. Amresco. Circle 141.

Shake Flask System

The Tunair shake flask system is designed for optimum growth conditions for aerobic organisms and mammalian and plant cells. The system provides a high oxygen absorption rate and gas diffusion consistency. It is suit-



able for metabolic screening, tissue cell and hybridoma culture, plasmid amplification, and other laboratory culture applications. The system reduces media costs and saves time and laboratory space. Shelton Scientific. Circle 142.

DNA Sequencing Gel

Long Ranger sequencing gels produce sharp, clear, easy to read bands with significantly longer reads than polyacrylamide gels. The unique formulation eliminates the need to remove urea, which minimizes handling and saves time and money. FMC Bioproducts. Circle 143.

mRNA Isolation Kit

The FastTrack 2.0 mRNA Isolation Kit offers high yields of quality mRNA without the need for total RNA isolation. The kit makes use of premeasured oligo(dT) cellulose for

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

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effective purification of mRNA directly from tissues, cells, or plants. The isolated mRNA is intact, pure, and suitable for complementary DNA synthesis, reverse transcriptase polymerase chain reaction, Northern blots, and oocyte microinjection. **Invitrogen. Circle 144.**

Universal FTIR Sampling System

The DuraSamplIR universal sampling system is designed for use with all popular analytical Fourier transform infrared spectroscopy systems. The instrument addresses the varied needs of analytical testing and research labs with its ability to handle a very broad range of samples including solids, powders, liquids, pastes, films, and gels. Unlike other internal reflection sampling systems, the instrument makes use of a multi-reflection diamond composite material in contact with the sample. **Applied Systems. Circle 145.**

In Situ PCR System

The GeneAmp In Situ PCR System is the first complete system for reproducible in situ polymerase chain reaction (PCR), according to the manufacturer. The system



performs in situ PCR on a glass slide without the need for DNA extraction. The system consists of a high-throughput thermal cycler with an innovative vertical 10-slide sample block. Up to 30 samples can be amplified in a single run, which is achieved by the use of uniquely designed consumables that eliminate the need for mineral oil or adhesives and by specially formulated reagents. The system's ability to locate specific nucleic acid sequences within cell types in a mixed cell population will make it a useful tool for studying infectious diseases, gene expression, molecular oncology, gene therapy, and other types of applied genetics. Specifically, the system will enable researchers to identify

cells having latent viral infections, find unique gene alterations associated with neoplastic disorders, locate gene rearrangements, reveal chromosomal translocations, and analyze cell-specific gene expression. **Perkin-Elmer. Circle 146.**

Literature

Carver Laboratory Presses and Accessories describes a line of 54 standard hydraulic laboratory presses, including automatic benchtop, pellet, rubber stamp, and laminating presses, as well as accessories and recirculating chillers. Carver. Circle 147.

Removal of Ionic Interferents from Ion Chromatography and Capillary Electrophoresis Samples is a technical guide describing new solid phase extraction disk and membrane technology. **Phenomenex. Circle 148.**

NALGENE Sanitary Fluid Transfer Systems is a brochure describing platinum-cured silicone tubing. The tubing is nontoxic, nonpyrogenic, and nonhemolytic. Nalge. Circle 149.

The Precision Advanced Series describes a line of toploading balances. Ohaus. Circle 150.



SCIENCE

PERSONNEL PLACEMENT

LINE CLASSIFIED ADVERTISEMENTS

Deadlines: Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Call for holiday deadlines. Ads must be submitted in writing.

How to Submit a Classified Ad:

Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training, Search Firms. *Science* cannot provide proofs of typeset line ads.

Mail, FAX or Email materials to:

Science Classified Advertising 1333 H Street, N.W., Room 814 Washington, DC 20005 Telephone: 202-326-6555 FAX: 202-682-0816 Internet Email: science_classifieds@aaas.org

(please include telephone number in email correspondences)

Rates: Ads are \$43 per line; \$430 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads. Line advertisements are not commissionable.

Estimates: Science will provide a cost estimate for line ads. This is an approximate cost only. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment.

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For rates and info. for fractional display ads call:

Deborah Cummings Recruitment Display Advertising Telephone: 202-326-6541 FAX: 202-682-0816

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SCIENCE JOBNET: Unless otherwise instructed every classified advertisement submitted for publication in *Science* is automatically posted on *Science*'s on-line classified advertising service, SCIENCE JOBNET, at no additional charge. SCIENCE JOBNET address:

Gopher: gopher.aaas.org WWW: http://www.aaas.org

Science reserves the right, at its discretion, to edit or decline to publish advertisements submitted to it.

POSITIONS OPEN

ASSISTANT PROFESSORS Molecular Biology or Molecular Genetics

Two TENURE-TRACK FACULTY positions for talented and highly motivated molecular biologists or molecular geneticists are available with a January 1996 start date. We are looking for candidates with outstanding training records and significant research accomplish-ments. Qualifications must include an earned doctorate in Biochemistry, Molecular Biology, or Molecular Genetics, and at least two years of postdoctoral training. Preference will be given to applicants with transferable NIH or NSF research grants. Successful candidates will be expected to develop independent research programs of international stature, to seek interactions and collaborations with other members of the Department, and to teach in both our Ph.D. and M.D. degree programs. Applicants should submit a résumé, a statement of research interests and plans, and the names and full addresses of three to five scientists who may be contacted for references. All materials should be sent to: Prof. Kelvin J. A. Davies, Chair, Depart-ment of Biochemistry & Molecular Biology, The Albany Medical College, New Scotland Avenue, Albany, NY 12208. The Albany Medical College is an Equal Opportunity / Affirmative Action Employer. Women and minority candidates are encouraged to apply and to identify themselves.

The Department of Applied Ecology and Environmental Sciences at the University of Maine invites applications for an Aquatic Entomology tenure-track faculty position at the ASSISTANT PROFESSOR level (nine month, 70% research, 30% teaching). The candidate must develop a strong research program in the ecology of aquatic insects with emphasis on issues related to water quality in Maine. Teaching responsibilities will include a graduate course in aquatic entomology (every other year), participation in a team-taught course(s) in wetland ecology (or environmental science), a course in aquatic sciences for undergraduates (every year), and participation in the en-tomology seminar program. Requirements of the position are a Ph.D. in entomology or biological science with emphasis in aquatic insect ecology. Experience in field studies of aquatic insects is essential. Quantitative and computer skills and experience with interdisciplinary and/or collaborative research projects are desirable.

Send by September 1, 1995, a letter of application, curriculum vitae, transcripts, up to three recent and significant reprints, and three letters of recommendation to: Dr. Francis A. Drummond, Chair Search Committee, Department of Applied Ecology and Environmental Science, 5722 Deering Hall, University of Maine, Orono, ME 04469. The University of Maine is an Equal Opportunity/Affinative Action Employer.

MOLECULAR GENETICIST

The Department of Animal Sciences, University of Illinois at Urbana-Champaign, has a tenure-track ASSIST-ANT PROFESSOR position (30% teaching, 70% research) available. Qualifications include: a Ph.D. in molecular genetics, animal sciences, or related biological science, with an interest in swine genetics. The candidate will be expected to develop a strong externally funded research program and to train both M.S. and Ph.D. students. Candidates should submit a curriculum vitae, academic transcripts, a description of their research experience and their reasons for interest in the position. They should also have three letters of reference sent to: Dennis R. Campion, Head, Department of Animal Sciencess, University of Illinois at Urbana-Champaign, 1207 West Gregory Drive, Urbana, IL 61801. Telephone: 217-333-3462; FAX: 217-244-2871. Applications should be received by September 1, 1995, to ensure full consideration.

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

ASSISTANT PROFESSOR. Wildlife Ecologist/Biometrician. Tenure-track, teaching/research appointment for a Ph.D. wildlife ecologist with experience and expertise in biometrics. Responsibilities include teaching undergraduate and graduate courses and development of externally funded research program. Teaching will include a core course for all natural resource majors such as Natural Resource Management or Natural Resource Ecology and specialized courses in wildlife ecology and/or biometrics. Applications reviewed beginning 15 August 1995 and accepted until position filled January 1996. Send transcripts, résumé, and names of three references to: P. R. Krausman, Search Chair, SRNR, 325 BSE, University of Arizona, Tucson, AZ 85721. Telephone: 520-621-3845. An Affimative Action/Equal Opportunity Employer.

POSITIONS OPEN

BIOCHEMISTRY FACULTY POSITION TULANE UNIVERSITY MEDICAL CENTER

Tenure-track position at the **ASSISTANT** or **ASSO-CIATE PROFESSOR** level. Ph.D. is required. The successful candidate will complement the Department's interests in protein-nucleic acids interactions and structurefunction relationships of macromolecules, and help strengthen the graduate program. Teaching medical students and participation in summer research training programs are also to be expected. For assistant professor, clear evidence of independent productivity and innovative thinking are essential criteria. For associate professor, experience in graduate education, leadership potential, and an established (funded) research program are also essential. Please send curriculum vitae, statement of research interests, and names of four references (letters only if asked) to:

Faculty Search Department of Biochemistry Tulane University School of Medicine 1430 Tulane Avenue, SL43 New Orleans, LA 70115

Applications will be reviewed until positions are filled. Tulane is an Equal Employment Opportunity/Affirmative Action Employer. Minorities/females/veterans are encouraged to apply.

ASSISTANT PROFESSOR: Biology Department, University of Wisconsin-Stevens Point. Tenure-track faculty position. Responsibilities include undergraduate teaching, student advising, and development of a research program in plant physiology. Teaching load will average 12 credits per semester divided between a freshman biology course and an upper level plant physiology course. After the second year, opportunities will exist to develop or collaborate in upper level specialty courses. Training, laboratory experience, and Ph.D. dissertation in plant physiology required. Broad training in botany including plant cell biology required, with experience in plant pa-thology preferred. Must have demonstrated ability and commitment to undergraduate teaching. Research experience, publications, and successful grant history desirable. Appointment date: January 10, 1996. Salary com-mensurate with qualifications. Send letter of interest, statement of teaching philosophy, curriculum vitae, three letters of recommendation, and copies of undergraduate and graduate transcripts to: S. H. Jansky, Chair, Department of Biology, University of Wisconsin-Stevens Point, Stevens Point, WI 54481. All application materials, including letters of recommendation, must be received by August 15, 1995. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

Massachusetts Institute of Technology, Department of Mechanical Engineering, invites applications for a **TEN-URE-TRACK FACULTY** position at a junior faculty level. Applicants should hold a doctorate in Mechanical Engineering or a related field, and have a strong interest in teaching and research in the area of Tribology or Manufacturing. The candidate should preferably have both experimental and theoretical research experience. Applicants should send a résumé (with citizenship and/or visa status), a two-page statement of current and future research and teaching interests, and the names and addresses of at least five references, to: **Tribology and Manufacturing Search Committee, Room 3-173, Department** of **Mechanical Engineering, Massachusetts Institute of Technology**, 77 **Massachusetts Avenue, Cambridge, MA 02139-4307**. Résumés received by September 15, 1995, will be given full consideration. *MIT is an Equal Employment Opportunity/Affinative Action Employer. Women and members of minority groups are strongly unged to apply.*

FACULTY POSITION in Cancer Genetics (academic rank dependent upon qualifications) at the University of Nebraska Medical Center, a leading transplant center for bone marrow and solid organ transplantation. Ongoing studies draw upon a data bank containing 3,000 lymphoma cases with histopathologic, molecular and cytogenetic characterization. Experience and publications related to identification and cloning of genes associated with chromosome break-points in human cells, and potential involvement in causation of human lymphoma are required. This is a joint appointment between Biochemistry and Pathology with appointments at Eppley Cancer and Hattie B. Munroe Genetics. Letter, curriculum vitae, three references, and summary of research interests to: Steven Hinrichs, Path/Micro, UNMC, 600 South 42nd Street, Omaha, NE 68198-3135. An Affirmative Attion/Equal Opportunity Employer.

NEW NIH/NCI TENURE-TRACK PATHWAY Positions Equivalent to Assistant Professor

A new tenure-track pathway has been created within the intramural program of the National Institutes of Health, National Cancer Institute, to provide an opportunity for outstanding candidates completing postdoctoral training to establish themselves as independent investigators. Successful applicants for tenure-track positions will be provided with a long-term commitment of salary, personnel, and other research resources needed to conduct an independent research program. The following positions are available at a level equivalent to that of an Assistant Professor:

Drug Development for the Treatment of Childhood Cancers Philip Pizzo, M.D.

Position available to develop new anticancer drugs for the treatment of childhood cancers with an emphasis on central nervous system and meningeal tumors, the study of the clinical pharmacology of anticancer and antiretroviral drugs in children, and the delineation of new approaches to the treatment of childhood acute lymphoblastic leukemia with an emphasis on effective, less toxic central nervous system preventive therapy. These new therapies are investigated in preclinical in vitro and animal models and in phase I, II, and III collaborative clinical trials. Resources include laboratory space, shared facilities, equipment and supplies, and support of two postdoctoral fellows and one technician. Candidate must have M.D. degree with training and experience in Pediatric Hematology/Oncology, clinical pharmacology (including pharmacokinetics) and drug development. Candidate should also have experience with preclinical animal models (including primates) and in vitro tissue culture models. Pediatric Branch, NCI, Building 10, Room 13N240, 10 Center Drive MSC 1928, Bethesda MD 20892-1928.

Late Radiation Effects Paul Okunieff, M.D.

Position available to focus on the understanding and prevention of late radiation effects including fibrosis, organ dysfunction, vascular damage, and carcinogenesis. Resources include clinical and laboratory space, shared facilities, equipment and supplies, and support of two fellows and shared clinic personnel. Candidate must have M.D. degree and be board certified in radiation oncology. Candidate should have proven ability to develop clinical protocols that test hypotheses based on pre-clinical studies and have solid experience and understanding of radiobiological laboratory techniques, assays for repair of radiation damage, as well as molecular biological studies of growth factors and cytokines. The candidate would be expected to conceive and perform clinical and laboratory studies to better understand the interaction between radiation and cytokines in tumor and normal tissue.

Radiation Oncology Branch, NCI, Building 10, Room B3B69, 10 Center Drive MSC 1002, Bethesda MD 20892-1002.

Gene Cloning Steven Rosenberg, M.D.

Position available to clone the genes that encode cancer antigens. The Surgery Branch, NCI, has begun a major program in which gene cloning will be an important step in developing effective cancer vactines for the treatment and prevention of cancer. Resources include laboratory space, equipment and supplies, and support of one technician. Candidate must have M.D. or Ph.D. degree and be experienced in molecular biology and cellular immunology. Extensive experience in gene cloning and analysis of human cellular immune reactions is essential. Surgery Branch, NCI, Building 10, Room 2B42, 10 Center Drive MSC 1502, Bethesda MD 20892-1502.

Pharmacokinetics Louis Malspeis, Ph.D.

Position available to perform basic and applied research on newly identified anticancer and anti-HIV agents to bring new chemotherapeutic agents to clinical trial. Pharmacokinetics research on new drug candidates will contribute to a basic understanding of their in vivo disposition and will support appropriate selections for development. The studies will contribute to the optimization of preclinical, and subsequently the clinical, efficacy evaluations. Resources include laboratory space, equipment, supplies, and technical support. Candidate must have Ph.D. degree and have demonstrated ability to (1) develop specific quantitative analytical and pharmaceutical chemistry methods for anticancer and anti-HIV drug candidates of broadly diverse chemical structures in biological fluids with sensitivity in the nanomolar to low micromolar concentration range; (2) design and conduct preclinical pharmacokinetic studies in rodents, dogs, and monkeys; (3) characterize and identify the major metabolites of the chemotherapeutic agents; (4) chemically synthe-size identified and potential metabolites; and (5) employ pharmacokinetic parameters for the selection for the compound with the greatest potential for clinical efficacy among a series of congeners. Laboratory of Pharmaceutical

Chemistry, NCI-Frederick Cancer Research and Development Center, Fairview Center, Room 206, P.O. Box B, Frederick, MD 21702-1201.

Development of Novel Therapeutic Agents Edward A. Sausville, M.D., Ph.D.

Position available to serve as the leader in the development of novel therapeutic agents directed at protein kinases that mediate signal transduction. The incumbent will be expected to acquire a nationally recognized prominence in the reaulation of cell growth by protein kinase-dependent signaling path-ways. In particular, delineation of structural motifs or regulatory relationships in kinase networks that could serve as a basis for drug discovery efforts will be approached at a fundamental level. Resources include laboratory space, shared equipment, supplies, and support of one technician and up to two post-doctoral fellows. Candidate must have M.D. or Ph.D. degree and must demonstrate capacity to develop assays for, clone, express, and purify protein kinases and have experience in biochemical pharmacology and pharmacokinetic methodology. Office of the Associate Director, Developmental Therapeutics Programs, NCI, Executive Plaza North (EPN) Room 843, 6130 Executive Boulevard MSC 7458, Bethesda MD 20892-7458.

Translation Studies

Dan L. Longo, M.D.

Position available to conduct preclinical and clinical studies designed to determine whether the immune system can be used to target cancer cells in vivo. Studies will target specific tumor antigens and use modern immunologic and genetic technologies to attempt to induce immunity and to monitor the results. Resources include laboratory space, equipment and supplies, and support of two postdoc-toral fellows. Candidate must have M.D. degree and have a thorough understanding of basic science and possess the clinical acumen necessary to manage cancer patients and apply basic laboratory findings to clinical problems. Clinical Research Branch, NCI, NCI-Frederick Cancer Research and Development Center, Building 576, Room 101, P.O. Box B, Frederick, MD 21702-1201.

Please send a cover letter, curriculum vitae, bibliography, and a two-page statement including research interests and career goals to the address listed with each position. In addition, arrange to have letters of reference sent to the same address from three scientists who can provide an evaluation of your qualifications. Applications must be received within six weeks of the publication of this advertisement.

TO APPLY

POSITIONS OPEN

ASSISTANT PROFESSOR, Nutrition, Food Science and Human Nutrition Department, Institute of Food and Agricultural Sciences, University of Florida; 12 month tenure-track (80% teaching and 20% extension). Oualifications include an earned doctorate in nutrition, public health nutrition, or related discipline. Registration (R.D.) with The American Dietetic Association is preferred. Duties and responsibilities include: teaching and academic advising of undergraduate and graduate students in nutrition sciences, collaboration with the nutrition and diet extension team, and development of an extension program providing nutrition education to target populations. Application requirements: curriculum vitae, transcripts sent directly from the institutions, minimum of three reference letters, and a statement outlining career goals as well as teaching and professional interests. All information must be submitted by October 2, 1995, to: Dr. Peggy Borum, Chair, Search and Screen Committee, Food Science and Human Nutrition Department, IFAS, University of Florida, P.O. Box 110370, Gainesville, FL 32611-0370. Telephone: 904-392 7553; FAX: 904-392-9467

The University of Florida is an Equal Opportunity/Affirmative Action Institution and encourages applications from women and minorities.

RESEARCH ASSISTANT PROFESSOR

The Department of Molecular Genetics and Biochemistry, University of Pittsburgh, School of Medicine invites applications for a **RESEARCH ASSISTANT PRO**-FESSOR (non-tenure) to become part of a multidisciplinary research program to examine new gene therapy strategies for treatment of neurodegenerative disease using HSV vectors. Candidates should possess a Ph.D. in biochemistry, chemistry or related discipline with specific experience in protein-DNA interaction. Relevant areas of expertise should include primate models of neurodegen-erative disease, novel methods for production of virus vectors and protein-DNA interaction in transcriptional control of gene expression in the nervous system. Interested persons should submit a letter of intent and curric-ulum vitae to: Dr. Joseph C. Glorioso, Professor and Chairman, Department of Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine, E1240 Biomedical Science Tower, Pittsburgh, PA 15261. The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.

The University of Pittsburgh is expanding its active Program in Bioengineering which has been designated as one of the thrust areas for the School of Engineering. The Bioengineering Program, which is jointly sponsored by the School of Medicine, offers an M.S. and Ph.D. in Bioengineering; an undergraduate B.S. in Bioengineering is being developed.

Currently there are 25 faculty closely associated with the Program in Bioengineering. Their respective disciplines span the fields of biomechanical engineering, biochemical engineering, tissue engineering, rehabilitation engineering, ergonomics, control systems and biomedical imaging.

imaging. We are seeking a senior level person who will hold a **FACULTY POSITION** in Chemical Engineering and will have a leadership role in the further enhancement of our research and educational programs. The incumbent should hold a Ph.D. and have significant experience in an academic setting including a proven track record of leadership and scholarly accomplishment. This is a full-time, tenure stream appointment. Full consideration of applications will begin on July 1, 1995, and will continue until the position is filled. A complete dossier should be sent to:

Dr. Jerome Schultz Center for Biotechnology and Bioengineering The University of Pittsburgh 300 Technology Drive Pittsburgh, PA 15219

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

POSTDOCTORAL POSITION to study NK cell differentiation in the rodent uterus during pregnancy and the role of decidual factors and cytokines. Experience in cellular immunology and/or molecular biology preferred; Ph.D. or equivalent required. Available August or September 1995. Send curriculum vitae and three references to: Dr. Judith Head, Green Center for Reproductive Biology Sciences, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9051 USA. FAX: 214-648-8683. An Equal Opportunity Employer.

POSITIONS OPEN

PROFESSOR AND DIRECTOR PROPOSED LABORATORY OF HUMAN GENE RESEARCH UNIVERSITY OF CALIFORNIA SAN FRANCISCO (UCSF)

The **DIRECTOR** is expected to be actively involved in human gene research and will also play a major leadership role in coordinating campus activities in this area including medical genetics, molecular cytogenetics, neurogenetics, cancer genetics, genomics, and multifactorial inheritance.

The Laboratory, currently titled Laboratory of Radiobiology and Environmental Health, is located on the UCSF campus in a building with approximately 11,000 assignable square feet owned by the Department of Energy. The current total annual budget of the laboratory from the Department of Energy and other sources is approximately \$4 million per year.

Applicants must be qualified for appointment as professor in an academic department at UCSF. Please send a current curriculum vitae, statement of research interests, and names of appropriate references to: Regis B. Kelly, Ph.D., Chair, Human Gene Research Search Committee, c/o Michele Hinojosa, University of California, San Francisco, 513 Parnassus Avenue, Room S-224, San Francisco, CA 94143-0410.

University of California, San Francisco is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

DEAN, SCHOOL OF ALLIED HEALTH SCIENCES THE UNIVERSITY OF VERMONT

The University of Vermont invites applications and nominations for **DEAN** of the School of Allied Health Sciences. Reporting to the Provost, the Dean provides leadership in planning, developing, and administering the School's programs, and guides the development of human resources. The School offers the B.S. and M.S. in medical technology and in physical therapy, and the A.S. in dental hygiene, nuclear medicine technology, and radiation therapy.

Candidates must have a distinguished record adequate to meet the standards for academic tenure at the University. The successful candidate must have outstanding leadership qualities and communication skills; successful experience in strategic planning, fiscal management, securing funding; and demonstrated commitment to academic achievement and promoting racial, cultural and gender diversity.

Applications will be considered until this position is filled. Review of applications begins on August 15, 1995. Letters of application including a résumé should be sent to: Search Committee for Dean of Allied Health Sciences, 601 Main Street, The University of Vermont, Burlington, VT 05401-3439.

The University of Vermont is an Equal Opportunity/Affirmative Action Educator and Employer. Women and ALANA candidates are especially encouraged to apply.

ENDOWED CHAIR IN PHARMACOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

Applications are invited for the Eric L. and Lila D. Nelson ENDOWED CHAIR in the Department of Pharmacology at UC Irvine. We seek an internationally recognized scholar in molecular neuropharmacology with an outstanding record of research accomplishment. Other qualifications include an M.D. and/or Ph.D. in pharmacology or a related field and an interest and talent for teaching. The holder of the Chair will be appointed as Professor with tenure at the University of California. Curriculum vitae, references, and a summary of research interests should be sent to: Nelson Endowed Chair Search Committee, Department of Pharmacology, College of Medicine, University of California, Irvine, Irvine, CA 92717. University of California, Irvine is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to study the mechanism of immunoglobulin gene somatic hypermutation, using genetic and biochemical approaches. Please send curriculum vitae, statement of research accomplishments and interests, and names of three references to: Dr. Nancy Maizels, Department of Molecular Biophysics and Biochemistry, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06520-8024.

POSTDOCTORAL POSITION

POSITIONS OPEN

A **POSTDOCTORAL POSITION** is immediately available to work at the Max-Planck-Institut f. biophysikalische Chemie. Aim of the project is to study the incorporation rate of dye-labelled nucleotides in DNA and exonuclease kinetics. Applicants should have experience in related topics. The position lasts one year; in case of successful work there is a chance to prolong up to three years. Please send the usual application material to: **Prof. Manfred Eigen, MPI f. Biophysikalische Chemie, D-37077 Göttingen, Germany. Email:** mbrinkm@gwdg.de (Michael Brinkmeier)

POSTDOCTORAL POSITIONS available in the Department of Urology at Case Western Reserve University pursuing identification of previously detected aberrant proteins excreted in the unine of individuals with kidney stone disease. In addition to investigating the role these proteins have in urolithiasis, a primary objective will be the development of an assay to monitor renal function in individuals with increased risk of stone formation. Experience in protein biochemistry including isolation and identification absolutely required, experience with antibody production desirable. Submit curriculum vitae, summary of relevant experience with names and addresses of three references to: S. R. Marengo, Ph.D., Urology Research Laboratory, School of Medicine, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-4931. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION Natural Peptide Ligands For Thymic Selection The University of Chicago

Immediate position to identify MHC bound peptides which are recognized during the positive and negative selection of CD8+T cells. Studies will involve the HPLC purification of peptides identified in bio-assays and sequencing using Edman degradation and MS/MS technology. A background in protein/peptide chemistry is essential and knowledge of immunology desirable. Please send curriculum vitae and names of three referees to: Philip G. Ashton-Rickardt, Ph.D., Gwen Knapp Center for Lupus and Immunology Research, The University of Chicago, 924 East 57th Street, 4th Floor, Chicago, IL 60637-5420. Telephone: 312-702-4360; FAX: 312-702-1576. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION in molecular microbiology is available to investigate the genetic and biochemical basis for the coordination of membrane formation with macromolecular biosynthesis in *Esderichia coli*. Research involves the application of contemporary techniques of genetics, biochemistry and molecular biology to dissect the mechanistic details of the interaction between the components of the regulatory network that governs fatty acid and phospholipid synthesis. Candidates with a recent Ph.D. degree should apply by submitting a curriculum vitae, a short statement of research interests, reprints and the names of three references to: Charles O. Rock, Department of Biochemistry, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101. An Affirmative Action/Equal Opportunity Employer. Danny Thomas, Founder.

POSTDOCTORAL POSITION available immediately to perform molecular modeling studies of the conformation, folding and aggregation of a peptide implicated in Alzheimer's disease. A strong background in physical chemistry and biochemistry is required. Send curriculum vitae and three references to: **Dr. Valerie Daggett, Department of Medicinal Chemistry, Uni**versity of Washington, Seattle, WA 98195-7610. Email: daggett@fitz.mchem.washington.edu.

NMR **POSTDOCTORAL POSITION** available immediately to study structure and dynamics of anti-gp120 antibody-peptide complexes using multidimensional, solution NMR techniques. Background in biological, solution NMR and Ph.D. in Chemistry, Biochemistry or Biophysics desired. Please send curriculum vitae and three letters to: **Pearl Tsang**, **Department of Chemistry**, **University of Cincinnati**, **P.O. Box 210172**, Cincin**nati**, **OH 45221**. **Email: pts@phoenix.che.uc.edu**. *Equal Opportunity/Affinative Action Employer*.

Senior Scientist

Department of Pharmacology, Astra Pain Research Unit, Montreal

ASTRA is a pharmaceutical company with highly international operations encompassing the research, production and marketing of pharmaceuticals through subsidiaries in 35 countries. The products are marketed in an additionally large number of countries through agents and licenses. The Company employs over 13,000 people worldwide, of whom 5,000 are in Sweden.

ASTRA CANADA

As a link in the worldwide chain of subsidiaries, Astra Canada was established in 1954. With a staff complement of over 500 people, Astra has recently completed construction of a new state-of-the-art manufacturing, laboratory and warehouse facility on its present site in Mississauga. Astra markets and sells brand name products which are used in 5 major therapeutic areas. Based in this newly established unit, you will work with a large team of scientists involved in advanced pain research. To succeed, you must possess several years of postdoctoral experience and a superior record of academic achievement. A background in pharmacology is desirable and experience in industrial drug discovery would be an asset.

We offer a competitive salary, generous benefits package and a stimulating scientific environment. If you are motivated by the challenges of this position, please forward a curriculum vitae and a statement of past achievements and future interests to:

Dr. Andy Dray, Head of Department of Pharmacology, Astra Pain Research Unit, 275, boul. Armand-Frappier, Edifice 3000, Laval, Quebec, Canada H7V 4A7 Fax: (514) 973-3031.

We thank all applicants for their interest, however, only those being considered will be contacted. No telephone enquiries or agencies, please.

An Equal Opportunity Employer.



Visiting Senior Scientist Life and Biomedical Sciences and Applications Division

The Jet Propulsion Laboratory is seeking a Visiting Senior Scientist for the Life and Biomedical Sciences and Applications Division within the Office of Life and Microgravity Sciences and Applications at NASA Headquarters. The successful applicant will (i) assist in the coordination and planning of the Space Physiology and Countermeasures Program (ii) assist in the coordination of the Neurolab Space Shuttle Mission, and (iii) interact with the neuroscience research community to inform them about the activities of the neuroscience research program. A PhD (or equivalent research experience) in Neuroscience is required. Applicants should have a broad background in neuroscience and behavior, and have experience in grants management and program planning, familiarity with NASA's ground and flight research programs, and science policy experience are also desirable. Applicants need to be able to start work in Washington, DC in August, 1995. For more information about the scope of the program and position responsibilities, please contact Dr. Frank M. Sulzman, at the NASA Life and Biomedical Sciences and Applications Division (202) 358-0220.

Tenured faculty members are the preferred choice although qualified individuals from non-profit research institutions may also be considered. This position is open for immediate filling. Normal assignment in the Visiting Senior Scientist Program does not exceed two years. Appointees must be U.S. Citizens or Permanent Residents and are expected to return to their home institution following the NASA assignment. Please provide Curriculum Vitae, bibliography and the names of four references to:

Dr. Fredrick H. Shair, Jet Propulsion Laboratory, 4800 Oak Grove Dr. MS/183-900, Pasadena, California 91109. (818) 354-8251. EOE.



Jet Propulsion Laboratory California Institute of Technology

VISITING INVESTIGATOR PROGRAM

NATIONAL CENTER FOR HUMAN GENOME RESEARCH NATIONAL INSTITUTES OF HEALTH

The Visiting Investigator Program provides tenured or tenure-track faculty level scientists from outside the NIH with the opportunity to spend a 3 - 12 month period at the National Center for Human Genome Research (NCHGR) laboratories and clinics at the NIH. Visiting investigators can use their stay at the NCHGR to learn new technologies, develop research collaborations, or pursue sabbatical research projects. Basic and clinical genetic researchers and social scientists may access the Center's laboratories, core facilities, clinics, and training programs for investigating human genetic disease, including the social implications of genetic research. Partial funding of salary support is available, as well as funding for research related expenses while at the NIH. Project proposals planned for one year are preferred in order to enhance the possibility of accomplishing research objectives. A curriculum vitae and a supporting letter from the candidate's department head (or equivalent individual) must accompany the application. No incomplete application will be submitted for committee review. Applications for the cycle beginning January 2, 1996 must be received by September 1, 1995.

For application materials and information, contact:

Betty Wolf-Ledbetter, Director Visiting Investigator Program, NIH/NCHGR, Building 9, Room 1E106 9 Memorial Drive MSC 0950, Bethesda, MD 20892-0950 Fax: 301-402-2440 E-Mail: vip@nchgr.nih.gov

Women and minority candidates are strongly encouraged to apply.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE IN REGULATION OF GENE EXPRESSION

An NIH-funded **POSTDOCTORAL POSI-TION** to study the developmental regulation of gene expression of glycosyltransferases (see *J. Biol. Chem.*, **269**:9590, 1994, and **269**:16054, 1994). Experience in molecular biology necessary, protein biochemistry or glycobiology a plus. Send curriculum vitae and names of three references to: Dr. Inder K. Vijay, Department of Animal Sciences, University of Maryland, College Park, MD 20742 USA. FAX: 301-**314-9059; Email:** iv1@umail.umd.edu. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIP FOR NIH-FUNDED TRAINING GRANT

M.D./Ph.D. **POSTDOCTORAL POSITIONS** available immediately in the Division of Endocrinology, Diabetes, Metabolism and Molecular Medicine at New England Medical Center/Tufts University School of Medicine, Boston, Massachusetts. Outstanding opportunities for basic research on mechanisms of defective insulin secretion; genetics of zebra fish pancreatic islet development; gene and bioprosthetic cell therapy of DM; molecular regulation of lipolysis with particular reference to perilipins; nutritional and genetic regulation of plasma lipoproteins; hormonal regulation of TRH gene transcription; neuroanatomy and physiology of hypophysiotrophic peptides; neural-immune modulation of central neuropeptide systems. Clinical positions include training leading to board eligibility. U.S. citizenship or permanent resident status required. Dr. R. M. Lechan, Box No. 268, 750 Washington Street, Boston, MA 02111. FAX: 617-636-5689; Email: slee@opal.Tufts.edu. *Equal Opportunity Employer.*

BACTERIAL PATHOGENESIS

Two POSTDOCTORAL POSITIONS available immediately to study pathogenic mechanisms in *Staphyleocenis aureus*. Previous experience in molecular biology required. Project one involves regulation of exoprotein virulence factors (**Dr. Robert L. Deresiewicz**). Project two involves genetics of capsular polysaccharide expression (**Dr. Jean C. Lee**). The positions offered are at the Channing Laboratory, a major research division of the Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts. Please send curriculum vitae and names of three references to: Channing Laboratory, **180** Longwood Avenue, Boston, MA 02115. FAX: 617-731-1541; E-mail: bobderes@warren.med.harvard.edu or jelee@ warren.med.harvard.edu. Equal Opportunity/Affinative Action Employers. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION

POSTDOCTORAL POSITION available immediately to study the role of cell cycle proteins in G1/S phase transition and apoptosis (see *PNAS*, **92**:5436-40). Candidates with a recent Ph.D. and/or M.D. in a relevant field should send a curriculum vitae, research interests, and three references to: Alex Almasan, Ph.D., Departments of Cancer Biology/Radiation Oncology T28, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195. FAX: 216-444-5331; Email: almasa@athene.ri.ccf.org. An Equal Opportunity Employer/minority/fenale/disabled/veteran. Snoke-free environment.

THE NEUROSCIENCES INSTITUTE SAN DIEGO Developmental Neurobiology

Applications are invited for the **POSTDOCTORAL POSITION** of Junior Fellow in Experimental Neurobiology to study molecular and cellular aspects of developmental neurobiology. Areas of interest include formation and plasticity of neuronal connectivity, local guidance cues for neuronal migration, and control of gene expression during development and regeneration. Position requires knowledge of molecular and cell biology; expertise in anatomy, histology, and animal systems is useful. Submit a curriculum vitae, statement of research interests, and names of three references to: Dr. W. Einar Gall, **Research Director, The Neurosciences Institute**, **10640 John Jay Hopkins Drive, San Diego, CA 92121**.

POSITIONS OPEN

SAMSUNG BIOMEDICAL RESEARCH INSTITUTE Research Staff and Postdoctoral Positions

The Samsung Biomedical Research Institute is a nonprofit organization consisting of the centers for Basic Biomedical Science, Clinical Science, Biomedical Engineering and Clinical Pharmacology, located in Seoul, Korea. The center for Biomedical Science is devoted to research in molecular biology and immunology, and is seeking individuals with a Ph.D. and/or M.D. degree, significant postdoctoral experience and excellent research achievements for staff positions. Staff members are expected to develop a high quality independent research program in molecular cell biology. Research funding will be provided by the Institute. Also open are postdoctoral fellowship positions. A strong background in molecular biology, biochemistry and/or immunology is highly desirable. Submit two copies of a curriculum vitae and publication lists to: Hyun S. Shin, M.D., General Director, Samsung Biomedical Research Institute, 50 Ilwon Dong, Kangnam-Ku, Seoul, Korea, 135-230.

For additional information, contact Dr. Hyun S. Shin at telephone: 822-3410-3600; FAX: 822-3410-3620.

POSTDOCTORAL POSITION

An immediate opening is available for a National Institute of Health Lung Disease Training Grant-funded position to study the cellular and molecular basis of immune reactivity in patients afflicted with allergic bronchopulmonary aspergillosis (ABPA). Some experience in T cell cloning, cytokines, and molecular biology is desirable. By terms of the federal grant the position is limited to U.S. citizens or resident aliens. Send curriculum vitae/references to: Clifford J. Bellone, Ph.D., Department of Molecular Microbiology and Immunology, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, MO 63104.

POSTDOCTORAL POSITION

A POSTDOCTORAL POSITION is available immediately to study the mechanism of mammalian mitochondrial DNA replication. A recent Ph.D. with a strong background in molecular biology and desire to learn enzymology is required. Interested candidates should send (or FAX: 303-270-6721) curriculum vitae, names of three references to: Robert L. Low, M.D., Ph.D., Department of Pathology, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Box B216, Denver, CO 80262. The University of Colorado is committed to Affirmative Action and Equal Opportunity Employment.

NEW ENGLAND EYE CENTER TUFTS UNIVERSITY MEDICAL SCHOOL

Two **POSTDOCTORAL POSITIONS** available immediately to study biochemistry of Corneal Wound Healing and Infection. Requires experience in (1) Glycobiology or (2) Cell/Molecular Biology. Send curriculum vitae and names of three references along with telephone/ FAX numbers and Email address if available to: **Dr. N. Panjwani, Department of Ophthalmology, Tufts University School of Medicine, 136 Harrison Avenue, Boston, MA 02111. FAX: 617-636-0348; Email: NPanjwani@infonet.Tufts.edu.**

POSTDOCTORAL POSITION: Two positions are available in the area of neuropeptide control of development. The research will focus on the characterization of insect neuropeptide genes. Significant experience in molecular biology methods, especially sequencing, protein expression systems, and in situ hybridization are necessary. Submit application to: Dr. W. E. Bollenbacher, Department of Biology, CB No. 3280 Coker Hall, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3280. Telephone: 919-966-2631; FAX: 919-962-1284; Email: wbollenb@email.unc.edu. The University of North Carolina at Chapel Hill is an Affinnative Action/Equal Opportunity Employer. Women, minorities, and individuals with disabilities are encouraged to apply.

POSTDOCTORAL POSITION available immediately. Molecular and biochemical investigation of airway remodeling and the selective roles of growth factor and neuropeptides. Experience in molecular biology and/or gene expression of enzymes/proteins required. FAX curriculum vitae with three references to 609-735-1472. Dr. D. M. F. Murphy, Pulmonary Medicine Department, Deborah Heart and Lung Center, Browns Mills, NJ 08015. Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITIONS

Positions are available to study the molecular mechanisms and immunoregulation of autoimmunity in arthritis, and the cellular mechanisms of pathological bone resorption. These projects include screening of mouse genome, knock out of genes, signal transduction and several aspects of molecular immunology. Recent Ph.D., M.D. or Ph.D./M.D. with experience either in cell biology, molecular biology, immunology, protein chemistry or genetic analysis is required. Send curriculum vitae and the names and addresses of three academic references to: **Prof. Tibor T. Glant, Department of Biochemistry, Rush Medical University at Rush Presbyterian-St. Luke's Medical Center, 1653 West Congress Parkway, Chicago, IL 60612.**

POSTDOCTORAL POSITIONS available to investigate the genomic and transactivating factors involved in the central and peripheral nervous system (cardiac)-selective transcription of the *β*1-adrenergic receptor gene. Ph.D. and/or M.D. required. Technical skills in recombinant DNA techniques, including mutagenesis, RNase protection, DNase footprinting, and transfection, and in neuroanatomy are highly desired. Send curriculum vitae, research statement, and three references to: Dr. Curt Machida, Neuroscience, Oregon Regional Primate Research Center, 503-690-5384. *Equal Opportunity/Affinnative Action Employer*.

POSTDOCTORAL POSITION available immediately to study the genetic basis of male germ cell development with particular emphasis on the Y chromosome. Work will involve gene cloning, gene knock-out and transgenic mouse technology. Applicants should have a strong background in molecular biology and/or molecular genetics. Interested individuals should send a curriculum vitae, research experience and names of three references to: Colin E. Bishop, Ph.D., Baylor College of Medicine, Department of Ob/Gyn, 6550 Fannin, Houston, TX 77030. FAX: 713-798-5074; Email: bishop@bcm.tmc.edu.

Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.

Two two-year **POSTDOCTORAL POSITIONS** available 1 October 1995, applications reviewed from 15 August 1995, open until filled. Collaborative research in Animal and Plant Virology on selection and exploitation of antiviral peptides for understanding and controlling infections. Preceptors **George Bruening**, **Prabakhara Choudary**, **Paul Luciw**, and **Kathryn Radke**. Experience in recombinant DNA, phage displays, virology, or gene expression essential. Please forward curriculum vitae, names of three referees and date of availability to: **Dr**. **Kathryn Radke**, **Avian Sciences**, **University of California**, **Davis**, **CA** 95616 USA. **FAX:** 916-752-8960; **Email: klradke@ucdavis.edu**. University of Califonia, Davis is an Equal Opportunity/Affirmative Action Employer.

TWO NEUROBIOLOGY LABS MOVING Ambitious Postdoctorals Wanted

Positions available in Program Project Grant to study molecular/cellular basis of taste transduction in new labs at University of Miami School of Medicine. Seeking experienced Ph.D.'s: molecular biologist, immunocytochemist, patch-clamp electrophysiologist. Applications (curriculum vitae, experience, three references) to Dr. Nirupa Chaudhari or Dr. Stephen Roper, Department of Physiology and Biophysics (R430), P.O. Box 016430, University of Miami School of Medicine, Miami, FL 33101. Inquiries: nchaudhari@vines. colostate.edu; telephone: 303-491-7286; or roper@ lamar.colostate.edu; telephone: 303-491-7808.

POSTDOCTORAL POSITIONS

POSTDOCTORAL POSITIONS: (1) to participate in genetic and physical mapping of the soybean mosaic virus resistance genes; (2) to conduct research on molecular marker analysis of cereal crops. Send résumé to: Saghai Maroof, Department of Crop and Soil Environmental Sciences, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061-0404.

Senior POSTDOCTORAL POSITION available immediately for HIV drug discovery project. Candidate should have documented experience with HIV culture techniques, PCR, immunoblotting and molecular cloning. Permanent residency or U.S. citizenship is required. Send curriculum vitae to: Beatrice H. Hahn, M.D., University of Alabama at Birmingham, 701 South 19th Street, 613 LHRB, Birmingham, AL 35294. Equal Opportunity/ Affinnative Action Employer.

FACULTY POSITIONS IN THE CENTER FOR GENE THERAPY TENURE TRACK

The Center for Gene Therapy at Baylor College of Medicine is seeking qualified candi-dates with Ph.D. or M.D. degrees interested basic and clinical studies of Gene Therapy. Established scientists and new investigators are invited to apply. Appointments will be made at an academic grade appropriate to the experience of the candidate. The Center wishes to identify scientists capable of pursuing independent study of basic gene transfer technology and vector biology, as well as clinical investigators interested in patient studies of gene therapy efficacy and safety. All areas of Human Gene Therapy will be considered including but not limited to inherited disease, cancer, cardiovascular disorders, neurological disorders, infectious diseases and gene vaccines

Interested candidates should submit their curriculum vitae and bibliography, a statement of research goals, 1-3 representative publications, and the names of three references to:

John W. Belmont, M.D., Ph.D. Chair, Faculty Search Committee Center for Human Gene Therapy Baylor College of Medicine Room T826, One Baylor Plaza Houston, TX 77030 Tel: (713) 798-4634 Fax: (713) 798-5386 belmont@bcm.tmc.edu

Baylor of Medicine is and Equal Opportunity/ Affirmative Action Employer. Women and members of minority groups are strongly encouraged to apply.

ASSISTANT PROFESSOR OF PHARMACOLOGY

THE UNIVERSITY OF TOLEDO COLLEGE OF PHARMACY DEPARTMENT OF PHARMACOLOGY

The University of Toledo College of Pharmacy, Department of Pharmacology has a position opening for an Assistant Professor of Pharmacology. This is a new, permanent, 12month, tenure-track position effective Fall term, 1995. Applicants must have an earned doctorate in pharmacology or a closely related field. The successful applicant will teach a threequarter sequence in Functional Anatomy and Pathophysiology to second-year pre-professional students. It is expected that the successful applicant will develop and sustain an independent research program. Opportunities exist to develop elective and graduate level courses and to direct graduate students at the M.S. level. Preference will be given to those with a B.S. in Pharmacy and individuals trained in pharmacology and toxicology and with experience or strong interests in one of the following disciplines: toxicokinetics, physiologicallypharmacokinetic modeling, based pharmcoepidemiology, neuropharmacology, or drug metabolism. Applications from minorities and females are encouraged. Send or fax resume with at least three (3) references and cover letter to:

Kenneth Bachmann , Ph.D. Professor and Chair Department of Pharmacology The University of Toledo College of Pharmacy 2801 W. Bancroft St. Toledo, OH 43606 Telephone (419) 537-2010 Fax (419) 537-8407

DIRECTOR NATIONAL CENTER FOR ECOLOGICAL ANALYSIS AND SYNTHESIS (NCEAS)

Applications and nominations are invited for the position of Director of the NCEAS. The Center is supported by an initial 5-year grant from the National Science Foundation and matching funds from the State of California and the University of California at Santa Barbara (UCSB). The Center promotes collaborative research on fundamental problems in ecology and on environmental problems of national importance by supporting visiting scientists. Additional information on the Center is available via the World Wide Web at http://surfin.ncgia.ucsb.edu or by contacting William Murdoch, Interim Director.

The Director has overall responsibility for running the Center, with the aid of a Deputy Director and management and computing staff; reports annually to NSF, and is advised by a Scientific Advisory Board (SAB) and External Advisory Committee. To help the Director maintain an active research program, resources and strong administrative support are provided.

The Director provides scientific leadership, fosters an environment that inspires collaboration, and needs a clear and imaginative scientific vision, a receptiveness to alternative scientific views, and an unwavering commitment to the highest possible quality research. The Director should be an outstanding ecologist with an enviable research record, demonstrated organizational and management skills, good interpersonal skills and a fully articulated commitment to the goals of the Center.

The Director is expected to hold the position for at least 4 years. UCSB recognizes that the Director will likely want to sustain an academic career. Therefore, subject to approval by the relevant disciplinary department, and provided the successful candidate meets the University's criteria for scholarly excellence, the University will appoint the successful candidate to a permanent tenured facility position, if the appointee so desires. Selection of the Director will be done by the SAB and requires NSF's approval.

Applications and nominations, to William Murdoch, Department of Biological Sciences, University of California, Santa Barbara CA 93106, will be accepted until September 30, 1995 or position is filled. Applicants should send letter of interest with statement of vision for Center and career goals, cv, and four letters of recommendation at time of application. Nominations should contain a letter of support for the nominee. An Equal Opportunity/Affirmative Action Employer.

- TOWARD NEW HORIZONS

Air Force Materiel Command (AFMC) invites applications from leading scientists and engineers interested in shaping the research and technology program of the Air Force.

CHIEF SCIENTIST

ARMSTRONG LABORATORY, HUMAN SYSTEMS CENTER BROOKS AIR FORCE BASE, SAN ANTONIO, TEXAS

The ARMSTRONG LABORATORY provides the Air Force with technologies to select, classify and train Air Force personnel; develop medical standards for selection and retention of aircrews, design protective equipment, life support and aircrew escape systems; specify human factors design for weapon systems to enhance human operator performance and logistics supportability, develop safe human exposure criteria for electromagnetic radiation and toxic chemicals, safeguard the quality of the environment; and remediate chemical pollution. The laboratory brings together in one organization the physical, medical and behavioral science and engineering disciplines and specialized research facilities required to address all aspects of the human role in Air Force operations. The Chief Scientist is the laboratory's senior scientific and technical executive, who defines the laboratory's strategic vision and long range research priorities to assure the Air Force's human systems and environmental technologies remain at the cutting edge.

QUALIFICATIONS: Candidates must demonstrate scientific experience and achievements at the national and international level, evidenced by citations, patents, publications, honors, leadership activity in their field, including election as a Fellow or comparable recognition, and academic standing--normally a doctoral degree.

Salary range is \$84,578 - \$120,027

APPLICATION INFORMATION: Call the AFMC Senior Civilian Management Office at (513) 257-1094 or DSN 787-1094 for a copy of vacancy announcement ST 95-04 for specific qualification requirements and application procedures. Applications must be postmarked by <u>3 August 1995</u>.

DEPARTMENT OF THE AIR FORCE AN EQUAL OPPORTUNITY EMPLOYER

POSITIONS OPEN

POSTDOCTORAL POSITION in molecular virology available to join an NIH-funded study investigating the molecular virology of herpes simplex virus latency and pathogenesis. Experience in molecular biology, or molecular/classical virology (especially herpes virology) is desirable. Highly competitive salary. Send curriculum vitae, names, addresses, and telephone numbers of three references to: Dr. Steven L. Wechsler, Director, Virology Research, Davis Building, Room 5069, Ccdars-Sinai Research Institute/UCLA School of Medicine, 8700 Beverly Boulevard, Los Angeles, CA 90048-1869.

BRAIN MICRODIALYSIS

POSTDOCTORAL POSITION available immediately to study the neurochemical and immune effects of nicotine. Ph.D. with background in stereotaxic surgery essential; HPLC experience desirable. Please send curriculum vitae and three letters of reference to: Dr. Burt Sharp, Endocrine-Neuroscience Labs, Minneapolis Medical Research Foundation, 914 South 8th Street, Minneapolis, MN 55404. FAX: 612-347-3915.

POSTDOCTORAL FELLOW/Experimental Oncology position available to study the role of protein kinase C in brain and breast tumor proliferation. Candidates must have a Ph.D. or M.D. with training in molecular biology and signal transduction. Send curriculum vitae and three references to: Dr. Robert I. Glazer, Georgetown University Medical Center, Department of Pharmacology, 3900 Reservoir Road, NW, Washington, DC 20007.

POSTDOCTORAL RESEARCH FELLOW

POSTDOCTORAL RESEARCH FELLOW positions (three) available immediately to study the molecular mechanism of regulation of cholesterol 7α -hydroxylase gene in bile acid and cholesterol metabolisms. Experiences in gene cloning, sequencing and expression; protein purification; protein-DNA interactions; gene transfer and tissue culture techniques preferred. Please submit curriculum vitae to:

Human Resources, Attn: Dr. John Y. L. Chiang Department of Biochemistry and Molecular Pathology Northeastern Ohio Universities College of Medicine P.O. Box 95

Rootstown, OH 44272-0095

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOW/RESEARCH SCI-ENTISTS needed to characterize a large set of novel gene products (isolated by subtractive cloning/PCR display) expressed in tissue-destructive/invasive cell populations during inflammation/metastasis (e.g., J. Biol. Chem., 269:25849, 1994; Proc. Natl. Acad. Sci., 92:3849, 1995; Nature, 375:244, 1995). Strong background in cell/molecular biology required. Submit curriculum vitae and two letters of reference to: Dr. Stephen J. Weiss, Upjohn Professor, University of Michigan Comprehensive Cancer Center, 5301 MSRB III, 1150 West Medical Center Drive, Ann Arbor, MI 48109-0640. Equal Opportunity Employer.

Molecular Endocrinology: **POSTDOCTORAL FEL-LOWSHIPS**. Two-year positions in a research environment providing comprehensive academic training to Ph.D. or M.D. scientists. Areas of investigation include mechanisms of peptide/steroid hormone action, signal transduction, transcriptional control, and growth factor regulation. NIH funding supports only U.S. citizens/ permanent residents. Contact: Eric Orwoll, M.D., Oregon Health Sciences University (L111), 3181 SW. Sam Jackson Park Road, Portland, OR 97201. Telephone: 503-273-5015; FAX: 503-721-7807.

POSTDOCTORAL FELLOW

A position is available immediately to participate in ongoing studies to clone and characterize a novel protein involved in the regulation of calcium transport and bone metabolism. Previous successful cloning experience and experience in cytokine assays are required. The position is available for up to three years. Applicants should send a curriculum vitae and arrange for three letters of reference to be sent directly to: Dr. Dike N. Kalu, Department of Physiology, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-7756. The University of Texas Health Science Center at San Antonio is an Affirmative Action/Equal Opportunity Employer. **POSITIONS OPEN**



POSTDOCTORAL FELLOW: Computational Chemist. Terrapin Technologies, an emerging biopharmaceutical company, seeks a recent Ph.D. to be part of our computational chemistry lab. Candidates should have a strong background in multivariate analysis, neural nets, clustering methods or noise reduction techniques, to be applied in new technologies for drug discovery. Apply to: **Human Resources/HOVCC**, **Terrapin Technologies**, **750-H Gateway Boulevard**, **South San Francisco**, **CA 94080**. **FAX: 415-244-9388**. *Equal Employment Opportunity/Affinnative Action*.

POSTDOCTORAL FELLOW position available August 1995 to study the molecular biology of G-protein coupled receptors using a digital video assay for functional expression. Qualities sought: experience in recombinant DNA techniques, computing, and neuroscience or cell biology. Please submit a curriculum vitae, reprints, research statement and references to: Dr. Timothy S. McClintock, Department of Physiology, University of Kentucky College of Medicine, 800 Rose Street, Lexington, KY 40536-0084. FAX: 606-323-1070; Email: mcclint@pop.uky.edu. An Equal Opportunity/Affirmative Action Employer.

The National Eye Institute, National Institutes of Health, Public Health Service, in Bethesda, Maryland, has an opening for a **VISITING FELLOW** or an Intramural Research Training Award (IRTA) position. The position involves the study of genes essential for eye and lens development both in vertebrates and invertebrates. The project will focus on functional characterization of known regulatory genes and identification of new genes. A background in molecular/developmental biology is desirable. Applicants must have a Ph.D. or an M.D. and less than five years of postdoctoral experience. Applications will be accepted from U.S. citizens, permanent residents, and foreign nationals. Please send a curriculum vitae and bibliography to: Dr. Tomarev, Laboratory of Molecular and Development Biology, National Eye Institute, Building 6, Room 203, 6 Center Drive MSC 2730, Bethesda, MD 20892-2730. For additional information, contact Dr. Tomarev on 301-496-3234.

NIH is an Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE. This position is in a laboratory conducting electrophysiological studies of the hamster surpachiasmatic nucleus. Specific studies will involve interactions between neurochemicals involved in phase shifting the circadian clock. A strong background in chronobiology and/or electrophysiology is necessary. The position is available starting September 1, 1995. Review of applications will begin August 1, 1995. Questions may be directed to Mary Harrington, Clark Science Center, Smith College, Northampton, MA 01063 or via Email: Mharrington@smith. smith. edu. Please send letter of application, curriculum vitae and names of three references to: Employment Group, Office of Human Resources, Smith College, Box 685, Northampton, MA 01063. An Affinnative Action/Equal Opportunity Institution. Minorities and women are encouraged to apply.

POSTDOCTORAL RESEARCH ASSOCIATE

Positions are available on an ongoing basis to conduct research within different research groups in the Institute of Molecular Biology at the University of Oregon. The purpose of this notice is to establish and maintain a pool of qualified applicants. Ph.D. in Molecular Biology or related field is required. Women and minorities are urged to apply. Salary dependent upon experience. For application materials, please call: **503-346-5151**. An Equal Opporunity/Affirmative Action Institution committed to cultural diversity and compliance with the Americans with Disabilities Act.

RESEARCH ASSOCIATE: One or two positions available immediately for motivated individuals for studies in endothelial migration. Ph.D. in Cell/Molecular Biology. Experience with methodologies in glycobiology is desirable. Applicant expected to function independently within interdisciplinary group of chemists and bioengineers. Contact: Dr. E. Chaikof, Department of Surgery, Emory University Hospital Box M-11, 1364 Clifton Road NE, Atlanta, GA 30322. FAX: 404-727-3660. Emory University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

RESEARCH ASSISTANT for university in central Ohio. Implementation of animal experimental protocols; data collection activities which include participation in tail flick latency and estrous cycle assessment; detection of nicotine and cotinine in plasma and saliva samples in humans and animals with high performance liquid chromatography (HPLC) unit; administration of drugs to animals through various routes of administration; isolation of different brain regions and micropunching of brain nuclei; radioimmunoassay (RIA) for opioid peptides in different regions of brain and in plasma; receptor binding assay in different brain regions; animal handling and sur gery; ovariectomy and castration in rats; handling of radioactive material; ELISA for cotinine and proteins; making biobehavioral model of smoking in rats; statistical analysis and computer data entry; assisting in writing research papers and protocols; supervising students and lab technicians. B.S. in biological/health sciences and one year of experience in above-described duties or administration of drugs through various routes of administration; isolation of different brain regions; performance of HPLC, receptor-binding assays, radioimmunoassays of peptides and tail flick assessment; and estrous cycle assessment. Forty hours per week, 8 am to 5 pm, Monday through Friday, \$18,336 per year. Send two résumés and cover letters (no calls) to: K. Shockey, REF No. 1088, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

RESEARCH ASSOCIATE: Available to study the role(s) of estrogen in the development of breast cancer. The ideal candidate for this position will be a trained and motivated individual with a strong background and publications in molecular biology and/or endocrinology. Excellent research environment in a growing department with new laboratories and modern research facilities. Competitive salary and benefits. Send curriculum vitae, description of past research accomplishments and interests, and three references to: Dr. S. Biswas, Professor, Department of Molecular Biology, Science Center, University of Medicine & Dentistry of New Jersey, Stratford, NJ 08084.

RESEARCH FACULTY/POSTDOCTORALS PRIVATE CONSULTANTS

Valid Technology Incorporated (VTI) is a growing consulting firm that needs support in writing evaluations of commercial technology in molecular biology, biochemistry, cell biology, immunology, and pharmacology. This support requires individuals current in their respective fields who are actively participating in research and have the ability to devote four to six hours per week. Consultants will work independently, under contract with VTI. Reply with curriculum vitae to: **P.O. Box 580589**, **Houston, TX 77258-0589**. Equal Opportunity Employer.

RESEARCH GRANT ADMINISTRATOR

National Retinitis Pigmentosa Foundation, Inc., d/b/a The Foundation Fighting Blindness, a national, non-profit orgnization, seeks an experienced Science Administrator. As ASSISTANT DIRECTOR of Science, this person will be responsible for a growing grant pro-gram on retinal degenerative diseases. With the Director, this person will develop, evaluate, implement, and facilitate an international, multi-million dollar grants portfolio supported by private donations. Applicants are expected to have broad knowledge of, and interest in, contemporary research relevant to vision and the eve. Applicants must have a Ph.D., M.D. or equivalent degree with postdoctoral laboratory experience and exposure to research administration. A competitive salary and benefits package is offered. Applicants should submit a curriculum vitae with a cover letter further documenting their suitability and interest in this position to: Jeanette S. Felix, Ph.D., Director of Science, The Foundation Fighting Blindness, 1401 Mount Royal Avenue, Baltimore, MD 21217. FAX: 410-225-3936.

PEPTIDE CHEMIST

Research opportunity for a Peptide Chemist to participate at The University of Chicago's Diabetes Research and Training Center. Qualifications include a Ph.D. or M.S. with substantial experience in peptide synthesis. Please send curriculum vitae and names of three references to: Michael A. Weiss, M.D., Ph.D., Center for Molecular Oncology & Department of Chemistry, The University of Chicago, 924 East 57th Street, R310, Chicago, IL 60637-5419. Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR DEPARTMENT OF MICROBIOLOGY & IMMUNOLOGY The University of British Columbia

Applications are invited for a tenure-track position in the Department of Microbiology and Immunology. We seek a strong candidate who could interact with established departmental research programmes in the areas of bacterial pathogenesis, immunology, molecular biology or virology. Individuals using molecular approaches to study aspects of microbial pathogens, antimicrobial drug resistance or host cell: microbe interactions are especially encouraged to apply. Starting date of appointment will be January 1, 1996.

In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents. The position is subject to final budgetary approval.

The University of British Columbia welcomes all gualified applicants, especially women, aboriginal people, visible minorities, and persons with disabilities.

Please submit application, curriculum vitae, together with the names of three referees, by August 31, 1995 to:



NDEH BR

Julian E. Davies, Ph.D., F.R.S. **Professor and Head** Department of Microbiology and Immunology University of British Columbia 300-6174 University Blvd. Vancouver, B.C. CANADA V6T 1Z3

ANNOUNCEMENT

GRANT PROGRAM

Molecular Devices Corporation offers a limited number of equipment grants to both U.S. and International academic/government institutions performing basic research in mammalian cell biology. The intent of this grant program is to provide academic/government researchers access to the Cytosensor® Microphysiometer technology at a substantially reduced cost, thereby enabling them to make novel discoveries using the Cytosensor System, with the ultimate goal of publication.

Briefly, the Cytosensor System is the latest tool for studying the physiological consequences of receptor activation; it has been shown to be particularly useful for drug discovery and signal transduction research. The System can monitor receptor-mediated responses from living cells in minutes, providing functional dose responses in just a few hours. Receptor activation can be studied even without previous knowledge of the signal transduction pathway.

For a comprehensive information package including guidelines for grant submittal, scientific publications, Application Notes, Technical Bulletins and a Reference Guide please contact:



Molecular Devices Corp. Molecular 1311 Orleans Drive Sunnyvale, CA 94089 PH: (408) 747-3545 FX: (408) 747-3602

> 42nd Rachford Lectures September 18 and 19, 1995

Transcriptional Control of Embryogenesis

An International Symposium Children's Hospital Medical Center Cincinnati, Ohio

Sponsored by

Perinatal Research Institute and Program of Excellence in Molecular Biology of the Heart and Lung, Children's Hospital Medical Center, Cincinnati, Ohio, and University of Cincinnati College of Medicine

Faculty:

Eddy DeRobertis, M.D., Ph.D. University of California, Los Angeles Professeur Denis Duboule, Ph.D.

Université De Geneve Brigid Hogan, Ph.D.

Vanderbilt University Medical School Thomas Jessel, Ph.D.

Columbia University College of Physicians and Surgeons

Joan Massagué, Ph.D. Memorial Sloan-Kettering Cancer Center

Michael Rosenfeld

University of California, San Diego Arthur Weiss, M.D., Ph.D. University of California, San Francisco

Lewis Williams, M.D., Ph.D. University of California, San Francisco

Kenneth Zaret, Ph.D. Brown University School of Medicine

Registration deadline: July 15 Registration fee: Students and trainees \$50; Faculty \$75

Abstracts (5 1/4" W X 6 3/4" H) for poster presentation may be submitted by registered participants. Details will be included with registration materials. Please submit abstracts before August 1.

For hotel information or to register, contact: Shirley Courtney Division of Endocrinology Children's Hospital Medical Center 3333 Burnet Ave. Cincinnati, OH 45229-3039 Phone: 513-559-4209 Fax: 513-559-7486



Potamkin Prize for Research in Pick's. Alzheimer's and Related Diseases

A prize of \$100,000 will be awarded by the American Academy of Neurology to a person(s) in recognition of major contributions to the understanding of the causes and the prevention, treatment, and ultimately the cure for Pick's, Alzheimer's and related diseases.

Candidates may be nominated on a world-wide basis from any of the biological disciplines including biochemistry, molecular biology, molecular genetics, pharmacology, immunology, physiology, cell biology, neuropathology or epidemiology.

A nomination application, nominating letter citing the scientific accomplishments of the candidate in detail, two supporting nominating letters, a curriculum vitae, and up to six (6) selected reprints in nine (9) complete sets are required.

The deadline for receipt of materials is November 1, 1995. No nomination will be considered unless it is complete. The awardee(s) must be present for the AAN Scientific Program, at its annual meeting in San Francisco, California, on Tuesday, March 26, 1996.

Request application and submit nomination to:

Potamkin Prize for Research in Pick's, **Alzheimer's and Related Diseases** American Academy of Neurology 2221 University Avenue S.E., Suite 335 Minneapolis, MN 55414 (612) 623-8115

The Potamkin Prize is funded through the philanthropy of the Potamkin Foundation.

POSITIONS OPEN

RESEARCH and **DEVELOPMENT** CHEMIST for firm in northeast Ohio. Plan and perform experiments for the development of drug delivery systems for pharmaceutical products, including the following: controlled release tablets, semi-solid dosage forms, and novel drug delivery systems; with the aim of the experiments being the development of novel applications of polymers/resins to develop the drug delivery systems. Supervise two technologists and one administrator for the performance of the experiments, which also involves the following: maintaining and validating pharmaceutical laboratory procedures, as well as implementing good laboratory practices and safety policies. Update our personnel, other individuals and publications, about current marketing and scientific developments in connection with our pharmaceutical products by doing the following: processing technical reports and publications for scientific journals, developing and updating bibliographic databases, making presenta tions at pharmaceutical conferences within and outside of the United States, performing tests on competitive prod-ucts and providing technical reports to our marketing personnel, and provide counseling to our customers and training our sales personnel. Must have M.S. in Pharmaceutical Technology. Academic program must have included one course each in the following areas: Advanced Physical Pharmacy; Advanced Medicinal Analysis; Advanced Medicinal Analysis Lab, and Statistical Methods for Experimentation. Must have six months in job described or six months of experience as Research Assistant. Experience must have been in pharmaceutics. Must be able to operate the High Performance Liquid Chromatograph, Gas Chromatograph, Nuclear Magnetic Resonance Spectrometer, Infrared Spectrometer, Ultra-Violet Visible Spectrophotometer, X-ray diffraction, and dissolution systems. Must be conversant with the software packages Statistical Analysis Systems/Statistical Package for Social Sciences on Personal Computer and Mainframe; and conversant with the graphic packages Slide-Write Plus and Cricket Graph. These skills may be evi-denced by academic letter(s) of reference and/or employer testimonial(s). Forty hours per week, 8:00 am to 4:30 pm, \$36,750 per year. Must have proof of legal authority to work indefinitely in the United States. Send résumé, course transcript, and cover letter in duplicate (no calls) to: Dee Gehl, REF No. 1149, Ohio Bureau of Em-ployment Services, P.O. Box 1618, Columbus, OH 43216.

The Retinal and Macular Dystrophy Center in the Department of Ophthalmology at the University of Michigan is actively seeking a molecular cell biologist with a demonstrated focus on photoreceptor cells to join a group currently applying genetic, molecular, histologic and physiologic approaches to the study of human and animal retinal dystrophies, with the foremost goal of identifying factors that are neuroprotective for photoreceptors. Candidate's interests should include mechanisms that may contribute to cell death. Candidates must have a Ph.D., M.D., or combined degrees, and relevant postdoctoral experience. This position is non-tenure-track at the level of RESEARCH INVESTIGATOR, Assistant or Associate Research Scientist. The candidate is expected to merit a secondary appointment in a basic science depart ment of the Graduate or Medical Schools. Teaching opportunities are available. Start-up funds are available. Interested individuals should submit a curriculum vitae, de scription of current and future research plans, and names of three individuals willing to provide reference letters to: Paul Sieving, M.D., Ph.D., Recruitment Committee Chair, Department of Ophthalmology, W. K. Kellogg Eye Center, 1000 Wall Street, Ann Arbor, MI 48105. The University of Michigan is an Équal Opportunity/Affirmative Action Employer.

PUBLIC HEALTH SCIENTIST: The Natural Resources Defense Council, a national non-profit public interest organization, seeks a scientist to work in various forums for the prevention of adverse health and ecological effects of toxic chemical pollution. A Ph.D./M.D. or Master's plus relevant experience is required. Candidates should be knowledgeable about cutting-edge toxics issues such as disproportionately impacted subpopulations, non-cancer endpoints, and emerging issues regarding carcinogenesis. The position requires the established ability to keep abreast of scientific advances and work with the public health and academic communities as well as with persons affected by toxics problems. The salary is \$30,000 to \$50,000, commensurate with experience. Send résumé to: Public Health Program, NRDC, 1350 New York Avenue, NW, Suite 300, Washington, DC 20005. Equal Opportunity Employer.

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POSITIONS OPEN

PROCESS ENGINEER. Responsible for research, development, and scale-up of pilot production process for industrial manufacturing. Develop, specify, and validate novel scaleable antibiotic-free recombinant microbial fermentation and recovery processes and equipment for making clinically acceptable therapeutic expression vectors used in research and clinical trials. Provide scale-up evaluations for processes and equipment for expansion of apacity, and also for ensuring genetic stability and conformations of products. Perform feasibility studies and finalize production and recovery processes for clinical trials and contract productions, and produce SOPs in conjunction with these. Implement cGMPs, validation, and associated documentation. Coordinate with other groups to develop specifications for processes to achieve required quantity and quality downstream. Evaluate fermentation batch, fed-batch, and continuous) performance by quantifying and characterizing conformation of raw products, and analyzing growth, culture purity, DNA and RNA syntheses, and genetic (segregational and structural) stability. Design and perform research to enhance productivity through replication control, medium and fermentation optimizations, host/vector selection, and genetic stability improvement. Contribute to designing of backbone of expression vectors to enhance productivity and genetic stability. Train scientists and operate, maintain, and troubleshoot process and equipment. Forty hours per week. M.S. in Biochemical Engineering and either six months of experience in job offered or six months of related experience in research in recombinant microbial fermentation with emphases on plasmid replication and segregational and structural stability improvement as shown by publications of results. Experiences also include run-away replication and replication mechanisms of difand molecular cloning. \$42,000 per year. Apply at the Texas Employment Commission, Conroe, Texas, or send résumé to: The Texas Employment Commission, TEC Building, Austin, TX 78778. J.O. No. TX6944664. Ad paid by an Equal Opportunity Employer.

USDA, Agricultural Research Service, Appalachian Fruit Research Station, Kearneysville, West Virginia announces an Interdisciplinary Support SCIENTIST position for a Horticulturist or Plant Physiologist with specialized knowledge and skills in plant tissue culture, genetic transformation of plants, and molecular biology. Research will focus on the transformation of deciduous perennial fruit species. The incumbent will be required to prepare research results for oral presentation and publication. Salary range is \$29,898 to \$36,174 commensurate with experience. U.S. citizenship required. For a copy of the vacancy announcement including application procedures and forms, contact Janie Carr in Personnel on 301-344-4569. For further information on the scientific rogram, please contact: Dr. Ralph Scorza, USDA, ARS, Appalachian Fruit Research Station, 45 Wilt-shire Road, Kearneysville, WV 25430. Telephone: 304-725-3451. Applications must be postmarked by July 25, 1995

Mailing address:

USDA, Agricultural Research Service Personnel Operations Branch, NS 6305 Ivy Lane, Room 328 Greenbelt, MD 20770-1435

An Equal Opportunity Employer.

The Pacific Northwest Research Foundation (PNRF), Seattle, Washington, is conducting a search for the CHIEF EXECUTIVE and CHIEF SCIENTIFIC OF-FICER of the PNRF. PNRF, an independent non-profit medical research corporation founded in 1953 by Dr. William B. Hutchinson, provides facilities, laboratories and administrative staff to support basic and applied medical research. The ideal candidate should be a nationally recognized scientist with at least 10 years of experience in research and research administration; an M.D. is preferred. A successful track record in administration is preferred with proven communication, interpersonal, and leadership skills. Send curriculum vitae or nominations as soon as possible to: John H. Moxley, III, M.D., Managing Director, North American Health Care Division, Korn/Ferry International, 1800 Century Park East, Suite 900, Los Angeles, CA 90067. PNRF is an Affimative Action/Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT RESEARCH SCIENTIST

The Department of Cell and Tumor Biology of the City of Hope National Medical Center is seeking a Ph.D. with an interest in molecular aspects of carcinogenesis for a tenure-track position at the level of ASSISTANT RE-SEARCH SCIENTIST. The successful candidate will be expected to develop an independent research program with preference given to candidates using approaches based in the enzymology and molecular genetics of DNA repair, gene rearrangement, or the maintenance of chromosome integrity. The candidate will also be expected to actively participate in the Molecular Carcinogenesis Program within the Cancer Center at the City of Hope. As an NCI-designated Clinical Cancer Center, the City of Hope has excellent facilities for DNA, peptide and RNA synthesis, protein and DNA sequencing, mass spectrom-etry and molecular modeling. The Center also offers the opportunity for interaction with medical and surgical oncologists including the opportunity to participate in a research training program for Surgical Oncology Fellows and provides access to an extensive solid tumor bank and cancer registry. Send curriculum vitae and a brief summary of research objectives to: City of Hope National Medical Center, Human Resources, Attn: SS, 1500 East Duarte Road, Duarte, CA 91010-3000. FAX: 818-301-8448; Email: jyasmineh@smtplink.coh.org. Equal Opportunity Employer

MOLECULAR AND CELL BIOLOGISTS INTERESTED IN TOXICOLOGY

Openings are available in the Environmental Chemistry and Toxicology Laboratory at the University of California at Berkeley for POSTGRADUATE RESEARCH SCI-ENTIST and SPECIALIST positions in the non-tenure series to investigate the mechanism of action of pesticides, xenobiotics and related biologically active compounds. The laboratory staff normally includes 16 to 20 grantfunded scientists appointed for periods of one to four years. The specifications for each position depend on the programmatic needs and the duration of the appointment on performance. The laboratory is currently soliciting applications in a relatively wide range of areas from which specific qualified candidates will be selected. Applicants must hold a Ph.D. or equivalent degree with emphasis on one or more of toxicology, pharmacology, molecular biology, cell biology, protein isolation/sequencing, radioligand binding studies and photoaffinity probes to investigate mechanisms of mammalian toxicity. Each appointment is made at a level commensurate with academic qualifications and experience. Send curriculum vitae, publication list, and names of three professional references to: Dr. John E. Casida, Department of Environmental Science, Policy and Management, 114 Wellman Hall, University of California, Berkeley, CA 94720-3112. Telephone: 510-642-5424; FAX: 510-642-6497. The University of California is an Equal Opportu-nity/Affirmative Action Employer.

To place a Classified Recruitment Ad, Call: Debbie Cummings at (202) 326-6541 Internet:science_classifieds@aaas.org To place a Product or Marketplace Ad, Call: Carol Maddox at (202) 326-6542 Science Advertising—FAX: (202) 682-0816

COURSES

TRACER METHODOLOGY COURSE. Principles and Practice of Tracer Methodology in Metabolism. Dr. Robert Wolfe, course director. A combination of didactic and interactive sessions will address theoretical and practical aspects of tracer methodology in metabolism. Emphasis on the application of stable isotopic tracers in metabolic studies, but principles of use of radioactive tracers also covered. October 29 to November 3, 1995, in Galveston, Texas. To receive information, Telephone: 409-770-6605 or FAX: 409-770-6825.

Postdoctoral Opportunities In The Biomedical Sciences.

The following research training opportunities are currently available at the National Institutes of Health.

Biochemistry of HIV-1 Molecules Dimiter S. Dimitrov, PhD

The mechanisms of interactions of the HIV-1 envelope glycoprotein with CD4 and accessory membrane associated molecules leading to virus binding and fusion as well as the role of the viral DNA structure in integration is being studied. The research involves immunochemistry, isolation and characterization of plasma membrane proteins and lipids as well as PCR analysis and fluorescence video microscopy. No prior experience with HIV-1 is required. Applicants must have less than five years of postdoctoral experience. Laboratory of Mathematical Biology (OE-90), NCI, Building 10, Room 4A01, 10 CENTER DR MSC 1350, BETHESDA MD 20892-1350.

Gene Therapy

Maurizio C. Capogrossi, MD

The effect of gene therapy in angiogenesis using animal models of heart and limb ischemia is being studied. Candidates should have training in small animals (rats and rabbits) vascular surgery and have less than five years of relevant postdoctoral experience. Laboratory of Cardiovascular Science (OE-90), NIA, 4940 Eastern Avenue, Baltimore, MD 21224.

Molecular and Cellular Neurobiology Evelyn Ralston, PhD

Subcellular organization of muscle and nerve cells is studied at both mRNA and protein levels. Current projects include mRNA localization in cultured neurons, as well as studies of the Golgi complex and trafficking of membrane proteins in muscle. Applicants should have strong background in cell and molecular biology and have less than five years of postdoctoral experience. Laboratory of Neurobiology (OE-90), NINDS, Building 36, Room 2A21, 36 CONVENT DR MŠČ 4062, BETHESDA MD 20892-4062.

Molecular Endocrinology S. Stoney Simons, Jr., PhD

The mechanism of action of steroid hormone receptors, especially for glucocorticoid steroids, is being studied. Emphasis is on the modulation of steroid regulated gene transcription by cis-acting elements, receptor-associated factors, actions of antisteroids, and DNA-receptor and steroid-receptor interactions. A background in the control of gene transcription, protein-protein interactions, or intracellular receptors is preferred. Laboratory of Molecular and Cellular Biology (OE-90), NIDDK, Building 8, Room B2A7, 8 CENTER DR MSC 0805, BE-THESDA MD 20892-0805.

Pineal Melatonin Rhythms Martin Zatz, MD, PhD

The mechanisms of regulation and expression of circadian rhythms in melatonin synthesis displayed by chick pineal cells in primary culture are being studied. Pharmacologic, biochemical, and molecular approaches are used. Applicants should have a strong background in one of these approaches and interest in transduction and second messengers, enzyme and protein biochemistry, and/or gene expression and molecular biology. Laboratory of Cell Biology (OE-90), NIMH, Building 36, Room 2A17, 36 CONVENT DR MSC 4068, BETHESDA, MD 20892-4068. E-mail: zatz@codon.nih.gov.

Repressor Genes George Mavrothalassitis, PhD

The molecular and biochemical function of <u>ets</u> repressor genes and their hybrid as tumor suppressors is being studied. Research areas include signal transduction, regulation of growth and differentiation and regulation of transcription. Applicants should have a background in molecular or cellular biology and/or biochemistry and must be a US citizen or permanent resident with less than five years of postdoctoral experience. Laboratory of Molecular Oncology (OE-90), NCI-FCRDC, Building 469, Room 206, Frederick, MD 21702-1201.

Vaccine Development Dennis Klinman, MD

Research focuses on understanding the mechanisms by which 'naked' DNA plasmids induce antigen-specific immune responses and; monitoring the activity of HIV vaccines and immunotherapeutic agents. Studies are designed to monitor the interaction between various types of immunologically active cells and the factors they secrete. Applicant should have less than five years of postdoctoral experience. Medical training would be beneficially. Laboratory of Retroviral Research (OE-90), FDA/CBER (HFM-454), Building 29A, Room 3D10, 1401 Rockville Pike, Rockville, MD 20852-1448.

Additional Opportunities

The NIHEDNET Bulletin Board POSTDOC (fellowship positions) and TENURE (tenure track positions) conferences are accessed via a modem (301-402-2221 or 800-358-2221 with parameters set at 7, Even, 1) or the Internet using Telnet (wylbur.cu.nih) or the World Wide Web (URL: telnet: llwylbur.cu.nih). When connected to NIH, key in , vt100 for terminal emulation, F5E for initials, and AJL1 for account number. To view tenure track positions, quit the POSTDOC conference and *join* the **TENURE** conference.

An electronic version of the Postdoctoral Research Fellowship Opportunities catalog is accessed via the Internet using either the Gopher Information System (gopher.nih.gov) or the World Wide Web (URL: http://www.nih.gov). When connected with Gopher, select Grants and Research Information and then NIH Office of Education. When connected with WWW, select Grants and Contracts and then NIH Office of Education. If you have further questions, please contact the NIH Office of Education, Building 10, Room 1C129, 10 CENTER DR MSC 1158, BETHESDA MD 20892-1158, Phone 301-496-2427, Fax 301-402-0483.

To Apply

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





Office Of Education The NIH is an Equal Opportunity Employer

DEAN

Tufts University School of Veterinary Medicine

Tufts University seeks a dynamic Dean for its School of Veterinary Medicine. Just sixteen years old, the School has already distinguished itself with innovative programs in biotechnology, wildlife medicine, equine sports medicine, international veterinary medicine, ethics and values, oncology, infectious disease, animal behavior, and medical imaging. Tufts has emerged as one of the most selective veterinary schools in the U.S., with the highest number of applicants per space for the most recent year's entering class.

The next Dean must have the D.V.M. or equivalent, an entrepreneurial bent, significant administrative experience, fundraising achievement or potential, and a broad understanding of the social setting of modern veterinary medicine. Also among his or her achievements will be knowledge of current issues in veterinary education, a distinguished record of scholarly work, and an understanding of biotechnology and the biotechnology industry.

Tufts University, established in 1852, also operates distinguished schools of medicine and dental medicine, a graduate school of nutrition, and a nutrition research center, as well as a school of law and diplomacy and the colleges of arts and sciences, in greater Boston. The veterinary school's programs are based on a 640-acre campus in a pristine New England setting in North Grafton, Massa-chusetts, thirty miles west of Boston, and also on the Health Sciences Campus in Boston.

An extremely attractive compensation package, and the possibility of an endowed chair, accompany this position.

Applications and nominations should be sent to:

Provost/Senior Vice President Sol Gittleman c/o TUSVM 200 Westboro Road N. Grafton, MA 01536

The position will be filled when the appropriate individual is identified.

Tufts University is an AA/EO employer. Applications from women and minority candidates are especially encouraged.

UNIVERSITY OF PENNSYLVANIA MEDICAL OBITER

Faculty Positions in Immunology University of Pennsylvania School of Medicine Institute for Human Gene Therapy

We invite applications for Assistant Professor level tenuretrack faculty positions at the University of Pennsylvania School of Medicine. The successful applicant will be a member of the Institute for Human Gene Therapy which emphasizes several primary research areas such as immunology, stem cell biology, cancer biology, genetics, and ion transport. This individual will be appointed to a faculty position in either a basic science or clinical department, and should have the ability to develop an independent research initiative within our immunology program, a major basic science focus of the Institute. Areas of particular interest include lymphoid development and activation, tolerance induction, programmed cell death, and cytokine gene regulation.

Applicants must have either a Ph.D. or M.D. degree and show exceptional promise of establishing a vigorous, independent research program in an academic setting. A letter, C.V. and a statement of research interests should be addressed to:

James M. Wilson, M.D., Ph.D. Director, Institute for Human Gene Therapy University of Pennsylvania Medical Center 3400 Spruce Street (M6. 40 Maloney) Philadelphia, PA 19104-4283

Equal Opportunity/Affirmative Action Employer. We encourage minority and women candidates.

3 Senior Research Positions Environmental Processes Division NOAA/NMFS/NEFSC, Sandy Hook, NJ

NMFS seeks to fill 3 senior research positions to participate in an interdisciplinary reserach program focused on the environmental and anthropogenic factors affecting living marine resources in U.S. coastal waters: a fishery biologist with expertise in fishery ecology, a fishery biologist with expertise in fish behavior and a fishery biologist with expertise in pathology. These positions are located at the new state-of-the-art James J. Howard Marine Sciences Laboratory in Sandy Hook, NJ. The laboratory has excellent facilities and instrumentation for experimental, laboratory research in fishery ecology, fish behavior, and pathobiology. A coastal research vessel is available to conduct coordinated field and laboratory studies. Collaboration with academic investigators is encouraged. The successful applicants will have experience in interdisciplinary research programs and demonstrated excellence in research through publications that have influenced their fields. Ph.D. preferred. Must be a U.S. citizen. Salary range: \$61,976-80,566. Contact: Kathryn McArthur, EASC/EC22, 200 World Trade Center, Norfolk, VA, 23510, (804) 441-6876. The U.S. Department of Commerce is an EEO/AA employer. Applications close August 25, 1995.

Chair Department of Rehabilitation Medicine Emory University School of Medicine

Emory University School of Medicine invites nominations and applications for the position of Chair of the Department of Rehabilitation Medicine. Responsibilities include the direction, management and continued development of a department committed to excellence in teaching, research and patient care in a variety of clinical settings. Candidates must hold the M.D. degree from an accredited institution, must be Board Certified in Physical Medicine and Rehabilitation and must be eligible for medical licensure in Georgia. In addition, the candidate must be able to lead a department in the current health care delivery environment. Also required are demonstrated leadership capabilities, previous academic and administrative responsibilities, a demonstrated record in research, and excellent clinical skills. Salary is negotiable

Applications and nominations should include a current curriculum vitae and names and addresses of three references. They should be submitted to the **Rehabilitation Medicine Chair Search Committee**, **Emory University School of Medicine**, **404 Woodruff Health Sciences Center Administration Building**, **1440 Clifton Road**, N.E., **Atlanta**, **Georgia 30322**. The Search Committee will review applications until the position is filled.

EMORY UNIVERSITY IS AN EQUAL OPPORTUNITY/AFFIRMATIVEACTION EMPLOYER PLANT SYSTEMATIST -- The College of Agricultural and Environmental Sciences, University of California, Davis, invites applications and nominations for a 9-month tenure-track Assistant Professor/Assistant Plant systematist position in either the Department of Pomology or the Department of Vegetable Crops. This position has the probability of extension to 11-month employment. The full-time position will include an appointment in the California Agricultural Experiment Station (70%) and teaching responsibilities commensurate with the proportion of the position allocated to Instruction and Research (30%). Candidates must have a Ph.D. degree (or equivalent) in Botany, Plant Biology or a related field with training and emphasis on systematics, taxonomy and evolution. Applicants should send (1) a curriculum vitae, (2) transcripts if less than 5 years since graduation, (3) copies of published and inpress articles, (4) a description of current and projected research interests relative to this position, (5) a summary of teaching interests and experience, and the names and addresses of at least three references from whom letters of reference may be requested to: Prof. F.A. Bliss, Chair, Systematist Search Committee, Department of Pomology, Wickson Hall, University of California, Davis, CA 95616. Closing date: Open until filled, but all application materials must be received by September 30, 1995 to be assured full consideration. The University of California is interested in candidates who reflect the highest standards of scholarship and professional activities and does not discriminate on the basis of race, color, national origin, religion, sex, disability, age or sexual orientation. The University of California is an Equal Opportunity/Affirmative Action Employer.



Pioneer Hi-Bred International, Inc., is a worldwide leader in agricultural genetics. Founded in 1926, we are a publicly-held corporation with research, production and sales organizations worldwide. Our TRAIT AND TECH-NOLOGY DEVELOPMENT DEPARTMENT has the following immediate opening in research and product development for protein products:

RESEARCH ASSOCIATE, PROTEIN BIOCHEMISTRY (JOB #1056)

The selected candidate will join a laboratory team that uses biochemistry methods to characterize and purify recombinant proteins in seeds of transgenic plants. We require an MS in biochemistry, molecular biology, or a related field OR a BS plus 2 years' relevant research experience. We also require experience with protein analysis and purification; basic knowledge of protein analytical methods; and good data organization and communication skills. Experience in molecular biology techniques would be beneficial.

We offer a very competitive salary and excellent benefits such as 401(k), tuition reimbursement, and relocation reimbursement. Des Moines is a vibrant and prosperous heartland city that ranks well above the national average in affordability and education and offers big city cultural advantages with a rich outdoor life just minutes away. Please send two copies of application resume and cover letter indicating job number by August 1, 1995 to: Jon Day, Employment Manager, Pioneer Hi-Bred International Inc., 6800 Pioneer Parkway -Box 212, Johnston, IA 50131-0212. No phone calls, please. An Equal Opportunity Employer.



Tularik is a rapidly growing biopharmaceutical company dedicated to the discovery and development of novel therapeutic agents that regulate gene expression. We are continuing to expand our multidisciplinary research team and have the following opportunities available in our Biochemical Pharmacology department:

SCIENTIST

We are seeking an innovative and creative Scientist with a strong background in signal transduction and protein biochemistry. This person will play a key role in the development of novel biochemical assays for high throughput drug screening. Successful candidate will also have an interest in technology development with particular emphasis on the application of new detection systems. Applicants should have a Ph.D. in Biochemistry or related field, with at least 2 years of postdoctoral experience. (Job# S0707-S)

POSTDOCTORAL FELLOW

A postdoctoral research position is available for an individual interested in signal transduction and in the direct application of basic research to drug discovery. As a postdoctoral fellow you will be working on signal transduction/gene regulation pathways that are relevant to human disease. You will participate in the development of novel assay systems based on the discoveries of you and your colleagues. As a member of our Biochemical Pharmacology department you will be exposed to state-of-the-art assay development and novel robotic screening technology. A Ph.D. in Biochemistry and a strong interest in unraveling signaling pathways as well as a desire to learn about the practical side of drug discovery are required. (Job# S0707-P)

Tularik offers productive and experienced leadership, equity participation, competitive salary and benefits commensurate with experience, and a very exciting research environment. For consideration, please submit your CV to: Tularik, Inc., Attn: Job# ____, 270 East Grand Ave., South San Francisco, CA 94080.



Drug Metabolism

At Amgen, you'll discover a research environment that emphasizes collaboration, intellectual honesty, scientific integrity, and a supportive culture. This unique approach has helped us grow into a global biotechnology leader in just fifteen years.

We seek the following drug metabolism scientists to join our new small molecule anti-inflammatory drug discovery team at our BOULDER, CO facility.

RESEARCH SCIENTIST

Qualified candidates will possess a Ph.D. in Pharmacology, Pharmacy, Chemistry, or related field and at least 3 years' industry experience in the design and conduct of in vitro/in vivo metabolism studies on small molecule new drug entities. Excellent communication skills and the ability to work in a multi-disciplinary team environment are essential. The preferred candidate will have strong leadership skills and the ability to apply innovative techniques in drug metabolism to drug discovery. (Job Code: OXP-SC-2617)

RESEARCH ASSOCIATE

Qualified candidates will have a BS/MS in Pharmacy, Biology, Chemistry, or related field and a minimum of 2 years' experience in drug metabolism using bioanalytical techniques. Excellent communication and teamwork skills are essential. Previous pharmaceutical industry experience is preferred. (Job Code: OXP-SC-2616)

We recognize that diverse perspectives are a key factor in the process of discovery.

We offer a highly competitive compensation and benefits package. Please mail your resume/c.v. to: Amgen Boulder, Human Resources Dept., Job Code: (see above), 3200 Walnut Avenue, Boulder, CO 80301. Principals only, please. Please consult our on-line Job Bulletin Board at http://www.bio.com for information on other career opportunities available at Amgen.

EEO/AA Employer M/F/D/V



Tularik is an equal opportunity employer.

NATIONAL INSTITUTES OF HEALTH NATIONAL INSTITUTE OF DENTAL RESEARCH DIVISION OF EXTRAMURAL RESEARCH

The Division of Extramural Research, the organizational unit of the National Institute of Dental Research (NIDR) responsible for promoting and managing all dental research grants and cooperative agreements, training and career development awards, and research contracts for the NIDR, invites nominations and applications for a Health Scientist Administrator position in the scientific program area of Craniofacial Development and Disorders.

Applicants should have a Ph.D. degree (or equivalent doctoral degree), in a science related to health, dentistry and/or medicine; accomplishments in molecular biology, developmental biology, bone or mineralized tissue biology and/or development, or craniofacial development and disorders as well as demonstrated ability in health science administration. Activities include planning and implementing research initiatives through grants, contracts and/or cooperative agreements and to provide administrative and scientific oversight of proposals and awards. The position is available immediately.

Appointment in the Federal Civil Service at a GS-12; GS-13 or in the Commissioned Corps of the U.S. Public Health Service may be appropriate. U.S. citizenship is required. Grade level and salary is commensurate with qualifications and experience.

Applicants may submit a curriculum vitae and bibliography, resume, Optional Application for Federal Employment, OF-612 (available in any Federal Personnel Office) or any other written format you choose.

Full qualification requirements and further information including knowledge, skills and abilities (KSAs) for this position can be obtained from:

Ms. Faye Harbrant Personnel Management Specialist National Institute of Dental Research National Institutes of Health 31 Center Drive, MSC 2290 Building 31, Room 2C23 Bethesda, Maryland 20892 (301) 496-6971

Application materials must be postmarked and sent by the closing date of August 15, 1995.

NIH is an Equal Opportunity Employer



Northwestern University Medical School

Northwestern University Medical School seeks a full-time, nontenure eligible faculty member to join a laboratory actively investigating wound healing. The appointment will be at the rank of Assistant Professor in the Department of Surgery with a joint appointment in the Department of Cell, Molecular and Structural Biology, and the desired start date is the fall of 1995. Applicants should have research interests in the basic cellular and molecular mechanisms of wound formation and wound repair. The laboratory is particularly interested in the signal transduction pathways which may be altered in aged and/ or hypoxic cells. Applicants must hold a Ph.Ds and have research experience in a related area. The successful applicant would be expected to integrate work with the wound healing group and subsequently develop an independent research program. Funding will be available for a period of three years. Hiring is contingent upon eligibility to work in the United States.

Candidates should submit a curriculum vitae a brief statement of research interests and future plans, copies of three recent publications, and three professional references to:

Thomas A. Mustoe, M.D. Professor of Surgery Division of Plastic and Reconstructive Surgery 707 N. Fairbanks Court, Suite 811 Chicago, IL 60611

Northwestern University is an Affirmative Action / Equal Opportunity employer.

Health Care Research: Women

Every year, SCIENCE has devoted an issue to women in science. On 11 August 1995, we will take an in-depth look at women's health care research. In this important cover story, SCIENCE goes beyond the popular myths and the rhetoric to examine the important questions surrounding this topic.

This is an excellent opportunity to showcase your company as an ideal work environment for women and to confirm your company's commitment to women's health care research by placing a full page recruitment advertisement in this issue.

Full page advertisements will receive extra visibility by being listed on an index attached to the covers of the issues distributed to the Association for Women in Science. In addition, full page recruitment ads will be highlighted by an advertisement listing all of the full page advertisers and saluting industry efforts to promote women in science and women's health care issues.

Don't miss this outstanding opportunity to feature your company's recruitment message in this once-a-year special issue!

"Health Care Research: Women" publishes 11 August 1995. Advertising space reservation deadline: 25 July 1995.

For advertising information, please call Janis Crowley at (212) 496-7704 or fax to (202) 682-0816.



Scientist, **Biopharmaceutical Division**

ZymoGenetics, a Seattle-based biotechnology company, is currently seeking a Scientist for its Biopharmaceutical Division.

The successful candidate will identify existing assay systems, as well as develop novel assays to support the cloning, expression and purification of novel protein therapeutics. Flexibility to work on diverse protein projects is required.

Qualified candidate will have a strong background in basic cell biology with specific expertise in the development/implementation of biological assays for the identification and characterization of both naturally-derived and recombinant proteins. Background should also include some or all of the following: tissue culture, proliferation assays, enzymatic assays, immunoassays, immunohistochemistry, bone marrow colony forming assays, organ culture systems, and whole animal models. Must have a Ph.D. or M.D. degree, 2+ years postdoctoral research experience plus strong verbal/written communication skills

As a subsidiary of Novo Nordisk A/S, the world's largest manufacturer of insulin, ZymoGenetics offers an exciting environment characteristic of a small research and development company, along with the scope and stability of a large pharmaceutical corporation. We also offer intellectual challenge, state-of-the-art facilities and a generous benefits package. Please apply by sending your CV, noting reference #14N495, to: Zymo Genetics, Inc., Human Resources, 1201 Eastlake Avenue East, Seattle, WA 98102. ZymoGenetics is committed to Equal Opportunity and Diversity.

ZYMOGENETICS 🖢

Research Veterinary Pathologist Worldwide Drug Safety Research

The Upjohn Company, a recognized leader in worldwide pharmaceutical research, is seeking a Veterinary Pathologist to design, conduct and report GLP drug safety studies. These studies characterize the toxicity of new drug candidates and formulations in support of clinical trials to meet worldwide marketing requirements. You will collaborate with corporate scientists and external consultants to provide an integrated safety evaluation of new drugs, as well as participate in safety assessment decisions and project teams.

A DVM degree (or equivalent), a Ph.D. in pathology or related field, ACVP board certification and at least four years of directly related experience in pharmaceutical pathology, toxicology and safety evaluation are required. Candidates must have demonstrated originality in problem solving in relation to safety evaluation and must possess the skills and abilities to deal effectively with scientists, management and governmental agencies.

Upjohn offers a stimulating, multi-disciplinary research environment at our headquarters in Kalamazoo (a southwestern Michigan community located midway between Chicago and Detroit). We provide an excellent salary and benefits package. For confidential consideration please submit your resume to: The Upjohn Company, Ad #293, 7000 Portage Road, Kalamazoo, MI 49001.

We are an Equal **Opportunity Employer** with a commitment to workplace diversity.



High-Throughput Biological Evaluation Aimed at Novel Drug Discovery

PHYTERA, INC. is an exciting, young company applying novel, world-class capabilities in plant cell culture to the discovery of innovative plantderived compounds to treat major human diseases. If you are a talented research associate we would like you to join our highly-motivated staff of professionals at our newly constructed Worcester, MA facility.

In this position, you will be involved with all aspects of high-throughput biological evaluation of plant cell culture extracts to help identify novel drugs and drug leads. Your responsibilities will include assay development, assay configuration to high-throughput formats, programming and application of robotics and utilization of a sophisticated database system

You will have a BS or MS in Biochemistry or Biology and 2-4 years of high-throughput biological evaluation experience in a drug discovery environment. Working knowledge of protein biochemistry (purification, enzyme and/or receptor assays), use of automated equipment and good computer skills are all highly desirable

Please forward your curriculum vitae to: Human Resources, Code BE103, Phytera, Inc., 377 Plantation St., Worcester, MA 01605; or fax to (508) 792-1339. An equal opportunity employer.



GENOMETRIX

Bridging Microelectronics and Molecular Biology

Genometrix is a pioneering leader in the development of electronic DNA microchips and associated molecular imaging instrumentation for DNA-based research and diagnostics. Nestled in a forested, affordable master-planned community north of Houston, Genometrix is seeking highly qualified innovative candidates to fill the following positions:

VP/Manufacturing and Engineering

This position requires extensive bioanalytical instrument manufacturing experience for life science and clinical markets; demonstrated proficiency in planning, designing (DFMA), system integration, assembly, testing and certification (ISO and FDA); preferred technological expertise in optical detection and imaging with CCDs, data acquisition, and ink-jet dispensing of reagents. Additional requirements include:

B.S. or higher in Engineering

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• 10+ years experience with proven efficiency in product time-to-market

Senior Electro-Optical Engineer

This position requires demonstrated proficiency in designing and building PC-based optical detection and imaging systems employing CCDs for UV, visible, IR and X-ray imaging. Additional requirements include:

- M.S. or higher degree in Electrical Engineering or Physics
- 10+ years experience with proven innovative contributions

Electronic Technician

This position requires extensive experience in designing, fabricating, testing and troubleshooting PC-driven CCD imaging systems. The candidate must have demonstrated proficiency with data acquisition electronics to include A/Ds, conditioning, timing, multiplexing, and DSP. Additional requirements include:

10+ years experience with demonstrated product achievements

Biochemist/Senior Biochemist

These positions required demonstrated proficiency in DNA-based research and diagnostics including sample preparation, oligonucleotide synthesis, fluorescent and chemiluminescent labeling, attachment chemistries, hybridization, probe-based clinical assays, detection systems, and various blotting protocols. Additional requirements include:

- B. S. or higher degree in Biochemistry or equivalent educational background 5/10+ years lab experience with demonstrated innovative contributions

Send letter of application and resume to:

GENOMETRIX 3608 Research Forest Dr., Suite B7 The Woodlands, TX 77381

HARVARD MEDICAL SCHOOL Executive Director for Research Affairs

Harvard Medical School invites nominations and applications for this newly created position with primary responsibility to:

Work with the basic science departments to develop comprehensive, proactive re source acquisition strategies with the goal of significantly increasing levels of research funding from corporate and government sources; lead the implementation of those strategies; and provide executive leadership on issues of research funding, research policy and research administration.

The ideal candidate will have a Ph.D. in the life sciences with sufficient familiarity with medicine to understand the clinical relevance of basic research. She/he will have a mininmum of ten years of management experience. An entrepreneurial spirit and creative approach will be essential to "market" academic research initiatives to prospective sponsors and funders. Experience in a business development role in the biotechnology or pharmaceutical field would be helpful. Familiarity with federal grant and contract policies and procedures is highly desirable, as is familiarity with philanthropic fundraising.

Nominations and expressions of interest will be held in confidence and may be sent to:

Esther Rosenberg Co-Managing Director Howe-Lewis International 521 Fifth Avenue New York, New York 10175 Fax 212-697-6600

CHAIR Department of Pathology and Laboratory Medicine Emory University School of Medicine

Emory University School of Medicine invites nominations and applications for the position of Chair of the Department of Pathology and Laboratory Medicine. Responsibilities include the direction, management and continued development of a department committed to excellence in teaching, research and clinical ser-vice in a variety of clinical settings. Candidates must hold an M.D. degree from an accredited institution, must be Board Certified in Pathology, and must be eligible for medical licensure in Georgia. In addition, the candidate must be able to lead a department in the current health care delivery environment. Also required are demonstrated leadership capabilities, previous academic and administrative responsibilities, a demonstrated record of excellence in research, and a knowledge and expertise in running a major clinical laboratory operation. Salary is negotiable.

Applications and nominations should include a current curriculum vitae and names and addresses of three references. They should be submitted to the **Pathology and Laboratory Medicine Chair Search Committee, Emory University School of Medicine, 404 Woodruff Health Sciences Center Administration Building, 1440 Clifton Road, N.E., Atlanta, Georgia 30322.** The Search Committee will review applications until the position is filled.

EMORY UNIVERSITY IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER



Please send application, CV and names of two referees to Professor Villy Sundström, Department of Chemical Physics, Chemical Center, Lund University, Box 124, S-22100 Lund Sweden. Tel: +46 46 222 4690. Fax: +46 46 222 4848.

GLOBAL CAREER OPPORTUNITIES

REQUEST FOR PROPOSALS FROM THE INTERNATIONAL SPINAL RESEARCH TRUST

The field of spinal cord repair has developed to the stage at which we now have demonstrable regeneration of damaged nerve fibres in the adult mammalian cord. This represents a truly great advance that is the foundation of all our research and, even more importantly, the associated technologies that will help us progress are now maturing. Accordingly we feel that we have sufficient knowledge to plan a research strategy which will guarantee genuine progress. At the moment, we can only look to phase one of a strategic programme, but we are confident that this will take us forward to a second phase where we can begin to address how to take the work on to the clinic.

To reach this point it is recommended that ISRT funding is, from now on, restricted to projects that are conducted in adult mammalian spinal cord and concentrated on 3 main research foci:

• early trauma and inflammation: prevention of the generation of obstacles to future regenerative repair, including aspects of scarring

 trophic stimulation of neurite outgrowth: identification of the pattern and possible temporal cascade of the different factors required to achieve long-distance regeneration

 \bullet CNS inhibitory molecules: masking of intrinsic mechanisms that are inhibitory to axonal regrowth in the CNS

Besides these three main foci, ISRT will support a complementary programme to address the hurdles that prevent a proper evaluation of the progress made on each project.

 A programme to develop underpinning technologies. This will include the development of assessment models: both behavioural models and models that closely mimic the lesion in man.

 Education and communication. Promoting the education of young scientists in relevant technologies and encouraging communication between laboratories by exchange visits and carefully focused conferences.

The Trust does not, at this time, have the resources to begin every aspect of this three year programme. Accordingly applications are invited for projects focusing on the trophic stimulation of neurite outgrowth and the development of behavioural models. Applicants should submit a letter of intent summarising the proposed research and background of the laboratory. An approximate budget and the curriculum vitae of the Principal Investigator(s) should be included. Awards will average up to £250,000 over three years and, following a preliminary review, detailed proposals will be requested from a limited number of applicants. Deadline for letters of intent is 14th August 1995. Successful applicants will be approached by ISRT for detailed plans.

Address letters of intent to: The International Spinal Research Trust, Unit 7 Bramley Business Centre, Station Road, Bramley, Guildford, Surrey GU5 0AZ, UK

Carlsberg Laboratory Head of Department of Physiology

MOLECULAR BIOLOGY AND BIOTECHNOLOGY

The Trustees of the Carlsberg Laboratory, invite applications for the position as Professor and Head, Department of Physiology as of **October 1st, 1996.** The department offers opportunities for original research in the genetic, cell biological, physiological and biochemical sciences. By tradition it trains masters and Ph.D. students and provides opportunities for independent postdoctoral research. Together with the Departments of Chemistry and Yeast Genetics of the Carlsberg Laboratory and in cooperation with the Carlsberg Research Laboratory, the department participates in the development of biotechnological applications of molecular biology with emphasis on cereals.

Prior to September 1st, 1995 applicants are asked to submit a Curriculum vitae including a list of publications and a statement of their research plans to Professor Carl Johan Ballhausen, Chairman of Search Committee, Kemisk Laboratorium IV, H.C. Ørsted Institutet Universitetsparken 5, DK-2100 Copenhagen Ø. **GLOBAL CAREER OPPORTUNITIES**



THE AGA KHAN UNIVERSITY

Faculty of Health Sciences Medical College

ASSOCIATE DEAN, RESEARCH & GRADUATE STUDIES

The Aga Khan University (AKU), chartered in 1983, as the first Private University in Karachi, Pakistan, was conceived by His Highness, The Aga Khan, to be the focal point of The Aga Khan Development Network. The Faculty of Health Sciences began with undergraduate education in nursing and medicine. Postgraduate clinical education and training have been established. Graduate studies in community health sciences and basic health sciences are being developed. The Institute for Educational Development began a Master's programme in Teacher Education in January 1994. The University is committed to support applied and fundamental research initially in infectious disease, community health and education with further plans for major development. The University is in search of an outstanding candidate to fill the above position.

The Associate Dean will be required to establish and coordinate facilities for research including financial support fostering development of graduate studies, evolution of critical thinking, research creativity and administration of facilities. Candidates for the position should have significant experience of research and a broad institutional perspective. Candidates must have a Ph.D. with post-doctoral training or an MD with the appropriate clinical specialty, record of successful grant acquisition and must be at least in an Associate Professor or equivalent rank.

Salary and benefits will be offered commensurate with qualifications and experience. Candidates intending to pursue a career in Pakistan will be preferred. If you are seeking professional growth and an interesting work environment, please send your detailed résumé, bibliography and names of atleast three referees familiar with your recent work to the Acting Rector and Dean, Faculty of Health Sciences, The Aga Khan University, P.O.Box 3500, Stadium Road, Karachi-74800, Pakistan.

中央研究所 ドイツ・バイエル社は海外の研究拠点として、アメリカに次いで今春日本 に中央研究所を設立しました。この研究所では、アレルギー及び自己免疫 疾患分野を担当。ドイツ・アメリカ等との学術交流が頻繁なため、国際感 覚豊かでリーダーシップのとれる優秀な研究者を募集します。 職務内容 1. コンピュータによる薬物デザイン(Molecular Modeling)の研究 2. 医薬品探索のための有機合成化学分野の研究(プロジェクトリーダ-) 応募資格 上記関連分野の研究者でPh.D又は同等の知識・経験のある方。 製薬研究所・海外ポスドク経験者歓迎。 日本語・英語必須。30~35才位迄。 化学・アレルギー・免疫系新卒1996年以降、継続して募集します。 問合せ歓迎。日本語・英語必須。 バイエル薬品中央研究所 勤務地 (関西文化学術研究都市木津南地区/近鉄奈良駅より車10分) 遇 弊社規定により優遇。借上社宅制度有。入社・面談日応談。 待 応募書類 履歴書(日・英)、研究概要(日・英各A41枚程度)及び主要論文の コピーを下記宛にお送り下さい。 瀷 老 1次/書類審査 2次/面接他 連絡先 大阪市淀川区宮原3-5-36 新大阪第2森ビル 〒532 バイエル薬品(株)リクルーティング⑤係 担当/野本・藤本 TEL06-398-1145(コレクトコールをご利用下さい) バイエル薬品株式会社 ◆弊社は全ての社員及び応募者に公平に対応致します

PROFESSOR OF BIOCHEMISTRY AND MOLECULAR BIOLOGY Department of Molecular Sciences

Townsville

In response to a substantial expansion of life sciences in the University's Department of Molecular Sciences the new position of Professor of Biochemistry and Molecular Biology has been established. This expansion is being recognised with the formation of a School of Molecular Sciences with separate Departments for disciplines. The appointee will be the head of one of these departments within the School of Molecular Sciences.

Applicants must have displayed initiative and innovation in a specific area of biochemistry and/or molecular biology and be able to demonstrate an ability to lead the field, rather than to follow. In this regard excellence will be the primary criterion, thus dynamic, active researchers and teachers are particularly encouraged to apply.

The appointee will be expected to provide academic leadership, and to contribute to existing and develop new teaching programs at both undergraduate and postgraduate levels. James Cook is one of the few Australian universities still undergoing substantial growth in the life sciences, and the seven current biochemistry staff all have active research programs well supported under external funding schemes. It is anticipated that the establishment of the Chair will ensure the further development of biochemistry and molecular biology as research and teaching disciplines at the University.

Tenure: The position is available on a permanent basis. **Salary:** Academic Level E - A\$80176 a year.

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Further information may be obtained by contacting the Recruitment Officer, Human Resources Division, James Cook University of North Queensland, Townsville, Q 4811 AUSTRALIA. Phone 61 77 81 4880, Fax 61 77 81 5644. Applications close on 4 August 1995. Quote JI95089.

Equal Opportunity in Employment is University Policy The University has a "Smoke-Free Working Environment" Policy

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New Genome-Wide MAPPAIRS[™] Screening Sets

Research Genetics is pleased to announce the availability of the newly released linkage screening sets from the Cooperative Human Linkage Center (CHLC). These sets, also known as the version 6 & 6a sets, are available unlabeled, or with a variety of different labels attached. The larger of the two sets (version 6) contains 391 markers with an average heterozygosity of 76%. The average spacing for this set is 10.0 cM and it contains 86% tri- and tetranucleotide markers. The subset (version 6a) contains 169 markers with an average heterozygosity of 78%. The average spacing for this set is 24.4 cM and it contains 90% tri- and tetranucleotide markers.

All of the markers are available for \$20 per unlabeled pair or \$60 per dye-labeled pair. An M13 label and an infrared-dye label are also available. The version 6 set can be multiplexed with an average of 6-9 markers per lane, and the all of the version 6a markers are available labeled with FAM, HEX or TET. Please contact the MAPPAIRSTM department at Research Genetics for additional information on these new sets.

*The use of microsatellite markers for genetic analysis is covered by United States and foreign patents licensed to Research Genetics. Purchasing these markers from Research Genetics or one of its agents automatically grants the user a license for all applications except clinical diagnostics. For information about how to obtain a license for clinical application, contact Research Genetics, USA 205-533-4363.

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