### **DNA Sequencing Kit**

The IsoTherm DNA Sequencing Kit is an alternative to modified T7 DNA polymerase for isothermal DNA sequencing. The kit includes IsoTherm DNA Polymerase, which is the product of the cloned DNA pol I gene of the thermophilic bacterium Bacillus stearthermophilus, modified to remove 5' - 3' exonuclease activity. Because of a high temperature optimum of 65°C, IsoTherm DNA polymerase can sequence through regions of secondary structure where standard DNA polymerases fail. Other advantages of the kit include high sensitivity (only nanograms of template are required), the ability to use a variety of radioactive and nonradioactive labels, prolonged stability at room temperature, and the production of uniform band intensities. Epicentre Technologies. Circle 139.

### Semi-Dry Electroblotting Device

The Pronto device is a two-piece, semi-dry electroblotter for fast and efficient transfer of target proteins or DNA from polyacrylamide gels with minimal use of transfer buffer. Exceptionally low



heat build-up and virtually indestructible electrodes ensure reproducible results and minimal upkeep. The electrodes are made of synthetic carbon with an embedded copper mesh that is resistant to corrosion. The 18 cm by 18 cm electrode size enables transfer of target from large standard gels or from four mini-gels simultaneously. Another option is to stack sandwich blots so eight mini-gels can be run at once. Complete transfer time ranges from 30 to 45 min, even for proteins as large as 205 kD. Schleicher & Schuell. Circle 140.

### Silver Staining Kits

Two silver staining kits bring speed, convenience, and sensitivity to the staining of proteins and nucleic acids in polyacrylamide electrophoresis gels. The kits give essentially colorless backgrounds and are for use with Pharmacia Biotech precast gels as well as with thicker, conventional minislab polyacrylamide gels. The protein kit gives results in about 2 hours. It detects most proteins in the nanogram range, which is 100 times more sensitive than Coomassie brilliant blue. The DNA kit provides a nonradioactive method that gives results in about 1 hour. It detects in the nanogram range, which is more than 50 times more sensitive than ethidium bromide. Pharmacia Biotech. Circle 141.

### Monoclonal Antibodies

A line of monoclonal antibodies (mAbs) against pharmacological agents can recognize penicillin, cephalosporin, cloxacillin, novobiocin, and theophylline. The manufacturer also offers an ascites service for in vivo production of mAbs in SCID mice. Maine Biotechnology Services. Circle 142.

A mAb specific for human vascular cell adhesion molecule (VCAM-1) reacts with several cell types including lymphocytes, fibroblasts, monocytes, and neural crest cells. It inhibits cellular adhesion and is useful for functional studies, immunohistochem-



istry, and enzyme-linked immunosorbent assay development. Antigenix America. Circle 143.

### mRNA from Cells and Tissues

The Dynabeads mRNA Direct Kit is designed for the rapid isolation of intact mRNA directly from crude cell and tissue samples in 15 min. The kit includes monodisperse superparamagnetic Dynabeads Oligo  $(dT)_{25}$ , which eliminates the need for spin columns, filtration, organic reagents, and ethanol precipitations. High yields of polyadenylate are obtained because the Dynabeads hybridization efficiency is comparable to reaction kinetics in free solution. Strong ribonuclease inhibiting agents in the kit ensure isolation of high quality mRNA. The purified mRNA can be used directly in various downstream applications, including reverse transcriptase-polymerase chain reaction, solid phase complementary DNA library, S1 nuclease analysis, ribonuclease protection, primer extension, dot and slot hybridization, in vitro translation, subtractive hybridization, Northern (RNA) blotting, gene cloning, and gene expression analysis. Dynal. Circle 144.

### **Cloning System**

The pCR-TRAP Cloning system includes a third-generation cloning vector that features positive

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selection for direct cloning of polymerase chain reaction (PCR) products without the need for any post-PCR purification. The cloned insert can be checked by the colony PCR method and sequenced using a primer set flanking the cloning site of the pCR-TRAP vector. **GenHunter. Circle 145.** 

### Modeling Software

DS2000 is an artificial neural systems (ANS)-based product for modeling complex processes and building data-driven decision support systems for scientific research. DS2000 allows researchers to experiment with pattern recognition-based approaches to solving problems in molecular modeling, simulation of biological and environmental systems, genetic sequence analysis, and image analysis. It comes complete with five of the best ANS models currently available and an icon-oriented graphical user interface that permits rapid prototyping of applications. Design Sciences. Circle 146.

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### Literature

Flow Injection Mercury System is a brochure on a compact atomic absorption system dedicated to trace mercury analysis. Perkin-Elmer. Circle 147.

Tools for Glycobiology catalog brings together review articles, references, technical notes, and products for glycobiology research. Oxford GlycoSystems. Circle 148.

Disposable Devices for Reliable Small-Volume Filtration outlines this equipment with a special purchasing plan. Millipore. Circle 149.

Polyacrylate Film Fiber for Solid Phase MicroExtraction of Polar Semivolatiles from Water is an application note on a technique for extracting difficult polar compounds such as phenols from water samples. **Supelco. Circle 150.** 

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

# SCIENCE

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### **POSITIONS OPEN**



EMORY UNIVERSITY SCHOOL OF MEDICINE

### FACULTY POSITIONS IN **RADIATION ONCOLOGY**

The Division of Cancer Biology of the Department of Radiation Oncology at Emory University School of Medicine invites applications for two tenure-track, basic science faculty positions, one at the ASSISTANT PRO FESSOR rank and one at the ASSOCIATE PROFES **SOR** rank or higher. Areas of research emphasis include, but are not restricted to, studies of the molecular mechanism of cellular response to radiation and other environ mental stresses, mutagenesis, and tumor progression and metastasis. The department includes a new state-of-theart Radiation Therapy Center with significant laboratory space. Collaborations are anticipated with faculty in the basic science and clinical departments, as well as the Winship Cancer Center of Emory University. Faculty members will have the opportunity to participate in the grad-uate student training and teaching programs of the Emory University Graduate School Division of Biological and Biomedical Sciences. Competitive salaries, start-up funds and core equipment resources have been commit-ted for this position. Candidates should hold a Ph.D. or M.D. degree and, for the Assistant Professor position, should have at least two years of postdoctoral research experience. Candidates for the Associate Professor (or higher) position should have an extramurally funded re-search program. Applications will be accepted until the position is filled. Applications together with curriculum vitae, a statement of research interests, and the names of at least three references should be sent to: Dr. Paul W. Doetsch, Division of Cancer Biology, Department of Radiation Oncology, Emory University School of Medicine, Loughlin Radiation Oncology Center, 145 Edgewood Avenue, S.E., Atlanta, GA 30335-3801. Emory University is an Equal Opportunity/Affirmative Action Employer.

The University of California, San Diego (UCSD), Department of Chemistry and Biochemistry invites applica-tions for a tenure-track position in Biochemistry at the ASSISTANT PROFESSOR level. Candidates must have a Ph.D. and a demonstrated ability for creative research and teaching at the undergraduate and graduate levels. The committee is particularly interested in receiving applications from chemists, biochemists, structural biologists, and molecular biologists with research interests in signal transduction processes, cell-cell interactions cell proliferation and growth control, receptors, cell adhesion and other immunologically relevant molecules, or structure and function of other important biomolecules. The appointee would have the opportunity to interact with the UCSD Cancer Center which has programs in molecular virology, immunology, glycobiology, growth control, and cancer genetics. Salary commensurate with qualifications and based on University of California pay scale. Position subject to availability of funds. Candidates should send a curriculum vitae, a list of publications, reprints of up to five representative papers, a summary of research plans and names and addresses of three references to: Chair, Biochemistry Search Committee, University of California, San Diego, Department of Chem-istry and Biochemistry-0332, La Jolla, CA 92093-0332. Prompt response is recommended but all applica-tions received by 15 January 1995 or until open position is filled will be assured full consideration. The University of California is an Equal Opportunity/Affirmative Action Employer

ASSISTANT PROFESSOR of Biology. The Biology Department invites applications for a tenure-track posi-tion beginning August 1995. Ph.D. required, teaching experience preferred. The candidate must be qualified to teach vertebrate and human anatomy and physiology, general biology for majors, and introductory level courses for non-majors. Applications, which must include all of the following: curriculum vitae, three letters of reference, a statement of teaching and research interests, and official transcripts, should be submitted by 10 January 1995 to: Transcripts, should be submitted by 10 January 1993 to.
Dr. Michael E. Held, Biology Department, Saint Peter's College, Jersey City, NJ 07306.
Saint Peter's College is an Equal Opportunity/Affirmative Action Employer and complies with Title IX of the Education Amend-

ments of 1972 and with Section 504 of the Rehabilitation Act of 1973



DEPARTMENT OF BIOLOGICAL SCIENCES

The Department of Biological Sciences at Northern Arizona University invites applications for a tenure-track ASSISTANT PROFESSOR to commence August 1995 in Animal Biology. Teaching will include a contri-bution to the pre-allied health curriculum, e.g., human anatomy and physiology, with an upper division/gradu-ate course in area of expertise. Ph.D. required in area of application or in related field.

The Department enjoys a diversity of research interests that spans the general areas of cellular and molecular biology, ecology and behavior, and physiology. Numerous opportunities for collaborative research exist. The successful candidate should have a demonstrated competency in teaching. Preference will be given to candidates with postdoctoral experience. Candidates will be expect-ed to establish a strong extramurally funded research program, collaborate with faculty in interdisciplinary research, and help direct biology graduate students. Applications should include a curriculum vitae, statements of research and teaching interests, and three letters of recommendation. Review of applications will begin 25 January 1995 and will continue until the position is filled. Please forward application materials to: **Biology Search** Committee, Department of Biological Sciences, Box 5640, Northern Arizona University, Flagstaff, AZ 86011. Northern Arizona University is an Equal Opportunity/ Affirmative Action Employer.

### FACULTY POSITIONS

Eukaryotic Molecular Biology and Molecular Evolution

The Department of Biological Sciences, University of Cincinnati announces tenure-track positions (ASSIST-ANT PROFESSOR level) beginning September 1, 1995. The openings include: (1) Eukaryotic Molecular Biologist. The individual is expected to develop a rigor-ous, externally funded research program, to interact with departmental faculty with similar interests, and to partic-ipate in directing graduate student (M.S. and/or Ph.D.) research in his/her specialty using molecular techniques. Teaching duties will include participation in the undergraduate/graduate courses in the departmental molecu-lar biology offerings, as well as contributing to undergraduate core or service courses. Applicants must have a Ph.D. or equivalent degree plus at least two years of postdoctoral experience. Submit a curriculum vitae, a one-page statement of proposed research program, a statement of teaching qualifications/interests, and three letters of recommendation to later than February 1, 1995, to: Dr. Ralph R. Meyer, Chair, Molecular Biol-

ogy Search Committee, at the address below. (2) Molecular Evolutionary Biologist: The successful candidate will be expected to develop a rigorous, externally funded research program using molecular approach-es to address questions in evolutionary biology, train graduate students, and teach courses at the undergradu-ate and graduate levels. The Ph.D. or equivalent is re-quired and postdoctoral experience is preferred. Appli-cants should submit a curriculum vitae, a statement of research and teaching interests, and three letters of rec-ommendation by February 1, 1995, to: Dr. Thomas Kane, Chair, Molecular Evolution Search Committee, Department of Biological Sciences, University of Cin-cinnati, P.O. Box 210006, Cincinnati, OH 45221-0006. FAX: 513-556-5299. The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans, and disabled persons are encouraged to apply.

Behavioral Neuroscience: Tenure-track appointment at the **ASSISTANT PROFESSOR** level beginning fall of 1995. Candidates should have a Ph.D. in Psychology or Neuroscience and significant postdoctoral research experience. Responsibilities include the development of an extramurally funded research program and contributions to graduate and undergraduate teaching. Applicants should send curriculum vitae, a statement of research interests and three letters of recommendation before January 15, 1995, to: Dr. Fred J. Helmstetter, Neuroscience Search Committee, Department of Psycholo-gy, University of Wisconsin-Milwaukee, P.O. Box gy, University of Wisconsin-Milwaukee, 1.0. 2014 413, Milwaukee, WI 53201. University of Wisconsin-Mil-waukee is an Equal Opportunity/Affirmative Action and ADA Employer.

### **POSITIONS OPEN**

# **Tenure-Track And Postdoctoral** Opportunities.

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

Tenure-Track Position Assistant Professor Equivalent Molecular Geneticist Clifton Bogardus, MD

Position available to develop an independent research program into the genetic causes of diabetes mellitus in the Pima Indians of Arizona. Candidates should have experience in human molecular genetics, including PCR-based genotyping, physical mapping, gene isolation and identification, and gene expression. Support by a technician, postdoctoral fellow and a fully equipped laboratory will be provided. A two-page statement of research interests and goals should be submitted in addition to three letters of recommendation. Clinical Diabetes and Nutrition Section (OE-62), NIDDK, 4212 North 16th Street, Phoenix, AR 85016.

### Postdoctoral Positions -Calcium Regulation Seung Hyun Yoo, PhD

Biochemical and molecular biological approaches are used to study calcium control mechanisms. Ongoing projects include studies of the inositol 1,4,5-trisphosphate receptor/calcium channel and the calcium storage protein, chromogranin A. Applicants should have a solid background in molecular biology and biochemistry. Laboratory of Neurochemistry (OE-62), NIDCD, Building 5 Res. Ct., Room 2B44, 5 RESEARCH CT MSC 3320, BETHESDA MD 20892-3320.

### Hemoglobin-Based Blood Substitutes Abdu I. Alayash, PhD

Stroma-free hemoglobin, chemically or genetically altered, is being investigated as a potential blood substitute. Problems under investigation include the effects of oxygen and nitric oxide uptake and delivery by selected hemoglobin constructs, as well as, oxygen free radicals on the normal cell structure and function. Applicant should have less than five years of postdoctoral experience. Laboratory of Cellular Hematology (OE-62), CBER/FDA (HFM 335), Building 29, Room B-10, 8800 Rockville Pike, Betheda, MD 20892.

### Molecular and Cellular Biology Anton Jetten, PhD

The action and function of several nuclear (orphan) receptors in the regulation of gene expression and differentiation are being investigated. Studies involve characterization of response elements, interaction with other transcriptional factors and gene knockouts. Applicants must have training in molecular biology techniques and have less than five years of relevant postdoctoral experience. Laboratory of Pulmonary Pathobiology (OE-62), NIEHS, P.O. Box 12233, MD D2-01, Research Triangle Park, NC 27709.

Molecular Cell Biology Sachiyo Kawamoto, MD, PhD The regulation of nonmuscle myosin II heavy chain gene expression during cell proliferation and muscle and neuronal cell differentiation is being studied at the level of transcription and alternative splicing of pre-mRNA. Applicants should have a strong background in molecular biology and have less than five years of postdoctoral experience. Laboratory of Molecular Cardiology (OE-62), NHLBI, Building 10, Room 8N202, 10 CENTER DR MSC 1762, BETHESDA MD 20892-1762.

### Molecular Dosimetry and Epidemiology George W. Lucier, PhD

Knowledge and techniques in molecular biology are applied to investigations designed to determine effects of low dose exposures to environmental agents. Animal models, cell systems and human samples are used. Studies encompass mutation analysis and signal transduction elements. Applicants must have less than five years of postdoctoral experience. Laboratory of Biochemical Risk Analysis (OE-62), NIEHS, P.O. Box 12233, MD A3-02, Research Triangle Park, NC 27790.

### **Papillomavirus Replication and Gene Regulation** Alison A. McBride, PhD

The mechanisms by which the papillomavirus E1 and E2 proteins regulate viral DNA replication and transcription are being investigated. Candidates should have experience in molecular biology, biochemistry or cell biology and have less than five years of postdoctoral experience. Laboratory of Viral Diseases (OE-62), NIAID, Building 4, Room 137, 4 CENTER DR MSC 0455, BETHESDA MD 20892-0455.

Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings, you may access the NIH EDNET Bulletin Board POSTDOC conference via Internet (wylbur.cu.nih.gov) or modem (1,301-402-2221 or 1,800-358-2221) with parameters set at "7,Even,1". When connected to NIH, type in ",vt100" for terminal emulation, "F5E" for initials, and "AJL1" for account number.

The Postdoctoral Research Fellowship Opportunities catalog, which describes intramural laboratories at the NIH, is also available by request. An electronic version of the catalog may be accessed via the Internet using either the Gopher Information System (gopher.nih.gov) or the World Wide Web (http://www.nih.gov/). When connected, select Research Opportunities at the NIH Office of Education. If you would like to request a catalog or have further questions, please contact the Office of Education, Building 10, Room 1C129, 10 CENTER DR MSC 1158, BETHESDA MD 20892-1158, 301-402-1603, Fax 301-402-0483.

### To Apply

If you hold a doctoral degree (e.g., PhD, MD/PhD, MD, DO, DDS, DMD or DVM) accompanied by previous laboratory research experience, and would like to be considered for one of these posi-NAL WOR tions, 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



ENVIRONMENTAL SCIENCES THE WEIZMANN INSTITUTE OF SCIENCE

Applications are invited from outstanding individuals interested in doing independent basic research in various areas of Environmental/Earth Sciences, in particular in Atmospheric Sciences, Environmental Microbiology, Groundwater Hydrology and Hydrochemistry, Oceanography, Paleoclimate, or Global Ecology.

Autospheric sciences, Environmental Microbiology, Groundwater Hydrology and Hydrochemistry, Oceanography, Paleoclimate, or Global Ecology. Research positions will be considered at all levels, although preference will be given to the ASSISTANT **PROFESSOR**, tenure-track level. Please send curriculum vitae, list of publications and a statement of research interests (one to two pages) to:

Eli Tziperman Department of Environmental Sciences Weizmann Institute of Science Rehovot 76100, Israel Email: citziper@weizmann.weizmann.ac.il FAX: 972-8-344124; Telephone: 972-8-342544

### HARVARD MEDICAL SCHOOL DEPARTMENT OF PATHOLOGY

The Department of Pathology at Harvard Medical School seeks well-qualified (Ph.D., M.D./Ph.D., or M.D.) applicant for a position of ASSISTANT or AS-SOCIATE PROFESSOR as part of an expansion of a basic research program in tumor biology. Candidates should have completed three to five years of relevant postdoctoral or independent research and have the capability of directing an independent research program in an academic setting in the areas of cell cycle control, transcriptional regulation, tumor suppressor genes, and signal transduction as they relate to cancer biology and viral oncology. Candidates are expected to participate in the teaching activities of the department for medical students, graduate students, and postdoctoral fellows. Recently renovated laboratory research space is available for this recruitment which is scheduled for the summer of 1995. Applicants should send their curriculum vitae, a statement of research interest, and the names of three references to: Dr. Peter Howley, Department of Pathology, Harvard Medical School, Building D2, 6th Floor, 200 Longwood Avenue, Boston, MA 02115. Harvard Medical School is an Equal Opportunity/Affimative Action Employer. Women and minorities are encouraged to apply.

The Department of Microbiology at the University of Manitoba invites applications for a tenure-track position at ASSISTANT PROFESSOR rank beginning July 1, 1995, subject to final budgetary approval. Applicants must have a Ph.D. with a minimum of two years of postdoctoral experience in molecular genetics/biology. Responsibilities will include undergraduate and graduate teaching, and the development of a vigorous independent research program. Opportunities exist for collaborations in a variety of related areas. Salary is dependent on qualifications and will normally be between \$36,328 and \$48,000. This advertisement is directed to Canadian citizens and permanent residents. Applicants should submit a curriculum vitae, a description of research interests and the names and addresses of three referees to: Dr. Peter C. Loewen, Department of Microbiology, University of Manitoba, Winnipeg, Manitoba, R3T 2N2 Canada. For further information, write to the above address, FAX: 204-275-7615 or Email to: ploeweng bldgwall.lan1.umanitoba.ca. Applications should be received by March 15, 1995. The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aborginal people, and persons with disabilities. The University offrs a smoke-free work environment, save for specially designated areas.

### ASSISTANT OR ASSOCIATE PROFESSOR TENURE-TRACK

We are seeking a talented molecular or cellular immunologist who has demonstrated originality in research and who is committed to excellence in teaching. The candidate is expected to develop her/his own externally funded research program. Outstanding facilities and attractive start-up funds are available.

Submit curriculum vitae, statement of research interest and a list of three references to: Dr. Katherine Knight, Chairperson, Department of Microbiology and Immunology, Loyola University Chicago, Stritch School of Medicine, 2160 South First Avenue, Building 105, Maywood, IL 60153.

### **POSITIONS OPEN**

#### UNIVERSITY OF COLORADO HEALTH SCIENCES CENTER TWO FACULTY POSITIONS MOLECULAR TOXICOLOGY AND BIOCHEMISTRY

The Department of Pharmaceutical Sciences in the School of Pharmacy seeks outstanding and enthusiastic applicants for two new tenure-track positions at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. The first individual should preferably have a background in the Pharmaceutical Sciences or Medicinal Chemistry and be able to complement current research efforts in Chemical or Molecular Toxicology. Research area may include the genetic regulation or chemistry of xenobiotic metabolism or toxicant-induced alterations in gene expression, but individuals applying molecular methods to significant problems in any area of toxicology or bioorganic chemistry will be considered. The second appointment is in Biochemistry/Molecular Biology. A research emphasis in signal transduction or transcriptional activation as applied to problems in biochemical pharmacology, gene therapy, cell or cancer biology would be preferred. The School of Pharmacy offers a stimulating and interactive environment committed to the highest quality of research and teaching. Each successful candidate will be expected to develop an independent and extramurally funded research program and contribute to both undergraduate and graduate träining. Review of applications will begin February 3, 1995, and will continue until the positions are filled. Applicants should forward a curriculum vitae, an outline of research plans and arrange for three letters of reference to be sent to: **Faculty Search**, School of Pharmacy, **C238**, University of Colorado Health Sciences Center, **4200 East 9th Avenue, Denver, CO 80262**. The University of Colorado Health Sciences is somitted to a superiorming and Affirmative Action.

### HARVARD MEDICAL SCHOOL DEPARTMENT OF PATHOLOGY

The Department of Pathology at Harvard Medical School seeks well-qualified (Ph.D., M.D./Ph.D., or M.D.) applicant for a position of **ASSISTANT** or **AS SOCIATE PROFESSOR** in Immunology. Candidates should have completed three to five years of relevant postdoctoral or independent research and have the capability of directing an independent research program in an academic setting in the areas of cytokines, cytokine receptors, transcriptional regulation and signal transduction as they relate to immunobiology. Candidates are expected to participate in the teaching activities of the department for medical students, graduate students, and postdoctoral fellows: Laboratory space is available for this recruitment which is scheduled for the summer of 1995. Applicants should send their curriculum vitae, a statement of research interest, and the names of three references to: Ms. Laura Weisel, Department of Pathology, Harvard Medical School, Building D2, 6th Floor, 200 Longwood Avenue, Boston, MA 02115. Harvard Medical School is an Equal Opportunity/Affirmative Action Employer. Women and minotities are encouraged to apply.

#### BIOLOGY EDUCATION ASSISTANT PROFESSOR WRIGHT STATE UNIVERSITY

The Department of Biological Sciences invites applications for a tenure-track position for an ASSISTANT **PROFESSOR** specializing in biology education, to begin September 1995. The appointment will be primarily with the Department of Biological Sciences and will include a secondary joint appointment with the College of Education. Teaching duties will include a biology course for elementary education majors, methods courses in education, and, if appropriate, a course in the science of specialization. Candidates must have at least a Master's degree in Biology and a Ph.D. or Ed.D. by September 1995. Experience in teaching pre-college science is very desirable. An active program of scholarship in science education, including publications and proposal writing, is expected. Expertise in course content, methods of presentation and learning theory is preferred. A letter of application, curriculum vitae, statements of intended research and teaching goals, a transcript, and three letters of reference should be sent to: Biology Education Search Committee, Department of Biological Sciences, Wright State University, Dayton, OH 45435. Applications should be received by February 1, 1995. Wright State University is an Affirmative Action/Equal Opportunity Employer.

### **POSITIONS OPEN**

### ASSISTANT PROFESSOR

This twelve-month, tenure-track position (80% research and 20% teaching) is available on March 1, 1995 The successful candidate is expected to conduct basic and applied research on the science and culture of turfgrasses in the southwestern United States. The individual will work closely with the turfgrass Extension Specialist in the Department, with faculty members in the Soil and Water Sciences Department, and with the turfgrass industry of the State of Arizona. Participation in and further development of the University of Arizona, Karsten Laboratory and Desert Turfgrass Research Facility is expected. The teaching assignment will consist of one course per year alternating between a junior level course in turfgrass management and a more advanced course on management of turfgrasses in high intensity situations. The position requires a Ph.D. degree in a plant or soil science or a closely related field with an emphasis in turfgrass science and culture. Candidates must demonstrate excellence in research and communication skills necessary to be an effective teacher. The individual must have experience with managed turfgrass ecosystems, a strong desire to work with the turfgrass industry, and an ability to attract extra-mural funding. Send letter of application, résumé and copies of transcripts, and have three letters of reference sent to: Robert T. Leonard, Professor and Head, De-partment of Plant Sciences, The University of Arizo**na, Tucson, AZ 85721.** Application Deadline: February 8, 1995. The University of Arizona is an Equal Opportunity/ Affirmative Action/ADA Employer. Women and minorities are encouraged to apply.

#### ASSISTANT OR ASSOCIATE PROFESSORSHIP Department of Developmental and Molecular Biology Albert Einstein College of Medicine

This department is seeking an ASSISTANT or ASSO-CIATE PROFESSOR interested in the elucidation of molecular mechanisms underlying complex biological systems. The Department has broad interests and will accept applicants in diverse areas, including signal transduction, lineage determination, organelle biogenesis, intracellular sorting, macromolecular biosynthesis and growth control. The current faculty are: Ruth H. Angeletti (post-translational processing of neuropeptide precursors), Umadas Maitra (translation in eukaryotic cells), Tamar Michaeli (signal transduction pathways of RAS proteins), Jeffrey W. Pollard (growth factors in early mammalian development), Rosemary Reinke (cellcell interaction in *Drosophila* eye development), Dennis Shields (protein sorting in the secretory pathway), E. Richard Stanley (growth factor biology and signal transduction), Leslie Stevens (cell-cell interaction in *Drosophila* development) and Duncan W. Wilson (protein trafficking and membrane biology). Applicants should submit a curriculum vitae, the names of three references and a description of their research plans to: Dr. E. Richard Stanley, Professor and Chairman of Developmental and Molecular Biology, Albert Einstein College of Medicine of Yeshiva University, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. Applications should be received before March 1, 1995. An Equal Opportunity Employer.

### ASSISTANT PROFESSOR, BIOLOGY

The University of Portland invites applications for a tenure-track **ASSISTANT PROFESSOR** position with a strong commitment to teaching and undergraduate research in a private Catholic teaching university. A Ph.D. is required. The successful candidate will teach molecular genetics and courses in a combination of two or more of the following: microbiology, embryology, cell biology, environmental science, invertebrate zoology and/or evolution. The position will begin in fall 1995.

Complete applications should include a curriculum vitae, along with statements of teaching and research interests, contact information for three references, and copies of transcripts (both graduate and undergraduate). Applications should be received by January 9, 1995. Send applications to:

> Chair, Biology Search Committee University of Portland 5000 North Willamette Boulevard Portland, OR 97203-5798 bio\_srch@uofport.edu

The University of Portland is an Equal Opportunity Employer and encourages application of women and minority candidates.

### Faculty-Level Position in Laboratory of Parasitic Diseases National Institutes of Health

A position is available for a leader of an independent group in molecular and/or cellular studies of parasitic protozoa. The position is for tenure/tenure track in the Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health. We are looking for a person who can contribute to and profit from the many strengths of the intramural program. U.S. cit-izenship is required. Application submission deadline is 30 days from the date of this publication. Position targeted for EEO recruitment efforts.

Applications should include a Curriculum Vitae with bibliography, statement of research interests and the names and addresses of three references. Applications should be sent to:

### NIAID Personnel Office Bidg 31, Rm 7A-20 National Institutes of Health 9000 Rockville Pike Bethesda, Maryland 20892 ATTN: Kristie Daniel

NIH is an Equal Opportunity Employer

### RESEARCH ASSOCIATE

### Plant Cell Biologist

M.S. with 2 years or B.S. with 4 years laboratory experience. Pioneer Hi-Bred International Inc., a world leader in agriculture, seeks a highly motivated Research Associate in Plant Cell Biology. Responsibilities include conducting experiments, adapting procedures as appropriate and developing experimental strategies under guidance of the research manager. Experience with laboratory techniques including tissue culture techniques is essential.

We offer excellent compensation, benefits and career growth potential, as well as excellent facilities and a highly cooperative research environment. Please send cover letter indicating job number and C.V. by January 1, 1995 to: Pioneer HI-Bred International, Inc., Dr. Judy Winkelpleck, Director-Workforce Planning and Employee Relations, Job# 1035, 6800 Pioneer Parkway, P.O. Box 212, Johnston, IA 50131-0212. We are an Equal Opportunity Employer.



Pfizer Inc, a Fortune 100 company, one of the largest pharmaceutical companies, and a multi-million dollar industry leader, can offer you a world of challenge, opportunity and achievement. At our state-of-the-art laboratories you can make a significant contribution to the research and development of exciting new products to be introduced in the coming decade ... and the next century.

# CLINICAL MEASUREMENTS LABORATORY

The principle mission of the Clinical Measurements Laboratory is to develop and implement new biochemical assays, relevant to humans, which are pivotal to decision making in the drug discovery and development process. To accomplish this goal, Clinical Measurements will work closely with colleagues in Discovery Research, Clinical Pharmacology and Experimental Medicine, Clinical Development and early development project teams. Currently, we are seeking a highly motivated Ph.D. level research and/or senior research scientist, as well as a BS/MS level scientist with the following backgrounds:

## Ph.D.

protein purification, development of immunoassays (competi-

tive ELISAs, capture ELISAs) and radioimmunoassays.

This position requires a Ph.D. or the equivalent in bio-

chemistry, immunology, or immunochemistry, or

related science. A solid background in protein

chemistry is also required. Strong oral

and written communication skills

are a must. Prior postdoctoral

Responsibilities of the successful candidate will include designing and executing experiments involving: HPLC, raising antibodies, THE FUTURE IS **EVERYTHING** YOU CAN IMAGINE...

AT PFIZER

### and/or industry experience is highly desired. **BS/MS**

Pfizer currently has an opening for a BS/MS level molecular immunologist with experience in molecular biology techniques. The candidate should have an interest in applying stateof-the-art expertise in this area toward generating and evaluating assays important for early clinical studies. Ideally, the candidate will possess a BS and eight years of relevant experience or an MS and six years of relevant experience. Candidates should have a broad background in techniques such as monoclonal antibody production. ELISAs, quantitative PCR, SSCP analysis, and RFLP analysis. In addition to direct experience with these techniques and an interest in applying them to clinical populations, candidates should also have excellent written and oral communication skills.

We offer competitive salaries and a full range of benefits, including medical and dental insurance, paid holidays and vacations, educational assistance, savings and investment plan, pension plan, relocation assistance and more. Our R&D facility, located in a southeastern Connecticut shore community, gives access to well-known academic and cultural centers of the Northeast and offers the attractions of a New England lifestyle. To learn how you can be a part of the future of Pfizer, send your resume to: Mr. D.S. Meyers, Supervisor, Employee Resources, Pfizer Central Research, Eastern Point Road, Groton, CT 06340. Principals only, no agencies please. An equal opportunity employer. MF/D/V.



We're part of the cure

### FACULTY POSITION: UNIVERSITY OF COLORADO MIDDLE ATMOSPHERIC SCIENCE Department of Astrophysical, Planetary and Atmospheric Sciences and Laboratory for Atmospheric and Space Physics

The Department of Astrophysical, Planetary and Atmospheric Sciences (APAS) and the Laboratory for Atmo-spheric and Space Physics (LASP) at the University of Colorado are jointly seeking applicants to fill a tenuretrack faculty position in the area of Middle Atmospheric Science. Preference will be given to candidates at the ASSISTANT PROFESSOR level, but candidates at all levels will be considered. We are looking for applicants with expertise in the area of middle atmospheric energetics, dynamics, and/or chemistry. Preference will be given to experimentalists with experience in major flight mis-sions or relevant instrumentation. Consideration will also be given to highly qualified modelers or data analysis specialists. The new faculty member would be expected to teach at both the undergraduate and graduate levels and initiate significant new research programs. Opportunities will exist to interact with colleagues in the APAS department, in LASP, in affiliated Centers and Institutes, and in other scientific organizations in the Boulder community. The deadline to apply is 1 February 1995. Applicants should suggest the names of three persons from whom the Search Committee may solicit letters of reference. A written statement of interest and a curriculum vitae should be addressed to Daniel N. Baker, Chair, APAS Atmospheric Sciences Faculty Search Committee, Campus Box 302, University of Colorado at Boulder, Boulder, CO 80309-0392. Email: Baker@zodiac. colorado.edu. The University of Colorado at Boulder has a colorado.edit. The University of Colorado at Boldaer has a strong institutional commitment to the principle of diversity in all areas. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities and disabled individuals.

# ASSISTANT PROFESSOR TENURE-TRACK

The Department of Biochemistry of the University of Medicine and Dentistry of New Jersey (UMDNJ) is seek-ing an ASSISTANT PROFESSOR who should have postdoctoral training and significant research accomplish-ments in molecular biology, biochemistry, cellular or de-velopmental biology. Successful candidate should establish a vigorous research program in addition to teaching medical and graduate students. Position requires a Ph.D., M.D., or equivalent.

M.D., or equivalent. Please send résumé, including salary requirements, to: Masayori Inouye, Ph.D., Professor and Chairman, Department of Biochemistry, UMDNJ-Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635. UMDNJ is an Affirmative Action/Equal Opportunity Employer, minority/female/disabled/veterans, and a member of the University Health System of New Jersey

## ASSISTANT PROFESSORSHIP ECOLOGY/ ENVIRONMENTAL BIOLOGY

Ph.D. in Biology. Broad-based research interests in Ecology/Environmental Biology required. Teach B.S. Plant and Animal Form and Function, B.S./M.S. field ecology, and environmental science courses in biology. Development of an active field-based research program with B.S./M.S. students expected. Subject to available funds. Review of applications and résumés will begin not later than February 1, 1995, and continue until an appointment is made. Send application including current résumé, three letters of reference and transcripts, to: Dr. Bonnie Lustigman, Chair, Biology Department, Box C316V4, Montclair State University, Upper Montclair, NJ 07043. Montclair State University is an Equal Opportunity/Affirmative Action Employer.

### UNIVERSITY OF ARKANSAS AT LITTLE ROCK TWO BIOLOGY POSITIONS

The Department of Biology at the University of Arkansas at Little Rock invites applications for two positions available August 1995. We seek a tenure-track **ASSIST**-ANT PROFESSOR with expertise in molecular biology and a non-tenure-track, full-time, continuing BIOLO-GY INSTRUCTOR. See our display ad in the 2 December 1994 issue of Science for more complete information. The University of Arkansas at Little Rock is an Equal Opportunity/Affirmative Action Employer.

#### PLANT BIOLOGIST DEPARTMENT OF BIOLOGY CENTRAL MICHIGAN UNIVERSITY

The Department of Biology at Central Michigan Uni-And Department of boods at the month, tenure-track ASSISTANT PROFESSOR position in plant science to begin August 1995. A Ph.D. in Botany or a related area is required. A strong preference will be given to candidates with teaching/research capabilities in molecular biology. Postdoctoral research experience and research interests in environmental or ecological problems are also preferred. The successful candidate will be expected to teach under-graduate and graduate courses, to establish an active research program, and to secure extramural funding. Application review will begin January 15, 1995. Send curricu-lum vitae, statement of teaching interests, research objec-Ium vitae, statement of teaching interests, research objec-tives, graduate and undergraduate transcripts, and three letters of reference to: Botany Search Committee, De-partment of Biology, Central Michigan University, Mt. Pleasant, MI 48859. FAX: 517-774-3462. Central Michigan University (Affirmative Action/Equal Oppor-tunity Institution) encourages diversity and resolves to provide equal

opportunity regardless of race, sex, disability, sexual orientation or other irrelevant criteria.

# ASSISTANT PROFESSOR MICROBIOLOGY

Tenure-track position, beginning September 1995, Ph.D. required. The major teaching responsibility is an undergraduate laboratory course in microbiology serving biology and nursing students. The candidate may develop an upper-level undergraduate/graduate (M.S. level) course in a related area. A research interest in systems involving bacterial interactions, viruses, organelles or other physiological aspects of plants and animals as they interact with the microbial world is required. Strong com-mitment to teaching with computer applications in the discipline, ability to work with a culturally diverse student body, and the development of a fundable research program are required. Applicants must submit a letter of application, statement of teaching philosophy, research goals, résumé, transcripts, and have three letters of refer-ence sent to: Edward J. Kelly, Assistant to the Presi-dent, SUNY Brockport, Brockport, NY 14420 by January 16, 1995. Salary Negotiable. An Affirmative Action/ Equal Opportunity Employer.

Environmental Science/Environmental Health. Washington State University invites applications for a tenure-track, **ASSISTANT PROFESSOR** position in Environmental.Science and Regional Planning. Qualifications in-clude: a doctoral degree with emphasis on some aspect of environmental health such as ecological or environmental toxicology, environmental epidemiology, or risk assess-ment; desire to teach in interdisciplinary B.S., M.S., M.R.P. and Ph.D. programs; capability in generating and completing funded research. Duties include: an introduc-tory course on "Natural Science in the Environment". advanced courses; and leadership in an environmental health curriculum. The application deadline is March 1, health curriculum. The application deadine is March 1, 1995. For application package contact: Program in En-vironmental Science and Regional Planning, Wash-ington State University, Pullman, WA 99164-4430. Telephone: 509-335-8536; FAX: 509-335-7636; Email: Franz@wsuyml.csc.wsu.edu. Washington State University is an Equal Opportunity/Affirmative Action Educator and Employer. Protected group members are encouraged to apply.

Cell Biology: York University, Toronto, Canada. Fac-ulty of Pure and Applied Science. Department of Biology. Applications are invited for a tenure-track appointment at the **ASSISTANT PROFESSOR** level, to begin July 1, 1995. Candidates are expected to have a substantial research record in the general field of cell biology and to have competence in cell and molecular biology technologies. The appointee will be required to develop a strong research program and to carry a normal teaching load Applications, including curriculum vitae, a recent publication, and the names of three referees, should be sent to Dr. P. B. Moens, Chair, Search Committee for Cell Biologist, Department of Biology, Faculty of Pure and Applied Science, York University, North York, Ontario, M3J 1P3 Canada. Application deadline is January 30, 1995. York University is implementing a policy of employment equity, including affirmative action for women faculty. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

### **POSITIONS OPEN**

FACULTY POSITION DEPARTMENT OF MOLECULAR AND MEDICAL GENETICS Oregon Health Science University Portland, Oregon

Applications are invited for a tenure-track position at the **ASSISTANT PROFESSOR** level. The Department seeks individuals who have demonstrated excellence in research. Preference will be given to candidates with research interests in eukaryotic molecular, cellular or developmental genetics. Applicants should include a curricu-lum vitae, a brief description of research accomplishments, a brief description of future research goals, and the names of three references. Please address applications to:

> Faculty Search Committee Department of Molecular and Medical Genetics, L103 Oregon Health Sciences University 3181 SW Sam Jackson Park Road Portland, OR 97201-3098

### FACULTY POSITION IN CANCER RESEARCH ASSISTANT OR ASSOCIATE PROFESSOR

ASSISTANT or ASSOCIATE PROFESSOR with Ph.D. to investigate cell biology of malignancy related to resistance and damage repair in cancer treatment with radiation or drugs. Applicant must have publications and references demonstrating a strong basic science back-ground as well as commitment to understanding the biology of disease processes and investigating questions important to clinical cancer treatment. Send a curriculum vitae and a one page statement of how your research interests meet the above criteria to: Search Committee, c/o Janet S. Rasey, Ph.D., University Cancer Center, Mail Stop RC-09, University of Washington Medical Center, 1959 NÉ Pacific Street, Seattle, WA 98195. The University of Washington is an Equal Opportunity/Affirma-tive Action Employer.

### FACULTY POSITION IN PLANT SCIENCES/MICROBIOLOGY

Applications are now being accepted for one ASSIST-JUNCT ASSISTANT PROFESSOR position to be folled by January 5, 1995, in the Department of Life Sciences at Winston-Salem State University. An earned doctorate is required. A specialty in a plant science area or microbiology is highly desirable. Applicants should send a current résumé and list of three references to: Dr. Fred Tanner, Director, Division of Arts and Sciences, Win-Yannot, Dietor, Driversity, 601 Martin Luther King, Jr. Drive, Winston-Salem, NC 27110. Winston-Salem State University is an Equal Opportunity Em-

ployer and complies with the Immigration Reform and Control Act of 1986

BIOCHEMISTRY ASSISTANT PROFESSOR. The Texas Tech University Department of Chemistry and Biochemistry invites applications for a full-time, tenure-track ASSISTANT PROFESSOR position. A Ph.D. degree is required; postdoctoral experience is preferred. The successful candidate should have outstanding potential in teaching and establish a vigorous research program in experimental or computational aspects of protein biochemistry. Teaching duties will include a graduate course in Proteins. Candidates should submit a curriculum vitae. a description of proposed research and names and addresses of three references to be sent by January 31, 1995, to: Dr. Robert W. Shaw, Department of Chëmistry and Biochemistry, Box 41061, Texas Tech University, Lubbock, TX 79409-1061. Texas Tech University is an Equal Employment Opportunity/Affirmative Action/ADA Employer.

ASSISTANT PROFESSOR, Tenure-track. Biology Department, Winthrop University. Duties include teaching of field botany, a course related to floristics/vegeta-tional analysis, and investigative biology. Applicants are expected to have the Ph.D. degree in botany or biology with botanical specialization. Applicants should provide a letter of application, curriculum vitae, statements of teaching philosophy and research interests, and three letters of reference sent directly to: Dr. Luckett V. Davis, Chair, Biology Department, Winthrop University, Rock Hill, SC 29733. Review of applications will begin February 1, 1995. Winthrop University is an Equal Opportunity/Affirmative Action Employer.



**Instrumentation Laboratory (IL)**, a worldwide leader in the research and development of reagent biomedical instrumentation test systems, is currently seeking individuals for its Lexington, Massachusetts, facility.

### Scientist

Responsibilities include assisting in the development and routine performance of methods for analysis and isolation of proteins. Maintenance of equip ment and associated materials (FPLC and columns, electrophoretic equipment, centrifuges) required. Qualified candidate will have a B.S. degree in biochemistry, chemistry, or biological science. Familiarity with analytical instrumentation and computers is required. Thorough knowledge of protein structure and function, protein isolation techniques, and immunoassays is preferred. One to three years industrial experience in isolation of recombinant proteins valuable.

IL offers an excellent salary and benefits package including 401(k) plan. Interested candidates should submit resume and salary history to: Christopher Hatt

Human Resources Instrumentation Laboratory 113 Hartwell Avenue Lexington, MA 02173-3190. IL is an Equal Opportunity Employer

### Senior Scientist

Responsibilities include development of methods for analysis and isolation of naturally occurring or recombinant proteins which will be used in the formulation of diagnostic reagents in the fields of coagulation, infectious diseases, and immunochemistry Individual will interact with other research groups for the optimal design of recombinant proteins which can facilitate purification procedures and development of final reagents. Qualified candidate will have a Ph.D. in biochemistry or biological science with up to five years post-doctoral experience. Industrial experience is preferred. Thorough knowledge of protein analytical methods (including LC, HPLC, and electrophoresis) and non-chromatographic (size exclusion, ion exchange, hydrophobic interaction and affinity) preparative methods is required. Previous experience in immunoassay, densitometry and solubilization and refolding of recombinant proteins valuable

Instrumentation

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The Analytical Biochemistry Department of Pioneer Hi-Bred International, Inc. is seeking applicants for our ongoing program of crop improvement. Pioneer offers competitive salaries, excellent facilities and a highly cooperative research environment.

# RESEARCH ASSOCIATE, PROTEIN EXPRESSION/AMINO ACID ANALYSIS (JOB #2372-A)

This person will join a laboratory that is responsible for recombinant protein expression, protein purification and amino acid analysis to support various projects within the research department. Although bacterial expression will fulfill most requirements, use of other culture systems is likely. The successful candidate will be interact-ing with several research groups and will participate in the planning and implementation of experiments.

EDUCATION/EXPERIENCE: MS degree or equivalent in biochemistry or related field, OR a BS degree plus 2 years of relevant research experience is required. Experience in protein expression in E. coli, inclusion body refolding and preparative protein purification is desired and experience with amino acid analysis is preferred. Familiarity with computers and strong communication skills are essential

Applications received by January 17, 1995 will be assured of consideration. However, applications will be considered until the position is filled

Pioneer Hi-Bred International, Inc. is an Equal Opportuanity employer. Please send TWO complete sets of resume/application information. Be sure to indicate in your correspondence the JOB #, along with the names, addresses and telephone numbers of three references. Send to:

**PIONEER HI-BRED INTERNATIONAL, INC.** Analytical Biochemistry Department ATTN: Dawn M. Meyer, Job #2372-A P.O. Box 1004, 7300 NW 62nd Avenue Johnston, IA 50131-1004





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And we will be successful tomorrow because of the people we attract today. Burroughs Wellcome Co. is a pharmaceutical leader for thousands of reasons—innovative and dedicated people who strive for excellence, individually and as a team. Now is your chance to become a part of a great company, and help to make a greater tomorrow

### Research Scientist III/IV

This position will be filled at the Research Scientist III or Research Scientist IV level. The level of responsibility to be assigned will depend upon the individual applicant's educational background and experience level

The Research Scientist III will implement a research program to define functionally the different stages and mechanisms of apoptosis and necrotic cell death, identify points and strategies appropriate for drug intervention in cell rescue, and participate in multidisciplinary drug discovery teams to discover neuropro-tective drugs. Candidates must have a B.S. degree in Biology or a related science PLUS 6 years of experience in Neuroscience or a related area **OR** an M.S. degree in Biology or a related science PLUS 4 years of experience in Neuroscience or a related area OR a Ph.D. in Neuroscience or a related area. Other factors to be considered include experience in defining both biochemically and electrophysiologically the sequences of apoptotic and necrotic cell death in cell culture and experience with current molecular pharmacology techniques.

The Research Scientist IV will implement a research program to define functionally the different stages and mechanisms of apoptosis and necrotic cell death, identify points and strategies appropriate for drug intervention in cell rescue, and lead multidisciplinary drug discovery teams to discover neuroprotective drugs. Candidates must have a B.S. degree in Biology or a relat-ed science PLUS 7 years of experience in Neuroscience or a relat-ed area **OR** an M.S. degree in Biology or a related science PLUS years of experience in Neuroscience or a related area OR a Ph.D. in Neuroscience PLUS 1 year of post doctoral experience or 1 year of relevant work experience. Other factors to be consid-ered include experience in defining both biochemically and electrophysiologically the sequences of apoptotic and necrotic cell death in cell culture and experience with current molecular pharmacology techniques.

We offer a competitive salary and comprehensive benefits. And our outstanding Research Triangle Park location is one of the most desirable areas of the country in which to work and live. Please send your resume, indicating REQ #65916-29 in your cover letter, by Tuesday, January 10, 1995, to: Burroughs Wellcome Co., Human Resources Department, 3030 Cornwallis Road, Research Triangle Park, NC 27709.

For information on other job opportunities with Burroughs Wellcome Co., call our Job Information Line at **(919) 315-8347** in Research Triangle Park; or **(919) 707-2997** in Greenville.



BURROUGHS WELLCOME CO.

CLINICAL LABORATORY SCIENTIST/AS-SISTANT PROFESSOR: The Department of Life Sciences invites applications for a tenure-track position at the level of Assistant Professor in the Clinical Laboratory Science program; Certification in Clinical Laboratory Science preferred, but not required. Applicants must have a Ph.D. in biology or a closely related field and research experience; will be expected to develop a strong extramurally funded research program and direct graduate student research; should be capable of teaching Clinical Chemis-try, Clinical Microbiology, and contribute to Life Science courses at graduate and undergraduate levels. Screening begins January 23, 1995, continuing until position is filled. Send: curriculum vitae, concise descriptions of research and teaching interests, up to three representa-tive publications, and three letters of reference to: Mar-cella L. Stevens, Chair, CLS Search Committee, Department of Life Sciences, Indiana State University, Terre Haute, IN 47809. FAX: 812-237-4480; Tele-phone: 812-237-2400. Affirmative Action/Equal Oppor-tunity Employer. Applications from women and minorities are strongly encouraged.

The Cancer Research Center of Hawaii, an organized research unit of the University of Hawaii, an organized tions for a tenure-track position at the ASSOCIATE or FULL RESEARCHER (PROFESSOR) level. An individual is sought to join the Natural Products program, a multidisciplinary drug discovery group aimed at identifi-cation and characterization of new anticancer agents. We are interested in an individual with expertise in characterization of interactions of drugs with cellular and molecu-lar targets. The successful applicant is expected to develop research activities in experimental pharmacology by establishing an independent research group which will comple-ment the existing program in natural product chemistry. Applicants must have a Ph.D. degree and a strong record of extramural funding and published research. To apply, send curriculum vitae, statement of research interests, and the names and addresses of three references to: Richard Moore, Ph.D., Cancer Research Center of Hawaii, 1236 Lauhala Street, Honolulu, HI 96813. The re-view of applicants will begin on January 17, 1995, and will continue until position is filled.

# TENURE-TRACK, ASSISTANT PROFESSOR PHYSIOLOGIST

Position available August 1995. Individuals with postdoctoral experience and who will develop a vigorous research program in mammalian or physiological toxicology preferred. Teaching responsibilities will include underraduate courses in Human Anatomy and Physiology and Pathophysiology. Submit curriculum vitae, reprints of up to three representative publications, statement of teachto three representative publications, statement of teach-ing/research interests, and transcripts, and arrange to have three letters of reference sent by February 1, 1995, to: Dr. Roger Buchanan, Department of Biological Sciences, P.O. Box 599, Arkansas State University, State University, AR 72467. Women, minorities and persons with disabilities are encouraged to apply. Equal Oppor-units Employed tunity Employer.

### BIOPSYCHOLOGY ASSISTANT PROFESSOR

Tenure-track, basic research and teaching, anticipated fall 1995. Outstanding candidates in any area of behav-ioral brain science will be considered, particularly those who can contribute to a multidisciplinary program in cognitive neuroscience. Send curriculum vitae, goals state-ment, and three letters of reference by February 1, 1995 to: **Dr. Neil Rowland, Department of Psychology**, University of Florida, Gainesville, FL 32611-2250. University of Florida is an Affirmative Action/Equal Opportunity Employer. Female and minority applicants are strongly encouraged to apply. The selection process will be conducted under the provision of Florida's "Government in the Sunshine" and Public Records Laws Contact us if you require special accommodations to complete this application

The Department of Biochemistry, Duke University Medical Center invites applications for a faculty position at the level of **ASSISTANT PROFESSOR**. We welcome candidates in all areas, especially structural biology, mechanistic enzymology and nucleic acid biochemistry. Send résumé, summary of research interest and three letters of reference to: Christian R. H. Raetz, Department of Biochemistry, Duke University Medical Center, Durham, NC 27710. Consideration of applications will commence in February 1995. Duke University is an Equal Opportunity/Affirmative Action Employer.

### **POSITIONS OPEN**

Biology: Teach undergraduate Developmental Biology, introductory and non-major Biology courses, and Molecular or Cell Biology labs. Qualifications: Ph.D. completed by February 1, 1995, in Biology, Develop-mental Biology, Molecular Biology, or related discipline; strong commitment to liberal arts and teaching; good general knowledge of discipline; strong commitment to liberal arts and teaching; good general knowledge of Biology required; knowledge of a specific group of organisms desirable. All faculty positions include four-course teaching load per semester, academic advising, curriculum development, and committee service. Rank and salary dependent upon qualifications. Minimum for ASSIST-ANT PROFESSOR; \$33,230. Terminal degree re-quired for appointment at Assistant rank and for tenure. Review of applications begins January 31, 1995, and will remain open until position is filled. Send letter of application, résumé, description of your undergraduate teaching experience, statement of teaching philosophy, and three letters of reference (references specifically evaluating teaching experience), to: Gaynelle Pratt, Office of Human Resource Management, Keene State College, 229 Main Street, Keene, NH 03435-1604. An Affirmative Action/Equal Opportunity Employer.

Molecular Biologist. Tenure-track, academic year AS-SISTANT PROFESSOR. Teach Eukaryotic Molecular Biology; participate in Molecular Biology Methods; in-troductory biology courses; direct undergraduate and Master's level research. Requires Ph.D., experience in current molecular methods, commitment to undergrad-uate education. Prefer expertise in developmental biolo-gy. Start fall 1995. Send letter, curriculum vitae, state-ment of teaching philosophy and research interests, tran-scripts, three recommendation letters to: **Dr. James Par-**ucchain Dependence of Biology and Misraphilogy. ry, Chair, Department of Biology and Microbiology, University of Wisconsin-La Crosse, La Crosse, WI 54601. All materials must be received by February 15, 1995. All positions contingent on funding. Names of applicants who have not requested confidentiality in writing, and all finalists, must be released on request. Women and minorities are encouraged to apply. Affirmative Action/Equal Opportunity Employer.

### DIRECTOR OF RESEARCH OREGON HEARING RESEARCH CENTER OREGON HEALTH SCIENCES UNIVERSITY

The Department of Otolaryngology/Head and Neck Surgery invites applications for the position of **DIREC-TOR** of the Oregon Hearing Research Center (formerly Kresge Hearing Research Laboratory). The Oregon Hearing Research Center will occupy one entire floor (17,000 square feet) in a new Neuro/Sensory Research Building to be completed in 1995. The Director will be given the opportunity to develop a research program of his/her choosing, limited only to the study of the ear and its disorders. Candidates must have a Ph.D. or M.D. distinguished record of auditory research and federal grant support, and demonstrable skills in the management of research projects and research personnel. The although the search will remain active until the position is filled. Submit nominations or letters of application, description of research program, curriculum vitae, and list of five references to: James Cohen, M.D., Chairman of Search Committee, Department of Otolaryngology/ Head and Neck Surgery PV01, Oregon Health Sci-ences University, 3181 SW Sam Jackson Park Road, Portland, OR 97201. Oregon Health Sciences University is an Equal Opportunity Employer.

### NATURALIST AND DEPARTMENT CHAIR Hendrix College

Applications or nominations are sought for a broadly trained field biologist to teach five undergraduate courses per year in the area of botany, ecology and evolution. Preference will be given for experience as departmental chair, in directing undergraduate research and in obtain-ing outside funding. Rank and salary commensurate with experience. Send three letters of recommendation; curriculum vitae; transcripts; statements of your teaching philosophy, interest in undergraduate research, and interest in administration to: Dr. Bruce Haggard, Search Committee, Department of Biology, Hendrix College, 1601 Harkrider, Conway, AR 72032. Email: Hag-gard@alpha.Hendrix.edu. Review begins January 16, 1995. Hendrix College is an Equal Opportunity/Affirmative Action Employer.

### **POSITIONS OPEN**

Agricultural Research Service **United State** Department of Agriculture

The Agricultural Research Service in collaboration with the University of California-Berkeley invites applications for the **DIRECTORSHIP** of the USDA-ARS, Plant Gene Expression Center. The ideal candidate for Director will have a distinguished professional record with substantial experience in research. Evidence of creativity and demonstrated leadership and management skills are required. The applicant should be capable of stimulating collaboration and interactions across a wide spectrum of plant biology research areas. The applicant's research program should address an agriculturally important problem, using biochemical, molecular or genetic approaches, and should complement existing programs. The applicant will also be considered for appointment as an adjunct profes-sor by the Department of Plant Biology at UC-Berkeley. A Ph.D. is highly desirable. The Directorship will be filled at the GS-14 or GS-15 level; salary is negotiable. For vacancy announcement contact: Sharon Wilson on 301-344-3959, or write to USDA, ARS, Personnel Divi-sion, 6305 Ivy Lane, Room 318, Greenbelt, MD 20770-1435. A résumé or curriculum vitae is acceptable. For information about the position, contact **Dr. Barbara Baker** on **510-559-5912**. Must be a U.S. citizen. Appli-cation must be postmarked on or before January 30, 1995. This ad supersedes previous announcement for this position in 9 December issue of Science. ARS is an Equal Opportunity Employer. Women and minorities are urged to apply.

### MEDICAL ONCOLOGY

Geisinger Medical Center/Weis Center for Research is seeking a recently trained **PHYSICIAN** to practice med-ical oncology and do bench research in molecular genetics. This position is 50% clinical medicine and 50% research. Research time is protected and funded by an en-dowment. Research funds include budgeted monies for supplies and technical support. Additional support could be obtained by application for internal grants. The Weis Research Center has well established research in signal transduction, cell cycle regulation and cell expression and function of oncogenes. Successful candidates will be Board-certified/Board-eligible in Medical Oncology. Geisinger Medical Center, located in Danville, Pennsylvania, is a 577-bed tertiary care institution providing care for 1.6 million throughout eastern and central Pennsylvania. You can enjoy the advantages of living in a small town with low crime, good schools, and reasonable housing costs while still practicing medicine and developing a re-search laboratory in a large urban-style academic medical scarter laboratory in a large urban-style academic includes inquiries to: Geisinger, Albert M. Bernath, M.D., Medical Oncology MO-CS, 100 North Academy Av-enue, Danville, PA 17822-2001, or you may fax your curriculum vitae to 717-271-6988. An Equal Opportunity Europage Minorities (Evende (Disched (Minorities)) Employer/Minorities/Female/Disabled/Veterans

#### PROFESSOR AND CHAIRMAN THE LAUTENBERG CENTER FOR GENERAL AND TUMOR IMMUNOLOGY The Hebrew University Hadassah Medical School Jerusalem

Nominations and applications for CHAIRMAN of the Lautenberg Center as successor to Dr. David W. Weiss are invited by February 15, 1995. The successful candi-date will have a record of major accomplishment in science and evidence of ability to nurture, coordinate, and lead a research center dedicated to immunology, molecular biology and tumor biology. Candidates should send a curriculum vitae, bibliography, and a brief exposition of general directions in research that offer promise. Address applications to: Lautenberg Center Scientific Advisory Committee, Box 1129, Mount Sinai Medical Center, NY, NY 10029.

### BIOPSYCHOLOGY

The Department of Psychology at Johns Hopkins Uni-TRACK POSITION at any rank in Biopsychology be-ginning July 1, 1995. Send a curriculum vitae (including a statement of research and teaching interests), three let ters of reference, and reprints to: Biopsychology Search Committee, Department of Psychology, Johns Hop-kins University, Baltimore, MD 21218. Interviews will continue until the position is filled. Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.

GelTex Pharmaceuticals, Inc., a well funded, emerging pharmaceutical company located in suburban Boston, is developing novel polymer technology for therapeutic applications. GelTex is expanding its' research program in human GI infectious diseases and is presently seeking a:

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This position will be responsible for establishing cell culture and in vivo models to determine the efficacy of novel polymers in preventing the binding of pathogens to intestinal epithelial cells, and for interacting with external researchers collaborating with GelTex. The successful candidate will possess a Ph.D. in Microbiology, Virology, or Protozoology and a minimum of 3 years postdoctoral experience. Experience with drug screening paradigms is advantageous.

We offer the opportunity to work in a challenging, stimulating environment, developing leading edge technology. For consideration, send resume to: Manager, Infectious Diseases, GeiTex Pharmaceuticals, Inc., 303 Bear Hill Road, Waitham, MA 02154, or FAX to (617) 290-5890. An Equal Opportunity Employer.



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Integrated Genetics, a 600-person, \$50M biotechnology firm, applies advanced molecular biology techniques to develop and provide high quality, sophisticated genetic testing services to physicians, hospital laboratories and health maintenance organizations. Responsible for continued software development for a fully automated imaging system for identifying and analyzing fatel cells. Involves

analyzing fetal cells. Involves use of TCL and C enhancements to improve performance of the instrument and will work with other groups to develop new diagnostic and research applications. Requires a B.S. degree, 3 years relevant experience, and familiarity with Macintosh and image processing. Knowledge of additional platforms, TCL, and fluorescence microscopy helpful.

microscopy neiprul. Integrated Genetics offers excellent compensation and benefits, including incentive stock options, 401(k) plan with company match, tuition reimbursement, and extensive insurance plans. Our facility is located 30 minutes west of Boston. Please send your resume to: Human Resources, Integrated Genetics, 1 Mountain Road, Framingham, MA 01701-9322.

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# Challenging and rewarding opportunities with a world leader

BioWhittaker has achieved world prominence by developing, refining, and marketing superior biomedical research and diagnostic products. Our company has experienced significant growth in recent years, and expects this trend to continue. Accordingly, we are always interested in hiring top technical/scientific people. Right now, we're seeking two capable professionals with effective written/oral communication skills to assume key responsibilities by conducting research and developing technical projects in the following positions:

### **RESEARCH ASSOCIATE**

This position calls for a dynamic communicator/researcher able to elucidate the biochemical mechanisms involved in the detection and quantitation of gram negative bacterial endotoxin using *Limulus* amebocyte lysate. You'll coordinate and evaluate in-house and outside research activities, prepare appropriate documentation, plus make presentations at scientific and sales meetings as well as trade shows. Qualifications include a Ph.D. in Biochemistry or a related degree, and a minimum of 2 years' experience in coagulation systems.

### **R&D PROJECT MANAGER**

Your projects will relate to *in-vitro* cell culture. You'll perform and evaluate in-house research activities, prepare appropriate documentation, and make presentations. To qualify, you should possess a B.S. in Biology or a related degree augmented by 2 years' industrial experience in tissue culture, virus production, and nutritional cell growth requirements.

We offer an environment conducive to professional and personal growth, competitive salaries, and a comprehensive benefits package. For confidential consideration, please forward your resume, indicating position of interest, to: Human Resources Department-C08, BioWhittaker, 8830 Biggs Ford Road, Walkersville, Maryland 21793. We are an equal opportunity employer m/fh/v offering a smoke-free/drug-free environment.

# **BIOX** WHITTAKER, INC.



operations, and facility design for effective biohazard control; review of biosafety program compliance; development, registration and amendment of SOP's for work with pathogens, recombinant DNA and other biohazards; training in related areas; and supervision of biosafety specialists. Must possess a working knowledge of all regulations, guidelines, and standards that apply to the conduct of biological research.

BS/MS/MPH in environmental health with 5 years experience; advanced degrees a plus. Technical background in basic microbiology, biological safety practices, containment equipment, and engineering principles that relate to the design and operation of facility safeguards. Supervisory background desired.

PRI offers salary commensurate with credentials and a comprehensive benefits program, including insurances, 401(k) savings plan, relocation assistance, and more. For consideration, please send resume, salary requirements and 3 references to Barbara J. Norton-Gill, Technical Recruiter.

PROGRAM RESOURCES, INC. a DynCorp subsidiary NCI-FCRDC P.O. Box B Frederick, MD 21702 EOE M/F

Program Resources, Inc. (PRI) has a challenging opportunity for a specialist in our Environmental Control & Research Program at the NCI-Frederick Cancer Research & Development Center in Frederick, MD.

OFFICER

The successful candidate will join a multi-disciplinary safety team and will be responsible for the enforcement of an existing, comprehensive safety program governing work with biohazardous materials. Principal duties include: evaluation of specific research activities for biohazard potential; assessment of equipment,

### EXECUTIVE DIRECTOR ARCHBOLD BIOLOGICAL STATION

Archbold Biological Station seeks applicants for the position of **EXECUTIVE DIRECTOR** and **SENIOR RESEARCH BIOLOGIST**. Archbold is a private, non-profit research institute located in central Florida near the southern end of the Lake Wales Ridge, an area rich in biotic endemism. The Station is dedicated to long-term ecological research and monitoring, conservation and land-management, and environmental education at all levels. A 2,000 hectare natural preserve surrounds outstaff and associates emphasizes plant and animal demography, invertebrate systematics, community ecology, fire ecology, chemical ecology, and conservation biology. The Station manages an additional 6,000 hectares of natural assimilation ecology is carried out. Funding for Archbold's programs includes endowment income, grants and contracts, fees, and donations. The Executive Director reports to a Board of Trustees (Archbold Expeditions, Inc.). Besides providing leadership in research, conservation, and education, the Executive Director is responsible for overseeing budgets and a staff of about 50. Opportunity exists for adjunct faculty status at area universities. Applicants must have a Ph.D., a strong background in ecological research, and demonstrated administrative experience. Send letter, curriculum vitae, and list of references to: Executive Search Committee, Archbold Biological Station, P.O. Box 2057, Lake Placid, FL 33862-2057, by 31 January 1995.

#### FACULTY POSITIONS University of Pennsylvania School of Medicine Department of Biochemistry and Biophysics

The Department of Biochemistry and Biophysics at the University of Pennsylvania School of Medicine invites applications from outstanding candidates for full-time faculty appointments. The search will focus on individuals with research interests in molecular biology with strong backgrounds in biochemistry, chemistry or physics

backgrounds in biochemistry, chemistry or physics. Candidates should forward their curriculum vitae, a summary of reseach interests, and arrange for three letters of recommendation to be sent to: Ms. Ruth Keris, Staff Assistant, Department of Biochemistry and Biophysics, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6059.

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

### EVOLUTIONARY MORPHOLOGIST THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

The Department of Cell Biology and Anatomy, Johns Hopkins University School of Medicine, invites applications for a junior or senior level FACULITY POSITION in functional anatomy and evolution, with primary teaching responsibility in human gross anatomy. Applicants must have Ph.D., teaching experience in gross anatomy, and an established research program in some aspect of vertebrate anatomy or evolution, such as physical anthropology, vertebrate paleobiology, experimental morphology, genetics, or phylogenetic systematics (morphologic or molecular). Deadline for receipt of applications: February 15, 1995. Send curriculum vitae, one-page statement of research goals/interests, and names and addresses of three references to: Anatomy Search Committee, Department of Cell Biology and Anatomy, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205. The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.

**TENURE-TRACK FACULTY POSITION.** The Division of Neurobiology at the Barrow Neurological Institute is seeking a faculty person with a demonstrated research focus in motor or visuomotor research. The capacity to develop and maintain a grant-supported research program and to participate in collaborative research programs within the Division is critical. A minimum of two years of postdoctoral experience is required. Early and mid-career individuals are urged to apply. The position is available beginning January 1995. The search process will remain open until the candidate is selected. Applicants should contact: James R. Bloedel, Chairman, Division of Neurobiology, Barrow Neurological Institute, 350 West Thomas Road, Phoenix, AZ. Telephone: 602-406-3487. Equal Opportunity Employer.

### **POSITIONS OPEN**

### THE UNIVERSITY OF TEXAS-HOUSTON MEDICAL SCHOOL

Faculty positions in Neuroscience. The Department of Neurobiology and Anatomy, University of Texas-Houston invites applicants for several tenure-track **FACULTY POSITIONS**. A strong research background with specific research experience in learning and memory, neuronal plasticity or vision is required. Applicants must hold a Ph.D. degree and have at least two years of postdoctoral training. A successful candidate will be expected to develop a strong independent research program and teach at the medical and graduate school levels. Rank of appointment will be based on qualifications. Applicants should submit a curriculum vitae, a brief description of research interests, and the names and addresses of three references. These materials should be submitted to: **Dr. Ter ry Crow, Chairman, Neuroscience Search Committee, Department of Neurobiology and Anatomy, University of Texas-Houston, P.O. Box 20708, Houston, TX 77225. The University of Texas-Houston is an Equal Opportunity Employer. Women and minorities are encouraged to apply.** 

**TENURE-TRACK FACULTY POSITION:** The University of Utah Department of Bioengineering invites applications for a tenure-track faculty position at the Assistant or Associate level. The successful applicant will be expected to develop a significant research program in the area of "Micro-Nano Fabrication of Inorganic, Organic, and/or Biomolecular Materials" or "Micro-Electro Mechanical Systems," to teach graduate courses/laboratories in these areas and to assist in the development of a new teaching/research facility. Candidates must have an earned doctorate, a strong background in the physical sciences or engineering, and significant postdoctoral or industrial research experience. A complete curriculum vitae, names of three references, and a brief goals/objectives statement should be sent to: R. Normann, Ph.D., Chair, Department of Bioengineering, 2480 MEB, University of Utah, Salt Lake City, UT 84112. Telephone: 801-581-8528; FAX: 801-585-5361. Applications will be accepted until February 25, 1995, or until the position is filled. The University is an Affirmative Action/Equal Opportunity Employer, encourage applications from women and minorities, and provides reasonable accommodation to the known disabilities of applicants and employees.

### MYOPIA RESEARCH CENTER BIOSCIENCES FACULTY POSITION

The New England College of Optometry seeks applications for a **TENURE-TRACK POSITION**. The successful candidate will be expected to develop an active, extramurally funded research program in ocular biology, and must have a strong commitment to teaching. Candidates must have a Ph.D., O.D., or M.D. degree. Preference will be given to those active in myopia research, and who have demonstrated excellence in teaching. Teaching assignments will be based on the individual's background. Rank/salary commensurate with experience. Candidates should submit a letter of application, curriculum vitae, a concise description of research interests and goals, and the names and addresses of three references to: Dr. Mark Zorn, Ph.D., O.D., Director, Myopia Research Center, The New England College of Optometry, 424 Beacon Street, Boston, MA 02115. An Equal Opportunit//Affimative Action Employer.

POSTDOCTORAL POSITION available immediately to study the structure and mechanism of catalysis of an enzyme crucial for viral and parasite replication. Candidates should have experience in enzymology and molecular biology/site-directed mutagenesis. Send curriculum vitae and three letters of reference to: Ronald T. Borchardt, Department of Pharmaceutical Chemistry, 3006 Malott Hall, The University of Kansas, Lawrence, KS 66045. An Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITIONS Molecular Oncology Program

Positions available to conduct studies in the areas of: 1) signal transduction by tyrosine kinases and 2) the molecular basis of cytotoxic drug resistance. Experience in molecular biology preferred. Please send curriculum vitae and two letters of reference to: Gary Kruh, M.D., Ph.D., c/o Human Resources Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.

### **POSITIONS OPEN**

### POSTDOCTORAL POSITION

Position available in the laboratory of Dr. John Krupinski at the Weis Center for Research in Danville, Pennsylvania. The successful applicant will have a Ph.D. in biochemistry, cell biology, or pharmacology with experience in molecular biology. The project will involve the expression and characterization of novel forms of adenylyl cyclase (see J. Biol. Chem., 267:24858-24862 and J. Biol. Chem., 269:12190-12195). Emphasis will be placed on determining those structural features of the adenylyl cyclases responsible for mediating unique physiological effects. The Weis Center is a well-equipped, modern research facility in a semi-rural environment. Competitive salary and fringe benefits are available. Please send curriculum vitae with the names and telephone numbers of three references to: Geisinger Human Resources (JK), 100 North Academy Avenue, Danville, PA 17822-1529. Equal Opportunity Employer. Minorities/Female/Disabled/Veterans.

POSTDOCTORAL POSITION: Available immediately in molecular microbiology to participate in studies of pathogenesis and detection of mycobacteria in humans. Research skills should include a strong background in molecular biology as applied to microbial pathogens and diagnostic methods including PCR, Southern hybridization, DNA purification/concentration methods. Experience in adaptation of molecular methods to clinical specimens and non-isotopic detection methods an advantage. This position will have technical support and the context of an experienced, multidisciplinary, multinational research group. Applicants must have a recent Ph.D. in molecular biology, microbiology, clinical pathology or clinical microbiology. Willingness to travel and reside temporarily outside the United States a requirement. Send application and three letters to: Dr. Kristen A. Weigle, Associate Professor, Department of Epidemiology, CB No. 7400, University of North Carolina, Chapel Hill, NC 27599-7400. An Equal Opportunity Employer.

### POSTDOCTORAL POSITIONS

Available immediately for studies of (1) photosynthetic  $O_2$  evolution, electron donation and photoactivation processes in PSII using biochemical, spectroscopic and molecular biological approaches, and (2) bioreactors for H<sub>2</sub> photoproduction in *Chlamydomonas*. The positions are for one year; extension is possible. Salary is highly competitive. Send curriculum vitae, statement of research interests, and names of three references, with telephone numbers to: Dr. Michael Seibert, National Renewable Energy Laboratory, 1617 Cole Boulevard, Golden, CO 80401. For information regarding current job opportunities at the National Renewable Energy Laboratory (NREL) contact JOB LINE 303-628-4650. Internet through: gopher@info.nrel.gov. and through Worldwide Web [MOSAIC] @ url http:forward/info.nrel.gov:70. NREL is an Equal Opportunity Employer and proud of its commitment to diversity. Women and minorities are encouraged to apply.

### POSTDOCTORAL POSITION MYCOBACTERIUM TUBERCULOSIS

Immediate opening to study protective epitopes and virulence factors of *M. tuberculosis.* Candidate must have a proven record in molecular biology or biochemistry; experience with molecular cloning desired. Candidates should send curriculum vitae, a list of publications and the names of three references to: Dr. F. Nano, Depärtment of Biochemistry and Microbiology, Petch Building, University of Victoria, Victoria, B.C. V8W 3P6 Canada. FAX: 604-721-7074; Email: fnano@sol.uvic.ca. In accordance with Canadian Immigration requirements, priority will be given to Canadian dizens and permanent residents.

### POSTDOCTORAL SCHOLAR

Position available immediately to study basic mechanisms of regulation and expression of genes in an insect model system. Basic molecular biology/protein biochemistry background most preferred. Send curriculum vitae, names and telephone numbers of three references to:

Dr. Grace Jones Cellular and Molecular Biology Section 101 T. H. Morgan Building University of Kentucky Lexington, KY 40506-0225

An Affirmative Action, Equal Opportunity Employer

### National Institutes of Health Laboratory of Clinical Physiology Postdoctoral Fellowship Positions

The Diabetes Unit of Laboratory of Clinical Physiology of the Gerontology Research Center, NIA in Baltimore, MD, is seeking two postdoctoral fellows (Ph.D. or M.D.) interested in the field of diabetes. The applicants will be involved in ongoing research projects to study the molecular mechanisms of insulin action at the level of the target tissues. Documented knowledge of the latest techniques of molecular biology, cell biology or protein biochemistry is a plus. Starting salary will be commensurate with qualification and experience. For further information, please contact Michael Bernier, Ph.D. and/or Chahrzad Montrose-Rafizadeh, Ph.D. at (410) 558-8198. Interested candidates should submit curriculum vitae, bibliography, reprints, summary of research interests and names of three references to:

National Institute on Aging Gerontology Research Center 4940 Eastern Avenue LCP/Diabetes Unit ATTN: Dr. Bernier (03) Baltimore, MD 21224



Please respond by February 21, 1995.

NIH is an Equal Opportunity Employer

# POSTDOCTORAL POSITION

Postdoctoral position available to study signal transduction by G-protein coupled neuropeptides receptors. The role of proliferative neuropeptides receptors in potentiating the growth of brain tumor cells will be investigated using biochemical and molecular techniques. The candidate should have a Ph.D. in Molecular Biology or related fields and interest in cancer research. Send a letter of interest, curriculum vitae and name of three references to: Dr. Mohammed Sharif, Dept. of Molecular Pharmacology, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38105. Fax: 901-521-1668.



# Start-Up Opportunities in Palo Alto

Hewlett-Packard Company is a world leader in the design and manufacture of computer and electronics equipment. Our BioScience Product Organization, a new start-up of Hewlett-Packard, has exciting ground-level opportunities available for the following:

### Nucleic Acid Biochemist/ Molecular Biologist

This position will involve research in the development of novel methods for DNA/RNA-based medical diagnostic assays in a multidisciplinary team approach. Requires a PhD in biochemistry or molecular biology of nucleic acids with a minimum of 3 years of laboratory experience with oligonucleotide isolation, characterization and hybridization. A successful candidate should have previous experience with tRNA, Ribozymes, unique oligonucleotide duplex structures, or novel probe hybridization technologies. Experience in the following areas is desirable: computer databases for gene sequence identification, enzymatic synthesis of DNA or RNA, manipulation and characterization of chemically modified oligonucleotides. Experience with product development in an industrial setting a must. Job Code: 1019

## **Bioanalytical Chemist**

This position will involve technical leadership in the research and development of novel automated processes for the isolation of biomolecules from biological/clinical samples in a multidisciplinary team approach. Requires a PhD in chemistry or biochemistry with a minimum of 3 years' laboratory experience in extraction, isolation, purification and concentration of nucleic acids as well as extensive experience with industrial product development. Experience with development of quantitative assays to determine reproducibility of sample preparation techniques, and laboratory experience with HPLC, CE, PAGE, a must. In addition, experience in the following areas is desirable: non-radioactive methods for the detection of oligonucleotides, previous work with clinical samples, eukaryotic and prokaryotic culture techniques, nucleic acid amplification. Job Code: 1020

Please send your resume indicating job code of interest to: Hewlett-Packard Company, Staffing Dept., 3000 Hanover Street, MS: 20AZ, Palo Alto, CA 94304-1181. Hewlett-Packard Company is an equal opportunity employer dedicated to affirmative action and work force diversity.



### COLUMBIA UNIVERSITY

POSTDOCTORAL POSITION. Available immediately to study the molecular mechanisms of oncogenesis of the Kaposi's sarcoma associated herpes-like virus. Candidates should have Ph.D. or M.D. with extensive expe-rience in various aspects of molecular biology. Experience in virus purification and characterization preferred. Send curriculum vitae and three references by FAX or mail to: Curriculum vitae and three references by FAX or mail to: Drs. Pat Moore and Yuan Chang, Department of Pa-thology, P&S 14-515, Columbia University, 630 West 168th Street, New York, NY 10032. Telephone: 212-305-1669; FAX: 212-305-4548. Columbia University is an Equal Employment Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE position available beginning April 1, 1995, to study hippocampal effects of kappa opioid agonists in models of rat hypertension. Recent doctoral degree in pharmacology or related discipline desired. Prefer person experienced with rat surgery, cardiovascular recording techniques, stereotaxic microiniections in brain and immunochemical estimation of opioid peptides. One year appointment, renewable for a second year. Salary, plus fringe benefits, is commensurate with experience and skills. Send curricu-lum vitae and three letters of recommendation to: **Dr. A.** J. Ingenito, Department of Pharmacology, School of Medicine, East Carolina University, Greenville, NC 27858 USA. An Affirmative Action/Equal Opportunity Employer. Accommodates individuals with disabilities. Applicants must comply with the Immigration Reform and Control Act.

POSTDOCTORAL POSITION available immediately for the structure-function relationship studies on the molecular assembly of a novel thermophilic bacterial cellulolytic protein complex with potential biotechnology applications. The ribosome-like quaternary structure fa clitated by a large scaffolding protein will be studied using molecular biology, biochemistry, enzymology, and X-ray crystallography approaches leading to protein engineering for probing the molecular structures and explor-ing novel enzyme designs. Newly renovated lab with ex-cellent facilities. Expertise in molecular biology and protein biochemistry and interest/motivation in the project are required. Send résumé and names/telephone numbers of three references to: David Wu, University of Rochester, 206 Gavett, Rochester, NY 14627. FAX: 716-442-6686; Email: davidwu@che.rochester.edu.

The U.S. Geological Survey (USGS), Water Resources Division, has a **POSTDOCTORAL POSITION** for a United States citizen available immediately for studies on the biodegradation of trifluoracetate in soils, sediments, and bacterial cultures. Candidates should have a Ph.D. in microbial ecology, biogeochemistry, microbiology, or re-lated field. Experience with microbial dehalogenation reactions, cultivation of anaerobes or methanotrophs is desirable. Term appointment of one to two years that may be extended, \$35,701 to \$42,788 per year with benefits; location: Menlo Park, California. Send curriculum vitae, transcripts, and names of three references to: Dr. Ronald S. Oremland, U.S. Geological Survey, 345 Middle-field Road, Menlo Park, CA 94025. Telephone: 415-329-4482; Email: roremlan@rcamnl.wr.usgs.gov; FAX: 415-329-4463.

POSTDOCTORAL POSITION available to study the mechanisms underlying cell-cell communication dur-ing plant epidermal cell redifferentiation. The research requires a background in cell and molecular biology. Send curriculum vitae and three letters of reference to: Dr. Judith Verbeke, Department of Plant Sciences, Uni-versity of Arizona, Tucson, AZ 85721. The University of Arizona is an Affirmative Action/Equal Opportunity/ADA Employer. Women and minorities are encour-

aged to apply.

### POSTDOCTORAL POSITION MOLECULAR BIOLOGY

Position available immediately to study the relationship between mammary gland development and breast cancer risk using molecular, cellular, and animal model systems. Experience in molecular biology is required. Please send curriculum vitae and names of three references to: Dr. Lewis A. Chodosh, Institute for Human Gene Ther-apy, BRB-1 Room 305, University of Pennsylvania, 422 Curie Boulevard, Philadelphia, PA 19104-6069. An Equal Opportunity/Affirmative Action Employer.

#### DEVELOPMENTAL REGULATION OF TRANSCRIPTION POSTDOCTORAL POSITION

A POSTDOCTORAL POSITION is available to study biochemical principles by which transcription fac-tors regulate gene expression during *Drosophila* development. We have discovered that in the embryo two homeodomain proteins bind with similar specificity to a wider range of DNA sites than predicted by previous models (*Genes & Dev.*, 8: 1678, 1994). Future projects include determining why these two proteins bind throughout the length of their target genes. Send curriculum vitae and two letters of recommendation to: Mark Biggin, Yale University, Department of Molecular Biophysics and Biochemistry, P.O. Box 208114, 266 Whitney Avenue, New Haven, CT 06520-8114.

Yale University is an Affirmative Action/Equal Opportunity Emplover.

### THE NEUROSCIENCES INSTITUTE LA JOLLA CELLULAR NEUROPHYSIOLOGY

Applications are invited for the POSTDOCTORAL POSITION of Junior Fellow in Experimental Neurobiology to study synaptic physiology, plasticity, and specificity in mammalian neocortex using state-of-the-art brain slice methodologies. Applicants should have a background in electrophysiology and an interest in develop-mental neurobiology. Fellows will receive stipends appro-priate to their qualifications and experience. Submit a curriculum vitae, statement of research interests, and names of three references to: Dr. Ronald B. Langdon, The Neurosciences Institute, 3377 North Torrey Pines Court, Suite 310, La Jolla, CA 92037. FAX: 619-554-9159.

### POSTDOCTORAL POSITIONS The Gladstone Institute of Virology and Immunology

University of California, San Francisco

J. Mike McCune, M.D., Ph.D.: Research on the pathogenesis of HIV disease. Projects will include: 1) HIV-induced cytokine dysregulation; 2) interactions of HIV with hematopoietic progenitor cells; and 3) immunopathologic events of early stage disease. Candidates should possess an M.D. and/or Ph.D. Experience in virology, immunology, pathology, and/or molecular biol-(one page) and three references to: Postdoctoral Re-cruitment, Gladstone Institute of Virology and Immurology, UCSF, P.O. Box 419100, San Francisco, CA 94141-9100. An Affirmative Action/Equal Opportunity Employer.

#### POSTDOCTORAL POSITION Signal Transduction

NIH-funded position available to study the signal transduction circuits activated by retinoids. Our exciting discovery of a novel mechanism may revolutionize our understanding of the function of vitamin A and will enable the successful candidate to work at the cutting edge of the field. Experience in signal transduction and ancilary skills in protein purification, cloning and expression are highly desirable. Suitable for second postdoctoral training. Send customary credentials to: Ulrich Ham-merling, Ph.D., Immunology Department, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Memorial Sloan-Kettering Cancer Canter is an Equal Opportunity Employer Center is an Equal Opportunity Employer.

### POSTDOCTORAL OR STAFF RESEARCHER EXPERIMENTAL CHEMICAL PHYSICS

Experimental quantum control of chemical dynamics with femtosecond lasers. Close interaction between ex-periments and analytical and numerical theory. Ultrafast X-ray and electron diffraction for imaging molecular quantum dynamics. Looking for exceptionally able ex-perimentalists, particularly with strong background from among ultrafast laser, molecular or charged particle beams, or X-ray physics. Salary \$26,220+ (Postdoc-toral), \$41,600+ (Researcher, with exceptional experi-ence). For description of current group activities and personnel see World Wide Web site, http://www.wil-son.ucsd.edu. Prof. Kent R. Wilson, Department of Chemistry 0339, University of California, San Di-ego, La Jolla, CA 92093-0339. Affirmative Action/Equal Opportunity Employer.

A POSTDOCTORAL POSITION is available for research on trace gases using traditional microbiological and field methods as well as molecular approaches. Ph.D. in Microbiology or related field required; experience with GC and molecular techniques desirable. Salary range \$24,000 to \$25,000 annually. Send applications with research interests, curriculum vitae and names of three ref-erences to: Dr. G. M. King, Darling Marine Center, University of Maine, Walpole, ME 04573. Tele-phone: 207-563-3146, ext. 207; Email: gking@ maine.maine.edu. Review of applications begins 1 January 1995 and continues until a suitable candidate is found. The University of Maine is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE positions (two) available to study the molecular mechanism of regulation of cholesterol  $7\alpha$ -hydroxylase gene in bile acid and cholesterol metabolisms. Experiences in gene cloning, sequencing and expression; protein purifi-cation; protein-DNA interactions; gene transfer and tis-sue culture techniques preferred. Please submit curriculum vitae indicating position to: Human Resources, Northeastern Ohio Universities College of Medicine, P.O. Box 95, Rootstown, OH 44272-0095. Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION** available immediately to study the structure and function of ribosomal RNA using an oligonucleotide analog approach (Purohit and Stern, Nature, 370: 659, 1994). Ribosomal RNA oligonucleotide analogs are small RNA constructs, derived from functionally implicated subdomains of 16S and rived from functionally implicated subdomains of 168 and 23S rRNA. They participate in significant interactions with antibiotic, mRNA, and tRNA ligands. Send curricu-lum vitae and letters of reference to: **Dr. Seth Stern**, **Program in Molecular Medicine**, **UMASS Medical** Center, 373 Plantation Street, Worcester, MA 01605. An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION available immediately to study molecular oncogenesis of retorvirus-induced lung cancer in sheep. Qualifications include Ph.D. and expertise in molecular retrovirology and/or pulmonary neoplasia. Send a curriculum vitae, summary of research experience and interests, and names/addresses of three references by February 1, 1995, to: Dr. James C. DeMartini, Department of Pathology, Colorado State University, Fort Collins, CO 80523. Tele-phone: 303-221-1364; FAX: 303-491-0603.

POSTDOCTORAL FELLOWSHIPS available immediately to study the role of BMPs in heterotopic ossi-fication. Interests in developmental biology and the molecular basis of bone formation and a strong background in molecular biology are required. Send curriculum vitae and three letters of recommendation to: **Drs. F. Kaplan** and E. Shore c/o Department of Orthopaedics, Stemmler Hall, University of Pennsylvania, Philadel-phia, PA 19104-6081. University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

# POSTDOCTORAL FELLOW POSITION AVAILABLE IN MOLECULAR CYTOGENETICS

A POSTDOCTORAL POSITION is available beginning immediately to participate in an ongoing study of the molecular dissection of chromosome regions involved in malignancy. The candidate must have a minimum of one to two years of experience in molecular genetics. This includes DNA isolation, nick translations, Southern bloting, sequencing, PCR analysis, library screening, RNA analyses and other related procedures. Some experience in cytogenetics is helpful. Strong communication and writing skills are necessary. Please send résumé with names of three references to: Dr. Linda A. Cannizzaro, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, Department of Pathology, Ullman 1221, 1300 Morris Park Avenue, Bronx, NY 10461 or contact at 718-430-2898/4195. An Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP available to study enzymes involved in the biosynthesis of coronatine, a toxin produced by the phytopathogenic bacterium *Pseudomonas syringae*. Experience in protein purification and enzymology is required; experience in molecular bi-ology is also desirable. Send résumés to: Dr. C. Bender, 110 Noble Research Center, Oklahoma State Univer-sity, Stillwater, OK 74078. FAX: 405-744-7373; Email: uc7051A Grant and Electrot de Oklahoma State Email: u0705AA@vms.ucc.okstate.edu. Oklahoma State University is an Equal Opportunity/Affirmative Action Employer.

# SCIENTIST

### Molecular Genetics

SmithKline Beecham Pharmaceuticals, a world leader in pharmaceutical research, has an opening for a Scientist in the Biopharmaceutical Division.

The selected candidate will perform experiments in Molecular Genetics, especially in high density gridding of cDNA clones, hybridizations and screening of cDNA libraries. The individual will also participate in investigating new technologies and instrumentation, including robotics, and will assist in the design, interpretation and modification of experiments and techniques.

Qualifications include a BS/MS in Biological or Chemical Sciences with 1-5 years' experience in recombinant DNA technology. Experience in hybridizations and library screening is required. Experience in high density gridding of cDNA clones, robotics, imaging technologies and PCR is highly desirable. Willingness to work with radioactive compounds is essential.

Located in our state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham offers competitive compensation and benefits packages. For confidential consideration, please forward resume to: SmithKline Beecham Pharmaceuticals, Job Code #H0430, P.O. Box 401, Conshohocken, PA 19428. We are an Equal Opportunity Employer, M/F/D/V.

**SB** SmithKline Beecham Pharmaceuticals Challenging the natural limits.

# RARE CELL ISOLATION/ANALYSIS POSTDOCTORAL SCIENTIST

### HELPING PEOPLE LIVE BETTER LIVES

We are seeking a Postdoctoral Scientist to work in an aggressive program involving rare cell isolation. The goal of this program is the development of methods that allow the isolation/enrichment of rare cells for diagnostic purposes. The candidate should have a PhD in a field which provided 1-3 years experience with various aspects of molecular biology. This background should include purification and labelling of mRNA, cDNA cloning, synthesis and analysis of cDNA libraries, subtraction hybridization strategies, PCR, in-situ hybridization and M13 based sequencing. Knowledge of cell biology would be helpful. Using the above specified skills this individual will be responsible for a critical portion of an exciting multidisciplinary project with on-going world-class collaborations.

The appointment is for 1 year, renewable for a second year and available now. Competitive salary, benefits and relocation allowance provided.

For consideration please forward your CV to the Human Resources Department at Boehringer Mannheim Corporation, 9115 Hague Rd., Indianapolis, IN 46250. Please reference POSTDOC- 2. Principals only please. An Equal Opportunity Employer.

BOEHRINGER MANNHEIM CORPORATION



# STAFF SCIENTIST NEUROBIOLOGY

Stratagene, with over 200 employees, is located in a very attractive part of La Jolla, California. Known for our innovative, high quality products for cutting edge research, we are expanding our program in the area of neuroscience and cell biology.

The successful candidate will have a Ph.D.<sup>\*</sup> and a significant publication record in the field of Neurobiology with an emphasis on molecular approaches to neuron function.

We offer an excellent salary, bonus and benefits package. Candidates interested in joining a highly successful, progressive company with room to grow are encouraged to submit resume to: **Stratagene**, **Attn: Professional Staffing 21033-94A**, **11011 N. Torrey Pines Rd., La Jolla, CA 92037.** AA/EOE.



# DIRECTOR ANIMAL FACILITY

DNAX Research Institute, located near Stanford University, carries out basic research in Immunology and Molecular Biology in an open, academic environment. We are looking for an individual to manage the Institute's Animal Facility and collaborate on research projects with DNAX scientists in physiology and pathology studies primarily involved with transgenic mice.

This position requires a D.V.M. and two to five years experience in a research environment. Expertise in laboratory animal medicine is required. This individual should have experience in gross and micropathology sufficient to diagnose both infectious and genetic diseases (abnormal phenotypes in transgenic/KO animals).

Qualified applicants should send a curriculum vitae and the names of three references to: Human Resources Department, DNAX Research Institute, 901 California Avenue, Palo Alto, CA 94304.

DNAX is an equal opportunity employer, m/f/d/v.



#### POSTDOCTORAL FELLOWSHIP ANTARCTIC SEABIRD ECOLOGY AND BEHAVIOR

An opportunity for a two-year **POSTDOCTORAL FELLOWSHIP** is anticipated with the National Marine Fisheries Service/National Oceanic and Atmospheric Administration, starting in the spring of 1995. The appoin-tee will be expected to lead the seabird component of a research team analyzing and writing-up a nine-year ecological database on seals and penguins. Seabird studies have focused on interannual comparisons of feeding ecology, reproductive success, growth and condition, and demography of chinstrap penguins. Complementary data are available from coordinated research cruises on the distribution and abundance of zooplankton and on oceanographic conditions near the penguin breeding colonies. Candidate should have strong background in avian ecology and behavior, and demonstrated strengths in analysis, writing, and working as a member of a team. Experience with marine ecosystems preferred, Ph.D. required. To express interest in this opportunity, please send detailed curriculum vitae, copies of reprints, and names of three references by 15 January 1995, to: Dr. J. L. Bengtson, National Marine Mammal Laboratory, 7600 Sand Point Way N.E., Seattle, WA 98115. For further information, telephone Dr. Bengtson at 206-526-4016 or Dr. Peter Boveng at 206-526-4244. An Equal Opportunity Employer.

### DEVELOPMENTAL BIOLOGIST

The Oregon Regional Primate Research Center (ORPRC) has an opening for a SENIOR STAFF SCI-ENTIST with research interests in early growth and development processes. Interaction with the assisted reproductive technology program at the ORPRC is anticipated as this program provides a unique opportunity to conduct research with non-human primate embryos. Candidates must hold a Ph.D. or equivalent degree and have advanced training in a field related to reproductive/developmental/molecular biology with an interest in non-hu-man primates as models for human disease. Molecular and gene transfer expertise is essential. An extramurally funded research program is required. Joint academic opportu-nities are available at our host institution, Oregon Health Sciences University. Applicants should submit a résumé, a letter of research interests, and the names of three references to: Chair, Developmental Biologist Search Committee, Division of Reproductive Sciences, ORPRC, **505** N.W. 185th Avenue, Beaverton, OR 97006 USA. Applications will be accepted until the position is filled. *The ORPRC is an Equal Opportunity/Affirmative Action* Employer.

#### POSTDOCTORAL FELLOWSHIPS THE SLOAN CENTER FOR THEORETICAL NEUROBIOLOGY AT CALTECH

POSTDOCTORAL FELLOWSHIPS are available for the newly established Sloan Center for Theoretical Neurobiology at Caltech which promotes integration of theoretical and experimental work in neurobiology. Applicants should identify two sponsors from Caltech faculty participating in the Sloan Center, one from a theory lab and one from an experimental lab, and submit a curriculum vitae, two or three letters of recommendation, and a research proposal. Theoretical faculty include Abu-Mostafa, Barr, Bruck, Burdick, Goodman, Hopfield, Koch, Mead, Perona, and Psaltis. Experimental faculty include Allman, Andersen, Bower, Chavkin, Fraser, Konishi, Laurent, Lester, and Schuman. Please send applications or requests for more information to: Richard Andersen, 216-76, Division of Biology, California Institute of Technology, Pasadena, CA 91125 USA or Email to laura@vis.caltech.edu. Application deadline is February 1, 1995.

Caltech is an Affirmative Action/Equal Opportunity Employer. Women, minorities, veterans, and disabled persons are encouraged to apply.

**RESEARCH ASSOCIATE**. Position available immediately for researcher with extensive experience in molecular biology to study phosphorylations and regulation of enzyme expression. Candidate should have Ph.D. and three to five years of experience. Send curriculum vitae to: Dr. Robert S. Danziger, Division of Cardiology, Columbia University, 630 West 168th Street, New York, NY 10032. An Equal Opportunity/ Affirmative Action Employer.

### PREDOCTORAL RESEARCH ASSISTANTSHIPS

The Department of Food Science, University of Masschusetts, has several USDA National Needs PH.D. FELLOWSHIPS in the following areas: Food Biophysics: the relationship of NMR water mobility to the growth of food borne pathogens and toxin producing organisms; Food Chemistry: interfacial interactions, synergistic relationships and nutritional implications of natural antioxidants in foods; Food Biotechnology: development of genetically modified plant clonal systems for uniform production of natural plant antioxidants; Food Microbiology: PCR quantitation of *E.* oli O157:H7. Stipends are \$17,000 per year plus full tuition waiver for three years. Applicants should have a B.S. or M.S. in Food Science, Microbiology, Chemistry, Biochemistry, or Engineering. Requirements include U.S. citizenship and competitive GPA and GRE scores. Applications can be obtained from: Dr. R. Levin, Department of Food Science, University of Massachusetts, Amherst, MA 01003. Application deadline: February 15, 1995. The University of Massachusetts is an Equal Opportunity/Affirmative Action Employer.

### **RESEARCH ASSOCIATES**

Three **RESEARCH ASSOCIATES** for university in central Ohio. Assist in the development and implementation of clinical pharmacology protocols; monitor phase I drug studies for protocol adherence; assist with recruiting patients for clinical studies; evaluate preclinical data; assist under the supervision of a medical doctor in conducting physical exams, medical histories, blood draws, vital signs and collection of other biological specimens for analysis and run electrocardiograms; assess side effects as to whether they are drug related or in an intercurrent illness; evaluate lab results; verify, transcribe and record data. M.S. in biological or health sciences and one year of experience in above-described duties required or, in the alternative, a United States medical degree or its equivalent as determined by an accredited agency. 40 hours per week, 8 am to 4 pm or 9 am to 5 pm, Monday through Friday, \$21,732 to \$24,852 per year. Must have proof of legal authority to work indefinitely in United States. Send résumé in duplicate (no calls) to K. Shockey, JOB No. 00834, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

**RESEARCH FELLOW** for firm in northeast Ohio. Assist chief investigators in the following research on cardiovascular diseases. To study the causes of atherosclerosis at the cellular and molecular level through animal vascular cell culture experiments; and to clone and characterize the tissue-specific transcription factors that regulate the growth and migration of vascular endothelial cells. Must have M.S. in Medicine or Biology. Academic program must have included one graduate-level course in cell Biology, Immunology, Molecular Genetics, and Biometry. Must have six months in job described or six months as biomedical researcher. Must be skilled in mamalian vascular endothelium and smooth muscle cell culture, immunoassays and Radioreceptor assays (RRA) for growth factors, immunoblotting, Northern blot and Southern blot, in situ hybridization, Protein chromatography, cDNA cloning, and laboratory animal surgery. Must also be conversant with Macintosh graphing and DNA application softwares. These skills and experience may be evidenced by academic letters of reference and/or employers testimonals. 40 hours per week, 8:00 a.m. to 5:00 p.m., \$25,500 per year. Must have proof of legal authority to work indefinitely in the United States. Send résumé and course transcript in duplicate to: K. Shockey, JOB 00878, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

#### STAFF SCIENTIST

Applications are invited for a STAFF SCIENTIST position in a growing biomedical company. Candidates should have Ph.D. with relevant postdoctoral experience and publications in drug delivery and gene therapy areas using electrical assist technology. They should also be knowledgeable in cell biology/molecular biology and preferably have hands-on experience in research related to cancer and cardiovascular diseases. Competitive salary and benefits. Send curriculum vitae and three references (with telephone numbers) to: Dr. S. B. Dev, Genetronics, Inc., 11199-A Sorrento Valley Road, San Diego, CA 92121.

### **POSITIONS OPEN**

#### RESEARCH SCIENTIST PH.D. Department of Reconstructive and Plastic Surgery The University of Texas M. D. Anderson Cancer Center

The University of Texas M. D. Anderson Cancer Center seeks a **RESEARCH SCIENTIST** with a background in molecular biology and/or microcirculatory physiology to develop a research laboratory in the Department of Reconstructive and Plastic Surgery. It is envisioned that this research facility would encompass numerous aspects of reparative biology relative to the cancer patient including wound healing, angiogenesis, microcirculation and ischemic injury, and tissue engineering. Experience in any one or all of these areas would be desirable. The scientist in this position will be responsible for initiating their own laboratory effort, as well as acting as the liaison and facilitator for the clinical faculty in their basic science research. It is important that the research effort emphasize a focus which is translational in nature and easily transportable from the laboratory to the bedside. Candidates must qualify for appointment as assistant professor or higher and well qualified individuals should have evidence of autonomy and grant support. Cross-appointments in basic science departments is

Cross-appointments in basic science departments is available and encouraged. Attractive start-up resources are presently available. Please send curriculum vitae and a description of your current research program to: Mark A. Schusterman, M.D., Associate Professor of Surgery, Department of Reconstructive and Plastic Surgery, 1515 Holcombe Boulevard, Box 62, Houston, TX 77030. The University of Texas M. D. Anderson Cancer Center is an Equal Opportunity/Affirmative Action Employer. Smoke-free environment.

### SENIOR RESEARCH ASSISTANT NEUROIMMUNOLOGY

A position is presently available to work on identifying molecules involved with bidirectional signaling between immune and nerve cells in the mammalian peripheral nervous system in vino. Experience in electrophysiology is required. Experience with cell culture techniques, computers; microscopes, fine dissection and lab animals desired. Bachelor's degree in a related field with three years of experience or Master's with one year. Position is funded for a minimum of four years. Curriculum vitae, with names and telephone numbers of three references, should be sent to: Mr. Jack Dent, Employment Specialist, Position No. A02725, University of Maryland at Baltimore, Office of Human Resources Management, 737 West Lombard Street, Baltimore, MD 21201. An Affimative Action/ADA/Equal Opportunity Employer.

#### **RESEARCH ASSOCIATE**

RESEARCH ASSOCIATE position available immediately in an expanding program in viral vaccine immunology. Experience in virology and/or cellular immunology preferred along with broad background in molecular biology. Requirements: Ph.D. in virology or immunology; postdoctoral experience desirable. Send curriculum vitae with references to: Dr. Ann Arvin, G-312, Department of Pediatrics, Stanford University School of Medicine, Stanford, CA 94305-5119.

MICROBIOLOGIST POSTGRADUATE RE-SEARCH POSITION at EPA's Risk Reduction Engineering Laboratory (RREL) in Cincinnati, Ohio. Research will be evaluating potential use of compost and ex situ soil treatment systems in remediation of soils contaminated with hazardous chemicals. Master's degree in molecular/microbiology with experience in chemistry and plant physiology. U.S. citizen or PRA. Contact: Postgraduate Research Programs/RREL, Science Engineering Division, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831-0117. Telephone: 615-576-3456. (Ref. RREL 95-01).

### STAFF SCIENTIST—CYTOGENETICS

A STAFF SCIENTIST position is available to head a cytogenetics laboratory that evaluates chemicals and pharmaceuticals for their potential to cause chromosome aberrations and aneuploidy in somatic and germ cells. A Ph.D., a minimum of three years of experience in conducting cytogenetics assays, and good verbal and written communication skills are required. Please mail résumé to: Personnel Department, SITEK Research Laboratories, 15235 Shady Grove Road, Suite 303, Rockville, MD 20850 USA.

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# BS/MS BIOANALYTICAL CHEMIST

### **Lilly Research Laboratories**

For more than 117 years, Eli Lilly and Company has been a leader in research, development, manufacturing, and marketing of innovative pharmaceutical products. We have a history of a strong commitment to excellence and to our employees.

We have an immediate career opportunity in the Biopharmaceutical Technology Development area. The successful candidate will have a BS or MS degree in chemistry, microbiology, biochemistry, immunology, or related field. Familiarity with proteins, DNA and immunochemistry techniques is desirable. A minimum of 3 years industrial experience is required, and diagnostic assay development experience is preferred.

Eli Lilly offers a competitive compensation package and a highly professional environment. For prompt consideration, please forward your resume to: Eli Lilly and Company, Scientific Recruitment, Dept. ME1294, Lilly Corporate Center, Indianapolis, IN 46285.

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



# St. Jude Children's Research Hospital

The Cell and Gene Therapy Program and the Department of Immunology at St. Jude Children's Research Hospital are recruiting a faculty member with an interest in gene therapy for inherited immunodeficiencies. Applicants must have an MD and/or PhD, a strong record of research achievement and potential to establish an independent research program. Candidates should submit a curriculum vitae, a statement of research interests, and the names of three references to:

Equal Opportunity/Affirmative Action Employer



Mary Ellen Conley or Malcolm K. Brenner St. Jude Children's Research Hospital 332 N. Lauderdale Memphis, TN 38105 Wellcome



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### Molecular Cytogeneticist (Postdoctoral) (REQ# 65920-29)

This individual will plan and direct cytogenetics research on the chromosomal nature of large scale molecular alterations seen in mutagen-induced thymidine kinase-deficient L5178Y mouse lymphoma mutants. Will use most relevant and sensitive cytogenetic techniques. Candidates must have a Ph.D. in Cytogenetics or a related field. Experience with FISH, banded karyotyping of cultured murine chromosomes essential. Other factors to be considered include previous postdoctoral experience and familiarity with other molecular, cytogenetic techniques.

### Research Scientist II (Postdoctoral) (REQ# 65915-29)

This individual will characterize the function and regulation of sarcoplasmic reticular proteins associated with calcium expression in smooth and cardiac muscle. Will design and conduct experimental procedures in Biochemical Pharmacology to study the function of the sarcoplasmic reticulum. Candidates must have a Ph.D. in Biochemical Pharmacology, Biochemistry, or Molecular Biology. Other factors to be considered include previous experience with radioligand binding techniques, Cardiovascular Pharmacology, protein isolation and purification, and single cell isolation and culturing.

We offer a competitive salary and comprehensive benefits. And our outstanding Research Triangle Park location is one of the most desirable areas of the country in which to work and live. Please send your resume, indicating **REQ number** in your cover letter, by **Tuesday**, **January 10**, **1995**, to: **Burroughs Wellcome Co.**, **Human Resources Department**, **3030 Cornwallis Road**, **Research Triangle Park**, **NC 27709**.

For information on other job opportunities with Burroughs Wellcome Co., call our Job Information Line at (919) 315-8347 in Research Triangle Park; or (919) 707-2997 in Greenville.



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### CHALLENGING BIOMEDICAL EMPLOYMENT OPPORTUNITIES

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

FOOD AND DRUG ADMINISTRATION (FDA), Center for Biologics Evaluation and Research, Office of Blood Research and Review, Division of Hematology, Laboratory of Hemostasis is searching for candidates for the position of Staff Fellow. The applicant will conduct research in hemostasis, especially the hemophilias and related diseases. Also, the Fellow will review blood product license applications and provide advice to other parts of the Center about coagulation products. QUALIFICATIONS: Candidates must be either US citizens or Resident Aliens eligible for citizenship within four years. Positions may also be filled by appointment in the U.S. Public Health Service, Commissioned Corps with commensurate salary and benefits. Candidates for this program need to meet Commissioned Corps appointment standards. Physicians: All requirements for a Doctor of Medicine or Osteopathy Degree from an accredited institution must be completed. Graduates of foreign medical schools must submit a copy of their permanent Educational Commission for Foreign Medical Graduates (ECFMG) certification. Board eligibility or certification in hematology is desirable. Scientists: Doctoral level degrees in biological or physical sciences is necessary. Advanced training and/or experience in hematology, molecular biol-ogy protein chemistry or biomedical engineering is desirable. **SALARY:** Range is \$28,000 to \$73,472. Salary, benefits, research support, and level of responsibility are commensurate with education and experience. APPLY: Send (SF-171) and/or current detailed Curriculum Vitae along with bibliography, statement of regulatory/ research interest, transcripts, and names of three references to: FDA/ Center for Biologics Evaluation and Research (128), 1401 Rockville Pike, Suite 200N, HFM-50, Rockville, MD 20852-1448. FDA is an equal opportunity employer and has a smoke free environment. QUESTIONS: Dr. Weinstein 301-496-4833.

### FRENCH "ACADEMIE DES SCIENCES" PROFESSORSHIPS

In order to foster international cooperation between academic and indústrial research, the French Académie des Sciences, the Centre National de la Recherche Scientifique and Elf Aquitaine will open several one-year profesorships in France for the 95–96 academic year.

These openings are reserved for research professionals, typically at the Associate to Full Professor level, and may be held in conjunction with a sabbatical leave. They include generous benefits, such as housing arrangements and travel expenses, depending upon the candidate's experience.

The scientific domains involved cover Elf Aquitaine's activities in oil, chemical and pharmaceutical research:

—Earth Sciences, with an emphasis on surface seismology, sedimentology, organic and mineral geochemistry and the physics of oil-related fluids, including interactions with rock;

--Atmospheric Sciences, in relation to the "Global Warming Process", i.e. physicochemistry of the atmosphere, or modelization of such phenomena;

—Chemical Sciences, with an emphasis on polymers, halogen and thiochemistry, catalysis, and process engineering research;

 $-\!\!-\!\!$  Life Sciences, with an emphasis on studies dealing with thrombosis, the cardiovascular and the central nervous systems.

Prearranged agreements with French academic laboratories are eligible for these professorships, and they will be appreciated although not mandatory. There are no citizenship restrictions. Mastery of French is not required, although some familiarity with French culture would be helpful.

Additional information can be obtained from the following contacts: —For North America-based candidates:

J. BODELLE, Vice President Research & Development Elf Aquitaine, Inc. 1899 L Street, N.W., Suite 500 Washington, D.C. 20036

-For other candidates: C. JABLON, Chief Scientist Elf Aquitaine, DRTE Tour Elf, Cedex 45 92078 Paris-La Défense, FRANCE

Formal applications should include a detailed résumé, a description of the research project and any other relevant information in order to select the most qualified candidates. They should be sent to the above addresses before February 3, 1995. They shall be processed in confidence and the professor-ships are scheduled for announcement before the end of April 1995.

### Assistant Professor in Environmental and Resource Economics (Full-time, Tenure Track), 9-month appointment

**Responsibilities:** The successful applicant will be expected to conduct theoretical or empirical economic research on environmental and resource policy problems. The focus of research covers international as well as domestic issues and could include problems of land use, finite resources, biodiversity, sustainability of ecosystems, deforestation, air, soil or water pollution, global warming, effects of trade, and international environmental cooperation. Anticipated teaching load is one undergraduate and one graduate course.

Qualifications: PhD. in economics, agricultural and resource economics or a related discipline. Expertise in one or more relevant specialties such as resource and environmental economics, mechanism design, game theory, econometrics, public economics and/or economics of institutions.

Application: Please send letter stating interest and qualifications for the position, transcripts of all university work, experience, and names of four references before February 28, 1995 to:

Brian D. Wright Environmental and Resource Economist Search Committee Department of Agricultural and Resource Economics 207 Giannini Hall #3310 University of California, Berkeley Berkeley, CA 94720-3310 Phone: (510) 642-8179 Fax: (510) 643-8911 E-mail: wright@are.berkeley.edu

**Terms:** The position is a tenure track, nine-month position. The position will start July 1, 1995.

Closing Date: February 28, 1995

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

### DIRECTOR, SCIENCE OPERATIONS Ocean Drilling Program Texas A&M University

Texas A&M University (TAMU) invites nominations and applications for the position of Director, Science Operations for the Ocean Drilling Program (ODP) at TAMU. The Director works with the national and international partners and ODP advisory structure in the identification and implementation of the scientific goals and directions of ODP, and he/she is responsible for the overall management and execution of the science and engineering programs identified by these groups.

The science operations program at TAMU includes the management of ODP activities aboard the deep sea drilling vessel JOIDES RESOLUTION, development and maintenance of specialized drilling equipment used in the program, publication of scientific and engineering investigations, development and maintenance of an extensive computerized data system, curation and distribution of samples from ODP's core repositories, and design and maintenance of extensive sedimentological, petrological and geochemical laboratories and other support facilities onboard and ashore. The annual budget is in excess of \$40 million. Approximately 150 skilled scientists and professionals assist the director. The Director is responsible for the science operations program to the National Science Foundation through the prime contractor for ODP, the Joint Oceanographic Institutions, Inc., and must liaise with the U.S. and international funding partners, the international scientific community and the drilling contractor.

For these challenging tasks we seek an internationally acclaimed earth scientist with strong, proven leadership qualities, experience with multidisciplinary and international research programs, the vision to guide the development and implementation of the science operations program, and the ability to communicate the challenges and accomplishmenmts of ODP. The successful applicant must be able to develop improved services for the program within an environment where the needs and resources of the international scientific drilling community are changing. Familiarity with ODP is desirable but not required. The position is located at TAMU in College Station, Texas. A tenured faculty position at TAMU is possible.

Candidates should send a curriculum vitae and names and addresses of four references to Dr. Joel S. Watkins, Chair of the ODP-TAMU Director Search Committee, Department of Geology and Geophysics, Texas A&M University, College Station, Texas 77843–3114. Evaluation of the applications will begin on January 1, 1995 and will continue until the position is filled. Salary will be competitive.

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# RADIOBIOLOGY LIAISON SCIENTIST

BEAM LINE Brookhaven National Laboratory (BNL) and the National Aeronautics and Space Administration (Life and Biomedical Sciences and Applications Division within the Office of Life and Microgravity Sciences and Applications) are collaborating to develop accelerator and experimental facilities at the BNL Alternating Gradient Synchrotron for space radiobiology research.

To support these radiobiology experiments, the Biology Department is seeking a Radiobiology Beam Line Liaison Scientist. The successful applicant will 1) carry out biological experiments at the heavy ion beamline, preferably in the area of cellular/molecular biology of DNA damage and repair and/or cellular transformation; 2) provide biological expertise for design, construction and quality control of the User Station; 3) interact with visiting principal investigators on experimental requirements, schedules and support; 4) interface with administrative, safety and technical staff on behalf of visiting investigators; and 5) serve as a scientific resource for current and future users. The successful applicant will also represent the beamline at regional and national scientific meetings.

Applicants must have a doctorate, and postdoctoral experience in radiation biology, biophysics, cell biology, molecular biology, biochemistry or related field. Experience in accelerator-based research is highly desirable, and work in the area of cellular/molecular biology of DNA damage and repair a plus.

The appointment will be tenable in the Biology Department of Brookhaven National Laboratory. The anticipated start date is April 1, 1995. Applicants can apply by sending a curriculum vitae, publications list, and the names of three references to: Dr. Betsy M. Southerland, Biology Department, Building 463, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, NY 11973-5000. Equal Opportunity Employer M/F/D/V.



Where discovery comes naturally

### PHARMACOLOGY

### ALBANY COLLEGE OF PHARMACY UNION UNIVERSITY

The Albany College of Pharmacy, Union University, and President and Dean, Claire M. Lathers, Ph.D., F.C.P. invites applications for a 12 month tenure-track faculty appointment in Pharmacology. The position will be available July 1, 1995.

The successful candidate should possess a Ph.D. in Pharmacology or its equivalent, have more than 5 years experience in teaching pharmacology and research and demonstrate a capability of conducting basic science and/or clinical research. Major responsibilities include the teaching and/or precepting of professional pharmacy students in both the Baccalaureate and Doctor of Pharmacy programs. The position offers excellent opportunities for collaborative research with faculty of the College and the faculties of other institutions in the Albany area.

Interested persons should send a letter of interest, a curriculum vitae, and the names and addresses of three references by February 15, 1995 to:

> George R. Bailie, Pharm.D:, Ph.D., Professor Albany College of Pharmacy Union University 106 New Scotland Avenue Albany, New York 12208

The College of Pharmacv is an Equal Opportunity Employer.

# **Molecular Oncology Research**

The Cancer Research Department of the PARKE-DAVIS Pharmaceutical Research Division is seeking experienced research scientists for both staff and post-doctoral fellowship positions in molecular oncology and protein biochemistry. Our cancer drug discovery program has active research interests that include oncogene/tumor suppressor gene function, apoptosis and invasion and metastasis. Successful candidates will have excellent research opportunities in the discovery and validation of novel targets for cancer therapy.

The successful **Post-doctoral** candidate will carry out aggressive research efforts centered on (1) the characterization of the TIMP-3 gene and its functional role in tumorigenesis and metastasis, and (2) the redox modulation of oncogenes, suppressor genes, and transcription factors involved in apoptosis. Candidates should have a Ph.D. in molecular biology/biochemistry or related discipline with a strong publication record. A broad knowledge of molecular and biochemical techniques is required and experience with the yeast two hybrid system is desirable. Send res-umes and references to Box DCS-1146, Dianne Singer, Human Resources Department.

Minimum requirements for the Associate Scientist/Scientist position include an MS or equivalent degree in molecular biology/biochemistry or related area with 2-5 years of laboratory experience and publications. Specific expertise desired includes: Southern/Northern/Western analysis; PCR; cDNA/genomic library screening, cloning, sequencing; gel shift assay; transcriptional activation assays; protein ex-pression/purification; immunohistochemistry; and zymograms. Candidates with experience with in situhybridization, yeast two hybrid technology, and transgenic methodologies are especially encouraged to apply. Send resumes and references to Box DCS-94179, Dianne Singer, Human Resources Department.

Interested individuals should send their CV and a list of references per the respective job reference number listed above to: Ms. Dianne C. Singer, Human Resources, PARKE-DAVIS, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment".



# ASSOCIATE DIRECTOR BIOTECHNOLOGY CENTER UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

The University of Illinois, Urbana-Champaign invites applications for the position of Associate Director of the Biotechnology Center. The Biotechnology Center manages core service laboratory facilities that support the research of over 100 faculty members as well as providing services to industrial users. These facilities include laboratories engaged in protein and nucleic acid sequencing, peptide and oligonucleotide synthesis, flow cytometry, hybridoma production, electron microscopy, transgenic animal construction and large scale cell growth. The Center also operates a placement office for advanced degree students in the biosciences and supports education activities related to biotechnology, and coordinates the preparation of grant proposals for shared equipment.

The successful applicant will be expected to manage and oversee all of these facilities and services. Minimum qualifications include a Masters degree, Ph.D. preferred, in the life sciences. Prior administrative experi-ence is highly desirable. A working knowledge of laboratory practices in several of the areas of service is desirable. The Associate Director should provide leadership in keeping facilities up to date, adding new technologies, where appropriate and replacing outdated techniques if necessary. The ability to interact effectively with Center staff, and with faculty and industrial users is essential.

This is a regular full-time academic professional staff position reporting to the Director of the Biotechnology Center. Salary is commensurate with experience. The proposed starting date for this position is March 1, 1995.

To ensure full consideration, nominations and applications should be sent by January 15, 1995 to:

Ms. Kim Reynolds Biotechnology Search University of Illinois, Urbana-Champaign 601 East John Street Champaign, Illinois 61820 Phone: 217/333-5158 FAX: 217/244-3716

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

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# DIRECTOR OF RESEARCH

The Albany College of Pharmacy invites applications and nominations for the newly created position of Director of Research.

The Director of Research will be primarily responsible for establishing a sponsored research (grants and contracts) management and development office. The Director of Research will also assist faculty and students in the conceptual development, writing, and submission of grant applications to both federal and private sector funding sources. The Director of Research will be responsible for all regulatory aspects of research at the College. One of the important duties of the Director of Research will be to develop a research training program to coordinate with the current post-baccalaureate Doctor of Pharmacy curriculum as well as the entry level Doctor of Pharmacy curriculum now in development. In addition, the Director of Research will be responsible for all technology transfer and intellectual property transfer matters. The Director of Research will report to President/Dean Claire M. Lathers, Ph.D., F.C.P.

The successful candidate should have an established track record of obtaining extramural funds from a variety of sources and maintaining an ongoing research program. The candidate is expected to have multidisciplinary research interests in pharmacology or in one of the other life sciences, or in one of the other pharmaceutical sciences. The successful candidate should have extensive experience in mentoring undergraduate students in research.

Albany College of Pharmacy has a rapidly growing research program encompassing a diverse range of projects with a focus on basic and clinical biomedical research. The College is located adjacent to several large teaching hospitals, the major state health research facility, and a regional medical college. The Capital District region of New York offers a wealth of opportunities for collaborative research and education as well as a diverse array of cultural and recreational pursuits

Applicants should send a letter of interest, curriculum vitae, and three letters of reference by February 15, 1995 to:

> Dudley G. Moon, Ph.D. Chair of the Search Committee Albany College of Pharmacy 106 New Scotland Avenue Albany, New York 12208-3492

Albany College of Pharmacy is an equal opportunity employer.

### LECTURER INTRODUCTORY BIOLOGY LABORATORIES DEPARTMENT OF BIOLOGY

The Department of Biology at the Responsibilities will include have three letters of reference sent to:

### Introductory Biology Lecturer Search Committee Department of Biology The University of Michigan Ann Arbor, MI 48109-1048

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

### CORNELL UNIVERSITY MEDICAL COLLEGE TENURE TRACK ASSISTANT PROFESSOR POSITION THE DEPARTMENT OF MICROBIOLOGY

The Department of Microbiology is seeking applicants for a tenure track Assistant Profes sor position. We are seeking an exceptional candidate who has demonstrated a high level of scientific productivity with at least three years of postdoctoral experience. The successful applicant is expected to develop an independent research program, preferably in the area of molecular immunology. Other areas of research in an appropriate area of microbiology will be considered as well. Current departmental research interests generally involve areas of nucleic acid metabolism in procaryotic, fun-gal, and viral systems. The department is responsible for teaching medical microbiology/ immunology to second year medical students, all faculty participate in this course. All faculty in the department are also members of the interdivisional program in molecular biology, which is a joint program between Memorial Sloan-Kettering and Cornell Medical College. Cornell is located on the upper east side of Manhattan adjacent to The Rockefeller University and Memorial Sloan Kettering Research Institute. A large number of tri-institutional programs contribute to an exceptionally strong scientific community in the immediate area. Interested applicants should send curriculum vitae, a description of proposed area of re-search and letters of recommendation from three qualified scientists to:

Dr. Kenneth I. Berns, Chairman Department of Microbiology Box 62 Cornell University Medical College 1300 York Avenue, N.Y., N.Y.10021

EEO/AA/M/F/D/V

# THE UNIVERSITY OF MICHIGAN

University of Michigan announces the availability of a non-tenure track Lecturer position. The term of appointment is for a period of 3 years and is subject to renewal. The Lecturer will serve as coordinator and supervisor of instruction in introductory laboratory courses in biology. Candidates should have a Ph.D. in Biology, Biochemistry, Genetics, or related field, and experience in teaching undergraduate courses in biology. teaching, working with faculty to update laboratory experiments, and supervision and training of staff and graduate student teaching assistants. Appointments are on a 10-month basis and include a liberal benefits package. The deadline for receipt of applications is January 27, 1995. Applicants should provide a C.V., teaching statement and

### THE UNIVERSITY OF CALIFORNIA, SAN DIEGO DEPARTMENT OF BIOLOGY ASSISTANT OR ASSOCIATE PROFESSOR

### **ECOLOGY**

The Department of Biology at the University of California, San Diego invites applications for a faculty position in ecology at the assistant or associate rank. Researchers working on broad-scale processes affecting community, landscape, or ecosystem composition are encouraged to apply. Research areas may include, but are not restricted to, human impacts on community composition, climatological impacts on ecosystem processes, reconstruction of past biotic change, and biogeographical patterns of community composition. The successful candidate will be expected to conduct a vigorous research program. Salary will be commensurate with background, experience and level of appointment based on UC salary scale. Applicants should send curriculum vitae with email address and FAX #, a statement of professional goals and research interests, and the names, mailing addresses, FAX #'s and e-mail addresses of three references by February 15, 1995 to: **Ecology Search Committee, Department** of Biology 0346, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0346

The University of California, San Diego is an equal opportunity/affirmative action employer. We strongly encourage women and minorities to apply.

# LABORATORY HEAD JAPAN BIOCIDES LABORATORY

Rohm and Haas Company, a leading multinational chemical company, has an immediate opening for a Ph.D. microbiologist to run our Customer and Technical Service Laboratory in support of our biocides business in Japan. Typical applications of our industrial biocides include water treatment (cooling towers and pulp & paper), cosmetics, wood preservatives and marine antifoulants. After a year of training in our Biocides Research Laboratory in Spring House, PA — near Philadelphia — this scientist will be transferred to our new Japanese Technical Center north of Tokyo.

The successful candidate will have a Ph.D. degree in microbiology, microbial ecology or microbial physiology. Postdoctoral experience is not required, although post-doctoral or work experience in industrial microbiology would be beneficial. A strong background in chromatography would also be helpful. *Fluency in both Japanese and English (reading, writing and speaking) is essential.* Also, if you are not a Japanese resident, employment is contingent upon your ability to obtain a work visa from the Japanese government.

Rohm and Haas offers a highly competitive program of salary and benefits. We also provide many programs for the professional growth of our scientific staff.

Please forward your resume or c.v., including three professional references, to: Corporate Staffing #994, Rohm and Haas Research Laboratories, 727 Norristown Road, Building 70, Spring House, PA 19477.





## Department of Pharmacology

The University of Pennsylvania School of Medicine seeks outstanding candidates for the position of Professor and Chair of the Department of Pharmacology. A major institutional commitment to this key basic science department supports this search.

The successful applicant will be of international stature in his or her area of research and will provide academic leadership in the broadly defined area of Pharmacology. Applicants should have demonstrated qualifications in education and administration.

The University is an Equal Opportunity/Affirmative Action employer. Women, minority and international candidates are especially encouraged to apply. Letters of interest, CV, and names of references should be sent to:



Yale E. Goldman, M.D., Ph.D. Chair, Committee to Search for a Chair of the Department of Pharmacology Director, Pennsylvania Muscle Institute University of Pennsylvania School of Medicine D-700 Richards Building Philadelphia, PA 19104-6083



KAROLINSKA INSTITUTET

Department of Bioscience at Novum Center for Structural Biochemistry

### Structure Biochemist/Research Assistant

Applications are invited for a research assistant position in the X-ray diffraction laboratory of the Karolinska Institutet with placement at the Center for Structural Biochemistry (CSB) within the Department of Bioscience at Novum. CSB is situated at the South Campus of the Karolinska Institutet encompassing the Novum Research Center and Huddinge University Hospital. CSB has a staff of some 40 persons, with units for Electron Microscopy, Molecular Modeling, NMR-spectroscopy, Protein Engineering and X-ray Crystallography.

The candidate should be a biochemist (post-doctoral level) with some experience in protein crystallography and a pronounced interest in the determination of the structures of biological macro-molecules and their relations to function. A solid background in protein biochemistry, protein purification techniques, protein expression and protein crystallization methods is expected. The candidate should be willing to join current research projects going on in the X-ray diffraction Unit. The position is available for 4 years with an initial limitation of 1 to 2 years. The appointment is tenable as soon as possible or such date as may be arranged.

For further information please contact Professor Rudolf Ladenstein +46-8-608 92 22.

Applications should be sent to Karolinska Institutet, Department of Bioscience at Novum, NOVUM, S-141 57 HUDDINGE, SWE-DEN together with CV, relevant publications, a short description of research interests and two recommendation letters. Please quote reference no 53021/1 and note that we want your application in 1 original and 2 copies.

Closing date: January 15, 1995

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# **Research Associate**

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Qualified applicants will possess a BS/MS in Biology, Genetics, Molecular Biology or related field with 5 years' lab experience in a molecular biology lab. Requires experience with molecular biology techniques, e.g. PCR, sequencing, Southerns, DNA isolation, electrophoresis, etc. Solid knowledge of genetics/molecular biology required. Experience in conducting, planning and evaluating experiments with little supervision a must.

VYSIS, Inc. offers access to the finest technological and scientific resources. We provide a premier compensation and benefits package. Please send your resume to: Robert E. Hale, Human Resources Associate, ATC Diagnostics, Inc., 31 New York Avenue, Framingham, MA 01701; fax (508) 879-6462;

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### **RESEARCHER IN IMMUNOLOGY**

Laboratoires Fournier is a major independent international pharmaceutical group with a substantial R&D department employing around 450 people.

An immediate opening is to be made for a researcher in immunology.

The successful candidate should have a PhD in biological science with a solid background in immunology and molecular biology.

Opportunities to demonstrate your innovation skills will have arisen during 3 to 5 years post-doctorate (or equivalent) work in, or in collaboration with, the pharmaceutical industry. As a key member of a highly motivated team, you will be involved in the selection of molecules for use in the mainstream of immunological research, and their subsequent pharmacological development. You will be responsible for identifying, validating and preparing research projects for the future.

You will be responsible for managing a team of two technicians and pre- and post-doctoral trainees. Fluency in English is required and French competence is desirable.

The position is based in Dijon a particularly inviting place to live in Burgundy.

Address your handwritten letter, quoting reference FB/SN, accompanied by a CV and photo, giving details of the notice required to :

Laboratoires FOURNIER, Human Resources, 50 rue de Dijon, 21121 Daix, France



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#### Adjunct Assistant Professor to Coordinate Undergraduate Research

The Department of Biology at the University of Utah is seeking an adjunct assistant Professor to coordinate Biology's undergraduate research program which inroduces students to research and then places them in faculty research labs. The position requires a Ph.D. or extensive biological laboratory teaching experience. The individual in this position is also responsible for overseeing summer outreach program for high school and junior high school students. The position includes teaching a laboratory course designed to introduce Biology undergraduates and highly qualified high school students to biological research. The lab course (taught during the summer and again during the academic year) has centered an molecular and cell biology, but could include other experiments suitable for introducing laboratory research and experimental design concepts. We encourage applications from individuals with an interest in continuing some independent research, possibly in collaboration with a faculty member. Alternatively, the individual could assist with teaching other labora tory courses. Salary is negotiable, based on the experi-ence and background of the candidate. We will begin screening applications on January 1, 1995 and will continue until the position is filled. The position could start as early as February 1, 1995, but a later start date is also negotiable. Informal inquiries and questions regarding this position can be addressed to ehleringer@bioscience.utah.edu. Interested individuals should (1) arrange to have three letters of reference sent and (2) submit an application including statement of qualifications, curriculum vitae, and statement of teaching interests and philosophy, to:

> Dr. James Ehleringer Undergraduate Research Search Department of Biology University of Utah Salt Lake City, Utah 84112

The University of Utah is an AA/EEO employer. It encourages applications from women and minorities and provides reasonable accommodation to the known disabilities of applicants and employees.

### Queen's University Kingston, Ontario, CANADA Department of Biochemistry Faculty Positions in the Areas of X-Ray Crystallography & Cell Biology

INIDC

The Department of Biochemistry in the Faculty of Medicine at Queen's University invites applications for (1) a tenure-stream position in x-ray crystallography (Assistant Professor level or higher) and (2) a non-tenure-stream position in any area of biochemistry, particularly cell biology (Assistant Professor level). The successful applicant for the x-ray crystallography position will be expected to seek initiation will be bridged to a future retirement position and, therefore, is tenure-stream. It is expected that the successful applicant for this position will seek research Council of Canada etc.) but the appointment will be bridged to a future retirement position and, therefore, is tenure-stream. It is expected that the successful applicant for this position will seek research and equipment funds from external sources although some funds are available from Queen's University. The cell biology position will be contingent on the successful applicant receiving safary and research support from external agencies. Duties of both positions will include teaching and graduate student supervision and both positions interexceed with other researchers in the Department. The Department of Biochemistry is located with

The Department of Biochemistry is located with other basic science departments in Botterell Hall which has excellent library and animal care facilities. The Department is well-equipped and has a core facility in protein/DNA sequencing and synthesis. The Department has a strong graduate program (currently 50 students) leading to the degrees of Ph.D. and M.Sc. and has a strong commitment to undergraduate teaching in the Honours Biochemistry and Life Sciences Programs. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Queen's University has an employment equity program and encourages applications from all qualified candidates, including women, aboriginal peoples, people with disabilities, and visible minorities. Closing date for applications is January 30, 1995. Candidates should send a detailed curriculum vitae and the names and telephone numbers of three referees to: Dr. T. G. Flynn, Craine Professor and Head, Department of Biochemistry, Queen's University, Kingston, Ontario, Canada, K7L 3N6.



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO is the executing agency for a project to develop a regional approach to address the problem of water pollution and associated critical habitats of the Gulf of Guinea Large Marine Ecosystem (LME), which is funded by the Global Environment Facility.

The project coordinator will provide the leadership for the successful implementation and completion of the project, be responsible for the coordination of all project activities and will assist governments of participating countries in the development of pollution control measures and management strategies for the Gulf of Guinea LME. The participating countries are Cote d'Ivoire, Ghana, Benin, Nigeria and Cameroon.

Qualifications: The project coordinator should possess:

(a) Post-graduate degree in environmental management or a related field such as environmental sciences and/or environmental engineering;

(b) 10 to 15 years related experience and with demonstrated negotiation, project management and leadership skills;
(c) distinct project administration skills, especially related to large or complex projects;
(d) sound background in marine ecological sciences and environmental management.

Languages: English and French essential.

Please apply in writing to: Fatima Fernandez, UNIDO, Project Personnel and Fellowship Service, P.O. Box 300, Vienna A-1400, Austria. (Fax: 431-237-292)

### Max-Planck-Institute for Biochemistry Martinsried/Munich

Several positions for

Postdoctoral Associates, PhD-Students and Technicians are available in our newly founded research group for Structural Biology at the Max-Planck-Institute for Biochemistry in Martinsried, 6 km south of the city center of Munich. We focus on the investigation of the structure and interactions of membrane polypeptides by multidimensional NMR-spectroscopy (mainly solid-state) and use chemical and biochemical methods for sample preparation. Highly-motivated biochemists, chemists or physicists are asked to send their application to\_Dr. Burkhard Bechinger, Max-Planck-Institut für Biochemie, Am Klopferspitz 18a, D-82152 Martinsried, Germany





**FIRC-Italian Foundation for Cancer Research** FIEO-Foundation European Institute of Oncology

### **POST-DOCTORAL FELLOWSHIPS**

are available for research at the Department of Experimental Oncology of the

# European Institute of Oncology Milan

The European Institute of Oncology is a newly founded comprehensive cancer centre. The Department of Experimental Oncology comprises four sections headed by Dr. Pier Giuseppe Pelicci, Dr. Pier Paolo Di Fiore, Dr. Matthias H. Kraus, and Dr. Kristian Helin, investigating mechanisms of normal and neoplastic growth regulation. Major research areas include signal transduction by receptor tyrosine kinases, functional characterization of cytoplasmic signalling cascades, transcriptional regulation in cell cycle control, and gene expression and structure abnormalities in human cancer. Fellowships are initially offered for one year and are annually renewable for two additional years. Stipend levels will be competitive starting at 30 million Italian lire. M.D. or Ph.D. degree as well as basic research experience in Molecular Biology or Protein Biochemistry are required. Qualifying candidates are invited to forward applications including curriculum vitae, three letters of reference, and a statement of research interest with specific reference to one of the four sections. Applications should be sent to: Dr. Pier Giuseppe Pelicci-European Institute of Oncology-Via Ripamonti, 435-20141 Milano-Italy.

# INTERNATIONAL CHAIR of FUNDAMENTAL MICROBIOLOGY

The Free University of Brussels (U.L.B.) wishes to make a senior appointment with a view to developing teaching and research activities in Bacteriology at the Faculty of Medicine. This is a permanent position at associate professor of full professor level.

The appointee will have to develop high level graduate teaching in Bacteriology for students in Medicine, Public Health, Dentistry and Applied Medical Biology. Fluent teaching ability in French is requested. He is also expected to develop a personal research programme in Bacteriology. Since the successful candidate will also collaborate with existing research units within the School of Medicine (Virology, Parasitology, Immunology, ...), an ability to master the main techniques of modern microbiology is essential.

Further information is available from: Monsieur le Doyen de la Faculté de Médecine, route de Lennik 808, CP610, 1070 Bruxelles, Belgium.

Application will include a curriculum vitae, a list of publications, a summary of academic and teaching experience and a list of

references. They should be sent to: Monsieur le Recteur de l'U.L.B., avenue Franklin D. Roosevelt 50, 1050 Bruxelles, Belgium, to arrive no later than 31 January 95.





We are seeking a nucleic acid chemist with excellent communication skills

who is capable of hands-on research and Lab supervision. The position requires a PhD in organic chemistry or biochemistry and three years experience in DNA and RNA

synthesis and the modification of oligonucleotides. The successful candidate must be self-motivated and a team player with a proven ability to plan projects and work closely with other groups.

He/she will participate in an on-going research program in developing nucleic acid probe technologies for diagnostic applications and manage the DNA/RNA synthesis group (4 technicians). A good knowledge of French is necessary for this position.

For consideration, please send a letter of application including curriculum vitae and three confidential references, before the end of December, to :

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bioMérieux - Human Ressources Philippe Donikian (Réf. ENS) 69280 MARCY L'ETOILE - FRANCE.

Tel. (33) 78 87 20 42 Fax. (33) 78 87 21 92



### TRANSPLANT BIOLOGIST

The Section of Transplantation at Rush-Presbyterian-St. Luke's Medical Center has positions available in areas of transplant immunology, pharmacology and organ preservation. Experience in transplant research, cellular immunology, molecular biology, cytokines or HPLC and gas chromatography are desirable. Minimal qualification is a graduate degree in biological sciences; experience in small animal research is desirable. Applicants may submit a curriculum vitae and names of three references to: James W. Williams, M.D., Director of Transplantation, Department of General Surgery, Rush-Presby-terian-St. Luke's Medical Center, 1653 West Con-gress Parkway, Chicago, IL 60612. Telephone: 312-942-2269; FAX: 312-942-2867.

### **COURSES AND TRAINING**

DNA CLONING: A FIVE-DAY INTENSIVE INTRODUCTION

This lecture/laboratory course is designed as an introduction to molecular biology techniques including computer applications, DNA and RNA extraction, cloning, transformation of bacterial cells, electrophoresis, hybridization, detection, amplification and sequencing. January 23–27, May 15–19, August 14–18, 1995. Send check for \$500 payable to the University of New Haven to: Chair-man, Department of Biology, 300 Orange Avenue, West Haven, CT 06516. Indicate week for which you are registering. For information call 203-932-7107

ECOLOGICAL RISK ASSESSMENT 26-27 January 1995, Stony Brook, New York 14-15 March 1995, Dallas, Texas

A two-day course in the methodology of ecological risk assessment with hands-on use of ecological software on ecotoxicology, uncertainty propagation, using GIS in extinction risk analysis for endangered species, and popula-tion recovery assessment. Tuition is \$950 (\$550 for government employees). Contact: Applied Biomathemat-ics, 100 North Country Road, Setauket, NY 11733. Telephone: 800-735-4350; FAX: 516-751-3435.

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Quality DNA for \$2.00 per base. Now you don't have to settle for second best to save a bunch. For more information, or to place an order, call Operon at **1-800-688-2248**.



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Happy New Year



Front Row: Jim, Kim, Young, Angie, Shannon, Kel, Debra, Bobby, Mei, Amanda, Stephanie Row 2: Tami, Cindy, Neely, Carol, Marcus, Jeff, Mei, Kelly, Jay, Lori, Amy, Stacy Row 3: Sandy, Cindi, JoAnn, Melody, Steve, Kevin, Layne, Brian, Bob, Allen, Jon Row 4: Georgette, Lisa, Mary, Chris, Jeff, David, Jerrold Back Row: Kelli, Krista, Rob, Brian, Ben, Bob, Abdul, Kay, Kevin Not Pictured: Sue, Kevin, Gwen, Heather, Andrea, Laurie, Scott, B.J. Sharon, Traci

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