#### Silver Staining Kit

The Silver PAGE Silver Staining Kit provides a rapid and effective method for silver staining nucleic acids and proteins in polyacrylamide gel electrophoresis. The kit features three reagents and a few simple steps: fixing, staining, and developing for results in less than 1 hour. Silver is a better alternative than Coomassie blue R-250 or ethidium bromide when low concentrations of DNA or proteins are to be stained. AMRESCO. Circle 140.

### Pocket Hygro-Thermometer

A new line of Pocket Hygro-Thermometers to measure relative humidity and temperature



includes features such as minimum and maximum measurements, large liquid crystal display, and response within 80 seconds. Models are also available for measuring dew point or wet bulb temperature. Extech Instruments. Circle 141.



#### Sample Temperature Regulator

The 832 Rack Temperature Regulator, based on Peltier thermoelectric effect cells, provides heating and cooling of samples in thermostatted racks. The module offers improved performance and convenience over standard liquid-circulating cryothermostats. The unit conserves the integrity of biological samples, prevents evaporation of volatile solvents, and speeds up enzymatic reactions or chemical derivatizations. The temperature range is from 4° to 40°C in 1° increments, with stability within 0.5° and accuracy of 1.5°. Gilson Medical Electronics. Circle 142.

#### Advanced FISH System A new version of the Smart-

Capture Advanced FISH System makes capturing and analyzing images in fluorescent in situ hybridization (FISH) experiments easier. New functions help reduce or remove background noise so the user can readily identify faint signals and enhance the image detail to produce sharper, cleaner images with greater detail. The powerful imaging software is easy to use. The workstation automatically controls the exposure, filter wheel, and the construction of a 24-bit color image. Imagenetics. Circle 143.

#### **DNA** Quantitation Kit

The QuantiBlot Human DNA Quantitation Kit provides rapid quantitation of extracted DNA samples for a wide variety of applications. The kit accurately quantitates both single-stranded and double-stranded human DNA with results that are easy to interpret because there is no background interference. Results can be obtained in less than 2 hours from as little as 150 pg of DNA. The system is nonradioactive and based on hybridization of biotinylated oligonucleotide probe to human DNA samples immobilized on a Biodine B membrane (the membrane is not included in the kit). Perkin-Elmer. Circle 144.

### Laboratory Robot

The model T265 track robot is designed to mount on a standard size laboratory bench. Applications include immunoassays, bioassays, water analyses, and sample preparation for chromatography and other procedures. The unit's controller supports interfacing to multiple laboratory instruments such as balances, chromatographs, and titrators. CRS Robotics. Circle 145.

#### **Imaging System**

The 4100 cooled charge-coupled device imaging system can enhance studies of the dynamics of living organisms using fluorescence microscopy. Compatible with all conventional optical microscopes, the 4100 brings a new dimension to imaging for a large range of applications such as calcium ratio imaging, dynamic studies of nerve muscles, and studies of other cell activities such as metastasis. The 4100 produces outstanding image quality by combining the benefits of slow scan imaging with fast readout rates. Image readout at up to 8-MHz pixel rate allows images to be displayed at near standard video rate, allowing cell dynamics to be monitored in real time. Astromed. Circle 146.

#### Real-Time 3D Microscope

The Edge R400 makes use of patented Multiple Oblique illumination from four individual beams delivered via fiber optic cables instead of the single axial illumination of conventional light microscopes. Significant improvements in resolution, sharpness, contrast, and depth of field result. Separate left- and right-eye images provide real-time, true color,

SCIENCE • VOL. 265 • 2 SEPTEMBER 1994



three-dimensional (3D) observation up to the highest magnification. No image processing is involved. The 3D images are recorded as photo pairs, single-picture anaglyphs, or anaglyph video. The R400 makes use of conventional objectives and camera systems and performs in two dimensions as well. A wide range of contrast is attainable by adjusting individual lamp settings and light-beam obliquity. Edge Scientific Instrument. Circle 147.

#### Literature

Why Use Fluorescence Detection In My Analyses discusses the advantages of this technique in biomedical experiments and procedures, particularly the capability of multiparameter analysis. Biological Detection Systems. Circle 148.

Testing...1, 2, 3!: A family of products to meet all of your electrochemical testing needs features pocketsized, hand-held, and benchtop digital instruments for testing temperature, total dissolved solids, and conductivity. Cole-Parmer. Circle 149.

Innovative PCR Tubes and Tips describes disposable products for polymerase chain reaction (PCR), including thin-wall tube strips for 96-tube thermal cyclers and tubes for improved recoveries of DNA and RNA from ethanol. **Robbins Scientific. 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.

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#### **POSITIONS OPEN**

#### OKLAHOMA STATE UNIVERSITY Department of Microbiology and Molecular Genetics

As part of a continued search, applications are invited to fill a position at the level of **ASSISTANT PROFESSOR**. The successful candidate will develop an innovative research program investigating a fundamental biological problem using a lower eukaryotic model system. The area of research specialization remains open, however, experimental approaches using molecular approaches are viewed as advantageous. Applicants must have a Ph.D., a commitment to teach at the graduate and undergraduate levels in the area of his/her specialization, and the capability to teach a departmental course offering in either medical mycology or medical parasitology. Women and minorities are particularly encouraged to apply. Applicants should send curriculum vitae, a description of research interests, relevant reprints, and the names and addresses of three references. Review of applications will begin **September 20**, **1994**, and will continue until a suitable candidate is identified. Possible start date in January **1995** will be considered. Candidates are urged to make appropriate arrangements to ensure that referee letters are rapidly communicated upon the search committee's request. Correspondence should be addressed to: **Dr. Robert L. Burnap, Department of Microbiology and Molecular Genetics, Oklahoma State University, Stillwater, OK <b>74078. FAX: 405**.**744**.**6790**. *Oklahoma State University is an Equal Opportuaity/Affirmative Action Employer*.

#### TENURE-TRACK FACULTY POSITIONS NEUROSCIENCES CASE WESTERN RESERVE UNIVERSITY

The Department of Neurosciences at Case Western Reserve University School of Medicine invites applica-tions for two tenure-track positions to be filled at the ASSISTANT or ASSOCIATE PROFESSOR level. The department seeks to recruit individuals who will develop strong independent research programs in integrative neuroscience studying how the vertebrate CNS processes and integrates information and/or generates appropriate behavioral output. Individuals using multidisci-plinary approaches including reduced preparations and/ or model systems are particularly encouraged to apply While these appointments are designed to develop a focus in integrative neuroscience that will complement the research interests of the 12 primary faculty which include cellular, molecular and developmental neuroscience, outstanding candidates in any area of neuroscience will be considered. Excellent opportunities also exist to interact with 15 additional neuroscientists in other departments who have active roles in research and teaching. The department, recently consolidated in newly renovated space, provides excellent state-of-the-art facilities. Teaching duties involve lecturing on neuroscience to medical and graduate students. Those interested should submit a curgraduate students. Inose interested should submit a cur-riculum vitae and a brief summary of their research plans by November 1, 1995, as well as arrange to have four letters of reference sent to: Dr. Story Landis, Search Committee, Department of Neurosciences, Case Western Reserve University Medical School, 10900 Euclid Avenue, Cleveland, OH 44106-4975. Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.

**BIOLOGICAL SCIENCES: ENDOCRINOLO-GIST**—The Reproductive Physiology and Endocrinology Group in the Department of Biological Sciences at Kent State University is seeking applications for a tenuretrack position at the **ASSISTANT PROFESSOR** level to start January 11, 1995. Research should be in an area of mammalian endocrinology related to reproductive physiology. The appointee will be expected to develop a strong research program complementary to ongoing research activities, to seek extramural funding, and to participate in the graduate program. Instructional responsibilities include a graduate endocrinology course and an undergraduate human physiology course. The Ph.D., postdoctoral experience, publications and potential for extramural funding required. Application deadline is September 30, 1994, and must include a letter of application, a résumé, and three letters of recommendation. Copies of all academic transcripts must be forwarded by October 21, 1994. Submit applications to: Dr. J. David Glass, Chair, Search Committee, Department of Biological Sciences, Kent State University, Box 33, Kent, OH 44242. Kent State University is an Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

TENURE-TRACK FACULTY POSITION IN EUKARYOTIC MOLECULAR MICROBIOLOGY

The School of Biological Sciences, University of Missouri—Kansas City (UMKC), invites applications for a tenure-track ASSISTANT or ASSOCIATE PROFES-SOR in the Division of Cell Biology and Biophysics. Preference will be given to candidates with research interests in molecular microbiology emphasizing structural or molecular biophysical aspects of research with application to any of the following systems: algae, eukaryotic viruses, fungi, yeast or other lower eukaryotes. Research interests should be compatible with departmental emphasis in molecular structure and recognition as applied to biological molecules and supramolecular assemblies. We seek an individual with at least two years of postdoctoral training, demonstrated potential to establish independent, extramurally funded research programs and exemplary communication and supervisory skills. Teaching activities will involve participation in the school's doctoral programs, biological sciences undergraduate curricula and health science courses. Competitive salaries, start-up funds and excellent core facilities are available. Review of applications will begin October 1, 1994, and continue until the position is filled. Candidates should submit curriculum vitae with summary of present and future research interests and request that three letters of recommendation be sent to: CBB Search Committee, School of Biological Sciences, 5100 Rockhill Road, University of Missouri, Kansas City, MO 64110-2499. Equal Opportunity/ Affirmative Action Employer.

#### DEVELOPMENTAL BIOLOGY OF MARINE ORGANISMS

The Division of Molecular, Cellular and Developmental Biology of the Department of Biological Sciences, University of California, Santa Barbara, seeks a tenuretrack ASSISTANT PROFESSOR conducting innovative research on the developmental biology of marine organisms at the molecular level. Research areas may include, but are not confined to: molecular genetic determinants of cell fate; cell-cell interactions controlling dif-ferentiation; neuronal pathfinding; lymphocyte homing; embryonic stem cell development; development of symbiotic associations between marine organisms; environmental or developmental regulation of gene expression; cell cycle; tumorigenesis; and growth control. Teaching at the graduate and undergraduate levels may include devel-opmental genetics, cell biology or biomolecular studies with marine model systems. The successful candidate will join a large interactive program with unique facilities for operational Marine Biotechnology Laboratory building in which the new faculty member will be accommodated. Applicants should have a productive record at the postdoctoral level. Submit curriculum vitae, three letters of recommendation, three to five relevant publications and statement of research interests, and arrange to have sent to: Chair, Department of Biological Sciences, University of California, Santa Barbara, CA 93106, USA. Deadline for submission is December 1, 1994, or until position is filled. The University of California is an Equal Opportunity/Affirmative Action Employer.

#### WILDLIFE ECOLOGIST

The Department of Zoology and Physiology at the University of Wyoming seeks applications for a tenuretrack position at the level of ASSISTANT PROFES-SOR. The focus is on ungulate ecology; expertise in such areas as habitat relationships, community ecology, GIS/ spatially explicit databases or modeling would complement existing departmental strengths. Teaching responsibilities include an undergraduate course in wildlife biology, plus additional undergraduate course in wildlife biology, plus additional undergraduate course in wildlife biology, plus additional undergraduate or graduate courses in the applicant's area of interest. The incumbent will be expected to seek extramural support for research, and to carry out an active program of graduate training. Experience conducting postdoctoral research and in interacting with government agencies is desirable. An application, including a letter outlining research interests, curriculum vitae, and three letters of recommendation sent directly from references, should be submitted to: Chair, Wildlife Search Committee, Department of Zoology and Physiology, P.O. Box 3166, University of Wyoming, Laramie, WY 82071-3166. Telephone: 307-766-4207; FAX: 307-766-5625. To be considered, application materials must be postmarked by 1 October 1994.

An Equal Opportunity/Affirmative Action Employer.

#### PROKARYOTE PHYSIOLOGIST Faculty Position Undergraduate Program in Microbiology The University of Arizona

The Undergraduate Program in Microbiology, consisting of faculty from the Colleges of Agriculture, Arts and Sciences, and Medicine, is seeking candidates with a broad understanding of bacterial physiology and an active research program for a tenure-track position at the AS-SISTANT PROFESSOR level. The successful applicant will be expected to teach at the undergraduate and graduate levels and to establish an independent research program in some aspect of bacterial physiology. The appointment will be made in the Department of Veterinary Science, which now serves as the home department for the Undergraduate Microbiology Program. Outstanding candidates holding the Ph.D., D.V.M./Ph.D., M.D./ Ph.D., or equivalent are encouraged to apply by sending a letter of intent, curriculum vitae, and a statement of research and teaching interests. Three letters of support should also be sent to: Lynn Joens, Ph.D., Chairman, Veterinary Science, Microbiology Search Committee, Department of Veterinary Science, Veterinary Science/Microbiology Building, The University of Arizona, Tucson, AZ 85721. To ensure consideration, applications should be received by November 1, 1994, although applications will be accepted until the position is filled. The University of Arizona is an Equal Opportunity/ Affirmative Action/ADA Employer. Women and minorities are encouraged to apply.

#### ASSISTANT PROFESSOR OPENING IN BIOCHEMISTRY/MOLECULAR BIOLOGY UNIVERSITY OF ILLINOIS—URBANA/ CHAMPAIGN

The Department of Biochemistry at the University of Illinois is seeking applicants for an ASSISTANT PRO-FESSOR position. The position, which carries a fulltime, tenure-track appointment, will be available starting August 1995. Outstanding applicants in any research area related to dynamic and emerging areas of biochemistry and molecular or cellular biology will receive full consideration. Examples of research areas of interest are gene regulation, nucleic acid biology, signal transduction and molecular immunology. The successful applicant must have demonstrated excellence in research, and must be prepared to participate effectively in the teaching program of the Department. A doctoral degree and postdoctoral experience in a relevant area are required. Applicants should submit a curriculum vitae and a brief description of future research plans, and should have letters of recommendation from three qualified scientists sent to the Search Committee. Completed applications should be received by December 15, 1994, to assure full consideration. Applications and requests for further information should be directed to: The Biochemistry Search Committee, Department of Biochemistry University of Illinois, 600 South Mathews Avenue, Urbana, Illinois 61801. For Inquiries call: 217-333-2013.

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

#### ASSISTANT PROFESSOR BIOLOGICAL CHEMISTRY/MOLECULAR BIOLOGY

The Department of Biological Chemistry, College of Medicine, University of California, Irvine invites applications for a tenure-track appointment at the ASSISTANT **PROFESSOR** level. Individuals with research experience and interests in the areas of molecular genetics, macromolecular processing and its control, structural biology and developmental processes are particularly encouraged to apply. Faculty members are expected to develop strong, independent research programs and to participate in the teaching of medical students and graduate students in a campus-wide joint graduate program in molecular biology, genetics and biochemistry. Applicants should send curriculum vitae, statements of

Applicants should send curriculum vitae, statements of proposed research and three letters of recommendation by November 1, 1994, to: Search Committee Chair, Department of Biological Chemistry, College of Medicine, University of California, Irvine, CA 92717-1700.

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

#### **POSITIONS OPEN**

#### ASSISTANT OR ASSOCIATE PROFESSOR ENVIRONMENTAL PHYSIOLOGY

A tenure-track position is available for an environmental physiologist studying physiological responses of animals to environmental changes. Preference will be given to those including a field component in their research. Teaching expectations will include graduate environmental physiology and undergraduate mammalian physiology. Qualifications include a Ph.D. in a relevant biological science, with demonstrable training in environmental physiology; postdoctoral experience is preferred. The successful candidate will be expected to maintain a funded research program. Screening of applicants will begin on October 14, 1994. Applications should indicate whether the applicant wishes to be considered at the assistant or associate professor level. SEND LETTER OF APPLICA-TION, CURRICULUM VITAE, AND THREE LET-TERS OF REFERENCE TO: Dr. Paul C. Schroeder, Chair, Environmental Physiologist Search Committee, Department of Zoology, Washington State University, Pullman, WA 99164-4236. FAX: 509-335-3517.

Washington State University is an Equal Opportunity/Affirmative Action Educator and Employer. Protected group members are encouraged to apply.

The Department of Animal Sciences at The University of Arizona invites applications for a faculty position at the rank of **ASSISTANT PROFESSOR** in the area of nutritional physiology. This position is a 12-month, tenuretrack appointment with approximately 20% teaching and 80% research responsibilities. Candidates must have a Ph.D. in nutrition, physiology or related area with the expectation that the successful applicant will teach undergraduate and graduate courses in ruminant nutrition and will conduct a vigorous, externally funded research program, preferably in the area of post-absorptive nutrition. Applicants combining aspects of whole animal nutrition with modern biological approaches to the study of nutrient utilization, growth or lactation are particularly encouraged to apply. Postdoctoral or extensive research experience is highly recommended. Applicants should send a letter of application, curriculum vitae, statement of research interests and the names and addresses of three references to: **Dr. Parker B. Antin, Chair, Nutritional Physiology Search Committee, Department of Animal Sciences, Room 205 Shantz Building, University of Arizona, <b>Tucson, AZ 85721. Telephone: 602-621-5993; FAX: 602-621-9435**. Evaluation of applicants will begin on October 1, 1994, and will continue until the position is filled. *The University of Arizona is an Affirmative Action/Equal Opportunity/ADA Employer*.

ASSISTANT PROFESSOR. Applications are invited for a tenure-track position in plant nematology. The successful candidate will develop a research program on plant parasitic nematodes and their interactions with plants at a molecular, genetic, biochemical, or population level. Teaching responsibilities include a comprehensive graduate level course in plant nematology every two years. Application deadline: November 15, 1994, or until position is filled. Send a statement of research and teaching interests, curriculum vitae, transcripts, selected reprints, and names and addresses of at least three references to: Dr. Thomas C. Harrington, Chair, Department of Plant Pathology, Jowa State University, Ames, IA 50011-1020. An Equal Opportunity/Affirmative Action Employer.

#### MOLECULAR CANCER IMMUNOLOGIST

at the University of Arizona Health Sciences Center. The position is tenure-track at the level of **ASSISTANT PROFESSOR** with an appointment in the Department of Microbiology and Immunology and at the Arizona Cancer Center. Applicants should have a Ph.D. or M.D. and have demonstrated expertise in the field. The successful candidate will be expected to develop an independent, competitive research program in cancer-related molecular immunology. An interest in the application of state-ofthe-art immunological techniques to clinical problems would be an advantage.

Submit a curriculum vitae and three letters of recommendation to: Dr. Garth Powis, Director of Basic Science, Arizona Cancer Center, Tucson, AZ 85724. Applications will be considered September 1, 1994, until the position is filled. The University of Arizona is an Equal Opportunity/Affirmative Action/ADA Employer. Women and minorities are encouraged to apply.

#### **POSITIONS OPEN**

#### VISUAL NEUROSCIENTIST ASSISTANT/ASSOCIATE PROFESSOR

The Department of Neurobiology and Anatomy invites applicants for a tenure-track FACULTY POSITION. Applicants should have postdoctoral experience and a strong record of scholarship. The Department is seeking an outstanding Visual Neuroscientist who is using modern systems, cellular, or molecular approaches. Research interests of the faculty include multisensory integration, development and organization of sensory systems, retinal biology, neuron-glial interactions, aging, programmed cell death, trophic factors, and axonal growth and projections. The Bowman Gray School of Medicine of Wake Forest University offers a unique opportunity to interact with a broad range of neurobiologists that comprise part of the strong and active interdisciplinary Ph. D. Program in Neuroscience. Send curriculum vitae, research description and three letters of recommendation to: Dr. Barry E. Stein, Chairman, Department of Neurobiology and Anatomy, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC 27157-1010. Affirmative Action/Equal Opportunity Employer.

#### ASSOCIATE PROFESSOR/ASSOCIATE DIRECTOR MICROBIOLOGY DIVISION DEPARTMENT OF PATHOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

The Department of Pathology is seeking a qualified candidate at the level of tenured **ASSOCIATE** or **FULL PROFESSOR**. Applicants must have an established record of teaching and basic and applied scholarly research accomplishments. The individual chosen will serve as the **ASSOCIATE DIRECTOR** of the Medical Microbiology Division within the Pathology Department with specific service and teaching responsibilities in the Bacteriology and Mycobacteriology Sections. Experience in the laboratory diagnosis of sexually transmitted diseases and mycobacterial infections is desirable. The candidate will be expected to demonstrate ability to compete for extramural funding to support a research program. Candidates for the position should be nationally recognized Microbiologists with an M.D. or Ph.D. degree and appropriate licensures. The position will be open until filled. Résumés and inquiries should be directed to: **Yutaka Kikkawa**, **M.D., Professor and Chairman, Department of Pathology, University of California, Irvine, Irvine, CA 92717-4800.** The University of Califonia, Irvine is rooted in education and enriched by diversity.

#### GRADUATE INSTITUTE OF BIOLOGICAL CHEMISTRY National Chung Hsing University Taiwan

Applications are invited for faculty openings at the AS-SISTANT, ASSOCIATE or FULL PROFESSOR level. (A DIRECTOR is also sought.) Applicants should have at least two years of postdoctoral or equivalent experience in the area of macromolecular structure/function and related fields. Responsibilities begin on August 1, 1995. Please submit curriculum vitae and three to five major publications before November 15, 1994, to: Faculty Search Committee, Graduate Institute of Biological Chemistry, School of Science, National Chung Hsing University, 250 Kuo Kuang Road, Taichung, Taiwan 40227 Republic of China. FAX: 886-4-2861905.

#### MICROBIOLOGIST/MOLECULAR BIOLOGIST

Search continued for ASSISTANT PROFESSOR, tenure-track, fall 1995, to teach Microbiology/Molecular Biology, and participate in Introductory Biology. Ph.D. required.

Applicants must demonstrate excellence in undergraduate teaching and research involving undergraduates, including publication. Experience in small college setting desirable.

Ursinus is northwest of Philadelphia in a suburban setting and is a highly selective, residential, co-ed, liberal arts college of 1150 students with a long tradition of strength in the sciences.

Send letter of application and curriculum vitae by October 14, 1994, to: Dr. Ellen M. Dawley, Department of Biology, Ursinus College, P.O. Box 1000, Collegeville, PA 19426-1000. Ursinus is an Affirmative Action/ Equal Opportunity Employer.

# Postdoctoral Opportunities In The Biomedical Sciences.

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

#### Gene Expression and Cell Biology Richard J. Maraia, MD

The regulation of Alu retrotransposed elements is being studied to better understand the impact of their expression on cell growth. Cloned factors which affect Alu RNA metabolism and regulation of re-initiation by RNA polymerase III are being characterized\*. Experience in biochemistry and molecular biology, and less than five years postdoctoral experience, are required. Laboratory of Molecular Growth Regulation (OE-51), NICHD, Building 6, Řoom 416.

\*See Mol Cell Biol 14:3949 and Mol Cell Biol 14:2147.

#### Molecular Biology and Immunology Michael A. Steller, MD

Transfections using anti-sense constructs are being used to target critical growth factor receptor genes in an attempt to develop novel treatments for patients with gynecologic malignancies Future studies will utilize molecular biological and immunological techniques to develop an animal model to explore the in vivo use of transfected tumor cells in a vaccination protocol. Applicants must have less than five years postdoctoral experience. Surgery Branch (OE-51), NCI, Building 10, Room 2B42.

#### Molecular Cell Biology Edward D. Korn, PhD

Actin-based cell motility is being studied with particular emphasis on the functions of myosin I and II isozymes in nonmuscle cells and the regulation of actomyosin activities by heavy chain phosphorylation. Molecular biological approaches to structure-function questions have high priority. Applicants should have a strong background in molecular biology and biochemistry and less than five years postdoctoral experience. Laboratory of Cell Biology (OE-51), NHLBI, Building 3, Room B1-22.

# Molecular and Cell Biology of Muscle Robert Horowits, PhD

Large muscle proteins are being studied in order to determine their role in myofibril mechanics and assembly. Positions are available to participate in projects focusing on the molecular biology and cellular organization of the myofibrillar proteins titin and nebulin. A background in molecular and cell biology is preferred. Applicants should have less than five years of postdoctoral experi-ence. Laboratory of Physical Biology (OE-51), NIAMS, Building 6, Room 113.

#### Molecular Embryology/Morphogenesis Yun-Bo Shi, PhD

The roles of cell-cell and cell-extracellular matrix interactions during organogenesis and tissue remodeling are being investigated. The model system is the metamorphosis of Xenopus laevis, which is controlled by thyroid hormone. Current and future studies emphasize the functions of potential morphogens and extracellular matrix-modifying metalloproteinases. Regulation of these genes during development and by thyroid hormoneis also being investigated. Laboratory of Molecular Embryology (OE-51), NICHD, Building 18T, Room 101.

#### Nuclear Structure and Cell Cycle Control Mary Dasso, PhD

Cell cycle checkpoint controls and nuclear structure/function are being investigated in Xenopus laevis eggs and extracts. These studies focus on the RCC1 and Ran proteins, which are essential for checkpoint regulation and nuclear assembly. The goal is to understand their biochemistry and discover how they interact with other cellular components to promote interphase nuclear functions and prevent entry into mitosis during S-phase. Laboratory of Molecular Embryology (OE-51), NICHD, Building 18T, Room 101.

#### **Signal Transduction** Hua Gu, PhD

Two positions are available to study the signal transduction process in the immune system. Research focuses on in vivo animal models and takes a multidisciplinary modern biological approach, including conditional gene targeting. Applicants should have a strong background in molecular biology and/or biochemistry. Experience in gene targeting is not required. Laboratory of Immunology (OE-51), NIAID, 12441 Parklawn Drive, Room 139, Rockville, MD 20852.

#### 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 via modem (1,3014022221 or 1,8003582221) with modem parameters set at "7,Even,1". When connected to NIH, type in ",vt100" for termi-

nal emulation, "F5E" for initials, and "AJL1" for account number. The Postdoctoral Research Fellowship Opportunities catalog, which describes additional opportunities at the NIH, may be requested from the address below. An electronic version of the catalog may be accessed via the network-based (Internet) Gopher Information System. To access the NIH Gopher server, Gopher client software (available via anonymous ftp

"boombox.micro.umn.edu") must be running on your computer and configured to point to "gopher.nih.gov" and port "70". Select Grants and Research Information to reveal the NIH Office of Education directory. Those interested in receiving information on other postdoctoral opportunities, clinical training opportunities, or accessing Gopher may contact the Office of Education, Building 10, Room 1C129. Phone: 301-496-2427.

#### To Apply

If you hold a graduate doctoral degree (e.g., PhD, MD/PhD) or a professional degree (e.g., MD, DO, DDS, or DVM) accompanied by previous laboratory research experience, and would like to be considered for one of these positions, please send a NAL MST 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.





9000 Rockville Pike, Bethesda, MD 20892 The NIH is an Equal Opportunity Employer

# POSTDOCTORAL RESEARCH FELLOWSHIPS

# DRUG METABOLISM/PHARMACOKINETICS

This 2 year postdoctoral position is for a Biochemist, Pharmacologist, Physiologist, or Pharmaceutical Scientist with interest in *in vitro* and *in vivo* protein metabolism/pharmacokinetics/pharmacodynamic on an industrial perspective. It requires a Ph.D. with background in protein metabolism (receptor-mediated protein endocytosis), molecular pharmacology, protein delivery, or other related areas and experience in standard techniques, such as ELISA, HPLC, electrophoresis/autoradiography, and Western blotting. Knowledge/experience of pharmacokinetics is not required, but helpful. Send resume to:

PARKE-DAVIS Pharmaceutical Research, BOX LJB1089, 2800 Plymouth Road, Ann Arbor, MI 48105.

# CARDIOVASCULAR THERAPEUTICS

This 2 year postdoctoral position is available immediately studying the role of cytokines, adhesion molecules, and inflammatory mediators in the vascular response(s) to injury including cellular proliferation and vascular remodelling. The research will be directed towards characterization and mechanistic work in previously established primate and rodent models of angioplasty-induced vascular injury. Particular emphasis is placed on integrative studies involving both in vitro and in vivo techniques utilizing pathologic models. Candidates should have a Ph.D. with a strong background in vascular biology: experience with electron microscopy, immunocytochemistry, molecular biology are preferred. Send resume to: **PARKE-DAVIS Pharmaceutical Research,** BOX DS1099, 2800 Plymouth Road, Ann Arbor. MI 48105.



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# WE ARE SUCCESSFUL TODAY BECAUSE WE ATTRACTED GREAT PEOPLE YESTERDAY.

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/ Research Scientist IV

The **Research Scientist III** will organize a research program in preclinical Anesthesiology and Critical Care Medicine and support drug discovery. The qualified candidate must be a DVM with residency or equivalent experience in anesthesiology, surgery, critical care/emèrgency room medicine or related specialty and experience with the use of gaseous anesthetics and analgesics in the Operating Room; **OR** a Ph.D. in respiratory physiology, biophysical physiology and appropriate research with gaseous and injectable anesthetics. Scientific writing assessment required. Experience with anesthesiology research or research in an area of emergency medicine preferred.

The Research Scientist IV will organize a research and drug discovery program in preclinical Anesthesiology and Critical Care Medicine. The qualified candidate must be a DVM with residency or equivalent experience in anesthesiology, surgery, critical care/emergency room medicine or related specialty and experience with the use of gaseous anesthetics and analgesics in the Operating Room PLUS one year of Post Doc or one year of relevant research experience; OR an M.D. with a specialization in anesthesiology and a background in anesthesiology research in vivo PLUS one year or related experience; OR a Ph.D. in respiratory physiology, biophysical physiology and appropriate research with gaseous and injectable anesthetics and training in an associated field of biochemistry or physiology PLUS one year of related experience. Scientific writing assessment required. Experience with anesthesiology research or research in an area of emergency medicine preferred.

At Burroughs Wellcome Co., you will enjoy a compensation and benefits package that is among the best in the pharmaceutical industry, along with the advantages of being part of an innovative pharmaceutical leader. To apply, please send your resume, indicating **POS. #65732-29** in your cover letter, by **Tuesday**, **September 27**, **1994**, 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.

BURROUGHS WELLCOME CO.



Wellcome An Equal Opportunity Employer.



# KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS RESEARCH INSTITUTE (KFUPM/RI) NEEDS PHYSICAL OCEANOGRAPHERS & MARINE BIOLOGISTS

The Research Institute of KFUPM has positions available for Marine Scientists to participate in ongoing research projects in its Water Resources and Environment Division. These projects are field oriented and involve the evaluation of impacts of oil facilities on the marine environment of the Arabian Gulf. Applicants should have a strong field orientation and the ability to write well. Experience in impact assessment preparation and project management will be helpful. The following specific positions are available; however, applicants with other backgrounds are encouraged to apply:

**PHYSICAL OCEANOGRAPHERS** - <u>Ph.D. or M.S. required</u>. Applicant should have experience in the collection and analysis of oceanographic and meteorological data. Transport modeling experience useful but emphasis will be on field data collection and its evaluation.

**MARINE BIOLOGISTS** - <u>Ph.D. or M.S. required</u>. Senior staff applicants should have experience in Benthic studies, fisheries statistics, reef fish ecology, or plankton dynamics. Other applicants with other specialties encouraged to apply. Field orientation including scuba certification required.

The University offers a competitive salary with fringe benefit package including free furnished housing; transportation allowance and annual repatriation. Send detailed resume along with copies of degrees/transcripts and a list of four references to following address:

Assistant Director, Administrative Affairs Research Institute, KFUPM Box 5040 Dhahran 31261, Saudi Arabia



#### UNIVERSITY OF CALIFORNIA, SANTA BARBARA Faculty Position in Eukaryotic Cell Cycle/Growth Control

The Department of Biological Sciences and the Interdepartmental Biochemistry and Molecular Biology (BMB) Program invite applications for a tenure-track **AS**-**SISTANT PROFESSOR** position. Research expertise and interest is sought in the area of eukaryotic cell cycle/ growth control. The successful applicant will be expected to lead a vigorous independent research program and to participate in the teaching programs of the Interdepartmental BMB Program and the Department of Biological Sciences. Applicants must have the Ph.D. degree, relevant postdoctoral experience, and a demonstrated record of research productivity. Submit curriculum vitae, selected reprints, a brief description of previous and anticipated research, and arrange to have at least three letters of reference sent to: **Director**, **c**/**o Stacie Saucedo**, **Interdepartmental Biochemistry-Molecular Biology Program, c/o Department of Biological Sciences, University of California, Santa Barbara, CA 93106. Application deadline is December 15, 1994, or until position is filled. University of California, Santa Barbara is an Equal Opportunity/Affirmative Action Employer.** 

#### CELL BIOLOGIST

ASSISTANT PROFESSOR/Tenure-Track. The Department of Zoology at the University of Georgia is reorganizing as the Department of Cellular Biology. We seek a new colleague addressing significant problems in cell biology at the cellular/molecular level. Areas of interest include intercellular interactions, signal transduction, cell cycle regulation, cell polarity, and the organization and assembly of cellular structures. The successful candidate will be expected to develop an independent, externally funded research program, direct graduate students, and participate in teaching in our undergraduate and graduate curricula in cell biology. To apply, send curriculum vitae, description of research and teaching interests, and at least four letters of recommendation to: Marcus Fechheimer, Chair of Search Committee, Department of Ecology, University of Georgia, Athens, GA 30602.

Applications received by November 1, 1994, are assured of consideration. The University of Georgia is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

TENURE-TRACK FACULTY POSITION available in the Department of Biochemistry at the rank of ASSISTANT or ASSOCIATE PROFESSOR beginning 1 July 1995. We seek a candidate who will develop an active teaching and research program in macromolecular biophysical chemistry. This could involve the application of X-ray diffraction analysis or NMR spectroscopy to problems in this field but candidates with a background in the use of additional spectroscopic or other physical chemical techniques are also welcome. Candidates should have a Ph.D. or M.D. degree, a minimum of three years of postdoctoral experience with evidence of significant research accomplishments and, for appointment at the associate level, a demonstrated ability to attract extramural funding. Send curriculum vitae, a short description of three references to: Dr. Marilynn S. Doscher, Chair, Search Committee, Department of Biochemistry, Wayne State University School of Medicine, 540 East Canfield Avenue, Detroit, MI 48201. Wayne State University is an Afirmative Action/Equal Opportunity Employer.

#### GRÖSS ANATOMIST

The Department of Cell Biology at the University of Alabama at Birmingham, invites applications for an AS-SISTANT PROFESSOR, non-tenure-earning, to assume a major role in teaching gross anatomy and histology. Applicant should have training for and experience in teaching medical and other health professional students. Position requires a terminal degree in biologic sciences with special emphasis on human morphology. Preparation for continued growth as well as the ability to develop an innovative teaching program will be examined. Applicants should send curriculum vitae and three letters of recommendation to: Richard B. Marchase, Ph.D., Professor and Chairman, Department of Cell Biology, University of Alabama at Birmingham, UAB Station, Birmingham, AL 35294-0005. We are an Equal Opportunity/Afirmative Action Employer.

#### **POSITIONS OPEN**

Tenure-track position. FIELD BIOLOGIST, ASSIS-TANT PROFESSOR, Ph.D. required: The position will begin September 1995. The candidate is expected to teach introductory and advanced ecology, and to supervise undergraduate research projects. Other courses will depend on the candidate's expertise. Preference will be given to candidates with a research agenda accessible to undergraduates that would utilize Knox College's 800 acre field station. Facilities include a freshwater lake, a small stream, woodlands, and restored prairie. Other department facilities include an animal museum, herbarium, greenhouse, tissue culture lab, and an electron microscope lab. Candidates should submit a curriculum vitae along with three letters of recommendation to: Dr. Linda Dybas, Biology Department, Knox College, Galesburg, IL 61401. Telephone: 309-343-0112, ext. 352. FAX: 309-343-9816. Email: LDybas@Knox.Bitnet. Affimative Action/Equal Opportunity Employer. In keeping with the college's 157-year commitment to equal rights, Knox particularly invites applications from women and minorities.

FACULTY POSITION at the Jules Stein Eye Institute, University of California, Los Angeles. The Basic Science Division of the Department of Ophthalmology and the Jules Stein Eye Institute invites applications for a faculty position at the level of ASSISTANT PROFESSOR. The applicant should be prepared to establish a strong research program in molecular science relevant to the broad field of vision research, and should have the potential or demonstrated ability to generate extramural support for research. Qualified individuals should submit a curriculum vitae and a letter describing research interests to: Wayne Hubbell, Ph.D., or Debora Farber, Ph.D., Jules Stein Eye Institute, 100 Stein Plaza, UCLA School of Medicine, Los Angeles, CA 90024. UCLA is an Equal Employment Opportunity/Affirmative Action Employer.

#### VERTEBRATE ECOLOGIST

The Department of Biology at Davidson College invites applications for a regular position in vertebrate ecology at the rank of ASSISTANT PROFESSOR, emphasizing biostatistics and evolutionary biology. Teaching responsibilities include introductory biology and upper level courses. Research program involving undergraduates expected. Appointment begins August 1, 1995. Interested persons should send their curriculum vitae, teaching and research statements, selected reprints and three letters of reference to: Dr. Verna Miller Case, Department of Biology, Davidson College, P.O. Box 1719, Davidson, NC 28036 by October 17, 1994. Equal Opportunity Employer; women and minorities encouraged to apply.

#### UNIVERSITY OF PENNSYLVANIA DEPARTMENT OF CHEMISTRY

The Department of Chemistry at the University of Pennsylvaria seeks a theoretical/computational chemist to fill the position of **INFORMATION SYSTEMS SPECIALIST**. Primary responsibility will be to develop and support advanced computer applications and systems administration in the Department of Chemistry, specifically tailored to the computational research needs of the faculty.

Qualifications: Ph.D. in Theoretical or Computational Chemistry or a related field of Natural Science, or M.S. plus relevant experience, a minimum of three to five years of UNIX experience on as many of the following platforms as possible: Sun/Solaris, SGI/IRIX, IBM/AIX, HP/HP-UX, and DEC/OSF.

HP/HP-UX, and DEC/OSF. All applicants should send a résumé, and arrange for two letters of reference to be sent to: George F. Palladino, Vice Chairman, Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19104-6323, by October 15, 1994. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

#### PLANT DEVELOPMENT UNIVERSITY OF TEXAS, AUSTIN

The Department of Botany, University of Texas, invites applications for a tenure-track position in plant development at the **ASSISTANT PROFESSOR** level, to begin fall 1995. We are particularly interested in applicants whose research investigates molecular and structural aspects of plant development using genetically tractable species. The successful applicant will be expected to develop a vigorous research program, obtain external funding, and teach graduate and undergraduate students. Applicants should send curriculum vitae, statement of research and teaching interests, the names of three references, and three to five reprints to: **Dr. James Mauseth, Search Committee, Department of Botany, University of Texas, Austin, TX 78713** by October 7, 1994. University of Texas, Austin is an Affirmative Action/Equal Opportunity Employer.

#### EVOLUTIONARY GENETICS/ MACROEVOLUTION

The Department of Genetics at the University of Georgia invites applications for a tenure-track appointment at the **ASSISTANT PROFESSOR** level, to begin in September 1995. The successful candidate will be expected to develop an active research program that combines a strong conceptual orientation with empirical field or laboratory research in evolutionary genetics, macroevolution, evolutionary ecology, behavioral evolution, or perhaps evolutionary systematics. Applicants should be wellqualified to teach undergraduate and graduate courses in organismal biology and evolution. Letters of application should be accompanied by a curriculum vitae, a brief statement of research and teaching interests, and selected reprints. Applicants also should arrange to have three letters of recommendation sent to: **Evolutionary Genet**ics **Search Committee**, **Department of Genetics**, **University of Georgia**, **Athens**, **GA 30602**-7223. Applications must be postmarked by November 15, 1994. The University of Georgia is an Affirmative Action/Equal Opportunity Employer.

#### HUNTSMAN CANCER INSTITUTE Raymond L. White, Ph.D., Director Department of Oncological Sciences University of Utah

Two faculty positions (ASSISTANT or ASSOCIATE PROFESSOR) available in a new program emphasizing cancer research in humans in a clinical research center setting. Applicants should have a strong background in laboratory-based research and have developed plans to combine their laboratory projects with innovative clinical studies. Applications will be accepted until October 1, 1994, or until suitable candidates are identified. Please send a letter of interest and curriculum vitae to: James P. Kushner, M.D., Chief, Division of Developmental Therapeutics, Huntsman Cancer Institute, University of Utah School of Medicine, 50 North Medical Drive, Salt Lake City, UT 84132. The University of Utah is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.

#### ACADEMIC POSITION

ASSISTANT PROFESSOR. The Department of Chemistry and Biochemistry of The University of Texas at Austin solicits applications for a tenure-track ASSIS-TANT PROFESSORSHIP position beginning September 1996. Exceptional candidates in all areas of chemistry/biochemistry including chemical education will be considered. Candidates who have demonstrated outstanding research ability and show promise in teaching should forward a curriculum vitae, short descriptions of research plans, and three letters of reference by November 1, 1995, to: Search Committee, Department of Chemistry and Biochemistry, The University of Texas at Austin, Austin, TX 78712. Equal Opportunity/Affirmative Action Employer.

#### FACULTY POSITION IN CHEMISTRY

The Chemistry Department at the University of California, Berkeley, solicits applications for a position as **PROFESSOR** of Chemistry, beginning in the fall of 1995, pending budgetary approval. Creative and energetic candidates in organic chemistry with outstanding qualifications and sufficient experience in research and teaching are specifically sought. Candidates should send a curriculum vitae and a synopsis of their research program to: Chairman, Faculty Recruiting Committee, Department of Chemistry, University of California, Berkeley, CA 94720. The final deadline for receipt of applications is December 1, 1994. The University of California is an Equal Opportunity/Affirmative Action Employer.

MICROBIOLOGIST. ASSISTANT PROFES-SOR, tenure-track beginning fall 1995 in department of seven persons. Ph.D. required. Strong commitment to undergraduate teaching. To teach Microbiology, Molecular Biology and/or Immunology. Participate in freshman Cell Biology, collegé-wide programs, and develop a research program involving undergraduates. Send curriculum vitae, statement of teaching goals, three letters of reference, and transcripts to: Dr. David Jordan, Vice President for Academic Affairs, Austin College, Sherman, TX 75090-4440. Review of applications begins October 15, 1994. Austin College is an Affirmative Action/ Equal Opportunity Employer.

# MEDICAL ONCOLOGY AND HEMATOLOGY FACULTY POSITIONS

Assistant Professor / Associate Professor / Professor The Division of Medical Oncology and Hematology of the Department of Internal Medicine and The H. Lee Moffitt Cancer Center and Research Institute at The University of South Florida is seeking medical oncologists and hematologists (M.D. or M.D./Ph.D.) with primary interests in basic research to join the faculty in tenure-track positions at the Assistant, Associate, or Full Professor levels. All applicants must be ABIM certified in Internal Medicine and must be board-certified or board-eligible in Medical Oncology or Hematology by the time of appointment. Areas of basic research interest in which we particularly wish to recruit faculty include growth factors, growth factor receptors, signal transduction, hematopoiesis, gene regulation, gene therapy, cancer-related pharmacology, and molecular carcinogenesis.

The main base of activities of the Division of Medical Oncology and Hematology is H. Lee Moffitt Cancer Center and Research Institute, a modern, dedicated cancer hospital with approximately 130 inpatient beds, ambulatory facilities, a large bone marrow transplant program, a high volume cancer screening program, and 50,000 square feet of new basic research laboratory space. The successful candidates will join the rapidly growing group of highly interactive and collaborative basic science investigators being built at Moffit Cancer Center and Research Institute under the leadership of Dr. Jack Pledger, Associate Director for Basic Research.

Send curriculum vitae, a 1-2 page statement of major academic interests, current and pending grant support, and a list of at least 3 academicians who would be willing to provide references to Kenneth S. Zuckerman, M.D., Director, Division of Medical Oncology and Hematology, University of South Florida and H. Lee Moffitt Cancer Center and Research Institute. Address: Office of Faculty Recruitment, H. Lee Moffitt Cancer Center, 12902 Magnolia Drive, Tampa, FL 33612. Applicants who need a reasonable accommodation in order to participate in the selection process must notify Jody Swanson at (813) 975-7894, 48 hours in advance. Applications will remain confidential until after individual circumstances are discussed with applicants. All applications must be postmarked by October 6, 1994.





H. LEE MOFFITT CANCER CENTER & RESEARCH INSTITUTE University of South Florida College of Medicine

The H. Lee Moffitt Cancer Center and Research Institute is an Equal Opportunity Employer The University of South Florida is an Equal Opportunity/Equal Access/Affirmative Action Employer

# National Center for Human Genome Research

## National Institutes of Health Public Health Service

### **Department of Health and Human Services**

The National Center for Human Genome Research (NCHGR) is recruiting for four positions related to its activities in the study of the Ethical, Legal, and Social Implications (ELSI) of the Human Genome Project (HGP).

### EXTRAMURAL PROGRAM

### Director, ELSI Program

Directs a comprehensive ELSI grants program and supervises staff of the ELSI Branch.

Coordinates with other national and international ELSI efforts.

### Program Analyst, ELSI, Working Group

Provides staff support for the ELSI Working Group and performs policy analyses related to the activities of this advisory body.

### **INTRAMURAL PROGRAM**

### **Senior Policy Analyst**

Conducts research on public policy issues; establishes a training program in ELSI research and participates in the training of genetics fellows, medical students and genetic counselors within the NCHGR research labs at NIH.

### **Medical Ethicist**

Provides consultation on medical ethics problems and conducts research on ethical issues related to the delivery of human genetics services.

Participates in the training of genetics fellows, medical students, and genetic counselors within the NCHGR research labs at NIH.

Individuals who seek temporary positions (2–4 years) or longer term appointments may apply.

Representatives of ethnic or racial minority groups are particularly encouraged to apply.

Salary levels will be commensurate with experience.

Please submit resumes/curriculum vitae/or SF 171 (Application for Federal Employment) and three letters of reference to Ms. Mary Glynn, Personnel Officer, NCHGR, Bldg. 31, Rm. 3B31, NIH, Bethesda, MD 20892. Applicants for the Intramural Program should also include a statement on their research interests.

**APPLICATIONS ARE DUE NOVEMBER 1, 1994** 

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

#### FISH BIOLOGIST University of Connecticut

The Department of Ecology and Evolutionary Biology seeks a Fish biologist for an anticipated tenure-track position at the ASSISTANT PROFESSOR level beginning September 1995. Duties include teaching a lecture/ laboratory course in Biology of Fishes and other graduate and undergraduate courses as appropriate. Requirements: strong research and teaching commitment, with a demonstrated ability to develop a program of research in the ecology, behavior, evolution, systematics, or conservation biology of fishes. Applicants with a background primarily in fisheries management will not be considered. Send curriculum vitae, statement of teaching and research interests, reprints, and three letters of recommendation to: Dr. Kentwood D. Wells, Chair, Search Committee, Department of Ecology and Evolutionary Biology, University of Connecticut, U-43, 75 North Eagleville Road, Storrs, CT 06269-3043. Screening of applicants will begin October 15, 1994, and continue until the position is filled. We encourage applications from underrepresented groups, including minorities, women, and people with disabilities. (Search #A299)

#### **RESEARCH ASSISTANT PROFESSOR**

**POSITION** is immediately available to study the role and effects of HIV-1 and B cell lymphokines. Strong background in molecular biology of HIV-1. Salary: \$42,000 plus benefits. Send résumé, names and addresses of three references to:

David Benjamin, M.D. 1232 James Cancer Hospital and Research Institute The Ohio State University Hospitals 300 West 10th Avenue Columbus, OH 43210-1228 Telephone: 614-293-3716; FAX: 614-293-3112

RESEARCH ASSISTANT PROFESSOR. Nontenure-track position for protein crystallographer to participate in research on detoxification enzymes. Candidates must have a Ph.D. in chemistry or biochemistry with a minimum of three years of experience in crystallographic studies of detoxification enzymes. Candidates should have a solid background in the fundamentals of crystallography and demonstrated ability to develop an innovative and independent research program. Send letters of interest, curriculum vitae, and names and telephone numbers of three references by November 1, 1994, to: Dr. Gary Gilliland, Center for Advanced Research in Biotechnology, University of Maryland Biotechnology Institute, 9600 Gudelsky Drive, Rockville, MD 20850.

#### PROFESSOR AND CHAIRMAN DEPARTMENT OF PHARMACOLOGY COLLEGE OF MEDICINE THE UNIVERSITY OF TENNESSEE, MEMPHIS

The University of Tennessee, Memphis, College of Medicine seeks nominations and applications for the position of VAN VLEET PROFESSOR and CHAIR-MAN, Department of Pharmacology. Applicants should hold the M.D. and/or Ph.D. degree, or the equivalent. We seek a nationally recognized leader with a superb academic background, including strong research credentials; demonstrated commitment to education; experience as a mentor for junior faculty; and proven administrative and management skills. The new chairperson will be expected to build upon the existing strengths of the department while adding new depth and dimension to the department's activities. The department is comprised of 18 full-time faculty, with extramural research support totaling nearly \$2,000,000 for the 1994–95 academic year. Faculty research activities are aided by campus Molecular Resources and Neuroscience Centers of Excellence, which provide state-of-the-art facilities. The desired starting date is July 1, 1995. Review of applications will begin immediately and will continue until the position is filled. Qualified applicants must submit a letter of interest accompanied by a curriculum vitae, and the names and addresses of three references to: Stephen T. Kitai, Ph.D., Chairman, Pharmacology Search Advisory Committee, University of Tennessee; Memphis, College of Medicine, P.O. Box 63647, Memphis, TN 38163. The University of Tennessee is an Equal Opportunity/Affirmative Action/Titles VII and IX/Section 504/ADA Employer, and encourages applications from qualified women and minorities.

#### **POSITIONS OPEN**

#### CHAIRPERSON: DEPARTMENT OF PHYSIOLOGY UNIVERSITY OF ROCHESTER SCHOOL OF MEDICINE & DENTISTRY

The University of Rochester School of Medicine and Dentistry invites nominations and applications for the position of **CHAIRPERSON**, Department of Physiology. The Department of Physiology has particular research strengths in molecular and subcellular physiology, and in systems neurophysiology. It participates in education of medical students, Ph.D. and M.D./Ph.D. students, and its own well-established graduate and postdoctoral training efforts are also broadly involved in other graduate programs in the School of Medicine and Dentistry.

Candidates for the position should have a Ph.D. and/or M.D. degree, an internationally recognized research program and records of original scholarship, demonstrated leadership ability and experience required for the administration of the department and effective participation in the activities of the School and University. Applications are sought from outstanding scientists whose abilities will complement and bridge the established departmental strengths, however, the Search Committee encourages candidacy from the full range of the discipline. Strong commitment to the educational programs will be essential. Interested individuals may submit a letter of applica-

Interested individuals may submit a letter of application, a curriculum vitae with summary of current research, and the names and addresses of three references to: Paul L. La Celle

Physiology Search Committee Department of Biophysics 601 Elmwood Avenue Rochester, NY 14642

The University of Rochester is an Affirmative Action/Equal Opportunity Employer: Women and underrepresented minority are particularly encouraged.

#### VICE PRESIDENT FOR RESEARCH MEDICAL COLLEGE OF GEORGIA

The Medical College of Georgia invites applications and nominations for the position of VICE PRESIDENT FOR RESEARCH. The Vice President for Research, reporting directly to the President, will be the senior administrative leader of research development efforts. This will involve all aspects of research program planning and implementation. In particular, the Vice President will serve a liaison and advocacy function not only with the university administration, but also with federal, foundation, and corporate research entities. The Vice President also oversees various research support services, including the Office of Grants and Contracts. The successful candidate should have a doctoral degree or its equivalent, as well as established scientific and academic credentials reflecting significant expertise in the development and funding of research efforts. Academic appointment to one of the departments within the institution is desirable, and opportunities exist for ongoing involvement in academic and research programs. Interested applicants should submit a curriculum vitae, a cover letter describing the candidate's research, academic and administrative experience, and the names and addresses of three references no later than Oct. 1, 1994, to: Dr. Barry D. Goldstein, Chair of Search Committee, Medical College of Georgia, 1120 15th Street, Augusta, GA 30912-7605. The Medical College of Georgia is an Equal Opportunity/Affitmative Action Employer. Qualified women and minority candidates are encouraged to apply.

#### ANIMAL SYSTEMS DIVISION DIRECTOR National Research Initiative Competitive Grants Program

The National Research Initiative Competitive Grants Program, U.S. Department of Agriculture, seeks a qualified scientist to serve as **ADMINISTRATOR** for the Animal Systems Division. Candidates must have a Ph.D. or other degree with major study in animal science, veterinary science, or a biological science related to the disciplines within the Division. In addition, the candidate must have strong demonstrated abilities in administration. Closing date is November 7, 1994. For further information, contact: Dr. Sally Rockey, NRICGP, Ag Box 2241, Washington, DC 20250-2241. Telephone: 202-401-5114. For information on application procedures and forms, telephone: 202-205-9248. United States Department of Agriculture is an Equal Opportunity Employer.

#### **POSITIONS OPEN**

#### EXECUTIVE DIRECTOR Bird Conservation Alliance

New, nonprofit organization seeks **EXECUTIVE DI-RECTOR** to lead and help support science-based bird conservation program. Formed by merger of U.S.-based groups affiliated with BIRDLIFE INTERNATIONAL (formerly International Council for Bird Preservation), the Alliance conducts policy and field work in the United States, Latin America and Caribbean. Based in Washington, DC, Executive Director advances policies and programs to governments, funding institutions, scientific community, news media, and public. Demonstrated knowledge of wildlife conservation and ability in fund raising, management, administration and communications. Advanced degree in ecology, law or other relevant field and fluency in Spanish are desirable. Travel and cooperation with partners worldwide required. Salary and benefits negotiable. Position to be filled when suitable candidate is found. Send résumé and references to: Chairman, Search Committee, Bird Conservation Alliance, P.O. Box 57242, Washington, DC 20037-7242.

The Departments of Molecular and Human Genetics, and Pediatrics are jointly recruiting a **DIRECTOR** for the Baylor College of Medicine Mental Retardation Research Center (MRRC). The Baylor MRRC was founded in 1988, and is one of the 14 NICHD-supported Centers dedicated to the study of the prevention, treatment, and amelioration of mental retardation and developmental disabilities. The Baylor MRRC currently supports eight core laboratories, 53 research projects, 48 investigators from 13 departments, and one New Project Development Awardee. The successful applicant will be a Physician Scientist with an established research commitment to the molecular biology of mental retardation. Board certification in a Medical Genetics specialty and Pediatrics are desirable. Applicants should send a letter describing their commitment to mental retardation research and a current curriculum vitae, and should request that three letters of reference be sent to: C. Thomas Caskey, M.D., Chairman, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. Baylor College of Medicine is an Equal Opportunity/Affimative Action Employer.

#### JOHN S. GAMMILL ENDOWED CHAIR IN POLYCYSTIC KIDNEY DISEASE COLLEGE OF MEDICINE UNIVERSITY OF OKLAHOMA

The primary responsibility of the CHAIR occupant will be to contribute to polycystic kidney disease research with publications in peer-reviewed journals in basic science (genetics, structural/cell biology, biochemistry, biophysics), nephrology, epidemiology, or related fields. Candidates will: have a current research program funded from a national agency; be an outstanding teacher and mentor of graduate students and postdoctoral fellows; be expected to interact substantively in the area of her/his research at national/international meetings and through collaboration; have at least five years of postdoctoral experience in polycystic kidney disease research or related fields. Salary/rank will be commensurate with qualifications; tenure-track. Applications will be accepted until February 28, 1995. Submit a current curriculum vitae to: **Camilla Schumacher, Assistant to the Search Committee, University of Oklahoma College of Medicine, Office of the Dean, Room 357-BMSB, P.O. Box 26901, Oklahoma City, OK 73190.** 

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

CHAIR—Department of Physiology and Biophysics, School of Medicine, University of Puerto Rico. Applications and nominations are invited to fill the position of CHAIR in the Department of Physiology and Biophysics. The successful candidate is expected to have an active research program and a commitment to excellence in the education of professional and graduate students. Send letter of interest, curriculum vitae, statement of research interests, description of teaching experience, three representative publications and the names of three references to: Dr. Luis J. Torres-Bauzá, Associate Dean for Biomedical Sciences, School of Medicine, University of Puerto Rico, P.O. Box 365067, San Juan, Puerto Rico 00936-5067. The University of Puerto Rico adheres to the policy of equal opportunity without discrimination for reasons of sex, race, or political or religious belief.

#### POSTDOCTORAL POSITIONS IN MOLECULAR NEUROBIOLOGY OF *C. elegans*

At least 2 postdoctoral positions with guaranteed salary support are available immediately to study synaptic vesicle function and neurotransmitter release in C. elegans. Projects emphasize the use of molecular, genetic, and immunocytochemical techniques; for recent publications, see Science 261:617 (1993) and Cell 73:1291 (1993). Applicants with experience in molecular biology, biochemistry, and/or cell biology are urged to apply. These positions provide an ideal opportunity for individuals wishing to combine molecular neurobiology with the experimental advantages of a powerful genetic/molecular biological system. Please send letter and curriculum vitae, or call (405) 271-7681; fax (405) 271-3153; email randj@omrf.uokhsc.edu

#### James B. Rand, Ph.D.

Program in Molecular and Cell Biology Oklahoma Medical Research

Foundation 825 N.E. 13th Street Oklahoma City, OK 73104



EOE/Affirmative Action Employer. OMRF encourages women and minorities to apply.

#### PROFESSOR AND CHAIR DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE BROWN UNIVERSITY

Brown University is seeking an outstanding physician-scientist to serve as Professor and Chair in the department of Pathology and Laboratory Medicine at the Brown University School of Medicine. The individual we seek is expected to lead a multi-institutional Department and to foster the professional and scholarly growth of its faculty. The incumbent will have overall responsibility for undergraduate, graduate and post-graduate educational programs of the Department and will be expected to promote research programs of appropriate breadth and depth for a university department of national stature. Applicants, who must possess an M.D. degree or its equivalent, are expected to have attained national and international stature in the field of Pathology and Laboratory Medicine, to demonstrate a record of excellence in scholarly research, clinical service and academic administration, and to have had at least five years' experience in a position of senior responsibility at an academic medical center. Applicants must possess a full and unrestricted license to practice medicine in the State of Rhode Island, or be licensed in another jurisdiction and be eligible for licensure in Rhode Island.

Interested individuals should send a letter of application and a current curriculum vitae by November 1, 1994 to Dr. James T. McIlwain, Chair, Pathology Search Committee, Brown University, Box G-M2, Providence, RI 02912. Brown University is an equal opportunity/affirmative action employer and actively solicits applications from qualified minorities and protected groups.

# Director of Marine Science, Environment and Technology

Applications and nominations are invited for the position of Director of the Center of Marine Science, Environment and Technology at UMass Dartmouth. Candidates must hold an earned doctorate in a marine science or engineering related discipline and meet the standards for a tenure appointment at the full professor level in a science or engineering department. The candidate must also have a record of significant accomplishment in marine science/environment/technology administration and development, and have a strong record in the development and execution of marine-related grant supported research. The Director will be responsible for coordinating present marine activities and providing leadership in the further development of UMass Dartmouth's marine science/technology, environmental and aquaculture programs. These duties will include representing UMass Dartmouth during the final stages of architectural work and construction of its new marine laboratory located on Buzzards Bay in New Bedford. The Director will be responsible for the operation of this laboratory and a planned aquaculture laboratory located on an adjacent site. Responsibilities will include the facilitation and development of linkages and collaborations with key academic/research institutions, government agencies and the private sector. As the laboratories come on line, the Director will be responsible for developing and executing budgets and for developing plans for staffing and support, including the initiation of Sea Grant activities.

UMass Dartmouth is one of five campuses in the University of Massachusetts system. Developing new Masters and PhD programs in selected areas of strength and continuing excellence in teaching and research are central to the university's academic mission. In addition, the university is committed to fostering economic development, serving as a catalyst for regional initiatives, providing research and consultation to the local community, and addressing the cultural and educational needs of a diverse population. Located 60 miles south of Boston and 30 miles east of Providence, RI, and 40 miles from Woods Hole, its modern 710 acre suburban campus has a full-time faculty of 330 and a student enrollment of 6000 full- and part-time students.

A complete application packet consists of: curriculum vitae, a statement of interest in the position and the names and addresses of four referees. Send materials to Chairperson, Search & Screen Committee, Director of Marine Sciences, c/o Personnel Office, University of Massachusetts, Dartmouth, N. Dartmouth, MA 02747. Screening of applications will begin on October 1, 1994 and continue until the position is filled.

The University of Massachusetts Dartmouth is an equal opportunity, affirmative action employer. Women and minorities are especially encouraged to apply.



RESEARCH

# **RESEARCH OPPORTUNITY**

A scientific position is available as Project Leader for the Data Core of the Mouse Genome Database with the Mouse Genome Informatics Project at The Jackson Laboratory. This project, funded under the Human Genome Project, is developing a comprehensive mouse genetic database with analysis and display tools for the scientific community. The database contains experimentally generated genotypic data such as those from linkage crosses (haplotype data from individual typings) or from recombinant inbred strain experiments (strain distribution patterns); physical mapping data (+/- hits against YACs and Pls, PFCE data); and comparative mapping data for 40 mammalian species. Other important data types include information about molecular reagents such as characteristics of probes or clones; genetic polymorphism data for strains such as visible, biochemical, RFLP or PCR variant polymorphisms; phenotypic data such as descriptions of genes, their mutations, and their function; and descriptions of inbred strains of mice for their unique quantitative characteristics. The successful applicant will be responsible for directing this core project, including supervision of personnel, data quality control, developing and carrying out ideas for managing and analyzing data, writing grants and papers and other professional scientific responsibilities. This individual will participate with other project leaders in planning and implementing decisions related to specific projects and the program project as a whole. Applicants mush hold a Ph.D. in mammalian genetics, molecular genetics, or a closely related field. Experience with mammalian genetics, gene mapping, and physical mapping is important. Ability to deal successfully with day-to-day operations constructively and enthusiastically is essential. The position requires careful attention to detail and intimate understanding of the data and how they are used to successfully produce a database of excellent quality that can be used for a myriad of analyses. Familiarity with the principles

The Jackson Laboratory, Jocated on the coast of Maine adjacent to Acadia National Park, is a world renowned center and resource for mammalian biology and genetics. Outlified candidates should send resume to: The Jackson Laboratory, Attn: Harold Wheeler, Human Resources, 600 Main Street, Bar Harbor, ME 04609. Phone: 207/288-3371 ext. 1281, fax 207/288-2516, email: HRW earetha, jax org An Affirmative Action/ Equal Opportunity Employer

#### DEAN SCHOOL OF SCIENCE AND ENGINEERING TECHNOLOGY

The University of Southern Indiana invites nominations and applications for **DEAN** of the School of Science and Engineering Technology. The position is available Ianuary 2, 1995. The Dean of the School of Science and Engineering Technology is the chief academic and administrative officer of the School which includes the departments of Biology, Chemistry, Engineering Technology, Geosciences, and Mathematics. Requirements include an earned doctorate from an accredited institution in a discipline within the School; a demonstrated record of teaching and scholarly accomplishments that will support appointment at advanced rank with tenure; experience in, and commitment to, developing undergraduate and graduate programs; planning/budget management experience with successful external fundraising; ability to work with University faculty to encourage cooperation and collaboration among diverse disciplines; and a commitment to understanding and responding to community needs and interests. Letters of application are requested by October 14, 1994, but accepted until position is filled. Cāmdidates should submit letter of application, résumé, and the names/addresses of three professional references to: Dr. Robert L. Reid, Vice President for Academic Aflafts, University of Southern Indiana, 8600 University Boulevard, Evansville, IN 47712. Call 812-464-1844 for additional information. Women and minorities are encouraged to apply. Affirmative Action/Equal Opportunity Emplover.

#### JUNIOR FACULTY; Harvard Medical School, Department of Biological Chemistry and Molecular Pharmacology (BCMP)

The Department of Biological Chemistry and Molecular Pharmacology invites applications for one tenure-track position at the **JUNIOR FACULTY** level.

We seek individuals in the area of structural biology with focus on NMR spectroscopy on RNA, nucleic acid/ protein interactions, and aspects of RNA-function.

Applicants should submit by October 15, 1994, curriculum vitae, bibliography, statement of research plans and arrange for four letters of recommendation to be sent to: Professor Gerhard Wagner, BCMP, Harvard Medical School, 240 Longwood Avenue, C1-213, Boston, MA 02115.

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

#### FACULTY POSITIONS IN IMMUNOLOGY DUKE UNIVERSITY MEDICAL CENTER

The Department of Immunology invites applications for junior level, tenure-track **FACULTY POSITIONS**. Candidates working in the research areas of lymphocyte biology and lymphocyte development are encouraged to apply.

Interested individuals should send a curriculum vitae, a statement of research interests, and the names of three references by December 1, 1994, to: Dr. Thomas F. Tedder, Department of Immunology, P.O. Box 3010, Duke University Medical Center, Durham, NC 27710.

Duke University Medical Center is an Equal Opportunity/ Affirmative Action Employer.

#### POSTDOCTORAL POSITION

**POSTDOCTORAL POSITION** available immediately to investigate the function and mechanism of activation of the NF-kB/Rel transcription factors. Studies will focus on the identification of protein kinases/phosphatases and proteases involved in the modification and degradation of IkB $\alpha$ , a major cytoplasmic inhibitor of NF-kB. Useful references are: *Science*, 259:1912 (1993) and *Proc. Natl. Acad. Sci. U.S.A.*, 91:1346 (1994). Experience in molecular biology is required. Please send curriculum vitae, brief statement of research experience, and the names and telephone numbers of three references to: Dr. Shao-Cong Sun, Department of Microbiology and Immunology, The Milton S. Hershey Medical Center, The Pennsylvania State University College of Medicine, P.O. Box 850, BMR Building, Room C6804, Hershey, PA 17033. FAX: 717-531-6522. We are an Equal Opportunity/Affirmative Action Employer and encourage minority and female applicants to apply.

#### ROBERT C. BYRD HEALTH SCIENCES CENTER OF WEST VIRGINIA UNIVERSITY DIRECTOR

#### MARY BABB RANDOLPH CANCER CENTER

The West Virginia University School of Medicine is seeking a **DIRECTOR** of the Mary Babb Randolph Cancer Center. The position requires a demonstrated physician scientist with the ability to plan, develop and implement programs critical for cancer center success. He/she must be Board-certified in a relevant medical specialty and have proven experience in academic medicine. He/she must be a strong, effective leader, both in process and style, and have an ability to incorporate leadership skills with a vision for the development of multidisciplinary cancer research, treatment and outreach programs. The position will remain active until filled. Applicants should send curriculum vitae and names of three references to: Mathis P. Frick, M.D., Chairman, Cancer Center Search Committee, Department of Radiology, P.O. Box 9235, West Virginia University School of Medicine, Morgantown, WV 26506-9235. *An Equal Opporunity/Affirmative Action Employer. Women and minorities are encouraged to apply*.

#### PLANT PATHOLOGY PROGRAM DIRECTOR National Research Initiative Competitive Grants Program

The National Research Initiative Competitive Grants Program of the U.S. Department of Agriculture, seeks a qualified scientist to serve as **PROGRAM DIRECTOR** for grant review and administration in the area of plant pathology. Candidates must have a Ph.D. or other degree with major study in plant pathology or a closely related field. In addition, other specialized experience is required. Closing date is October 17, 1994. For further information on this full-time, permanent position, contact: **Dr. Sally Rockey, NRICGP, Ag Box 2241, Washington, DC 20250-2241. Telephone: 202-401-5114.** For information on application procedures and forms, telephone: **202-205-9248.** United States Department of Agriculture is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS in wildlife policy: 1) to investigate state and national implications of contraceptive strategies for managing populations of wildlife (Dr. Robert H. Schmidt, 801-797-2536, rschmidt@cc.usu.edu); and 2) to develop educational outreach strategies to facilitate resolution of fish and wildlife damage management conflicts (Dr. Terry A. Messmer, 801-797-3975, wildext@cc.usu.edu). One to two years. Looking for broad training and experience in wildlife biology and policy. Send curriculum vitae, statement of interest, reprints, and names, addresses, and telephone numbers of three references to the appropriate faculty member, Department of Fisheries and Wildlife, Utah State University, Logan, UT 84322-5210. Applications accepted until suitable candidates are found. Utah State University is an Affirmative Action/Equal Opportunity Employer.

HARVARD/POSTDOCTORAL POSITIONS are available in a laboratory with state-of-the-art equipment to study molecular mechanisms of atherosclerosis and hypertension with special emphasis on transcriptional regulation and biological function of genes important for growth and differentiation of vascular endothelial and smooth musclè cells (endothelin, HB-EGF, NOS, and a recently cloned novel gene). Experience with molecular biology or protein chemistry is required. Please send curriculum vitae and names of three references to: M. E. Lee, M.D., Ph.D., Cardiovascular Biology Laboratory, Building 2, Room 129B, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115.

**POSTDOCTORAL FELLOW.** Position available immediately to study gene regulation of mammalian glutamate dehydrogenase. Experience in molecular biology and protein chemistry is required. Send curriculum vitae and three references to: **Dr. A. Plaitakis, Department of Neurology, Box 1137, Mount Sinai Medical Center, One Gustave L. Levy Place, New York, NY 10029. Telephone: 212-241-7310; FAX: 212-348-1310.** 

#### **POSITIONS OPEN**

**POSTDOCTORAL POSITION**–Vascular Biology. Postdoctoral positions available to study the role of growth factors, receptor modulation on vascular smooth muscle growth and cell migration dependent processes. Both projects require a firm knowledge of cell biology and of molecular biology. Experience with differential display and cloning would be an advantage. One project would require knowledge of proteoglycans. Send curriculum vitae and names of three referees to: Michael A. Reidy, Ph.D., Department of Pathology SJ-60, University of Washington, Seattle, WA 98195.

**POSTDOCTORAL POSITION:** a two-year position is now available to study a) the regulation of iron uptake genes in *Sacharomyces cerevisiae* (*Cell*, 76:403-410) or b) iron transporter genes from yeast and higher eukaryotes. A Ph.D. in biochemistry, molecular biology or related field is required. Send curriculum vitae and the names of three references by October 15, 1994, to: Dr. David Eide, Department of Biochemistry and Molecular Biology, University of Minnesota-Duluth, Duluth, MN 55812. An Equal Opportunity/Affirmative Action Employer.

#### POSTDOCTORAL POSITIONS TUMOR SUPPRESSORS and CELL CYCLE

**POSTDOCTORAL POSITIONS** are available at Thomas Jefferson University for candidates interested in cell cycle control, oncogenes and tumor suppression. These positions will focus around the role of DNA tumor virus-mediated effects on gene expression, mammalian cell cycle control and differentiation, with a major emphasis on the adenovirus associated proteins, including the retinoblastoma protein family, cyclins, CDKs and its inhibitors. Candidates should have a strong research background in transcription systems, molecular biology or biochemistry. Training grant requires permanent residency. Qualified applicants should forward curriculum vitae, description of research experience, and names, addresses, fax and telephone numbers of three references to: Antonio Giordano, M.D., Ph.D., Institute for Cancer Research and Molecular Medicine, Jefferson Cancer Institute, Thomas Jefferson University, 1020 Locust Street, Room 490, Philadelphia, PA 19107-6799. We are an Equal Opportunity Employer committed to a smoke-free environment.

POSTDOCTORAL POSITIONS (two) open for recent Ph.D.s to study the molecular mechanisms of adrenergic receptor mediated signal transduction processes in the state-of-the-art facilities of The Unit of Regulatory and Molecular Biology. Candidates with experience in, one or inclusive, areas of biochemistry, molecular biology and pharmacology are encouraged to apply. Send curriculum vitae and two letters of recommendation to: Rameshwar K. Sharma, Ph.D., The Unit of Regulatory and Molecular Biology, Pennsylvania College of Optometry, 1200 West Godfrey Avenue, Philadelphia, PA 19141. Equal Opportunity Employer. Male/Female/ Disabled /Veterans.

#### POSTDOCTORAL POSITION

This position will investigate viral hepatitis and liver cancer. Experience in molecular biology or cellular immunology is preferred.

Qualified applicants should submit their curriculum vitae and three professional letters of references to: University of Texas Medical Branch, Department of Pathology, Attention: Dr. Chiaho Shih, Galveston, TX 77555-0605.

University of Texas Medical Branch (UTMB) is an Equal Opportunity/Affirmative Action Employer/Male/Female/Disabled/Veterans. UTMB is a smoke-free/drug-free workplace. UTMB hires only individuals authorized to work in the United States.

**POSTDOCTORAL POSITION**. Protein and DNA NMR Spectroscopy available now using NMR spectroscopy to study three-dimensional structures of proteins and DNA. Uses 500 MHz spectrometer and Silicon Graphics computers for data analysis, molecular modeling and structure refinement. Curriculum vitae and three references to: Dr. D.R. Kearns, Department of Chemistry 0343, University of California, San Diego, La Jolla, CA 92093. FAX: 619-534-0202.

# **SCIENTISTS**

The mission of Human Genome Sciences is to identify and develop drugs and diagnostic products based on its leadership in the discovery and expression of novel genes from human and animal origin. HGS has openings in the following areas:

### CHEMICAL/BIOCHEMICAL ENGINEERS AND BIOCHEMISTS

The Protein Expression group has several openings for highly motivated individuals to participate in our research program directed toward expression and characterization of novel protein therapeutic agents. Interested individuals should have experience with bioreactor scale-up from mammalian and bacterial cell systems, cell separation, ultra filtration and process validation. Preference will be given to candidates with industrial experience and knowledge of GMP. We are also seeking qualified biochemists with industrial experience in protein isolation and characterization. Familiarity with HPLC and FPLC is required.

### MOLECULAR CELL BIOLOGY

The successful candidates will join an active team of investigators in the discovery of novel protein therapeutics identified through our high throughput gene isolation and analysis program. We are seeking highly motivated MD or PhDlevel scientists with broad based biochemical and molecular biology skills applied towards hematopoietic growth factor-receptor interactions, cancer immunology or vascular and endothelial cell function.

### **BIOINFORMATICS**

Several positions exist for MS and PhD-level scientists with advanced computer skills in the areas of genetics, protein structure, or DNA and protein sequence database management. Candidates should have in-depth knowledge of genetic analysis techniques, database management systems and software engineering methods. Programming skill in Unix and Macintosh platforms is required. These positions work closely with HGS's scientific staff to develop new tools for discovering genes, understanding gene expression patterns, characterizing proteins, and managing lab operations.

HGS is located in Rockville, Maryland, a region of intense scientific and biotechnological activity. The company encourages the pursuit of academic excellence and offers a comprehensive benefits package including medical/dental insurance, 401(k) and tuition reimbursement. For immediate consideration, please send your resume to Human Resource Department, Human Genome Sciences, Inc., 9620 Medical Center Drive, #300, Rockville, MD 20850. An Equal

Opportunity Employer.



Human Genome Sciences, Inc.

Dedicated To Discovery For Health



At the Glaxo Inc. Research Institute, Our Priority Is Progress.

Glaxo Inc., one of the largest pharmaceutical companies in the world, has an established record of developing the highest quality prescription medicines for unmet patient needs. Located in Research Triangle Park, NC, the **Glaxo Inc. Research Institute** is a premier facility which provides a stimulating environment for scientists working in all aspects of discovery and development. We invite you to join us today in the following opening.

# RESEARCH COMPUTING CONSULTANT Linkage Analysis/Genetic Mapping

The selected individual will perform linkage analysis and genetic mapping in support of our Human Genetics Initiative. While using statistical analysis

Genetics Initiative. While using statistical analysis and other research techniques, major duties will include: identifying chromosomal loci linked to complex diseases; developing new approaches and innovative algorithms for linkage analysis which can be directly applied and evaluated in genetics research; and assisting in the creation of databases for experimental results and data interpretation.

This position requires a Ph.D. in Biology or relevant area, with a minimum of 1 year experience performing linkage analysis and genetic mapping. Familiarity with principals of genetic linkage analysis and innovative problem solving approaches is required, as is knowledge of the design of computerized databases. Good managerial and communication skills are required.

Glaxo offers an attractive compensation and benefits package that features a matching savings plan, an on-site fitness center and much more. Research Triangle Park, NC offers an academically enriched quality of life complete with a host of cultural and recreational advantages. For confidential consideration, send your resume which must include position title and salary history, to: **Human Resources Department, Job # ASC455001, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709.** (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/D/V.

Glaxo Inc.

The Time For Achievement Is Now

#### POSTDOCTORAL FELLOWSHIPS

The Mary Ingraham Bunting Institute of Radcliffe College, a multidisciplinary residential research center, offers **FELLOWSHIPS** for women scholars, scientists, artists, and writers. Applicants must have held Ph.D. or appropriate terminal degree for at least two years prior to appointment. **Science Scholars Fellowship Program** is open to women in fields of astronomy, molecular and cellular biology, biochemistry, chemistry, cognitive and neural sciences, computer science, electrical engineering, aerospace/mechanical engineering, geology, materials science, mathematics, physics, naval architecture and ocean engineering, oceanography, and all fields that relate to the study of oceans. Must be United States citizen. Funded by The Office of Naval Research. **Biomedical Research Fellowship Program** is open to women in all fields of biomedical research. Must be U.S. citizen or permanent resident. Funded by The Burroughs Wellcome Fund. Stipends are \$34,200 plus \$3,000 in research expenses for appointment Sept. 15, 1995 to August 15, 1996. Application deadline October 15, 1994. Write or call for application: **34 Concord Avenue, Cambridge, MA 02138. Telephone: 617-495-8212.** 

POSTDOCTORAL RESEARCH FELLOW-SHIPS IN ENDOCRINOLOGY. The Endocrine Research Unit, Mayo Clinic, has openings in an NIH-funded postgraduate training program for qualified M.D. and Ph.D. candidates. Fifteen NIH-supported faculty are involved in basic studies of several areas, including studies of diabetes with emphasis on metabolism (P. Butler, M. Jensen, R. Rizza, F. Schwenk, and S. Nair), bone/ calcium metabolism (L. Fitzpatrick, R. Turner, and L. Riggs), growth factors (C. Conover), thyroid stimulating hormone (J. Morris), Grave's ophthalmopathy (R. Bahn and Colum Gorman) and control of gene expression (N. Eberhardt and D. Tindall). The programs provide excellent training experiences in very well-equipped laboratories investigating molecular, cellular and organ level endocrinology. NIH stipends are supplemented according to standard Mayo policy. Appointments are made for a minimum two-year period with maximum support up to three years. Candidates must be United States citizens or have resident alien status. Interested individuals should contact: Norman L. Eberhardt, Ph.D., 4-407 Alfred, Mayo Clinic, Rochester, MN 55905. Telephone: 507-255-6554. FAX: 507-255-4828. Mayo Foundation is an Affirmative Action Educator and Employer.

#### POSTDOCTORAL FELLOW/ FACULTY MEMBER

Position available to a **POSTDOCTORAL FELLOW** or **JUNIOR FACULTY MEMBER** to study the molecular mechanisms responsible for increased LDL receptor expression in human macrophages activated by LDL-immune complexes. Experience in molecular biology, including DNA-protein interactions and cell culture is desirable. Joint appointment at the VA and the Medical University of South Carolina will be sought. The candidate will join a research group investigating immunemediated mechanisms of atherosclerosis. Salary commensurate with experience. Please send curriculum vitae with names, addresses and telephone numbers of three references to: Dr. Maria Lopes-Virella, M.D., Ph.D., Ralph H. Johnson VA Medical Center (151), 109 Bee Street, Charleston, SC 29401. FAX: 803-792-4114.

#### POSTDOCTORAL FELLOW MOLECULAR IMMUNOLOGY

A POSTDOCTORAL POSITION available for studies of human immunogenetics and autoimmune diseases, focused on MHC/TCR interactions, mechanisms of T cell activation. Experience in molecular biology highly desirable. Highly interactive environment. Send curriculum vitae and names of three references to: Dr. William Kwok, Virginia Mason Research Center, 1000 Seneca Street, Seattle, WA 98101.

**POSTDOCTORAL POSITION** in area of intestinal inflammation and molecular pathobiology. Background in immunology, molecular biology, or cell biology preferred. Research focus is on the molecular and cellular mechanisms regulating intestinal inflammation and encompasses both basic and clinical research projects. Submit curriculum vitae along with names of three references to: Jeffrey Hyams, M.D., Hartford Hospital/ UCONN Health Center, P.O. Box 5037, Hartford, CT 06102-5037. Telephone: 203-545-2571.

#### **POSITIONS OPEN**

#### POSTDOCTORAL FELLOWSHIPS IN TRANSPLANTATION BIOLOGY

The following positions are available in several laboratories of this research center and collaborating units, for candidates with M.D. and/or Ph.D. degrees: 1. Postdoctoral fellowship and/or junior faculty position for studies of transplantation tolerance in preclinical models, using cellular and molecular biologic techniques. 2. Postdoctoral fellowship to study the immunobiology and immunotherapy of graft-vs-host disease and leukemia in animal models. 3. Postdoctoral fellowship for studies of stem cell biology with emphasis on engraftment of allogeneic, xenogeneic and/or retrovirally modified autologous bone marrow cells. 4. Postdoctoral fellowship and/or junior faculty position for studies on the pathology of transplantation reactions using classical, immunopathologic and molecular analytic techniques. Qualified candidates should send a curriculum vitae and three letters of recommendation or the names of three potential references to: **David H. Sachs, M.D., Director, Transplantation Bi ology Research Center, Massachusetts General Hospital and Harvard Medical School, MGH-East, Building 149-9019, 13th Street, Boston, MA 02129.** 

#### POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE Nuclear Hormone Receptors

A **POSTDOCTORAL POSITION** is available immediately to study the molecular mechanism of action of 1,25(OH)<sub>2</sub>D<sub>3</sub>. One area of particular interest is the use of genetic systems in yeast to identify target genes induced in bone cells in response to vitamin D. Applicants should have expertise in recombinant DNA technology. Tissue culture experience is desirable. Send curriculum vitae and the names and addresses of three references to: Dr. Donald P. McDonnell, Department of Pharmacology, Duke University Medical Center, Box 3813, Durham, NC 27710. Duke University is an Equal Opportunity/Affirmative Action Employer.

#### POSTDOCTORAL FELLOW POSITION ATHEROSCLEROSIS/LIPOPROTEIN RESEARCH

Position available immediately to study structure-function relationships of plasma and liver perfusate high density lipoproteins using biophysical, molecular biological, spectroscopic and enzymatic techniques. Background in biochemistry and molecular biology necessary. Applicant must be citizen or a permanent resident of the United States. Send curriculum vitae to: Dr. John S. Parks, Department of Comparative Medicine, Bowman Gray School of Medicine of Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157. FAX: 910-716-6279. Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL RESEARCH ASSOCIATE** in Biochemistry in the area of metabolic regulation as it relates to diet-induced hyperinsulinemia and the development of obesity in artificially reared laboratory animals. Experimental design, collection and analysis of data through blood and tissue samples and biochemical analysis including hormones, substrates, enzyme activities, cell size and receptors, metabolic signals and radioisotopes. Preparation of tables, charts and complete reports for publication in scholarly journals, participation and presentation of findings in lab group meetings. Requires Ph.D. in Biochemistry or Nutritional Biochemistry and two years of postdoctoral research experience in metabolic regulation. Two years of experience in artificial rearing of rats and animal handling. Monday to Friday, 40 hours per week, 8:30 a.m.–5:00 p.m.; \$26,500 per year. Send résumé in duplicate to: Marcia Johnson, NYS Department of Labor, 284 Main Street, Buffalo, NY 14202. Specify Job Order #0701215. Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION** to examine the regulation of ligand-gated ion channels by protein phosphorylation. The effects of phosphorylation on wild-type and mutant GABA<sub>A</sub> receptors expressed in *Xenopus* oocytes will be studied using two-electrode voltage-clamp and patch-clamp techniques. Send curriculum vitae and three letters of reference to: Nancy J. Leidenheimer, Ph.D., Department of Pharmacology, Louisiana State University Medical Center, 1501 Kings Highway, Shreveport, LA 71130. Louisiana State University Medical Center is an Equal Opportunity/Affirmative Action Employer.

#### POSTDOCTORAL RESEARCHER

The Marine Life Research Group/California Cooperative Oceanic Fisheries Investigations (CalCOFI) of Scripps Institution of Oceanography, invites applications for a **POSTDOCTORAL INVESTIGATOR** in California Current studies for one to two years. CalCOFI is a 45-year-old interdisciplinary investigation of the biology, chemistry, physics, and paleoecology of the California Current System. The field of study is open, but preference will be given to applicants whose proposed research is related to CalCOFI objectives. Contact: **Mary Olivarria** at **619-534-2868** or Email to molivarria@ucsd.edu for an information package. Submit curriculum vitae, statement of proposed research, and names of three references to: **Dr. M. Mullin, Director, Marine Life Research Group, Scripps Institution of Oceanography, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0227 by 31 October 1994. Salary will be commensurate with experience and based on UC salary scales; benefits are included.** *An Equal Opportunity/ Affirmative Action Employer.* 

**POSTDOCTORAL POSITIONS** available immediately at Thomas Jefferson University to study growth factor regulation of cell cycle and apoptosis with emphasis on the role of the IGF-I receptor in these processes, as well as pharmacologic perturbations of specific model systems (*JBC*, **269**:21777, 1993). Candidates should have a Ph.D. or equivalent degree with a strong background in molecular and cellular biology. Candidates with experience in receptor protein chemistry may also be considered. Please send curriculum vitae and names and telephone numbers of three references to: Dr. Raphael Rubin, Thomas Jefferson University, Department of Pathology, 285 Main **Building**, Philadelphia, PA 19107. FAX: 215-923-1969. We are an Equal Opportunity Employer committed to a smoke-free environment.

POSTDOCTORAL RESEARCH ASSOCIATE to join an ongoing program investigating immunosuppression caused by ultraviolet B radiation. Aim of the studies is to identify and clone three genes associated with control of UV immunosuppression in laboratory mice. The applicant should have a Ph.D. in molecular biology with an emphasis in molecular genetics; experience in mammalian genetics preferred. Send curriculum vitae and names and telephone numbers of three referees to: Dr. F. Noonan, The George Washington University School of Medicine, Ross Hall, Room 111, 2300 Eye Street, NW, Washington, D.C. 20037. George Washington University is an Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION** available immediately to investigate receptor-specific Protein Kinase C isoform-linked phosphorylation of cardiac protein. Individuals with backgrounds in pharmacology, protein chemistry and fluorimetric ion exchange techniques and seeking to develop into independent investigators preferred. Starting salary depends on qualifications. Send curriculum vitae, research experience and interests, and three letters of recommendation, to: Anirban Banerjee, Ph.D., Director of Surgical Research, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Box C-320, Denver, CO 80262.

#### HUMAN CELL CYCLE CONTROL

POSTDOCTORAL POSITION available immediately to conduct basic research on human cell-cycle and checkpoint genes in the Children's Cancer Research Center at Baylor College of Medicine. Experiments utilize a broad range of techniques including yeast genetics, mammalian expression, biochemistry and molecular biology. Please submit a curriculum vitae, description of research interest and three letters of reference to: Sharon Plon, M.D., Ph.D., Department of Pediatrics, Hematology-Oncology, One Baylor Plaza, Baylor College of Medicine, Houston, TX 77030. FAX: 713-770-4251. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION to study adrenergic signal transduction in adipocytes and transfected cell lines. Studies include molecular and cellular analysis of  $\beta_3$  receptors, G-proteins and adenylyl cyclase. Experience in pharmacology, cell biology or molecular biology required. Send curriculum vitae and names of three references to: Dr. James Granneman, Department of Psychiatry, Wayne State University School of Medicine, Detroit, MI 48201.



# NEW RESEARCH INITIATIVE

# GENE THERAPY--RESEARCH HEAD

Hoffmann-La Roche is an established leader in the pharmaceutical and health care industry with a strong commitment to biotechnology and drug discovery research. We encourage an atmosphere which rewards intellectual freedom, innovation and self-motivation.

As part of Roche's commitment to developing innovative drugs, we are forming a new research initiative in Gene Therapy. The group will eventually comprise about 20 scientists dedicated to fulfilling the promise of this new drug modality. Initial research efforts will focus on novel delivery/expression systems, especially with regards to specificity and selectivity. The Gene Therapy group will be part of the Biotechnology Department in Preclinical Research, and will work with the broad range of scientists in transgenic animal, mammalian cell culture, molecular biology, protein biochemistry and analysis research. Additional collaborations are encouraged with scientists in the therapeutic area departments of Inflammation/ Autoimmune Diseases, Oncology, and Metabolic Diseases.

The successful candidate for Research Head would assist in program selection and staff recruitment, and would be responsible for the scientific direction of the group. Requirements include a Ph.D. or M.D. and post-doctoral experience in Molecular or Cellular Biology or related discipline and experience as an independent researcher. Expertise in a research area that directly impacts on gene therapy is critical (e.g., vector development, molecular virology, DNA delivery systems, tissue-specific gene expression, etc.). Demonstrated ability to build a research program and direct scientists is highly desirable.

We offer a competitive salary and a comprehensive benefits package. To apply, send c.v. with present salary to: Ms. Eleanor Malone, Staffing Department EM024MG, Hoffmann-La Roche Inc., Nutley, New Jersey 07110-1199. We are an equal opportunity employer.

# Roche Hoffmann-La Roche

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MOLECULAR MEDICINE AND GENETICS

ASSOCIATE AND FULL PROFESSOR-The Center for Molecular Medicine and Genetics is expanding its research and training programs. Applications are invited for tenured/tenure-track faculty positions at the associate professor or full professor level. Excellent research laboratories and support facilities are located in the School of Medicine, which is part of one of the largest medical centers in the United States. Candidates should be established, independent investigators with outstanding research and training accomplishments and should have demonstrated ability to obtain extramural research funding. Although all research areas will be considered, candidates with expertise in eukaryotic molecular, cellular or dévelopmental genetics, human genetic diseases or their animal models, human or model organism genome analysis, or gene therapy are especially encouraged to apply. Applicants should send complete curriculum vitae, a brief description of current and future research interests (3-4 pages), a bibliography and reprints of significant publications, and recommendations from at least three references by November 1, 1994 to:

Dr. Robert H. Rownd, Director Center for Molecular Medicine and Genetics Wayne State University School of Medicine 3216 Scott Hall 540 East Canfield Detroit MI 48201

Wayne State University is an equal opportunity/affirmative action employer and invites applications from all qualified individuals. Wayne State University—People working together to provide quality service

# **POSTDOCTORAL POSITION**

A senior postdoctoral position is available in the Microbiology Section, Laboratory of Molecular Oncology, Biological Carcinogenesis Program, Division of Cancer Etiology, National Cancer Institute, National Institutes of Health, Public Health Service. The position involves the study of a neuropathogenic and endothelial cell tropic murine retrovirus and the mechanism of its neuropathogenicity. Additionally, the project involves the identification, at the molecular level, of the viral and host factors that confer endothelial cell tropism to the virus and application of the virus to an animal model for endothelial cell-targeted gene therapy for cancer. Work in progress has demonstrated a possibility of a unique virus-receptor interaction on capillary endothelial cells.

The program is looking for an individual with 5 or more years' experience working with murine retroviruses, who has extensive skills in recombinant DNA techniques and mammalian cell culture, including establishment of capillary and endothelial cell lines. Knowledge of retrovirology, oncology, neurology, and endothelial cell physiology is required. Application for U.S. Public Health Service postdoctoral positions are limited to individuals with U.S. citizenship or U.S. permanent residency status. Salary range: \$35,000–\$40,000. Submit curriculum vitae and three letters of recommendation within 30 days of the date of the publication to: **Dr. James Lautenberger or Dr. Sandra K. Ruscetti, Laboratory of Molecular Oncology, NCI-FCRDC, Bidg. 469, Frederick, MD 21702–1201 (telephone: 301-846-5740).** 

The National Institutes of Health is an equal opportunity employer.

**POSTDOCTORAL RESEARCH ASSOCIATE** in Biophysics: study structure function relationships in receptor channels. Design, implementation and interpretation of experiments using patch-clamp electrophysiology, quantitative single channel kinetic analysis and site-directed mutagenesis. Collection and analysis of data and participation in the writing of publications in scientific journals. Requires Ph.D. in Biophysics, Pharmacology, or Physiology and two years of postdoctoral training in electrophysiology including quantitative kinetic analysis of ion channels. Monday to Friday, 37.5 hours per week, 8:30 a.m.-5:00 p.m.; \$23,000 per year. Send résumé in duplicate to: Marcia Johnson, NYS Department of Labor; 284 Main Street; Buffalo, NY 14202. Specify Job Order #0703105. Equal Opportunity/Affirmative Action Employer.

#### JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

**POSTDOCTORAL POSITIONS** are available immediately to study mechanisms of cytoprotection mediated by heat shock proteins and gene regulation of gap junctional proteins. Candidates should have experience in molecular and/or cell biology. Competitive salary based on experience. Send curriculum vitae along with names and telephone numbers of three references to: Antonio De Maio, Ph.D., Division of Pediatric Surgery, 600 North Wolfe Street, CMSC 7-125, Baltimore, MD 21287-3716. FAX: 410-550-514. Email: ademaio @welchlink.welch.jhu.edu.

POSTDOCTORAL POSITION available immediately in an immunology group studying the biology of pulmonary resident T lymphocytes. The research of the successful candidate will concentrate on the reactivity of pulmonary  $\alpha\beta$  and  $\gamma\delta$  T cells to mycobacterial and parasite antigens and its effects on local immunity and on protection from disease. Experience in cellular immunology and/or molecular biology is desirable. Send curriculum vitae and names of three references to: Dr. Andrei Augustin, Division of Basic Immunology, National Jewish Center for Immunology and Respiratory Medicine, 1400 Jackson Street, Denver, CO 80206.

#### IMMUNOLOGY

Two **POSTDOCTORAL FELLOW POSITIONS** are available to study signal transduction process in the immune system. Research focuses on *in vivo* animal models, and takes a multidisciplinary modern biological approach, including conditional gene targeting. Applicants should have a strong background in molecular biology and/or biochemistry. Experience in gene targeting is not required. Please send curriculum vitae and three letters of reference to: **Dr. Hua Gu, Laboratory of Immunology, NIAID, Room 139, 12441 Parklawn Drive, Rockville, MD 20852. FAX: 301-480-2618.** *NIH is an Equal Opportunity Employer.* 

**POSTDOCTORAL POSITION** available to study the mechanisms regulating differentiation of growth hormone-secreting cells during chicken embryonic development. Experience with molecular and cellular techniques and a background in endocrinology is preferred. Send curriculum vitae, description of previous research experience and names of three references to: **Dr. Tom E. Porter**, **Department of Poultry Science**, **Texas A&M University**, **College Station**, **TX 77843-2472**.

**POSTDOCTORAL POSITION** available immediately to study the biochemistry and regulation of mRNA 3' processing and RNA polymerase II transcription termination. Experience in molecular biology and protein purification preferred. Send curriculum vitae and three letters of reference to: Dr. Gregory Gilmartin, Department of Microbiology and Molecular Genetics, University of Vermont, Burlington, VT 05405. Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL RESEARCH POSITION** available to study molecular mechanisms of corneal inflammation and wound healing, with special focus on protein phosphorylation including protein kinase C and growth factors. Candidates must have a doctorate degree and experience in biochemical and molecular biology techniques. Experience in enzymology and protein biochemistry is desirable. Position available in early 1995 for up to three years. Send curriculum vitae and names of three references to: Dr. Haydee E. P. Bazan, Louisiana State University Eye Center, 2020 Gravier Street, Suite B, New Orleans, LA 70112.

#### POSTDOCTORAL RESEARCH POSITION in p53-Dependent Stem Cell Regulation

**POSITION** available immediately for recent graduates trained in biochemistry, cellular and molecular biology. Utilization of novel p53-inducible cell lines to investigate the regulation of stem cell division by the antioncogene via a guanine nucleotide-dependent mechanism. Interested graduates should forward curriculum vitae and three letters of references to: James L. Sherley, M.D., Ph.D., c/o Human Resources Department-MAS, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available to study somatosensory function after spinal cord injury. Electrophysiological techniques will be used to evaluate changes in functional properties of spinal and supraspinal neurons after injury. Research is part of a multidisciplinary effort to develop new strategies to improve function after spinal injury. Prior experience with extracellular recording techniques applied to spinal neurons is desired. Send curriculum vitae and three letters of reference to: Dr. R. P. Yezierski, The Miami Project to Cure Paralysis, 1600 N.W. 10 Avenue, R-48, Miami, FL 33136. The Miami Project is an Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available to study the metabolism and toxicity of organophosphorus insecticides and selected xenobiotics in animal models. A Ph.D. is required, and experience in HPLC methodology, enzymology and drug metabolism preferred. Please submit curriculum vitae, brief summary of research interests and experience, and three references to: Dr. Barry S. Levine, Toxicology Research Laboratory, Department of Pharmacology (M/C 868), University of Illinois at Chicago, 1940 West Taylor Street, Chicago, IL 60612-7353.

AQUATIC/WATERSHED ECOLOGIST. The Academy of Natural Sciences of Philadelphia has an immediate opening in the Patrick Center for Aquatic Ecology Research for a career-track **RESEARCH POSI-TION** in freshwater ecology.

Expertise in nutrient dynamics (including transport at a watershed scale) and/or ecosystem processes at the landwater interface (e.g., riverine wetlands) is strongly desired. Experience with computer models and GIS would be useful.

Applicants must have a Ph.D. and preferably postdoctoral experience, demonstrated excellence in research, ability to attract grant support, and an interest in basic and applied research. The successful candidate is expected to build a research program with strong links to other Division studies focusing on ecological interactions in both benthic and planktonic environments, particularly in streams and rivers. Division scientists have broad expertise in the ecology of microbes, algae (especially diatoms), benthic invertebrates, zooplankton, and fish, as well as analytical chemistry, ecotoxicology, and ecological modelling. Send curriculum vitae, statement of research interests,

Send curriculum vitae, statement of research interests, and names of three references to: Chairperson, Ecologist Search Committee, Academy of Natural Sciences, Division of Aquatic Ecology Research, 1900 Benjamin Franklin Parkway, Philadelphia, PA 19103. Affirmative Action/Equal Opportunity Employer.

SENIOR RESEARCH ASSOCIATE for Northeast Ohio medical care and research facility to conduct endocrine research into thyroid abnormalities. Study and analyze the quality and effectiveness of fine needle aspiration biopsy (FNAB) in the diagnosis of thyroid malignancies. Review and interpret laboratory data and charts of FNAB patients, Analyze positive predictive value of FNAB in diagnois of malignancies. Communicate with tumor registery to improve completion of outstanding data. Must have M.D. degree or equivalent as determined by accredited credentialing agency and one year of experience in the job described or one year of experience as Medical Intern. Experience must have included at least three months working with analysis of thyroid and other cancer biopsies and involvement in ongoing oncology clinical research trials; chart review of benign and malignant endocrine disease, and interpretation of laboratory data relating to endocrine disease. 40 hours per week, 9 a.m.-5 Monday to Friday, at \$28,386 per year. Must have proof of legal authority to work indefinitely in the United tates. Send résumé in duplicate (no calls) to: T. Do, JOB#00733, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

#### **POSITIONS OPEN**

#### ASSISTANT RESEARCH SCIENTIST POSITION IN VASCULAR CELL BIOLOGY

ASSISTANT RESEARCH SCIENTIST position available December 1, 1994, for individual interested in molecular effects of sex hormones on coronary vascular reactivity. Candidate will conduct research under collaborating investigators using facilities at Colleges of Medicine and Veterinary Medicine. Although support is available, candidate will be strongly encouraged to seek individual support as early as possible. Candidate must have at least three years of postdoctoral experience in vascular cell biology, large animal surgery, tissue culture, *in situ* hybridization, and immunocytochemistry. Molecular biology experience desirable but not essential. Salary commensurate with experience. Submit curriculum vitae, publications list and three letters of reference before October 15 1994, to: Dr. William Chilan, Department of Medical Physiology, Texas A & M University Health Science Center, College Station, TX 77843-1114. Texas A & M University is an Equal Opportunity/Affirmative Action Employer.

#### RESEARCH FACULTY POSITION IN RHEUMATOLOGY

**RESEARCH PHYSICIAN**: Conduct research in cell biology, especially in the study of intracellular protein and membrane traffic. The candidate should demonstrate extensive experience in molecular biology, biochemistry and immunofluorescent microscopy with a background in MHC class I trafficking and in recycling involving the ELP-1/ERO-2 molecules. Requirements include an M.D. with board certification in internal medicine and clinical background in rheumatology, with five years of laboratory experience. Women and minority candidates are encouraged to apply. Salary range \$50,000 to \$60,000 per year. Contact: Professor K. Frank Austen, Chairman, Department of Rheumatology/Immunology, Brigham and Women's Hospital, 250 Longwood Avenue, Room 604, Boston, MA 02115. The Brigham and Women's Hospital is an Affirmative Action/Equal Opportunity Employer.

#### **RESEARCH ASSOCIATE**

A RESEARCH ASSOCIATE POSITION at Southern University Baton Rouge in the Research Centers in Minority Institution Program. The position requires at least a M.S. degree in the Biological Sciences, Biochemistry or Microbiology. However, preference will be given to applicants who hold the Ph.D. degree and have experience in protein purification and characterization, *in vitro* protein synthesis and DNA cloning techniques. The position is available immediately and is renewable annually. Please contact: Dr. C. T. Shih, Department of Biological Sciences, Southern University, Baton Rouge, LA 70813.

#### RESEARCH ASSOCIATE UNIVERSITY OF MARYLAND

Available immediately to study the cellular and molecular basis of the cytotoxic effects of iron deprivation and application to cancer therapy. Non-tenure academic track. Ph.D. and two years of experience in molecular and cell biology required; ability to work with a team and supervise others desirable. Send curriculum vitae and three letters of reference to: Christopher N. Frantz, M.D., Director, Division of Hematology/Oncology, Department of Pediatrics, School of Medicine, University of Maryland, Box 123, 22 South Greene Street, Baltimore, MD 21201. The University of Maryland is an Affirmative Action/Equal Employment Opportunity/ADA Employer.

CHEMICAL/BIOMEDICAL ENGINEER to direct research efforts for the intravenous membrane oxygenator development program at the University of Pittsburgh. M.S. or Ph.D., minimum of three years of experience working in biomedical product development required, with expertise in membrane oxygenator technology or respiratory physiology desired. Open rank, fulltime, non-tenured stream, proposed start date: October 1, 1994. Closing date for applications: September 15, 1994. Salary commensurate with experience. Send letter of application with salary requirements, curriculum vitae, and list of references to: Madeline C. Cindrich, University of Pittsburgh, PA 15213. The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.

#### ASSISTANT/ASSOCIATE PROFESSOR DEPARTMENT OF GENETICS HARVARD MEDICAL SCHOOL

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

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

Applicants should submit, as soon as possible, but prior to October 31st, curriculum vitae, bibliography, a brief (limit to 500 words) description of research interests and ask three references to send letters of recommendation. These materials should be directed to:

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

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

# **Deputy Director**

The National Institute of Allergy and Infectious Diseases, National Institutes of Health (NIH) is recruiting for the Senior Executive Service position of Director, Division of Intramural Research. Salary range between \$96,830 - \$116,529 PA. (M.D.s may be eligible for up to \$20,000 Physician's Comparability Allowance.) The incumbent of this position provides overall executive direction and scientific leadership to a staff of over 900 employees in 17 basic and clinical research laboratories, and manages an annual budget in excess of \$128,300,000. Responsibilities include developing directing, and coordinating the research program, allocation of staff and physical and financial resources, program planning and oversight of day-to-day program operations. Applicants must hold either an M.D. degree or Ph.D. degree in one of the biomedical sciences, and demonstrate a record of scientific accomplishment in the fields of microbiology, infectious diseases, and basic or clinical immunology, or other closely related fields. U.S. Citizenship is required. Submit a application for Federal Employment, (SF-171), C.V., and bibliography to:

### Mrs Janie R. Lacy Personnel Officer, NIAID National Institutes of Health Building 31, Room7A-2 9000 Rockville Pike Bethesda, Maryland 20892 (301) 496-9686

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

NIH is an Equal Opportunity Employer

# PH.D. PROTEIN BIOCHEMIST

DowElanco, a leading company in the development of innovative products for crop protection and production, has an immediate opening for a Ph.D. Protein Biochemist in the Biotechnology and Plant Genetics Department. The Department is part of DowElanco's Discovery Research effort which is located in a new state-of-theart research center in Indianapolis. Indiana

enory which is locater in a new state-of-theart research center in Indianapolis, Indiana As part of an interdisciplinary team, this individual will perform research on the identification, isolation and characterization of proteins and enzymes from diverse sources, for use in a program designed to produce unique maize varieties with value added traits, particularly in the area of oil biosynthesis. The successful candidate will have a strong background in protein biochemistry and enzymology and an excellent understanding of plant metabolic biochemistry and regulation. Post-doctoral research experience in the area of plant lipids is highly desirable, and the ability to interact productively with an energetic research group in the production and characterization of large numbers of transgenic maize plants is essential.

acterization of large numbers of transgenic maize plants is essential. To learn how to advance your career while enhancing the Agricultural environment, send a resume by October 1, 1994 to: Kathy McIntyre, Dept. DBB-1, DowElanco. 9330 Zionsville Road, Indianapolis, IN 46268-1054. An Equal Opportunity Employer.



# FACULTY POSITIONS Department of Cell Biology

The Department of Cell Biology is recruiting new faculty members. Candidates are invited to apply for either junior or senior positions. All positions offer the opportunity for tenure. We are seeking individuals with a record of excellence in research, who propose an inno-vative research program, and who are com-mitted to the training of Fellows and graduate students. Current research interests of the Department include: regulation of gene expression and differentiation, membrane recognition and signaling, control of DNA replication and the cell cycle, control of immunoglobulin synthesis and somatic diversification, and human genome technology. The Department sponsors NIH Training Grants to support pre- and post-doctoral students and provides numerous core facilities including nucleic acid synthesis and sequencing, cell ultrastructural analysis, FACS, hybridoma production, and transgenic and knock-out mice. Albert Einstein is located in a pleasant residential district of the Northeast Bronx, with easy access to Manhattan or the suburbs of Westchester County and Connecticut. Substantial packages will be provided to start up and sustain the laboratories of successful candidates. Please submit a CV, a statement of research interests and plans, as well as the names of three references to **Dr. Jonathan R.** Warner, Chair, Department of Cell Biology, AECOM, Jack and Pearl Resnick Campus, 1300 Morris Park Ave., Bronx, NY 10461. An Equal Opportunity Employer.

ALBERT EINSTEIN COLLEGE OF MEDICINE Toward the advancement of medicine ...and your career

# MEETING

The National Institute of Mental Health Division of Neuroscience and Behavioral Science

and Florida Atlantic University Center for Complex Systems

Present a Workshop on:

DYNAMICAL NEUROSCIENCE

Friday and Saturday, November 11-12, 1994 Boca Raton, Florida

Dynamical Neuroscience aims to understand the spatiotemporal dynamics of neurobehavioral systems on different levels from molecules and cells to organisms in their environments. This workshop will familiarize students and interested others on the concepts, methodology and tools of nonlinear dynamics applied to neuroscience from ion channels up through and including sensorimotor and cognitive functions. The emphasis is on developing a theoryexperiment relation with computation as an indispensable tool for analysis and modeling.

Confirmed speakers include: S. Bressler, M. Ding, L. DeFelice, A. Fuchs, G. Gaal, C. Gray, S. Grillner, J. Guckenheimer, S. Kelso, L. Liebovitch, T. Manuccia, B. McNaughton, P. Nunez, H.-O. Peitgen, L. Sirovich, M. Steriade, M. Teich, B. Tuller, H. Weinberg.

Registration is limited and advanced registration is required. Write, call or FAX to: J.A.S. Kelso, The Center for Complex Systems, Florida Atlantic University, 777 Glades Road, Boca Raton, FL 33431. Telephone: (407) 367-2230, FAX: (407) 367-3634, E-Mail: dynamics@walt.ccs.fau.edu.

For further information: D. Glanzman, NIMH, Room 11-102, 5600 Fishers Lane, Rockville, MD 20857. Telephone: (301) 443-1576, E-Mail: glanzman@helix.nih.gov.

# THE UNIVERSITY OF GRONINGEN THE NETHERLANDS

has an opening for a

# CHAIR IN ETHOLOGY

(vacancy number: 940903)

at the Department of Behavioural Biology,

Applicants versed in the causal analysis of animal behaviour with an affinity for investigating the interplay between genetical and environmental factors in the development of behaviour and its expression in the adult are particularly encouraged to apply. Within the Department interaction with the other two research groups (Animal Ecology and Chronobiology) concerning the functional aspects of behaviour is recommended. There is considerable scope to team up with physiologists and geneticists in the neighbouring Department of Animal Physiology with an interest in research on the cellular/molecular and genetic bases of behavioural processes. In a wider context, the Ethology group participates in the Groningen Center for Behavioural and Cognitive Neurosciences which unites researchers from the Medical and Social Sciences and Biophysics with an array of biological disciplines throughout the university. In this setting the candidate is expected to collaborate in human ethological projects.

Applicants are expected to have considerable enthusiasm for teaching as ethology is considered a core subject at Groningen and is incorporated in the curriculum at all levels. In addition, an active contribution is expected to further incorporate human ethology into the medical biology curriculum. Candidates lacking a mastery of the Dutch language are expected to learn Dutch.

Applicants will be asked to participate actively in the management of the Department of Behavioural Biology and from time to time to take on certain non-departmental management tasks as well.

The Chair is according to the A level. The gross salary will be between Dfl. 7.875,-to Dfl.11.580,-per month.

Further information can be obtained from Prof. Dr. B. Bohus or Prof. Dr. J.M. Koolhaas, Department of Animal Physiology. Phone(+)31 50 632340.

Letters of applications, including a curriculum vitae, a list of publications and names and addresses of the three referees, should be sent within four weeks after publication of this advertisement to the Head of Personnel Department, University of Groningen, P.O. Box 72, 9700 AB Groningen, The Netherlands.

# FOURNIER Pharma gmbh

# **Protein Chemist**

Fournier Pharma GmbH is the German subsidiary of Fournier Laboratories, a French Pharmaceutical Company with a strong commitment in cardiovascular Research.

We are looking for a Protein Chemist for our new Research Center in Heidelberg.

The successful candidate will be involved in purifaction and characterization of proteins, structure activity studies, peptide mimetic synthesis and lipid-peptide interaction studies.

He or she will collaborate with peptide chemists in Drug Discovery Research and will be in charge of protein sequenzer and aminoacid analyser.

Department resources include a 500 MHz NMR spectrometer, a high resolution mass spectrometer, and FTIR spectrometer, computers for molecular design and conformational analysis, CD spectrometer, peptide synthesizers, FPLC, HPLC's, HPCE,...

This is an excellent opportunity to join a dynamic team developing novel therapeutic approaches for treating atherosclerosis and related cardiovascular disease.

Applicants must have a Ph.D. in chemistry or biochemistry as well as two to three years of post-doctoral experience and proven track record of protein chemistry.

Please send resume to:

Fournier Pharma GmbH Department of Human Resources Mr. Dewes Justus-von-Liebig-Str. 16 66280 Sulzbach Germany

# <u>SENIOR SCIENTIFIC</u> ADVISOR, ENVIRONMENT



THE WORLD BANK, the leading multilateral lending agency in the field of global economic development, has an exceptional opportunity for a senior specialist in this field<u>women</u> <u>candidates are encouraged to apply</u>-for its Headquarters in Washington, D.C., U.S.A.

Duties/Responsibilities: As Chief Advisor on environmental science, she/he will, among other duties, provide internationally recognized leadership over a wide range of policy/ strategy issues in the field of environment; provide intellectual leadership to ensure

environmental considerations are appropriately weighted in economic, social and cultural responses to sustainable development in Bankfinanced activities; oversee preparation and review of policy papers; and serve as main spokesperson on environmental policies to the international community and technical groups (representing the World Bank at high level international meetings).

**Requirements:** Superior academic credentials in scientific disciplines; international recognition as an authority in the technical/scientific aspects of the environmental field; and extensive experience in high level policy and research work. Proficiency in English and, preferably, good knowledge of one or more of the other working languages of the Bank.

Salary and benefits are internationally competitive. Confidential applications (with detailed resume or curriculum vitae) should be FAXED to: (202) 477-8834 or MAILED to: The World Bank, Recruitment Division, SR-ENVIRON, Room 0-4121, 1818 H Street, N.W., Washington D.C. 20433, U.S.A.

Computational Chemist

**Drug Design** 



Pfizer is one of the world's leading research-based pharmaceutical companies, with an excellent portfolio of established and new products. Success has brought a major expansion of our Sandwich facilities where over a thousand staff are already employed in Research and Development.

We are now looking for a Computational Chemist to complement our recently established macromolecular X-ray crystallography laboratory. You will be expected to work closely with our computational, structural, and medicinal chemists in the use of a wide range of computational tools directed at structure-assisted drug design. You will be responsible for the modelling for several of our current projects, particularly those concerned with the development of enzyme inhibitors. This is an excellent opportunity to join a dynamic and successful research environment.

Our ideal candidate will be a PhD level scientist, preferably with post doctoral experience in protein/ligand modelling, molecular dynamics simulations, homology modelling and ligand design against a macromolecular receptor. You should be industrious, highly self motivated and an innovative problem solver, with the required communication and interpersonal skills to work effectively in our multidisciplinary environment.

Pfizer offers the salary, career structure and benefits you would expect of a leading and successful company, including flexible working hours and merit based bonus and career progression. We offer relocation assistance where appropriate.

Please send a CV to Mr. S. Rhodes, Senior Personnel Advisor, Pfizer Central Research, Ramsgate Road, Sandwich, Kent CT13 9NJ, United Kingdom. Tel: (0304) 618710, Fax:(0304) 618749.



Vaxcel

**Central Research** 

# THE VACCINES OF LIFE...

... the medicines of hope... are the high-value technologies researched, developed, and manufactured by Vaxcel, Inc. With exciting prospects emerging from our predinical research, we are optimizing the enormous growth potential available in the development of a proprietary human vaccine delivery system. To support our efforts, we are currently seeking a:

VICE PRESIDENT Research & Development

This key executive position will serve as the "second-in-command" and will be responsible for developing Vaxcel's technology from the preclinical stages to eventual commercialization. Duties include managing a diverse staff, coordinating projects, conducting clinical trials, making scientific presentations, assisting in collaborative negotiations, preparing FDA documents, and evaluating new technologies.

The seasoned, self-directed executive we seek must have 8-10 years' experience with a pharmaceutical or biotechnology firm as well as a PhD or MD degree. A strong track record of vaccine product development is essential along with effective communication skills. Solid knowledge of competitive technologies and FDA requirements is also a must.

For your talents and contributions we offer a substantial stock option plan, an excellent base salary, bonus and benefits program (including a 401k). Vaxcel has a stimulating, supportive professional environment that encourages achievements and recognizes results. We're located in an attractive suburban location just outside of Atlanta that features an affordable cost of living, an outstanding school system, and exceptional quality of life. For confidential consideration, please forward resume/cv to; William Fleck, VPHR, Vaxcel, Inc., 154 Technology Parkway, Norcross, Georgia 30092. Equal Opportunity Employer.

# Vaxcel,<sup>™</sup>Inc.

### The Division of Research Grants National Institutes of Health

Invites inquiries concerning employment as Scientific Review Administrators (SRAs) to manage various study sections which review for technical and scientific merit research grant applications submitted to NIH.

At this time, we are seeking an individual to serve as SRA of the Surgery, Anesthesiology and trauma Study Section. Candidates must have proven independent research experience and in-depth knowledge of cardiac and pulmonary surgery; anesthesiology; shock, burns and trauma; transplantation and urology.

Individuals must be U.S. citizens and have a M.D., D.V.M., Ph.D. degree or equivalent. Experience that demonstrates extensive scientific expertise incorporating research experience with varied responsibilities for providing leadership in a scientific area is required.

Further information and qualification requirements can be obtained by contacting the Personnel Office, Division of Research Grants, National Institutes of Health, 5333 Westbard Avenue, Room 438, Bethesda, MD 20892.

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# Pioneering the Future of Gene Delivery.



**Avigen** is an innovative young company leading the way in the development of adeno-associated virus (AAV) vectors for gene therapy and aggressively pioneering a new generation of hybrid vector systems to deliver therapeutic genes and polynucleotides (e.g., antisense & ribozymes). Our goal is to develop versatile nucleic acid delivery systems that can be applied to numerous disease targets reflecting the rapid advances being made in the identification of genes associated with human disease. We are seeking qualified candidates for the following scientist level positions:

# **Process Development Scientists**

You will be responsible for the production and purification of gene delivery systems. Candidates must possess a Ph.D. and 4+ years' industrial experience involving GMP production and purification of proteins or nucleic acids. (Job# S-0902-PDS)

# **Research Scientists**

Applicants must possess a Ph.D. and a minimum of 2 years post-doctoral work experience in one or more of the following areas: virology (AAV, adenovirus, retrovirus, herpesvirus, and yeast retrotransposons), yeast genetics, DNA replication & transcription, and molecular biology. (Job# S-0902-RS)

We offer attractive salaries & benefits, generous stock options, and the opportunity to make significant scientific contributions. To apply, please send resume to:



Avigen Incorporated Human Resources, Job# 1201 Harbor Bay Pkwy, Suite 1000 Alameda, CA 94502. EOE

# MACROMOLECULAR CRYSTALLOGRAPHY RESEARCH SCIENTIST

Agouron Pharmaceuticals, Inc., has an opening for a senior staff scientist to join its protein crystallography group. Applicants should have a Ph.D. with broad experience in structure solution, refinement, and analysis. The successful candidate will work in an interdisciplinary environment in which structure-based approaches for the design and elaboration of small biologically active organic molecules are emphasized. Numerous therapeutically relevant protein targets are being analyzed structurally. Our laboratory is well equipped with three 12 kilowatt Rigaku rotating anode generators, three Xuong-Hamlin area detector systems each with two chambers, and a new 300 mm diameter MAR Research image plate scanner with low temperature crystal cooling. Computing and molecular graphics facilities are excellent.

Agouron is located in San Diego in the midst of a dynamic and challenging environment of academic and industrial research centers. We offer competitive salaries and benefits. For consideration please send cv and references to Human Resources (Code CJM)



# The Lindsley F. Kimball Research

Institute of the New York Blood Center invites applications for a Postdoctoral position in Molecular and Immunoparasitology at its Laboratory of Virology and Parasitology. The incumbent will participate in the identification, cloning and characterization of putative antigens of the infective stages of the filarial nematode of Onchocerca volvulus, and the evaluation of these antigens as candidates for vaccine development.

This well-funded project provides the excellent research facilities and environment for professional growth conducive to a well-established multi-disciplinary laboratory on New York's preferred East side.

Applicants should have a Ph.D., M.D. or equivalent, with experience in biochemistry, protein purification techniques, molecular biology and/or immunobiology. This position commands a salary commensurate with experience.

To apply, please send Curriculum Vitae, and the names and telephone/fax numbers of 3 references, to: Sara Lustigman, Ph.D., Laboratory of Virology and Parasitology, The Lindsley F. Kimball Research Institute, New York Blood Center, 310 East 67th Street, New York, NY 10021, USA • Fax: 212-570-3180 An Equal Opportunity Employer M/F/D/V.

# **& Lindsley F. Kimball**

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



#### **BIOCHEMISTRY & MOLECULAR BIOLOGY**

#### **OREGON HEALTH SCIENCES UNIVERSITY**

The Department of Biochemistry and Molecular Biology at OHSU, School of Medicine, will be embarking on a period of significant growth during the next several years. We will be recruiting tenure track faculty at all levels, although our emphasis will be on junior colleagues. Our main focus will be in (i) structure and function of membrane proteins, (ii) structural biology, especially diffraction methods, and (iii) nucleic acid structure and enzymology. Interested candidates in related areas are also encouraged to apply.

We will offer attractive start-up packages, competitive salaries, and the opportunity to participate in the growth and development of a dynamic and interactive department in a highly desirable location. Faculty will be expected to establish competitive research programs and assist in graduate and medical school teaching. Applicants at the Assistant Professor level should have a Ph.D. with several years of postdoctoral experience. Applications for our first series of appointments should be received by November 30, 1994.

Interested applicants should send a copy of their curriculum vitae, a description of their research plans and interests, and the names of three references to:

Dr. Jack H. Kaplan, Faculty Search Professor and Chair-Designate Department of Biochemistry and Molecular Biology Oregon Health Sciences University 3181 S.W. Sam Jackson Park Road, L-224 Portland, OR 97201-3098

OHSU is an Affirmative Action/Equal Opportunity Employer

## The Division of Research Grants National Institutes of Health

Invites inquiries concerning employment for future vacancies as Scientific Review Administrators (SRAs) to manage various study sections which review for technical and scientific merit research grant applications submitted to NIH.

Individuals must be U.S. citizens and have a PH.D. degree or equivalent. Experience that demonstrates extensive scientific expertise incorporating research experience with varied responsibilities for providing leadership in a scientific area is required.

Further information and qualification requirements for specific positions can be obtained by contacting the Personnel Office, Division of Research Grants, National Institutes of Health, 5333 Westbard Avenue, Room 438, Bethesda, MD 20892.



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# **University of Nottingham**

# **Sutton Bonington Campus**

# **P**rofessor of Environmental Science

Applications are invited for the post of Professor of Environmental Science, within the Faculty of Agricultural and Food Sciences. The Professor will lead the Environmental Science section, which is concerned with the interaction of plants and animals with the atmosphere and soil environments. Applications from candidates with quantitative interests in physical, biological or chemical areas of Environmental Science are welcome. Candidates should have a strong research record and a commitment to teaching. The appointee will be one of the professors in the Department of Physiology and Environmental Science, which has a rotating headship. He/she will be expected to provide research leadership and be responsible for the direction of teachingin Environmental Science, including an expanding MSc course. All Departments in the Faculty have a grade 5A research rating. Opportunities exist for research collaboration with other Departments in the Faculties of Science, Medicine and Agricultural and Food Sciences. Salary will be in the professorial range (current minimum £33, 152 per annum).

Further details and application forms, returnable not later than 30 September 1994, from the Personnel Office, University of Nottingham, University Park, Nottingham NG7 2RD. Tel: (0602) 515781. **Ref No 1833.** 

NORTH AMERICAN VACCINE. INC., a rapidly expanding company dedicated to the research, development and manufacturing of vaccines, has immediate openings within our Operations Group.

#### **Director, Quality Control Laboratories**

Candidates should possess a Ph.D. in Microbiology, Biochemistry or a related field. Supervisory experience within the biotechnology/ pharmaceutical industry is required. Appropriate candidate should be familiar with a wide variety of analytical techniques and be knowledgeable regarding principles of analytical validation and Good Manufacturing Practices. Excellent verbal and written communication skills are required. Position #550-K

#### **Director, Manufacturing Operations**

Candidates should possess a Ph.D. or Masters degree in the biological or engineering sciences with at least 5 years experience in development/ production in the biotechnology/pharmaceutical industry. Individual must be knowledgeable in FDA/GMP regulations. Proven leadership, organizational and communication skills are a necessity. Position #510-B

We are located in Beltsville, Maryland 20 minutes north of Washington DC and offer competitive salaries and benefits.

Interested individuals should send a curriculum vitae indicating position number to:

Human Resources Manager

North American Vaccine, Inc. c/o AMVAX, Inc. 12103 Indian Creek Court Beltsville, MD 20705-4223

> Fax: (301) 470-6198 EOE/AA

#### CHIEF LABORATORY FOR EXTRATERRESTRIAL PHYSICS

THE NASA/Goddard Space Flight Center invites applications and nominations for this Senior Executive Service position, located in Greenbelt, Maryland.

The Chief of the Laboratory for Extraterrestrial Physics is responsible for developing and conducting a state-of-the-art program of experimental and theoretical research in specific areas of space science. These areas include highly advanced studies of the physical properties, composition, structure, and dynamics of solar, interplanetary, and interstellar media, planetary atmospheres, comets, astrophysical sources and magnetohydrodynamics of space plasmas, radio and infrared emissions received from solar, planetary, interplanetary, and interstellar sources, and laboratory investigations. The incumbent participates in the overall development and implementation of Centerwide space science objectives.

The Chief performs individual research and may act as a principal investigator, coinvestigator, or a scientist on NASA missions. Participation on Agencywide panels and committees is also required of the incumbent.

Desirable qualifications include a Ph.D. degree with extensive post-graduate research experience; and experience in the scientific and administrative management of research programs which has established the candidate as an authority in space physics, planetary physics, and/or solar terrestrial physics.

Compensation is ES-1 through ES-6 (currently \$92,900 to \$115,700, plus 4.23% locality rate). Submit SF-171's (Application for Federal Employment) to:

Nelson Rodriguez Personnel Management Branch, Code 111 Office of Human Resources NASA/Goddard Space Flight Center Greenbelt, MD 20771

Inquiries should be directed to Mr. Rodriguez at (301) 286-9220 Complete application must be postmarked by September 28, 1994 NASA is an Equal Opportunity Employer U.S. Citizenship Required

harmaco LSR Inc., is a global product developmentand testing organization dedicated to world class qual-ity services and client satisfaction. We are currently seeking the following professionals to work in our Toxicology Services, North America Division, located in Central New Jersey.

#### LABORATORY ANIMAL VETERINARIAN

Senior Scientist

Requirements include a DVM degree and ACLAM Board Certification. Candidates who have completed 4 years of residency in laboratory medicine and intend to take the ACLAM examination will be considered.

Responsibilities include oversight of our Laboratory Animal Care Program, participation in training programs for our animal care staff and provision of veterinary medical care of all animals in the toxicology laboratory, insuring a high degree of excellence in animal care and maintenance. The individual will become a member of project teams and will serve as a resource for our scientists, study directors and technical staff.

## VETERINARY PATHOLOGIST

#### Senior Scientist

Requirements include a DVM degree, ACVP Board Certification and 5 years industrial experience in either the pharmaceutical or chemical industries. Must have excellent communication skills, verbal and written. PhD degree and experience in experimental pathology are very desirable.

Responsibilities are to conduct histopathologic evaluation of toxicology studies, to interpret the data, correlating histopathology with inlife observations, clinical pathology and macroscopic observations and to prepare final reports. The individual will serve as a member of the study team (study director, pathologist and other scientists) from initiation of in-life phase to completion of the final report.

We offer a competitive salary and a superior benefits package which includes medical, dental, vision, wellness, prescription plans; and a 401K Plan. Interested applicants should forward there resume indicating position of interest to: **Pharmaco LSR Inc., Human Resources Dept, PO Box 2360, Mettlers Road, East Millstone, NJ 08875-2360.** We are an equal opportunity employer M/F/D/V.

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# PROTEIN ANALYTICAL INVESTIGATOR

Protein Biochemistry

SmithKline Beecham Pharmaceuticals, a world leader in pharmaceutical research, has a challenging opportunity for a Protein Analytical Investigator in our Protein Biochemistry Department. The department deals with purification of recombinant proteins as well as micropurification of novel protein agents and targets from cells and/or tissues.

The selected individual will provide key laboratory data in protein analysis, including peptide sequencing, protein and peptide fragmentation, amino acid composition and mass spectrometry. Other responsibilities include serving as a key investigator on discovery teams, supervising, training and evaluating subordinates and providing a consulting service in regards to protein chemistry, characterization/ analysis and enzymology etc. for personnel in other departments.

Qualifications include a Ph.D. in Protein Biochemistry, Biochemistry, Enzymology or related discipline with 2-6 years of postdoctoral/industrial experience in relevant protein analytical methods. A demonstrated ability to manage others is required. Ability to communicate protein analytical biochemistry capabilities and results to colleagues and discovery teams is essential.

Located in our state-of-the-art facility in suburban Philadelphia, SmithKline Beecham offers a competitive compensation/benefits/ relocation package and a stimulating environment in which to grow and excel. For confidential consideration, send your resume to: SmithKline Beecham Pharmaceuticals, Employment Administrator, Dept. #H0217, P.O. Box 401, Conshohocken, PA 19428. We are an Equal Opportunity Employer, M/F/D/V.



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# SR. RESEARCH SCIENTIST

Responsibilities include research and development of new products for nucleic acid and protein separations, and will involve applications development, product support, and project leadership. This position requires a minimum M.S. degree with Ph.D degree preferred in biology, biochemistry, or molecular biology with a minimum of five (5) years of hands-on lab experience in common molecular biology techniques. (e.g. DNA/RNA sequencing, gene cloning, Southern blotting, DNA sequencing, PCR amplification, and genetic mapping).

Please send resume and cover letter to:

### FMC Corporation Human Resources Department Reference J-26 Box 308; Rockland, Maine 04841 Responses will be accepted until; September 21, 1994. No telephone inquiries please. EEO/MF; FMC does not discriminate on the basis of disability

#### KUWAIT UNIVERSITY HEALTH SCIENCES CENTER Faculty of Medicine

Applications are invited for the position of CHIEF TECHNICIAN in the following departments:

#### ANATOMY:

Applicants should be experienced in conventional light and electron microscopy techniques, enzyme histochemistry and immunocytochemistry. Candidates should be willing to train junior technical staff and conduct daily routine maintenance and check up modern equipment in microscopic anatomy laboratories.

#### **BIOCHEMISTRY:**

Preferably with a background in molecular biology.

#### **COMMUNITY MEDICINE AND BEHAVIORAL SCIENCE:**

Applicants should have MSc in computer science, epidemiology, public health, biostatistics or related field; minimum of six years experience working with on-line Mainframe computers such as VAX, IBM; extensive experience with the use of statistical packages such as SPSS and BMDP; experience with using IBM PC's and Apple Macintoshes; and knowledge of scientific computer languages.

He/she will be responsible for maintenance and upkeep of computer and other equipment needed for the Epidemiology, Psychology and Biostatistics laboratories in the department. He/she is also expected to procure and install the various software required for teaching and research, and to provide assistance in running all such programs.

#### **MICROBIOLOGY:**

Virology Immunology

He/she will be supervising the diagnostic service, assisting in preparation of class for teaching and participating in research.

#### PATHOLOGY:

Advances Tissue Pathologist Clinical Chemistry Scientific Officer

#### **PHARMACOLOGY:**

#### **Toxicology:**

Applicant should have extensive experience in gas chromatography, mass spectromety and high pressure liquid chromatography. He/she should also have experience of budgeting and ordering, and should have had a supeervising role in managing technicians in an analytical/screening laboratory.

#### **OBSTETRICS AND GYNECOLOGY:**

#### **RADIOLOGY:**

With experience in cell culture techniques and procedures with laboratory animals. Some computing experience would also be desirable.

Candidate should have experience as a Clinical Laboratory Technician and hold the F.I.M.L.S., or equivalent qualifications, with fifteen years experience including training. The applicant's duties will be of a multidisciplinary nature and will be both in the laboratory and in the field.

Salary will be in the range of KD 312-528 per month (KD-2.1 stg. pd., \$3.4 US dollar approximately). No income tax in Kuwait and currency is transferable without restrictions. Furnished air-conditioned accommodation. Electricity and water free of charge. Sixty days of paid annual leave for each completed year of employment. Annual round trip economy class air tickets to the country of citizenship or permanent residence for self and family up to three dependent children.

**METHOD OF APPLICATION:** Curriculum vitae in duplicate which should include the names of three referees; personal particulars; copy of the relevant pages of passport; qualifications should be sent to arrive by 15th OCTOBER, 1994 to:

The Vice-Dean of Administration (Recruitment Office) Faculty of Medicine University of Kuwait P.O. Box 24923 Safat, 13110, Safat KUWAIT

or

FAX: 5318454

**RESEARCH ASSOCIATE**. Postdoctoral position in theoretical structural biology available early October 1994. Requires experience in molecular modeling, programming. Areas of interest: molecular recognition, pHdependent effects, electrostatics, enzyme action. Center for Advanced Research in Biotechnology is an academic/ government research and training center with theory, crystallography, NMR, and protein engineering groups. Send curriculum vitae and references to: **Dr. Michael K.** ogy, 9600 Gudelsky Drive, Rockville, MD 20850-3479. Gilson, Center for Advanced Research in Biotechnol-

LABORATORY COORDINATOR-AMHERST **COLLEGE.** The Chemistry Department at Amherst College seeks to fill the position of **LABORATORY** COORDINATOR beginning in mid-November 1994 Preference will be given to candidates with an advanced degree in chemistry; applicants with a bachelors degree will also be considered. Responsibilities include designing and implementing new instructional labs, including those involving computer interfaces, maintaining the instructional laboratories, assisting faculty in the maintenance of research laboratories, managing the stockroom, oversee-ing waste disposal, and acting as the Department Safety Coordinator. The position carries a competitive salary and an attractive package of fringe benefits. Applicants should submit a detailed curriculum vitae, and should arrange for the forwarding of three letters of reference, all to: Dr. J. N. Kushick, Chairman, Department of Chemistry, Box 2243, Amherst College, Amherst, MA 01002-5000, by September 19, 1994. Amherst College is an Affirmative Action/Equal Opportunity Employer and encourages wom-en, minorities, and disabled persons to apply.

#### MOLECULAR VIROLOGIST

The Department of Ophthalmology, Baylor College of Medicine, seeks a molecular virologist to develop an independent research program. Rank is open. Research on herpes simplex virus is preferred. Potential areas of study include viral pathogenesis, gene expression, vectors for therapeutic gene delivery, and host inflammatory responses to viral disease. Joint faculty appointment is available in the Division of Molecular Virology with participa-tion in the graduate program in virology. Applicants for this tenure-track position should have a Ph.D., at least two years of postdoctoral experience, and demonstrated research productivity. Send curriculum vitae, names and addresses of at least three references, and a statement of research interests to: Search Committee for Molecular Virologist, Department of Ophthalmology, Cullen Eye Institute, Baylor College of Medicine, One Baylor Plaza (NC 200), Houston, TX 77030. Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer

GEO-CENTERS, INC. a high technology growth-ori-ented research and development firm specializing in scientific and engineering services for the DOD, has the

following opening at their Northwestern NJ location. BIOCHEMICAL ENGINEER—Qualified candidates will possess a Ph.D. in Engineering with emphasis or expertise in environmental science or biotechnology. The preferred candidate will have a minimum of two years of postdoctoral experience with biodegradation methodology and process optimization. Additionally, he/she will have demonstrated experience and a thorough knowledge of process scale-up. Experience in the bioremediation of contaminated soil is desirable; specific contaminants of interest include nitrate esters, nitramines, and aromatic

nitro compounds. GEO-CENTERS, INC. offers a competitive salary and comprehensive benefits package. To be considered for this position, please send a résumé including salary history to: GEO-CENTERS, INC., attn.: HR Code PE, 762 Route 15 South, Lake Hopatcong, NJ 77240. CEO-CENTERS in Eard Operativity/Affic 07849. GEO-CENTERS is an Equal Opportunity/Affirmative Action Employer.

#### PHARMACOKINETICS/DRUG METABOLISM

Ph.D. with 2+ years of experience to design and conduct preclinical studies and develop analytical methods for metabolism studies in an industrial environment. Candidate must have a broad understanding of pharmacokinetic principles, study design, data interpretation, statistical software packages, animal models, physicochemical properties of drugs, HPLC, GC, TLC, and radiometric techniques. Excellent oral and written communication skills essential. Forward detailed résumé to: P.O. Box 176, Pleasantville, NY 10570.

1494

#### **POSITIONS OPEN**

#### UNIVERSITY OF PENNSYLVANIA Department of Chemistry

As part of a continuing development program, the Department of Chemistry at the University of Pennsylvania expects to make an appointment in Biological ( The appointment will be at the ASSISTANT PROFES-SOR (tenure probationary) level with the area of research interest in Theoretical and Computational Structural Biology. Applicants should send their curriculum vitae, list of publications, and a description of proposed research to: Amos B. Smith, III, Chairman, Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19104-6323, by October 15, 1994. Applicants should also arrange three letters of reference to be sent to the same address. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

ENVIRONMENTAL RISK ASSESSMENT: Areas of interest include exposure analysis, fate transport modeling, and quantitative health risk modeling. Development of a research program and participation in teaching is expected. Several positions are available. Send curriculum vitae and three letters of reference to: Department of Biometry and Epidemiology, Medical University of South Carolina, 171 Ashley Ave-nue, Charleston, SC 29425-2503. The Medical University of South Carolina is an Equal Opportunity/Affirmative Action Employer.

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