

TopCount Combines the Power of Radioisotopic and Luminescence Technology into One Microplate System

TopCount Microplate Scintillation and Luminescence Counter

Beta, gamma or luminescence labeling? Why have three instruments when TopCount can count all three labels? It's the only system that measures liquid scintillation, solid scintillation and luminescent samples in microplates.

The Convenience of Microplates with the Performance of Scintillation Counting

TopCount can measure radioisotopes in 96- and 24-well microplates, up to 12 wells simultaneously. Reflective optics and proprietary counting technology prevents optical crosstalk and maintains high counting efficiency. TopCount is the first microplate system to offer true LSC performance, including dual label DPM with external standardization.

Step into the Future with Luminescence

The same technology that gives TopCount unsurpassed performance in microplate LSC brings low backgrounds and fast photon counting to luminescence measurements. Now you can count glow and enhanced flash luminescence with a dynamic range of 10^6 . In addition, exclusive features such as dual detectors, a plate stacker and a bar code reader provide you with a combination unmatched by any luminometer or LSC.

A Solution for Every Application

TopCount will revolutionize the way you run your assays. You can harvest 96 samples at once, and count them without ever touching a filter. You can prepare and analyze samples in the same plate for in-plate binding and adherent cell assays. And for liquid samples, there is even a better way — you can count them dry, without cocktail, in solid scintillator plates.

For a solution to your microplate application, just call Packard and ask about TopCount.



PACKARD

A Canberra Company

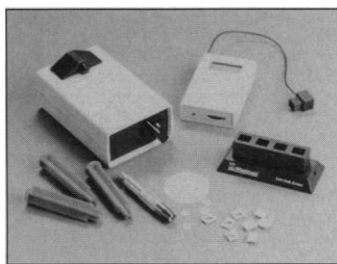
Packard Instrument Company, 800 Research Parkway, Meriden, CT 06450 U.S.A.
Tel: 203-238-2351 Toll Free: 1-800-323-1891 TX: 643251 FAX: 203-235-1347



Packard International Offices:

Australia, Mt Waverley 61-3-543-4266; Austria, Vienna 43-1-302504-0; Belgium, Brussels 32-2-4668210; Canada, Ontario 1-800-387-9559; Denmark, Greve 45-42909023; France, Rungis (33) 1 46.86.27.75; Germany, Frankfurt (49-69) 663010; Italy, Milano 39-2-33910796/7/8; Japan, Tokyo 81-3-3866-5850; Netherlands, Groningen 31-50-413360; Tilburg (013) 423900; Russia, Moscow, 7-095-238-7335; Sweden, Uppsala 46-18 556900; Switzerland, Zurich (01) 481 69 44; United Kingdom, Pangbourne, Berks (44) 0734 844981.

Circle No. 18 on Readers' Service Card



DNA Hybridization

The DNA Kwik Screen is a new research tool that can replace the usual dot blot apparatus for rapid nucleic acid immobilization, hybridization, detection, and quantitation. The system's cartridge accommodates four membrane blocks, holds up to 10 ml in its reservoir, and can be autoclaved before disposal. The target nucleic acid is immobilized on the membrane block by baking or by ultraviolet cross-linking. The blocking and wash steps are performed inside the cartridge. Horseradish peroxidase or alkaline phosphatase labels are used with appropriate substrates to produce a specific color on the membrane, indicating the presence of the hybridized probe. A hand-held reflectance reader inserts directly into the cartridge well for an instant color reading, and is sensitive enough to pick up picogram levels of the target DNA. **Stratecon Diagnostics International. Circle 140.**

Molecular Biology Software

Pangeanetics is a suite of five software products that can be used separately or in tandem to organize the operation and data output of laboratories that use nucleic acid synthesizers, DNA sequencers, peptide and protein synthesizers and sequencers, and amino acid analyzers. Use of two or more of the databases together lets genetic engineers get instant analysis and feedback between biomolecular services, such as choosing oligonucleotides from a DNA sequence or performing amino acid analysis on a synthesized protein. Researchers with

only one machine can rely on the relevant database to set up their experiments, maintain accurate progress reports, and keep records of their output. Versions are or will soon be available for the Macintosh, Unix, Windows, and Windows NT. **Pangea Systems. Circle 141.**

Portable Spectroradiometer

The GER 2100 is a field-portable spectroradiometer. Among its many features are a head weight of only 7 pounds; full range of ultraviolet, visible, and near infrared (400 to 2500 nm), 50-ms scanning time, and superior signal-to-noise ratio. The instrument incorporates a sub-notebook IBM-compatible computer, loaded with software for spectrometer control and real-time display. Simple menu-driven commands allow the user to quickly become familiar with the instrument. **Geophysical & Environmental Research. Circle 142.**

Lambda Packaging Kit

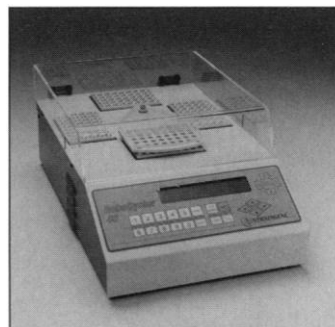
The Ready-To-Go Lambda Packaging Kit is an ambient stable kit for the in vitro packaging of DNA from bacteriophage lambda. It provides seven single-dose lambda packaging extracts supplied in a convenient, dry format that can be stored at room temperature. The user simply adds the solution containing intact lambda DNA resulting from previous cDNA or genomic cloning experiments to begin the packaging reaction. Each reaction provides a packaging efficiency of $\geq 1 \times 10^8$ plaque-forming units per microgram of control lambda DNA which is also provided in the kit. **Pharmacia Biotech. Circle 143.**

Cloning Vectors

The range of cDNA rapid cloning modules now includes two state-of-the-art phage vectors, lambda-MOSSlox and -MOSElox. These lambda phage vector modules are designed for cDNA library construction of high efficiency and low nonrecombinant background. Both vectors accept inserts of up to 8 kb in length and feature an advanced automatic subcloning system for the conversion of phage recombinants to plasmids in vivo. **Amersham International. Circle 144.**

Temperature Cycler

The RoboCycler Gradient 40 features a robotic arm to transfer up to 40 tubes from one temperature block to another. The four-block design decreases cycling time by up to 30% and achieves a well-to-well temperature uniformity of



$\pm 0.1^\circ\text{C}$ across the three standard blocks and of $\pm 0.25^\circ\text{C}$ for the special brass gradient block. The gradient block allows simultaneous evaluation of up to eight different annealing temperatures for cycling reactions by generation of a linear temperature gradient of up to 14°C (between 35° and 80°C) across its eight rows of sample wells. The gradient block can be used in a uniform single-temperature mode once the optimal temperature has been determined. Each of the four tempera-

ture blocks contains 40 wells that accommodate 0.5-ml flip-top or thin-wall tubes. **Stratagene GmbH. Circle 145.**

Silver Staining Kit

The SilverXpress Silver Staining Kit features ammoniacal silver chemistry and a seven-step staining procedure to provide a highly sensitive silver stain with little or no background in just over 1 hour. With minimal effort nanogram levels of protein and nucleic acid can be detected. The kit includes a color-coded quick reference guide to ensure that procedural steps are not missed or repeated. **R & D Systems Europe. Circle 146.**

Literature

Laboratory Ovens and Furnaces is a 28-page catalog on these instruments. **Blue M. Circle 147.**

AutoCat—Analytical Supplies Catalog is a chromatography parts and supplies catalog available on diskette, with a variety of features not possible in conventional paper catalogs. It operates on any computer running Windows 3.1 with 4 megabytes of main memory, 5 megabytes of available hard disk space, and a 3.5-inch drive. **Varian Associates. Circle 148.**

The Model 1022 Personal Integrator is a color brochure on a powerful and easy-to-use chromatography data handling system that interfaces with liquid and gas chromatographs from any manufacturer. **Perkin-Elmer. Circle 149.**

Sequence Analysis Products is a brochure on an equipment line including instruments for DNA film scanning and image analysis; software for DNA and protein sequence analysis on Macintosh, IBM, Sun, and VAX computers; on-line services; specialized databases; technical support services; and programs for database searching. **IntelliGenetics. 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

DEPARTMENT OF MICROBIOLOGY COLORADO STATE UNIVERSITY

Faculty Position,
 Molecular Biology of Bacterial Pathogenesis

The Department of Microbiology at Colorado State University invites applications for a tenure-track **ASSISTANT** or **ASSOCIATE PROFESSOR** position to address the molecular biology of bacterial pathogenesis. Preference will be given to candidates employing molecular biology and biochemical approaches to investigation of fundamental processes in the interaction of bacterial pathogen and host. Candidates should possess the Ph.D., D.V.M./Ph.D., M.D./Ph.D. or equivalent degree, and relevant postdoctoral research experience. The successful applicant will be expected to sustain an innovative extramurally funded research program that complements the existing interdepartmental University Program of Research and Scholarly Excellence in Infectious Diseases and Immunology. Direction of graduate students and teaching at the undergraduate and graduate levels are crucial responsibilities of this position. Applicants should send curriculum vitae, a statement of research interests and goals, and a list of at least three references by May 31, 1994, to: **Dr. Patrick J. Brennan, Search Committee Chair, Department of Microbiology, Colorado State University, Fort Collins, CO 80523; Telephone: 303-491-6700.** Salary negotiable.

Colorado State University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR, MEDICAL MICROBIOLOGY AND IMMUNOLOGY. Full-time, tenure-track. The Department of Basic Sciences, California College of Podiatric Medicine, seeks Ph.D. to coordinate and teach courses in medical microbiology and immunology. Applicants must have at least one year of experience at the medical school or equivalent level and a strong commitment to teaching. Complete curriculum vitae and three references should be sent by June 1, 1994, to: **Sandra Piccini, Director of Human Resources, California College of Podiatric Medicine, 1210 Scott Street, San Francisco, CA 94115.** An Affirmative Action/Equal Opportunity Employer.

The Department of Cell Biology and Anatomy invites applications for a tenure-track faculty position to direct the Confocal Microscopy and Computer Image Analysis Center. Applicants must have a Ph.D. degree or equivalent, postdoctoral experience utilizing light, electron, and confocal microscopy combined with computer image analysis, and experience managing a shared, multi-user confocal and image analysis facility. Applicants must have experience programming and networking IBM/DOS, Macintosh, and Unix/Silicon Graphics platforms and peripherals. Teaching experience must include undergraduate and/or graduate anatomy curriculum. The successful applicant will be expected to maintain imaging hardware, establish connections to local and university-wide ethernet, train users to operate equipment and analyze data, participate in the departmental teaching program, and form funded research collaborations to support part of salary. Appointments will be made at the **ASSISTANT PROFESSOR** level and will begin on or after July 1, 1994. Curriculum vitae and three letters of reference should be addressed to: **Dr. Larry L. Litke, Director, Molecular Morphology and Imaging Facility, Department of Cell Biology and Anatomy, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425-2204** and received by May 1, 1994.

An Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.

ASSISTANT PROFESSOR OF BIOLOGY—temporary, full-time, one-year undergraduate teaching position beginning August 24, 1994. Ph.D. required. Teaching responsibilities include Animal Kingdom introductory biology laboratories, and Problems in Biology (research-oriented courses in areas of expertise), specializing in research design and computer analysis. A letter of application, curriculum vitae, transcripts, and three letters of recommendation must be sent to: **Dr. Sigurd O. Nelson, Jr., Chair of the Search Committee, Department of Biology, State University of New York at Oswego, Oswego, NY 13126.** Review of applications will begin May 23, 1994; they will be accepted, however, until the position is filled. *SUNY Oswego is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

TENURE-TRACK FACULTY POSITION IN THE DEPARTMENT OF HUMAN ONCOLOGY, UNIVERSITY OF WISCONSIN-MADISON

Applications are invited for a tenure-track faculty position. Especially interested in applicants at the **ASSISTANT/ASSOCIATE PROFESSOR** level. Candidates with interest and research experience in mechanism of action of polyamines and the development of polyamine analogs as potential chemotherapeutic agents are encouraged to apply. The successful candidate will have a strong commitment to excellence in research and teaching in human cancer biology. Please submit curriculum vitae, a short statement of research interests and the names and addresses of three references to: **Dr. R. Timothy Mulcahy, Chairman, Polyamine Search Committee, 600 Highland Avenue, Room K4/334, Madison, WI 53792.**

The University of Wisconsin is an Equal Opportunity Employer.

NEUROBIOLOGIST. The Department of Cell Biology, Neurobiology and Anatomy, University of Cincinnati, invites applications for a tenure-track faculty position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. We seek an outstanding scientist with expertise in developmental neurobiology or neuroendocrinology, using cellular or molecular approaches. Applicants must have a Ph.D., postdoctoral experience and a strong publication record. The successful candidate will be expected to establish a vigorous, independent research program with extramural funding and participate in the teaching of graduate and medical students. The position offers a competitive salary and laboratory start-up package. Applicants should send curriculum vitae, a concise statement of future research plans and names of three references to: **Dr. Nira Ben-Jonathan, Chair, Search Committee, Department of Cell Biology, Neurobiology and Anatomy, University of Cincinnati College of Medicine, P.O. Box 670521, Cincinnati, OH 45267-0521.** *University of Cincinnati is an Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION IMMUNOLOGIST/VIROLOGIST

Johns Hopkins University School of Public Health has an **ASSISTANT** or **ASSOCIATE PROFESSOR** opening for an experienced Ph.D. or M.D. immunologist/virologist. We especially invite applications from individuals with interests and experience in immunological responses to and correlates of protection conferred by vaccines. Candidates must have demonstrated excellence in independent research. The successful candidate would join a faculty active in research on the development of vaccines to protect against respiratory and diarrheal viruses and other mucosal pathogens. This position involves the conduct of independent and collaborative research, and teaching and training of graduate students in the Departments of International Health (Division of Vaccine Sciences) and Immunology and Infectious Diseases. To apply, send a letter of application with a description of current and future research plans, curriculum vitae and names and addresses of three referees to: **Dr. Mary Lou Clements, Johns Hopkins University Center for Immunization Research, Hampton House 225, 624 North Broadway, Baltimore, MD 21205; FAX: 410-550-6898.** *JHU is an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR MODELING AND DESIGN

The Biomolecular Structure Center, Departments of Biological Structure and Biochemistry, University of Washington, Seattle, invites applicants at the **RESEARCH ASSISTANT PROFESSOR** level in molecular modeling and design. The successful candidate is expected to have experience in structure-based design of medically relevant molecules, as well as experience with the application and development of software and databases for molecular modeling and design. A Ph.D. in chemistry, pharmaceutical sciences, biochemistry, or biophysics is required. Interested applicants should submit a letter of application, curriculum vitae, statement of career goals and the names of three or more referees to: **Dr. Wim G. J. Hol, Department of Biological Structure SM-20, University of Washington, Seattle, WA 98195.** Applications will be accepted until June 30, 1994. *The University of Washington is an Equal Opportunity and Affirmative Action Employer.*

McLaughlin
Research



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Great Falls, Montana
59405
Institute
for
Biomedical Sciences

Mammalian Geneticist

Unique opportunity to participate in the expansion of McLaughlin Research Institute, a small mammalian genetics center in Great Falls, Montana. The Institute offers a non-bureaucratic, interactive research environment and participation in the Institute's future development. We have recently moved into a new research building with a large mouse facility. Applicants should have an NIH-supported research program, or be highly likely to obtain independent support. Developmental biologists, molecular geneticists, and neurogeneticists whose research emphasizes mouse models are particularly encouraged to apply.

Applications, including names of individuals we may contact for references, should be addressed to:

George A. Carlson, Ph.D.
Director, McLaughlin Research Institute
1520 23rd Street South
Great Falls, MT 59405

For additional information contact George Carlson, Bill Crain or Doug Coffin at MRI, or any of the following members of our Scientific Advisory Committee: Irv Weissman, David Baltimore, David Cameron, Bruce Chesebro, Neal Copeland, Jeff Frelinger, Leroy Hood, or Nancy Jenkins.

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Cell Mediated Immunity

A position is available immediately to study cell-mediated immunity in Hepatitis C virus infection using mouse and chimpanzee models. Experience in CTL analysis, precursor frequency analysis and epitope mapping is required.

Level of appointment and salary will depend on experience.

To apply, please send CV, letters of reference, and statement of career goals to: Alfred M. Prince, M.D., Head, Laboratory of Virology and Parasitology, The Lindsley F. Kimball Institute of the New York Blood Center, 310 East 67th Street, NY, NY 10021. Telephone 212-570-3279; Fax: 212-570-3180. EOE M/F/D/V.

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RESEARCH ASSOCIATE NEUROBIOLOGY

The Neurobiology Department seeks a Research Associate with a BS/MS in Biology or a related field to carry out neurotrophic factor bioassays and data analyses. This position requires 5-10 years' experience in primary cultures of brain cells and knowledge of oligodendrocytes.

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MOLECULAR BIOLOGY & IMMUNOLOGY

The Department of Medical Microbiology and Immunology and the H. Lee Moffitt Cancer Center & Research Institute at the University of South Florida College of Medicine are seeking applications for an Assistant and Associate Professor level individuals to participate in the Immunology Program under a stimulating academic environment that includes excellent laboratory and clinical facilities.

The individuals sought should hold a Ph.D. with extensive postdoctoral training. Candidates must have demonstrated productivity and experience in modern molecular research related to tumor immunology. The successful candidates will be expected to establish a vigorous independent research program in molecular immunology and successfully compete for extramural funding. The position for Associate Professor will be required to have established funding. These positions will be tenure earning.

Send current curriculum vitae and a brief statement of major academic interests to Julie Y. Djeu, Ph.D., Immunology Program, Office of Faculty Recruitment, Moffitt Cancer Center, 12902 Magnolia Drive, Tampa, Florida 33612. Applicants who need a reasonable accommodation in order to participate in the selection process must notify Brenda Crebs in the Office of Faculty Recruitment, (813) 975-7885, forty-eight hours in advance. Applications must be postmarked by deadline of May 5, 1994.

The H. Lee Moffitt Cancer Center & Research Institute, adjacent to the Health Sciences Center on the University of South Florida campus in Tampa, includes a 162-bed inpatient and ambulatory cancer facility for children and adults, a 20-bed bone marrow transplantation program, a recently established high volume screening program including a fixed site and a mobile unit and a new research facility.



**H. LEE MOFFITT CANCER CENTER
& RESEARCH INSTITUTE**

University of South Florida College of Medicine

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RochePreclinical Drug Metabolism
and Pharmacokinetics

POSTDOCTORAL POSITION

A post-doctoral position is available immediately to join a multi-disciplinary team developing an expert system for preclinical drug metabolism and pharmacokinetics sciences. The overall goal of this team is to optimize the utility of data aiding rational drug development. The anticipated system will integrate information from a variety of sources, assist users in pharmacokinetic data analysis with physiologic and/or mechanistic interpretation, predict outcome of future experiments, use data from other study types (absorption, enzymology), suggest future experiments and assist laboratory personnel in study design and data collection with real-time feedback systems.

The successful candidate must possess a Ph.D. in either Pharmacy, Biomedical Engineering, or related field. Knowledge of Pharmacokinetics, Drug Metabolism and/or Mathematical Modeling of Biological Systems is highly desirable.

Our state-of-the-art facilities are located in a suburban setting 10 miles west of New York City. Salaries and benefits are competitive. To apply, send resume with salary history/requirements to: **Dr. Emile Chen, Hoffmann-La Roche Inc., Nutley, New Jersey 07110-1199.** We are an equal opportunity employer.

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SCIENTISTS

Instrumentation Laboratory, a worldwide leader in the research and development of reagent biomedical instrumentation test systems, is currently seeking individuals for its Lexington, Massachusetts facility. Responsibilities include research and development of in vitro diagnostics controls, reagents and kits to be used on automated instrumentation systems. Incumbent will participate in projects from the concept stage through development and to final market release. Qualified candidate will have a minimum of a B.S. degree in a biological science plus a minimum of three years related experience in product development, preferably in an industrial environment. High-level of independence and ability to meet rigorous deadlines is required.

IL offers an excellent salary and benefits package including 401(k) and tuition reimbursement. Interested candidates should submit resume and salary history to: **Christopher Hatt, Human Resources, Instrumentation Laboratory, 113 Hartwell Avenue, Lexington, MA 02173-3190.** Principals only. No telephone calls, please.

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POSTDOCTORAL FELLOW

A leader in development of therapeutic monoclonal antibodies for inflammation, infection, cancer and cardiovascular diseases, Centocor also has major commitments to diagnostic programs in these areas. In support of these programs, the Pharmaceutical Research Division of Centocor currently has an opening available for a postdoctoral fellow within the Peptide R&D Department.

You will collaborate with a multidisciplinary research group to conduct research leading to the discovery and development of diagnostic tools for the early detection of cancer. Applicants should have a Ph.D. in Biochemistry or an allied area. Expertise in protein purification, peptide synthesis and immunoassays is desirable.

Centocor offers a competitive compensation and benefits package, a comfortable work environment and the opportunity for the outstanding individual to make significant contributions on major company projects. If you feel you can meet this challenge, please send your resume to: **CENTOCOR, Human Resources/PT-94-02A, 200 Great Valley Parkway, Malvern, PA 19355.** Fax: (610) 651-6330. EOE.

**Centocor**Specializing in
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NeuroScience Network Canada

SCIENTIFIC AFFAIRS OFFICER - new position

The Network

125 neuroscientists from 15 Canadian universities constitute the NeuroScience Network, a Centre of Excellence funded by the Federal Government of Canada.

The Position

Working with the Chair of the Scientific Advisory Committee, the foremost responsibility is to ensure Committee effectiveness in recommending research program priorities, funding levels and in evaluating and preparing progress reports for the Scientific Director to submit to Government Program Officials. Another important responsibility is to follow-up and pursue implementation, working closely with the coordinators for each of the 6 research themes. Works also with the Network Executive Director in developing and implementing business building strategies.

Required Qualifications

A solid understanding of biomedical research from several years at senior management levels and an academic science background at the M.D. or Ph.D. level are mandatory. Experience in the development and commercialization of academic research would be attractive, as would knowledge of the Canadian biomedical research scene. All other factors being equal, applicants who are Canadian would be a consideration.

Compensation

Commensurate with importance of the position and candidate qualifications

Location

preferably Montreal

Interested applicants should direct their application with a detailed c.v. to:

Warren C. Bull / Executive Director / NeuroScience Network / 1650 Cedar Ave. / Room L7-132 / Montreal, Quebec / H3G 1A4.

POSTDOCTORAL CANDIDATES

The Los Alamos National Laboratory Neutron Scattering Center (LANSCE) is seeking candidates for postdoctoral appointments in Surfactant & Polymer Science. Responsibilities include assisting in experimental programs in polymer composites and/or self-assembling molecules using neutron, x-ray and light scattering methods. A PhD completed within the last 3 years or soon to be completed, in the Physical, Biological or Chemical Sciences required. Annual starting salaries range from \$39,660 to \$42,860, plus a generous and comprehensive benefit package. Appointments are for 2 years with a possible third year renewal. For additional technical information, contact Dr. Rex P. Hjelm at (505) 665-2372, or hjelm@lanl.gov or Dr. Greg Smith at (505) 665-2842, or gsmith@lanl.gov. For consideration: submit **TWO COPIES** of a curriculum vitae and publication list to Postdoctoral Programs **PD-94-148**, MS P290, Los Alamos, NM 87545. Affirmative Action/Equal Opportunity Employer. Individuals with disabilities needing reasonable accommodation should call (505) 667-8622. A Teletype Device for the Deaf (TDD) is available by calling (505) 665-5357. Los Alamos National Laboratory is operated by the University of California for the US Department of Energy.

Los Alamos
NATIONAL LABORATORY

St. Jude Children's Research Hospital

Danny Thomas, *Founder*

Department of Biochemistry

Postdoctoral Fellowships

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

- John Cleveland:** *Myc* oncogene control of cell cycle progression, apoptosis and transcription.
- James N. Ihle:** Mechanisms of hematopoietic stem cell growth regulation, differentiation and transformation.
- Paul Ney:** Transcriptional regulation of globin gene expression and erythroid differentiation.
- Suzanne Jackowski:** Cell cycle regulation of membrane phospholipid biosynthesis.
- Charles Rock:** Role of phospholipid-derived second messengers in growth factor signal transduction.
- Robert Rooney:** Mechanisms of transcription factor regulation by the E1A oncogene.
- Brian Sorrentino:** Retrovirally mediated transfer of drug resistance genes to hematopoietic stem cells.
- Gerard Zambetti:** Function of wild-type and mutant p53 in tumor suppression and oncogenesis.



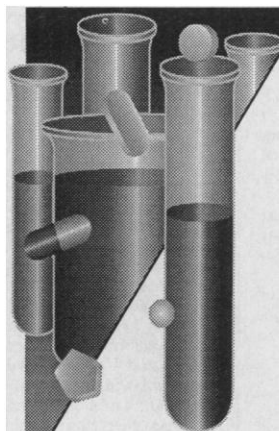
Applicants should submit a brief statement of research interests, curriculum vitae and the names of three references to:

Biochemistry Departmental Fellowships
The Department of Biochemistry
St. Jude Children's Research Hospital
332 North Lauderdale • Memphis, TN 38101

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A DYNAMIC MISSION

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



In Research Triangle Park, NC, the inspirational Sir Paul Girolami Research Center houses the new **Glaxo Inc. Research Institute**. Here, professional excellence teams with scientific leadership in a unified mission: to advance the progress of drug discovery and development. The result is an environment of exceptional challenge...and unsurpassed reward.

The following opening is available within our **DEPARTMENT OF CELLULAR BIOCHEMISTRY**. Interests of this group range from theory and practice of receptor-ligand interactions, to signal transduction mechanisms, to the molecular biology of receptors. The successful candidate will join our highly collaborative research team focused on G-protein coupled receptors and their second messenger systems. This individual will assist in developing a research program based on the molecular pharmacology of G-protein coupled receptors and their signalling systems.

SENIOR SCIENTIST

Selected individual will be responsible for developing an independent research program on the molecular biology of receptors, and take part in both exploratory projects as well as those relating to compound development.

Background must include a Ph.D. in Molecular Biology, Pharmacology, Biochemistry, or a similar discipline with a minimum of 2 years postdoctoral experience in the molecular pharmacology of G-protein coupled receptors. Previous experience in isolation and cloning of receptors, in situ hybridization, or site-directed mutagenesis is required.

At Glaxo, pride in our people is reflected in excellent salaries and a flexible benefits package, as well as in such amenities as an on-site fitness center and a work setting in which you will take pride. Research Triangle Park, NC, offers an academically enriched quality of life complete with cultural and recreational advantages. For confidential consideration, send your resume to include salary history, to: **Human Resources Department, Job #ASC912703, 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

POSITIONS OPEN

Geosciences: One (ASSISTANT/ASSOCIATE PROFESSOR) tenure-track position to begin August 1, 1994, in GIS/Spatial Analysis. Review of candidates will begin immediately. Ph.D. in Geography or related field required. Salary commensurate with rank and experience. Application deadline: June 15, 1994.

Responsibilities to include teaching courses in introductory and advanced GIS/spatial analysis, and a graduate course in specialty area. The candidate must have a commitment to research and to securing external funding.

The Department of Geosciences is in the College of Science, and is strongly aligned with the Mid-America Remote Sensing Center (MARC) and the Murray State University Center of Excellence for Reservoir Research. Major equipment/software include two IBM RISC System 6000's, three large format digitizers, large format color electrostatic and pen plotters, numerous PC's, PC ARC/INFO, ARC/INFO, ARC/CAD, GRASS, PC ERDAS, ERDAS, ELAS, MAPINFO, and IDRISI.

Send letter of application, résumé, and three letters of reference. *Murray State University is an Equal Education and Employment Opportunity, M/F/D, Affirmative Action Employer.*

Apply: Neil V. Weber, Chair, Department of Geosciences, P.O. Box 9, Murray, KY 42071-0009. Telephone: (502) 762-2591, FAX: (502) 762-4417.

The University of Wisconsin-Madison. Department of Human Oncology is recruiting two cell-molecular biologists with research interests broadly related to breast cancer. Areas of interests include but are not limited to: molecular genetics, signal transduction, breast cancer biology, breast cancer therapy and prevention, and molecular epidemiology. These are tenure-track or tenured positions at the ASSISTANT, ASSOCIATE or FULL PROFESSOR level. In addition to establishing a research program, this position also requires participating in departmental teaching and graduate student mentoring. Applications should include curriculum vitae, three recent publications and the name and FAX number of three references. Send materials to:

Dr. Michael N. Gould
University of Wisconsin

Department of Human Oncology, K4/332
600 Highland Avenue
Madison, WI 53792

The University of Wisconsin is an Equal Opportunity Employer. Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot guaranteed confidentiality.

The Department of Biochemistry and Biophysics at the University of Pennsylvania is recruiting a RESEARCH ASSISTANT PROFESSOR (non-tenure-track). Candidates must have a doctoral degree and at least 3 years of postdoctoral experience. The appointee will be expected to perform X-ray absorption fine structure experiments on metalloproteins and to develop an independent research program. Experience of research grant application is preferred. Please send résumé, including summary of research, and have three letters of recommendation sent to: Ruth Keris, Staff Assistant, Department of Biochemistry and Biophysics, University of Pennsylvania, Philadelphia, PA 19104-6059. Deadline for applications is May 13, 1994. *The University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

Missouri: The Divisions of Oncology at Washington University School of Medicine seek applicants for tenure-track or tenured faculty positions at the ASSISTANT/ASSOCIATE PROFESSOR levels. These newly formed Medical and Molecular Oncology Divisions of the Department of Medicine plan to emphasize collaborative cancer-related interactions between clinic and laboratory. Candidates should be committed to full-time academic careers in clinical therapeutic research or laboratory research. Special emphases in collaborative research include pharmacology, molecular diagnostics, immunotherapy, and gene therapy. Send curriculum vitae and names of three references to: Stanley J. Korsmeyer, M.D., Chief, Molecular Oncology, Campus Box 8022 or Daniel C. Ihde, M.D., Chief, Medical Oncology, Campus Box 8065, Washington University School of Medicine, 600 South Euclid Avenue, St. Louis, MO 63110.

POSITIONS OPEN

PHARMACEUTICAL BIOTECHNOLOGY

The University of Connecticut is making a major commitment in the field of biotechnology. The School of Pharmacy plans to participate in this expansion and invites applications for an anticipated tenure-track faculty position at the ASSOCIATE or FULL PROFESSOR level beginning as early as fall 1994. The successful candidate will be expected to head a dynamic research program in a contemporary area of pharmaceutical biotechnology such as molecular and cell biology approaches to drug design; protein, nucleic acid, and/or membrane chemistry; macromolecular formulation and drug delivery. Collaborative research with scientists within the School and University will be actively encouraged. The candidate will also be expected to establish interactions with the Pharmaceutical industry within the state for the purpose of developing joint programs. Teaching responsibilities will be at the undergraduate and graduate levels in appropriate areas. Applications should include curriculum vitae, a brief summary of research interests and at least three references. Review of applications will begin on May 15, 1994, and continue until position is filled. All correspondence and letters of reference should be sent to: Alexandros Makriyannis, Chair, Pharmaceutical Biotechnology Search Committee, School of Pharmacy, University of Connecticut, U-92, Storrs, CT 06269-2092. *We encourage applications from underrepresented groups, including minorities, women and people with disabilities. (Search #4A269)*

APPLIED ECOLOGIST. Full-time, non-tenure-track appointment at ASSISTANT PROFESSOR level beginning September 1994 to teach a variety of upper-division courses in Environmental Sciences. Ph.D. required, teaching experience preferred. Send full curriculum vitae, statement of interest, any available teaching evaluations, and copies of recent publications to: Ecology Search Committee, Huxley College of Environmental Studies, MS 9180, Western Washington University, Bellingham, WA 98225. FAX: 206-650-7284. *Western Washington University is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR GENETICS AND MICROBIOLOGY

The Department of Biology, St. Andrews Presbyterian College, invites applications for an Assistant Professor to teach in a visiting position starting fall 1994, with the possibility of the position becoming tenure-track. The successful candidate is expected to teach courses in Biology including genetics and microbiology, contribute to the biochemistry program, supervise undergraduate research projects and participate in the College's general education program. Ph.D. required. Applicants should submit curriculum vitae, transcripts, a brief statement of teaching and research interests, and the names, addresses and telephone numbers of three references to: Dr. James I. Lankford, Chair, Division of Mathematical, Natural and Health Sciences, St. Andrews Presbyterian College, 1700 Dogwood Mile, Laurinburg, NC 28352, by May 15, 1994. *An Affirmative Action/Equal Opportunity Employer. Women and minority candidates and individuals with disabilities are strongly encouraged to apply.*

ENVIRONMENTAL SCIENCE: Chapman University invites applications for a tenure-track position in Environmental Science at the ASSISTANT or ASSOCIATE PROFESSOR level. Duties include directing a new interdisciplinary program in Environmental Science, teaching in the candidate's area of specialization and an introductory environmental science course, and developing a rigorous research program involving undergraduates. Candidates should hold a Ph.D. in environmental science or a related area. Demonstrated excellence in teaching and research is expected; interest in one or more environmental areas (such as organic chemistry, ecology, or waste management) is desirable. Applicants should send curriculum vitae, statement of research and teaching interests, copies of significant publications, and three letters of reference (sent independently by persons familiar with their work) to: Frank Frisch, Chair, Division of Natural Sciences, Chapman University, 333 North Glassell, Orange, CA 92666 by May 6, 1994. *Chapman University is an Affirmative Action and Equal Opportunity Employer; women and minorities are strongly encouraged to apply.*

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR OF PHARMACOLOGY

The Department of Pharmacology, College of Medicine, University of Vermont, invites applications for a tenure-track position in Pharmacology available July 1, 1994. Candidates should have a Ph.D. or M.D. degree and research experience that is related to the molecular biology of the vascular wall. An understanding of the cerebrovascular system and the diseases to which it is susceptible would be desirable but not essential. Research experience may be related to any of the components of the vascular wall. The successful candidate would be expected to pursue a vigorous independent research program that would include the study of human blood vessels. This would be carried out in collaboration with the Totman Laboratory for Human Cerebrovascular Research. Candidates must be committed to excellence in teaching at the graduate and undergraduate levels. Applications should include curriculum vitae, descriptions of past and current research interest, names of three referees to whom the committee may write, relevant publications, and be sent to: Search Committee, Department of Pharmacology, College of Medicine, University of Vermont, Burlington, VT 05405-0068 by May 15, 1994.

The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Women and people from diverse racial, ethnic and cultural backgrounds are encouraged to apply.

Emory University School of Medicine FACULTY POSITIONS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

Under the aegis of a new chair, the Department of Biochemistry seeks to fill two tenure-track faculty positions in an initial phase of faculty expansion. The appointments are preferably at the ASSISTANT PROFESSOR level, although other academic ranks will be considered. The department is housed in the new Rollins Research Center and has excellent research facilities, strong ongoing interdisciplinary research programs, and is part of an outstanding graduate program. Candidates should hold a doctoral degree and have postdoctoral training, and will be expected to mount a vigorous, independent research program. The research area is open. Senior applicants should have a nationally recognized and extramurally funded research program. Salary and start-up funding are very competitive. Applications will be considered until the positions are filled. Please send curriculum vitae, including a description of research interests and proposed research, and the names, addresses and telephone numbers of at least three references to: Dr. Jack Kinkade, Department of Biochemistry, Emory University School of Medicine, Atlanta, GA 30322. Telephone: (404) 727-2735, FAX: (404) 727-3231. *Emory University is an Equal Opportunity Employer and applications from women and other minorities are particularly encouraged.*

ASSISTANT OR ASSOCIATE PROFESSOR, NEUROBIOLOGY. The Department of Anatomy and Neurobiology, University of Kentucky, invites applications for a position at the ASSISTANT or ASSOCIATE PROFESSOR level. Candidates should hold a Ph.D. and/or M.D. with appropriate postdoctoral experience and publications. This position will be to study head trauma and central nervous system injury including spinal cord injury. The studies should complement and expand the strong programmatic interest in trophic factors and neuroplasticity in the Medical Center. The candidates will be expected to have a strong research program that includes molecular approaches to neuronal injury and regeneration. Duties will include departmental teaching responsibilities in medical and graduate education. Salary and start-up funds are extremely competitive. The Department offers a stimulating environment that is committed to the highest quality in research and teaching. Application deadline is June 1, 1994. Interested candidates should submit curriculum vitae, description of current and future research goals, representative reprints and names and addresses of three references to: Dr. Don M. Gash, Professor and Alumni Chair, Department of Anatomy & Neurobiology, University of Kentucky Medical Center, 800 Rose Street, Room MN 224, Lexington, KY 40536-0084. *University of Kentucky is an Affirmative Action/Equal Opportunity Employer.*

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BEHRING

J. Behring

**Assistant/Associate Professor
Division of Periodontology
Department of Stomatology
University of California
San Francisco (UCSF)**

The Department of Stomatology of the University of California San Francisco School of Dentistry seeks applicants for a full-time, tenure-track position in the Division of Periodontology at the assistant or associate professor level. This position will be available after July 1, 1994. Applicants must have a dental degree (DDS, DMD, or equivalent) and a certificate of advanced training in periodontology. A Ph.D. or equivalent in a relevant discipline is required (e.g., oral biology, cell and molecular biology, microbiology, pharmacology, or immunology). Responsibilities include teaching oral biology and periodontology at the undergraduate and graduate levels. Successful applicant should have the ability to conduct an independent research program and the potential to obtain extramural research funds. Salary and rank commensurate with experience. The University of California is an EEO/AA employer; women, minorities, and persons with disabilities are encouraged to apply. Interested applicants should submit a curriculum vitae and the names of three individuals who would be willing to supply letters of recommendation to Dr. Mark I. Ryder, Division of Periodontology, Box 0650, UCSF School of Dentistry, San Francisco, CA 94143-0650. Applications should be received by July 15, 1994, to receive full consideration. Position open until filled.

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Experimental Pharmacologist

You will perform pharmacological assays of novel anti-inflammatory compounds, and evaluate pharmacokinetics and efficacy. This position will involve identifying novel lipid mediators and developing experimental models of chronic inflammation, including atherosclerosis, nephrosclerosis, and vascular stenosis. Requires a PhD and 3+ years' experience in animal models of experimental pharmacology. Knowledge of pharmacokinetics, models of inflammation, isolation and purification of lipids, and pharmacology of drug development is preferred. Refer to JC: LM/EPHAR.

Experimental Pathologist

You will participate in the effort to identify novel lipid mediators by establishing *in vivo* models of chronic inflammation in the rat, involving atherosclerosis, renal inflammation and wound healing. You will also test the efficacy of therapeutic drugs via histologic and biochemical assays. Requires a PhD with 3+ years' experimental pathology experience or a BS/MS with 5+ years' experience. Expertise in histology and immunohistochemistry essential. Experience with image analysis and models of chronic inflammation preferred. Refer to JC: LM/EPATH.

Project Leader

You will lead a project involving the delivery of antisense oligonucleotides for cardiovascular application. Responsibilities will include evaluating data, planning and managing the project, and coordinating the R&D activities of two collaborating companies. Requirements include a PhD in molecular biology, pharmacology, pharmaceutical science or a related field with 3+ years' industrial experience, preferably as a member of a project team. The ideal candidate must be a team player, have an understanding of the business and regulatory environments, and be able to guide basic science to potential clinical therapies. Project management experience is a plus. Refer to JC: R/PL.

Learn more about all of the professional and personal advantages we offer our people. Send your CV along with a cover letter indicating appropriate Dept. #, and the names of three references to Pat Donchin, CV Therapeutics, Inc., 1615 Plymouth St., Mountain View, CA 94043. EOE.

CV THERAPEUTICS



NATIONAL UNIVERSITY OF SINGAPORE FACULTY OF SCIENCE

Applications are invited for **Faculty positions/appointments** in one of the following departments from candidates who must possess a relevant PhD degree. Preference will be given to those who are able to teach in more than one of the areas listed under the Department they are applying to and with proven ability in research.

BOTANY

Molecular Biology	Biochemistry
Gene Transfer Systems	Physiology
Molecular Genetics	Morphogenesis

CHEMISTRY

Inorganic Chemistry (applications of group theory and multi-nuclear/multidimensional NMR spectroscopy)
Electrochemistry (electroanalytical chemistry; corrosion)
Analytical Chemistry (analytical spectroscopy; multichannel spectrometry)
Materials Science (composite materials)

PHARMACY

Pharmaceutical Chemistry/Pharmaceuticals/Pharmacy Practice

Gross annual emoluments range as follows:

Lecturer	S\$55,180 - 70,510
Senior Lecturer	S\$64,380 - 116,690
Associate Professor	S\$103,370 - 143,960

(US\$1.00 = S\$1.58 approximately)

The commencing salary will depend on the candidate's qualifications, experience and the level of appointment offered. In addition, a 13th month allowance and an Annual Variable Component may be payable under the flexible wage system applicable to staff on normal contracts.

Leave and medical benefits will be provided. Depending on the type of contract offered, other benefits may include: provident fund benefits or an end-of-contract gratuity, a settling-in allowance, subsidised housing or a housing allowance, education allowance for up to three children subject to a maximum of S\$16,425 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore. Staff members may undertake consultation work, subject to the approval of the University, and retain consultation fees up to a maximum of 60% of their gross annual emoluments in a calendar year.

All academic staff will be given a networked microcomputer with access to an IBM mainframe computer, UNIX hosts, a super-computer, departmental laser printers, a wide spectrum of software, on-line library catalogue, CD-ROM databases, Televue, INtv, Bitnet and Internet.

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Enquiries may also be sent through **BITNET** to: **PERPL@NUS3090**, or through **Telefax**: (65) 7783948.

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Indiana Molecular Biology Symposium VIII
October 27-30, 1994

ORIGINS AND EVOLUTION OF ANIMAL BODYPLANS

INDIANA UNIVERSITY

Indiana Institute for Molecular and Cellular Biology

Keynote Address -

Stephen Jay Gould

Origins of Bodyplans

Bruce Runnegar, Simon Conway Morris,
Rudolf Raff, Jarmila Kukalova-Peck

Segmentation and Axes

Ruth Lehman, Thomas Kaufman, Michael Akam,
Robb Krumlauf, Clifford Tabin

Modifications of Early Development

Einhart Schierenberg, Billie Swalla, David Fitch,
James Hanken

Function, Ecology, and Life History in the Evolution of Development

Mary Jane West-Eberhard, David Wake,
Richard Strathmann, Diane Wheeler

Novel Features in Evolution

George Miklos, Margaret McFall-Ngai,
Joram Piatigorsky, Nicholas Toth

Registration Information: Rhea Freeman, IMCB, Jordan Hall 322A, Indiana University, Bloomington, IN 47405
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Industrial Research Limited has two vacancies in their Sensors and Electronics Team at the Gracefield campus, Lower Hutt, near Wellington, New Zealand.

Research Leader, Chemical/Biosensors

A person is required to take a leading role in the area of chemical or biosensors.

Work at present involves the use of conducting polymers for odour sensing, application of chemfets in areas such as meat and food technology, and the application of ion selective electrode measurements to horticulture. The group makes use of its silicon microfabrication facility for sensor construction.

The appointee would be required to be an innovator in advancing the current work and providing new directions relevant to New Zealand.

A Ph.D. or equivalent in an appropriate area and a proven research record are necessary with some experience in leading a small research team desirable. The initial appointment is for 1-2 years, with tenure available following satisfactory performance.

Researcher, Silicon Sensors

A position is available to assist our research into silicon-based microelectronic sensors. Current topics include micromachining for pressure and acceleration sensors, and devices for chemical sensors such as chemfets and microelectrode arrays. The appointee would be expected to assist in the current areas, but would be encouraged to initiate and be responsible for new areas.

A Ph.D. in a relevant discipline is required, together with experience in micromachining. An enquiring attitude and problem solving ability are essential, and a broad knowledge of basic silicon technology is desirable. The initial appointment is for one year, and could be extended following satisfactory performance.

The salary of both positions will be commensurate with qualifications and experience.

Enquiries should be made to Mike Andrews, telephone: +64-4-569-0000, Extn. 4223.

Curriculum Vitae and publication records should be sent to:

Diana Gratton, Human Resource Officer, Industrial Research Ltd, P.O. Box 31-310, Lower Hutt, New Zealand

Industrial Research Ltd. is an Equal Opportunity Employer. Childcare facilities available on Campus.



INTERNATIONAL LABORATORY FOR RESEARCH ON ANIMAL DISEASES (ILRAD)

Research Associate Vacancy Announcement (ref. RA 2/94)

ILRAD is a major international research centre of the Consultative Group for International Agricultural Research (CGIAR), with the mandate of developing improved methods to control livestock diseases that restrain agricultural development in the Third World. It is anticipated that impact of these efforts will shortly be increased by the restructuring of ILRAD's programmes and those of its sister CGIAR institute, the International Livestock Centre for Africa, to form a new global strategic livestock research entity.

An opportunity has arisen at ILRAD for a senior technologist to join a multidisciplinary group working towards the development of improved cattle vaccines against tick-borne diseases. Applicants should have substantial experience in assays of cellular and humoral immune responses and preferably be familiar with the application of these techniques to ruminants. The successful candidate will coordinate the monitoring of ruminant immunisations with recombinant antigen preparations based on live delivery vectors and novel adjuvant systems, and will assume responsibility for the laboratory BL2 recombinant virus facility. Experience with recombinant viruses and/or bacteria will be advantageous. ILRAD is a repository of a large number of ruminant immunological reagents and is extremely well equipped for analysis of ruminant immune responses. Both the management of these resources and training and supervision of national technical staff will be significant components of the position. Applicants should have an advanced technical qualification and at least five years experience in a senior technical position. Women applicants are encouraged.

This is an international staff position and salary will be paid in US dollars. Moving, housing, commutation and education allowances are also paid. In addition to medical and retirement benefits. Interested applicants should send a statement of research interests along with curriculum vitae and names and addresses of three referees to the Chief Personnel Officer, ILRAD, P.O. Box 30709, Nairobi, Kenya.

Applications should be received before June 1, 1994 and only applicants who reach the final short-list will be contacted. Informal enquiries may be addressed to Dr. Declan McKeever, tel. +254 2 632311 #326; fax +254 2 631 499.

ILRAD is an equal opportunity employer.

POSITIONS OPEN

The George Washington University Medical Center invites applications for a faculty position at the **ASSISTANT PROFESSOR** level. Applicants will possess a Ph.D. degree and have a proven track record of academic performance. The individual will direct research efforts as part of a research-clinical team in the study of the cellular basis of shock. Strong expertise is expected in cellular biochemistry/physiology with a specific focus on elucidating basic injury mechanisms in disease pathogenesis. Current areas of interest include the role of divalent cations and oxidative/reductive stress as mediators of cellular dysfunction.

Start-up funds and ample laboratory space will be provided. The anticipated start date is August 1, 1994. Interested candidates should forward curriculum vitae and names and addresses of three references to: **Dr. Michael Salem, Director of Research, Department of Surgery, George Washington University Medical Center, 2150 Pennsylvania Avenue, N.W., Washington, DC 20037.** *George Washington University is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS Cornell University Medical College Department of Pharmacology

Candidates are sought for two tenure-track positions at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. Candidates with interests in a wide range of areas related to the discipline of pharmacology will be considered. The responsibilities of this position include development of an active, independent research program and participation in both medical and graduate student teaching programs in the department. Applicants should send curriculum vitae, a summary of proposed research, and should arrange to have letters sent from at least three scientists who can evaluate the candidate's accomplishments. Cornell University Medical College is a part of the New York Hospital-Cornell Medical Center and adjacent to Memorial Sloan-Kettering Cancer Center and Rockefeller University. Applications should be sent to: **Chair, Pharmacology Search Committee, c/o Room E-409, Pharmacology Department, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.** *Equal Employment Opportunity/Affirmative Action/M/F/H/V.*

ASSOCIATE/ASSISTANT PROFESSOR

The Department of Veterinary Anatomy and Cell Biology is seeking a cell biologist for a tenure-track faculty position at the Associate or Assistant Professor level, starting July 1, 1994, "Pending Final Approval". Applicant at the Associate level should have an established, funded research program and applicant at the Assistant level should either have funding or show promise of obtaining it. Terminal degree in natural or biomedical science and postdoctoral experience are required. The successful candidate will teach in a team-taught course in the professional curriculum and maintain an independent research program that focuses on current questions in cell, molecular or developmental biology. Application deadline is May 5, 1994, or until suitable applicant is found. Submit curriculum vitae, names, addresses and telephone numbers of at least three references and a summary of current research to: **Dr. John E. Martin, Chair of Faculty Search Committee, Department of Veterinary Anatomy and Cell Biology, School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA 70803.**

CHIEF, ILLINOIS STATE GEOLOGICAL SURVEY (ISGS). Provide scientific leadership and administrative direction to staff of approximately 200 scientific and technical support personnel conducting basic and applied research. Candidates should have a Ph.D. in geosciences with an established research record; demonstrated ability of leadership and administration of a multidisciplinary organization involved in research and service; a record of adherence to EEO guidelines; articulate and persuasive oral and written communication skills; and the ability to attract funding for research. To apply, send letter of application, names and addresses of referees, and résumé by July 1, 1994, to: **Chairman, Chief Search Committee, Illinois State Geological Survey, 615 East Peabody Drive, Champaign, IL 61820, Telephone: (217) 244-2776.** *ISGS is an Affirmative Action/Equal Employment Opportunity and ADA Employer.*

POSITIONS OPEN

FACULTY POSITION AVAILABLE DEPARTMENT OF SURGERY

MOLECULAR BIOLOGIST FACULTY POSITION. The Department of Surgery at the UMDNJ-New Jersey Medical School is seeking a Molecular Biologist, Ph.D., with special expertise in Heat Shock Protein for a faculty position at the **ASSISTANT PROFESSOR** level.

Competitive salary and fringe benefits package. Availability of lovely suburban residential areas in close proximity to New York City makes this position most attractive. Please send curriculum vitae to:

**Edwin A. Deitch, M.D.
Department of Surgery
UMD-New Jersey Medical School
185 South Orange Avenue—Room G506
Newark, NJ 07103**

UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY. Equal Opportunity/Affirmative Action Employer.

NMR OPERATIONS MANAGER at the University of Texas Medical Branch (UTMB) Galveston, Texas

Nuclear Magnetic Resonance (NMR) spectroscopists are invited to apply for the position of Operations Manager of the University of Texas Medical Branch NMR Center. The instrumentation includes multinuclear Varian UNITYplus 750, 600 and wide-bore 400 MHz and other lower field instruments. (The 750 MHz instrument is scheduled for installation in early fall 1994). The individual will have responsibilities for managing the NMR operations of a major Structural Biology Center at UTMB. The NMR Center will be housed in its own renovated building on campus, with operating funds, equipment and the building funded by several endowed foundations, UT and NIH. The individual should have a Ph.D. and a strong background in modern biomolecular NMR instrumentation and applications software for multidimensional pulse sequence generation. The candidate will also be encouraged to participate in collaborative research associated with the Center and the molecular biology user community. The NMR Center will be directed by **Dr. David Gorenstein** and will include several new faculty appointments in biomolecular NMR spectroscopy. Résumés should be sent to: **Dr. James C. Lee, Department of Human Biological Chemistry and Genetics and the Sealy Center for Molecular Science, University of Texas Medical Branch, Galveston, TX 77555.** *UTMB is an Equal Opportunity M/F/V/H Affirmative Action Employer. UTMB hires only individuals authorized to work in the United States. UTMB is a drug-free/smoke-free workplace.*

NEUROPATHOLOGY DIRECTOR—The New York Hospital-Cornell Medical Center Department of Pathology is searching for a board certified academic neuropathologist to direct an active neuropathology service. The individual will also be expected to carry on a clinical or basic research program and engage in resident and medical student teaching. Candidates who have a research background, a record of publications and external funding will be given preference. Financial support is available to help establish new research programs. Strong programs in neurology and neuroscience at the institution and at the neighboring Rockefeller University and Memorial Sloan-Kettering Cancer Center offer outstanding opportunities for collaboration. Academic rank and salary will be commensurate with experience and scholarly accomplishments. Interested candidates should submit curriculum vitae and the names of three references to: **Dr. Daniel M. Knowles, Professor and Chairman, Department of Pathology, The New York Hospital-Cornell Medical Center, 525 East 68th Street, New York, NY 10021.** *Cornell University Medical College is an Affirmative Action/Equal Opportunity Employer.*

EDITOR, Journal of Clinical Pharmacology, Official Publication of the American College of Clinical Pharmacology. Eminence in the field of pharmacology, either basic, clinical, or both, is required. Experience as an editor, or as a member of editorial boards of scientific journals preferred, but not necessary. Interested and qualified candidates should submit current curriculum vitae by no later than July 31, 1994, to: **American College of Clinical Pharmacology, Executive Office, 300 Oriskany Boulevard, Yorkville, NY 13495-1332.**

POSITIONS OPEN

JUNIOR FACULTY POSITION SECTION OF IMMUNOBIOLOGY YALE UNIVERSITY

The Section of Immunobiology seeks applicants for a junior faculty position. Qualified applicants in all areas of immunobiology are invited to apply. We are particularly interested in candidates who will complement the existing faculty. Research interests represented within the Section of Immunobiology include T lymphocyte activation, differentiation and tolerance; T lymphocyte development; antigen processing and presentation; transcriptional regulation; cytokines; immunoglobulin gene rearrangement and autoimmunity. Candidates are expected to develop an independent research program and to participate in departmental teaching. *The Section of Immunobiology is committed to increasing representation of members of minority groups and women on the faculty and particularly encourages applications from such candidates.* A candidate's application package must include curriculum vitae, a summary of present and future research interests and three letters of recommendation. Completed applications should be received at the address below no later than June 15, 1994. **Dr. Kim Bottomly, c/o Administrator, Section of Immunobiology, Yale University School of Medicine, P.O. Box 208011, New Haven, CT 06520-8011.** *An Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.*

DONALD J. CRAM TEACHER-SCHOLAR

The Department of Chemistry and Biochemistry at the University of California, Los Angeles, is pleased to announce the solicitation of nominations for the 1994 **Donald J. Cram Teacher-Scholar.** The Donald J. Cram Teacher-Scholar award honors Professor Cram and recognizes his many contributions to the advancement of chemistry. Outstanding young chemists who have received their doctorate in any area of chemistry are eligible for nomination. The Donald Cram Teacher-Scholar Fellow is a two-year, non-renewable appointment at the rank of Adjunct Assistant Professor. The Fellow is expected to teach a reduced course load at the undergraduate and graduate level and to carry out personal and collaborative research. A small fund will be available to support travel and other research expenses. The appointment can start on or after July 1, 1994.

Direct applications will not be accepted. Letters of nomination should be sent to: **Selection Committee, Donald J. Cram Teacher-Scholar, c/o K. N. Houk, Chair, Department of Chemistry and Biochemistry, University of California, Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024-1569.** Nominators are requested to supply the names of at least two additional people who can be contacted for further information on nominees. *The University of California is an Affirmative Action and Equal Opportunity Employer.*

POSTDOCTORAL POSITION TBP STRUCTURE-FUNCTION

An NIH-funded postdoctoral position is available to examine the role of TBP and TAF proteins in transcription initiation complex formation in the *Saccharomyces cerevisiae* system [see *J. Biol. Chem.* 268: 15325-15328 and references therein]. We are currently using a combination of biochemical, genetic and biophysical methods to study the interactions of these transcription factors. Interested parties should send curriculum vitae and arrange to have three letters of reference sent to: **Dr. P. Anthony Weil, Department of Molecular Physiology and Biophysics, Vanderbilt University, School of Medicine, Nashville, TN 37232-0615. FAX: 615-322-7236. E-mail: weil@ctr.vax.vanderbilt.edu.** *Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION to study herpesvirus neurotropism and virulence. Available fall 1994, to use techniques of molecular virology and neurobiology to study molecular mechanisms involved in spread of neurotropic herpesviruses in the mammalian nervous system. Candidates with strong background in neurobiology, viral pathogenesis or viral molecular biology are encouraged to apply. Send curriculum vitae, description of research interests and experience, plus arrange for letters of recommendation to be sent to: **Professor Lynn W. Enquist, Department of Molecular Biology, Princeton University, Princeton, NJ 08544. FAX: 609-258-1035; E-mail: Lenquist@molbiol.princeton.edu.** *Princeton University is an Equal Opportunity/Affirmative Action Employer.*

RISK MANAGEMENT: ENVIRONMENTAL RESEARCH

The Center for Risk Management of the Health Sciences Research Division at the Oak Ridge National Laboratory (ORNL) has immediate PhD-level openings in the following areas:

RISK ASSESSMENT

Requires a PhD in geology, health physics, environmental sciences, or chemistry, together with a working knowledge of risk assessment methodologies and experience dealing with federal agencies.

BIOTECHNOLOGY

Requires experience in either procaryotic molecular cloning methods (Bioengineering) or in developing noninvasive diagnostic techniques (medical biotechnology).

SOIL SCIENCE

Must have demonstrated ability to direct research on the effectiveness of soil remediation technologies that remove volatile organics from soils.

ORNL is managed by Martin Marietta Energy Systems, Inc., for the U.S. Department of Energy. For immediate consideration, send your resume by May 2, 1994 to: Dr. Curtis Travis, Oak Ridge National Laboratory, Dept. SCI-0415, P.O. Box 2008, Oak Ridge, TN 37831-6492.

ORNL is an equal opportunity employer committed to building and maintaining a diverse workforce.



Imagine The Possibilities

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

ASSOCIATE SCIENTISTS

Molecular Pharmacology

Supporting our new lead discovery and optimization efforts, the candidates we select will conduct automated drug screening bioassays and will assist in the development and transfer of bioassays from various research groups to the Molecular Pharmacology Lab. Other duties will include optimizing newly transferred bioassays in preparation for automation; collecting, analyzing, interpreting and presenting data in a suitable report format; and maintaining lab supplies/equipment. Along with a BS/MS in biological sciences or relevant field, we require significant experience in bioassay development, particularly radioligand and binding, enzyme inhibition, and immunoassays. PC literacy and excellent interpersonal skills are a must. Prior industry experience in pharmacology or biochemistry is preferred. Dept. B94-004.

Gene Expression

Working primarily with insect cells, your responsibilities will include design of expression systems, transfection, recombinant selection and characterization, cell line development, and optimization of growth and expression. The successful candidate will interact with a variety of research teams and will also interface with the production staff. Work site will be at our South San Francisco facility. We require a related BS/MS degree and several years' experience in cell culture and molecular biology. Dept. B94-010.

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



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Faculty Positions: The Department of Biomedical Engineering has two tenure-track faculty positions available for immediate appointment. Areas of emphasis are biomechanics and biomaterials and electrocardiology, although other areas which are complementary to the existing faculty, such as cell biology, fluid dynamics, thrombosis and microcirculatory behavior, will also be considered. Positions will be filled as soon as feasible; all positions will remain open until filled.

1. Chair of Excellence in Biomedical Engineering - an endowed Chair is being offered to senior level candidates who have shown consistent evidence of research excellence, leadership and teaching ability. A significant record of research funding is essential. In addition to salary guarantees, the Chair offers significant resources to help establish an initial research program. Outstanding junior and intermediate level faculty with exceptionally strong research credentials will also be given consideration for this position.

2. Assistant Professor of Biomedical Engineering - a junior level faculty position is open to recent graduates, preferably with some post-doctoral experience. The candidate would show excellent potential for both teaching and research. The potential for building a solid research program based on externally funded support must be evident.

Interested applicants should send a CV, a summary of their research plans, and three letters of reference to:

Dr. Vincent T. Turitto, Chair
Department of Biomedical Engineering
Memphis State University
Memphis, TN 38152

Memphis State University is Equal Opportunity/Affirmative Action Employer

EXPLORATION OF THE UNIVERSE

a challenge for Europe and its best engineers

The European Southern Observatory (ESO) is an intergovernmental organisation responsible for the most advanced astronomical research in the southern hemisphere. The eight Member States of the ESO are Belgium, Denmark, France, Germany, Italy, the Netherlands, Sweden and Switzerland.

As the prime European astronomical centre, ESO occupies a leading position in the world's scientific community. Its research work is of great value to many areas of science and industry. The Very Large Telescope (VLT) is a 400 MDM programme expected to be completed by the year 2000. It consists of four 8-metre telescopes to be built by European industry and installed in Chile. ESO is responsible for the conceptual design, engineering design and construction of some essential parts, as well as for the overall programme management.

These are exceptional opportunities for those seeking creative involvements in an international scientific environment. Applications are invited for the following position, based at the ESO headquarters in Garching near Munich, Germany.

For the Instrumentation Department in its VLT Division, ESO is seeking a (m/f)

SENIOR ASTRONOMER/PHYSICIST

Head of the Optical Detector Group (Ref.: EVL 224)

Profile: applicants should have a Ph.D. in Astronomy or Physics. They should have a record of excellence in the application of optical detector systems to astronomical research. This is likely to have taken the form either of responsibility for a detector group in a major research institute or of a relevant role in the implementation and operation of telescope detector systems. A specific knowledge of slow scan and scientific charged coupled devices (CCDs) is a further requirement. Extensive managerial experience, a track record of astronomical research and a proven knowledge of optical instrumentation will be regarded as advantages in the evaluation procedure.

Responsibilities: the main tasks of the Instrumentation Department's Optical Detector Group are: ☐ to design, procure, integrate, test and install the CCD systems for the telescope Test Cameras and other scientific instruments at the VLT Observatory; ☐ to monitor and upgrade the performance of the CCD Systems in operation at the La Silla Observatory in Chile; ☐ to support an advanced detector development programme in collaboration with industry and other research laboratories to satisfy the future needs for detector systems for ESO instrumentation. The specific tasks of the head of the group are: ☐ to organise and supervise the work of approximately seven engineers in Garching and La Silla in the execution of these tasks; ☐ to ensure interaction between the detector group and the optical instrumentation group, the science division and the relevant groups at La Silla and VLT Observatory; ☐ to draw up short and long-term plans, as well as budget proposals, for group activities and strategies with regard to the development and implementation of the detector system.

Location and duration: the position is based at Garching near Munich from where it will be necessary to make at least twice-yearly visits to the observatory sites in Chile. This is a tenure track position which is normally offered for a period of 3 years. Tenure may be granted during the second term of the contract.

Remuneration for the post will be commensurate with background, experience and family status. It will be compatible with the salaries paid by intergovernmental organisations.

Although preference will be given to nationals of ESO Member States, this should not discourage suitably qualified applicants from other countries from applying. Positions are open to suitably qualified women and men. It is essential that all candidates have an excellent command of English. A knowledge of French or German would be an asset.

Applications with a brief c.v. (no supporting documentation unless requested) should specify the job reference and be submitted before June 30, 1994 to: Personnel Administration and General Services, European Southern Observatory, Karl-Schwarzschild-Strasse 2, D-85748 Garching near Munich, Germany. Tel: (89)320.06.219 or (89)320.06.438.



EUROPEAN SOUTHERN OBSERVATORY



UNSW

THE UNIVERSITY OF NEW SOUTH WALES

BIOMEDICAL MASS SPECTROMETRY UNIT

RESEARCH ASSOCIATE

Salary Level : A\$36,285 - A\$38,950 per annum depending on qualifications and experience.

A Postdoctoral position is available immediately to study reactive oxygen species damage to biopolymer, including DNA, RNA and proteins. The studies will utilise mass spectrometry, and excellent facilities are available for these investigations.

The successful applicant must have a PhD in a relevant field, be experienced in mass spectrometry, including methods development. A knowledge and an understanding of Equal Opportunity and Affirmative Action principles is required. A sound knowledge of protein and oligonucleotide chemistry is also desirable. The position is funded by the NH&MRC, and is initially available for two years with good prospects of renewal for a third year.

Further information is available from Associate Professor Mark Duncan, Director, Biomedical Mass Spectrometry Unit on telephone (61 2) 697 2952 or Email M.Duncan@unsw.edu.au

Applications close 13 May 1994.

PLEASE QUOTE Ref 132SCI

APPLICATION PROCEDURE

Applicants should submit a written application QUOTING REFERENCE NUMBER. Include business and private telephone numbers; a complete resume, (copies of academic transcript and qualifications where appropriate); and the names, addresses (and preferably facsimile numbers) of at least two referees to: The Recruitment Officer, Human Resources, P.O. Box 1, Kensington, N.S.W. Australia 2033 by applications close date. People from EEO groups are encouraged to apply.

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THE UNIVERSITY OF READING

Professorship of Sedimentology and Directorship of the Postgraduate Research Institute for Sedimentology

Applications are invited for the post of Director of the Postgraduate Research Institute for Sedimentology recently vacated by Professor J.R.L. Allen, FRS.

Candidates should be earth scientists with an international reputation in sedimentology in the broad sense, and should be able to provide research leadership and direction across the range of the Institute's activities, particularly as they interact with cognate departments in the Centre for Earth and Atmospheric Sciences.

A Research Fellowship, for five years, funded from the University's Research Endowment Trust, will be established in connection with the Professorship.

Further information may be obtained from the Registrar, Room 213, Whiteknights House, P.O. Box 217, The University, Whiteknights, Reading RG6 2AH. Telephone 44 (0)734 318112, Fax: 44 (0)734 874722.

The closing date for applications is 30 April 1994.

RESEARCH ASSISTANT/ RESEARCH ASSOCIATE



Tularik

Tularik is a rapidly growing biopharmaceutical company dedicated to the discovery and development of novel therapeutic products that regulate gene expression. We are actively

seeking a Research Assistant/Research Associate in Pharmaceutical Screening to assist in developing biochemical assays and executing high throughput robotic screening in support of our lead discovery and chemical optimization efforts.

This position requires a B.S. or M.S. in Biomedical Science, preferably Biochemistry, with 4-5 years of laboratory experience. The successful candidate should have experience with radioligand and enzymatic assays and must possess Mac and PC skills. Knowledge in the operation and maintenance of bioanalytical instrumentation is also required.

Tularik offers productive and experienced leadership, equity participation, competitive salary and benefits, and a very exciting research environment. For consideration, please submit your CV to: Tularik Inc., Dept. LM, 270 East Grand Avenue, South San Francisco, CA 94080. Tularik is an equal opportunity employer.

RANBAXY, the second largest pharmaceutical company in India, has recently opened a new R&D centre with modern facilities near New Delhi. We are seeking Scientists for the following positions.

Head - New Drug Discovery Research - To direct a team of R&D Scientists to ensure achievement of long term goals. Requires a Ph.D. or M.D. degree with a strong background in biomedical research/chemistry/broad-based experience of new drug discovery research and at least 10 years of experience in progressively responsible positions.

Senior Scientists/Scientists - Must have a Ph.D./M.D. degree in pharmacology/toxicology/biochemistry/microbiology and a strong background in radioreceptor binding and enzyme assays or screening for cardiovascular/anticancer/antimicrobial/neuropsychopharmacological activities of new chemicals or preclinical toxicology/histopathology with 3-5 years of research experience.

Please send your curriculum vitae with names of three referees to Vice President (HR), Ranbaxy Laboratories Ltd., 25 Nehru Place, New Delhi 110019, India. Fax No. (91-11) 6464851/6476288

UPPSALA UNIVERSITY

Division of Education and Research

Our reference: Anneli Henriksnäs

A vacancy is announced for the position

PROFESSOR OF COMPARATIVE MEDICINE in the Faculty of Medicine

Ref 1380/94

The final decision concerning the appointment to this position will be made by the Vice Chancellor.

Details of the subject field: Comparative medicine embraces such knowledge and activity as can contribute to optimal use, from ethical and scientific aspects, of experimental animals in research. The research should have the aim of increasing the understanding about physical, microbiological, chemical and psychological factors, and also genetic characteristics, of importance for laboratory animal activity. Further objectives in this field include the development of laboratory animal techniques and basic methods of animal experimentation, and the elucidation of medical aspects of comparisons between different animal species.

The successful applicant will be responsible for leadership in the area of animal experimentation, among other duties as head of the experimental animal unit of the university. The position will also involve responsibility for education on a basic level, research education, research activities, the preparation of teaching media, and the development of the subject field.

Requirements: Basic biological education or corresponding competence, wide experience in the field of comparative medicine, and scientific and teaching proficiency (Higher Education Ordinance Chapter 3, Section 2 and Higher Education Ordinance Chapter 4, Section 8). Qualifications considered in the appointment of his position are the degree of scientific, teaching and administrative proficiency, the ability to provide information about research and development work, and personal suitability for the position in other respects, special importance being attached to scientific and teaching skills (Higher Education Ordinance Chapter 4, Sections 14 and 15). The choice of applicant will be based principally on scientific proficiency.

The following should be enclosed with the application:

1. An authenticated summary of qualifications and a list of the scientific publications referred to in the application - **in four copies**. The applicant should state which 20 papers or other publications are in his or her opinion most important in this context.
2. A brief written account of the applicant's scientific and teaching activity - **in four copies**. The account should make clear which studies and results and which achievements in general should, in the applicant's opinion, receive greatest consideration with regard to the appointment.
3. Copies of the certificates and other documents referred to - **in four copies**.
4. Of the scientific publications referred to by the applicant, **one copy of the application should include all publications, and three copies** of the application should include 20 papers or other publications which in the opinion of the applicant should receive greatest consideration with regard to the appointment. The scientific publications should be divided into four packages, so that these can be distributed directly to the specialist members of the Appointments Board.

The documents specified in points 1-3 above should be submitted before the closing date of the application. The summary of qualifications and the written account of the scientific and teaching activities should be submitted **in English**. Regarding the documents under point 4 above, before the closing date of the application the candidate should either, submit these documents or, in a separate statement, say which documents he or she intends to submit within three weeks after the closing date.

The Board of the Medical Faculty has produced a list of assessment criteria for teaching qualifications, which can be ordered from the Appointments Board of the Medical Faculty, Uppsala University, Box 256, 751 05 Uppsala, Sweden, tel 18/18 18 85 or 18 18 82.

It is the ambition of Uppsala University to promote equality between men and women by having a more even sex distribution. The majority of the professors in the faculty are men, and the university would therefore be pleased to see women applying for the position.

Information about the position and the subject field may be obtained from professor Uno Erikson, tel 18/664755. Trade-union representatives are Anders Ekblom, Uppland General Practitioners Association (Upplands allmänna läkarförening), tel 18/664631, Anders Grundström, SACO Council (SACO-rådet), tel 18/183380 and Martha Rosén, ST-ATF, tel 18/1819956.

Applications should be submitted to the Vice Chancellor and be sent to **Uppsala University, Registrar, Box 256, 751 05 Uppsala, Sweden**, or telefaxed (18/182000), by **1994-08-31 at the latest**. If the application is sent by telefax or telegram, it should be complemented with the original document as soon as possible.

POSITIONS OPEN

PROTEIN CRYSTALLOGRAPHY

A tenure-track **FACULTY POSITION** (rank open) is available in the Department of Molecular Physiology and Biological Physics at the University of Virginia School of Medicine. The Department intends to further strengthen its current program in structural biology (atomic force microscopy, electron energy loss spectroscopy, cryoelectron microscopy, electron probe analysis and confocal microscopy), by recruiting an individual with an established reputation and an outstanding peer-reviewed record in protein X-ray crystallography. Preference will be given to individuals engaged in studies of enzymes and other proteins involved in signal transduction and cell motility.

A salary and benefits package commensurate with experience and qualification will be offered.

Please send applications with curriculum vitae and three references to: **Lukas K. Tamm, Ph.D., Search Committee Chairperson, Department of Molecular Physiology and Biological Physics at the University of Virginia School of Medicine, 1300 Jefferson Park Avenue, Box 449 Jordan Building, Charlottesville, VA 22908.**

The University of Virginia is an Equal Opportunity/Affirmative Action Employer. Qualified female and minority applicants are encouraged to apply. Applications will be accepted until June 30, 1994.

POSTDOCTORAL POSITION available to participate in ongoing research directed at the molecular and cellular analysis of the mdm2 oncogene and its role in cellular transformation and differentiation. Send summary of research interests, curriculum vitae, and names/telephone numbers of three references to: **Dr. Donna George, Department of Genetics, University of Pennsylvania, 422 Curie Boulevard, Philadelphia, PA 19104-6145.**

POSTDOCTORAL POSITION

This position is available to study the cytoskeletal/membrane complex of red blood cells as related to the pumped transport of Na, K and Ca and a membrane compartmented form of ATP. In addition to identifying the cytoskeletal components that define the compartment, evaluation of the functional parameters associated with Na/K and Ca transport and the ATP pool is also planned. Please send curriculum vitae and names of three references prior to May 15, 1994, to: **Joseph F. Hoffman, Department of Cellular & Molecular Physiology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06520. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION IN NUCLEAR MAGNETIC RESONANCE

Position available August 8, 1994, at the Walt Disney Memorial Cancer Institute (WDMCI) to use multidimensional Nuclear Magnetic Resonance to study the structure of nucleic acids and proteins identified as potential cancer chemotherapy agents. WDMCI, a division of the Florida Hospital system, will soon be opening a 16,000-square foot research facility, which will house both Florida Hospital and University of Central Florida faculty. The successful candidate will join the Structural Biology Laboratory, under the direction of **Dr. Barry Schweitzer**, which is equipped with a Varian UnityPlus 600 MHz spectrometer with triple resonance and gradient accessories and several SUN and Silicon Graphics workstations. A strong background in multidimensional Nuclear Magnetic Resonance of nucleic acids and/or proteins is required. Experience in pulse sequence design, computer programming, and/or structure calculations would also be useful. Starting salary will be \$30,000 plus benefits. Send curriculum vitae and names of three references to: **Opal R. Howard, EMPLOYMENT, Florida Hospital, 601 East Rollins, Orlando, FL 32803.**

POSTDOCTORAL POSITION—structure-function studies of coagulation factor VIII and human pathologic anti-factor VIII antibodies for Ph.D. in molecular biology. Experience in cloning, DNA sequencing, site-directed mutagenesis, immunoassay, and expression of recombinant proteins. Salary to \$36,000, depending on experience. Send curriculum vitae with names, addresses and telephone numbers of three references to: **Dr. Dorothée Scandella, AMERICAN RED CROSS, 15601 Crabbs Branch Way, Rockville, MD 20855. An Equal Opportunity Employer, M/F/D/V.**

POSITIONS OPEN

MOLECULAR HEMATOLOGY

POSTDOCTORAL POSITION available to study the biology of platelet-specific genes with a focus on the regulated basis of hematologic differentiation. Experience in molecular biology and protein chemistry techniques is necessary. Previous work with mobility shift gels, footprinting, ES cells and/or embryoid bodies is highly useful. We offer a competitive salary and comprehensive hospital-paid benefits. Please send curriculum vitae and letters of recommendation to: **Dr. Mortimer Poncz, The Children's Hospital of Philadelphia, 34th Street & Civic Center Boulevard, Philadelphia, PA 19104, Telephone: 215-590-3574, FAX: 215-590-3893. Equal Opportunity Employer/Affirmative Action, M/F/D/V.**

POSTDOCTORAL POSITION GENE DISRUPTION IN MICE

Position available to carry out gene disruption experiments in mice by homologous recombination in mouse embryonic stem cells. Current gene targets include H1 histone genes and transcription factors involved in hematopoiesis. Prior experience with recombinant DNA techniques is required; experience with mouse embryology and/or mammalian cell culture is useful but not required. Send or FAX curriculum vitae and addresses, telephone and FAX numbers of three references to: **Dr. Arthur Skoultschi, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. FAX: (718) 829-7619. Equal Opportunity Employer.**

POSTDOCTORAL POSITION. Division of Trauma, Department of Surgery, invites applications for a research fellowship in cellular and molecular immunology. Ph.D. and/or M.D. degree required. A postdoctoral position is immediately available to study the pathogenesis of trauma and age-induced immune suppression and effects on inflammation and sepsis. Experience in basic cellular and molecular biological techniques, and animal models is desired, with specific training in cytokines, ELISA's, recombinant DNA, Polymerase Chain Reaction, *in situ* hybridization, protein electrophoresis, cell culture, and/or flow cytometry. Send curriculum vitae and names and addresses of three references to: **Dr. Charles W. Hewitt, Surgical Research, UMDNJ/Robert Wood Johnson Medical School, Cooper Hospital/University Medical Center, Three Cooper Plaza, Suite 411, Camden, NJ 08103. Equal Opportunity Employer.**

POSTDOCTORAL POSITION available to study the molecular basis of cold acclimation in Arabidopsis. Candidates should have experience in molecular mapping techniques and clone analysis by hybridization. Send letter of application, with curriculum vitae and names, addresses and telephone numbers of three references, to: **Dr. Gary Warren, DNA Plant Technology Corporation, 6701 San Pablo Avenue, Oakland, CA 94608.**

POSTDOCTORAL POSITION for NIH-funded studies of cytokines involved in cell-cell interactions that regulate bone turnover (see *JBM* 8:1163 and 8:S1:189, 1993). Experience with modern cellular/molecular techniques preferred. *Must be U.S. citizen or permanent resident.* Send résumé and names of 3 references to: **Ed Greenfield, Ph.D., Department of Orthopaedics, Case Western Reserve University, 11100 Euclid Avenue, Cleveland, OH 44106-5000. FAX: 216-368-1332.**

POSTDOCTORAL POSITIONS

(1) Identification of molecular markers linked with apomictic reproduction in plants. Experience with molecular marker technology applied to complex genomes is required. (2) Production and analysis of transgenic peanut plants. Techniques will include plant tissue culture, microprojectile bombardment, DNA hybridization, and gene expression assays. Experience with plant expression vector construction is desirable. Send curriculum vitae and three letters of recommendation to: **Dr. Peggy Ozias-Akins, Department of Horticulture, University of Georgia, Coastal Plain Experiment Station, Tifton, GA 31793. (E-mail: ozias@tifton.cpes.peachnet.edu). An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS

NEW YORK UNIVERSITY MEDICAL CENTER

Available immediately for research in the molecular and cell biology of protozoan parasites (malaria and trypanosomes). Applicants must have a Ph.D. degree. Salary commensurate with experience. Please respond with résumé, bibliography, statement of research interests and the names of three references to: **Prof. Victor Nussenzweig, Department of Pathology, NYU Medical Center, 550 First Avenue, New York, NY 10016.**

POSTDOCTORAL POSITIONS

Two postdoctoral positions are available at Meharry Medical College in fields of study concerned with the cellular and molecular basis of cardiovascular and hematologic disease. Training faculty include members of the Department of Microbiology and the Division of Biomedical Sciences at Meharry in conjunction with faculty in the Departments of Pathology, Microbiology and Immunology, Cell Biology and Biochemistry at Vanderbilt University. Research training will focus on molecular, biochemical and immunological approaches to elucidate mechanisms whereby trauma and infectious organisms cause cardiovascular and hematologic disease. Interested applicants (U.S. citizens or permanent residents) should send curriculum vitae and the names of three references to: **Shirley Russell, Ph.D., Chairperson, Department of Microbiology, Meharry Medical College, 1005 D. B. Todd Boulevard, Nashville, TN 37208. Qualified minorities and women are especially encouraged to apply. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION is available immediately for research on the regulation of expression and biological function of apolipoprotein E. Expertise in molecular biology, including site-directed mutagenesis and protein expression is essential; protein chemistry and tissue culture techniques are helpful. Send curriculum vitae and three letters of reference (mail and FAX copy) to: **Ladislav Dory, Ph.D., Department of Biochemistry and Molecular Biology, c/o Human Resource Services, UNT Health Science Center, 3500 Camp Bowie Boulevard, Fort Worth, TX 76107-2699. (FAX: 817-735-5000). Equal Employment Opportunity/Affirmative Action Employer and Educator.**

POSTDOCTORAL POSITIONS available immediately for a Ph.D. or M.D. to study (1) neuromuscular fatigue and/or spasticity after human spinal cord injury (**Dr. Christine Thomas**) (2) axonal regeneration from supraspinal neurons into transplants in adult rat spinal cord by histology and tracing (**Dr. Mary Bunge**) and (3) physiologic and kinematic analysis of locomotion (**Dr. Blair Calancie**), and (4) proliferative and functional properties of human Schwann Cells (**Dr. Richard Bunge**). A background in neuroscience is required and experience in neurophysiology (1, 3), microsurgery/transplantation/spinal cord (2), or cell biology/tissue culture (4) is preferred. Positions are in the Miami Project to Cure Paralysis, an interdisciplinary research unit dedicated to developing strategies to improve function after spinal cord injury. Competitive salary and fringe benefits available. Submit curriculum vitae, statement of research interests, and names of three references to: **Naomi Kleitman, Ph.D., 1600 NW 10th Avenue (R-48), Miami, FL 33136. The University of Miami School of Medicine is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION in a collaborative research group to study cellular and molecular mechanisms underlying acute and chronic actions of opiates and other drugs of abuse in mammalian CNS neurons. Projects focus on receptors and transduction mechanisms (e.g., G proteins, second messengers). Experience with *in vitro* intracellular recording techniques essential. Knowledge of intracellular marking and histochemical labeling desirable. M.D. or Ph.D. *PHS training grant requires U.S. citizenship or permanent residency.* Send curriculum vitae and names of 3 references to: **Dr. Meenakshi Alreja, Department of Psychiatry, CMHC 306, Yale University School of Medicine, 34 Park Street, New Haven, CT 06508.**

POSTDOCTORAL POSITION: American Diabetes Association mentor-based postdoctoral fellowship is available for up to 3 years to study the molecular biology of glucose transport. Applicant must be a recent Ph.D. (less than 3 years). Send résumé and names and telephone numbers of 3 references to: **Mike Mueckler, Department of Cell Biology and Physiology, Washington University Medical School, 660 South Euclid Avenue, St. Louis, MO 63110. FAX: 314-362-7463.**

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All the right elements in combination make for careers labeled "the best." At Miller Brewing Company, one essential ingredient is pride. Our people take pride in every facet of what we do. In our exceptional products. In an environment that is challenging and encourages risk-taking. In a work force that is diverse, talented and always driven towards quality.

Research Scientist

You will be responsible for planning, designing and conducting scientific research in specified disciplines including, but not limited to, yeast physiology, fermentation systems and chemical engineering as related to those systems. Specifically, you will utilize your in-depth knowledge to explore alternative ways to successfully create new fermentation systems. To succeed, you will need in-depth knowledge in advanced scientific disciplines such as microbiology, biochemistry, microbial physiology, chemical engineering and related areas that may be directly applied to brewing. The ability to design and conduct experiments is essential. Related advanced college degree helpful, but preference will be given to those with hands on experience.

If you have the ingredients to succeed here, please send your resume for consideration to: Miller Brewing Company, Corporate Staffing, Dept. KB-SM415, 3939 W. Highland Blvd., Milwaukee, WI 53201-0482.



Miller

Miller welcomes diversity's potential for excellence, and encourages interest from all candidates. EOE, M/F/D/V.

○ Seattle, WA

ZYMOGENETICS

Senior Scientist/Associate Director,
Analytical Development/QC

ZymoGenetics is a Seattle based biotech company making important strides in the development and chemical evaluation of therapeutic products aimed at tissue repair, coagulation disorders and diabetes.

This position is responsible for the development of analytical methods to be used for biopharmaceutical product characterization, and eventual quality control analysis of preclinical trials and clinical grade material.

Ph.D. required, with a minimum of 5 years experience in protein chemistry and the development of pharmaceutical biologics. Must demonstrate a strong understanding of analytical method development, both of biologically based, and chromatographic methods of analysis.

ZymoGenetics, a subsidiary of NOVO NORDISK, offers the excitement of a research and development environment characteristic of a small company combined with the scope and stability of a large pharmaceutical corporation through NOVO NORDISK, the world's largest producer of recombinant DNA proteins.

Please apply by sending your CV to:
ZymoGenetics, Inc.

Attn: Human Resources #31R194
4225 Roosevelt Way NE
Seattle WA 98105

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Research

CellPro, Incorporated is an exciting, young biotechnology company focused on developing, manufacturing, and marketing affinity cell separation systems for use in therapeutic, medical research, and diagnostic applications. The opportunity to expand our research projects has created two outstanding opportunities to join our Seattle-area firm.

SCIENTIST **Fetal Cell Isolation and Analysis**

The successful candidate will join an existing team pursuing the optimization of cell selection for fetal cells found in maternal blood with the eventual goal of clinical application of the developed procedures. Responsibilities will include providing development of fetal cell isolation and analysis procedures from maternal blood. Other activities will include interacting with our device engineering group in the development of a pro-type and with our clinical group to develop clinical trials.

Candidates with a Ph.D. in molecular or cell biology and a minimum of 2 years' postdoctoral experience are encouraged to apply. Previous experience in fluorescent situ hybridization (FISH) is highly desirable. Excellent communication skills and the ability to work in a collaborative work environment are required.

SCIENTIST **Hematopoietic Gene Therapy/Delivery**

The successful candidate will be responsible for using retroviral and non-retroviral methods to target gene transfer into purified stem cell populations. Activities will include optimization of gene transfer into populations of purified cells *in vitro* with the eventual goal of clinical application of developed procedures.

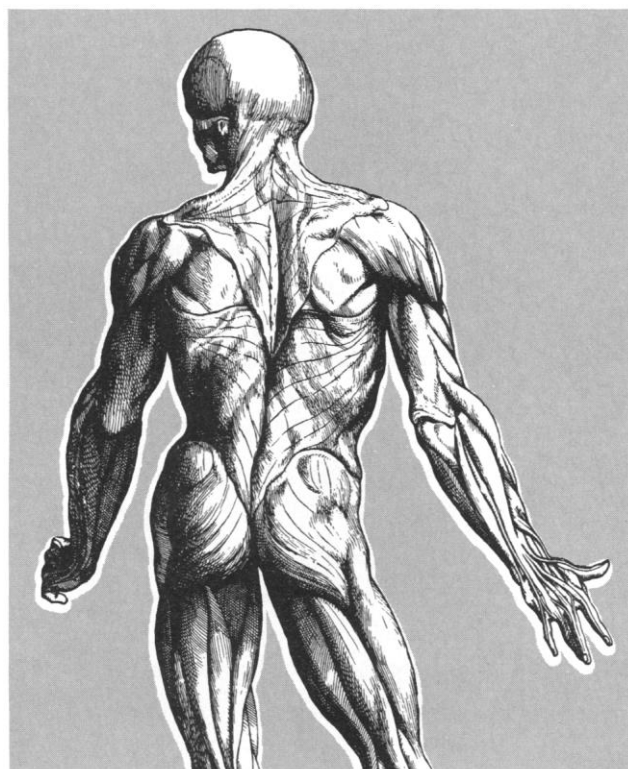
Candidates with a Ph.D. and a minimum of 2 years' experience in retroviral gene transfer into mammalian, and preferably human cells are encouraged to apply. Experience in the area of hematopoiesis is also highly desirable. Excellent communication skills and the ability to work in a collaborative environment are required.

In addition to our leading technology and the Pacific Northwest lifestyle, CellPro offers competitive salaries and an excellent benefits plan. For immediate consideration, please send your c.v./resume to:



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THE SECOND INTERNATIONAL CONFERENCE ON THE VARICELLA-ZOSTER VIRUS

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(Please register before Friday, June 3.)

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To request a registration form, please fax or call either:

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VZVRF European
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VZV Research
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Molecular Biophysicist

The Clinical Center, National Institutes of Health, Public Health Service, Bethesda, MD, is seeking a full-time employee to perform research in the use of radiolabeled nucleic acid probes for *in vivo* applications in cancer treatment and detection. The position is located in the Nuclear Medicine Department.

The Department has an active program in radiopharmaceutical development, radiopharmacy, imaging physics, modeling, and data analysis sciences. Extensive resources are available including: two medical cyclotrons, six radiochemistry hot cells and four chemistry laboratories, three molecular biology laboratories, and computer hardware and software for the generation and analysis of physiological images as well as conventional and SPECT nuclear medicine instruments.

Applicants for this position should hold a Ph.D. in biophysics or biochemistry and have had post-doctoral training and experience in nucleic acid chemistry related to understanding higher-order DNA structures and the effects of physical energy deposition on these DNA structures. Research experience in the biochemistry of multistranded DNA structures and molecular mechanisms of homologous recombination is also required. A GS-13 salary (\$49,947-\$64,928), commensurate with experience, is offered. U.S. citizenship or permanent residency is required for this position.

For more information regarding this position, contact Ronald D. Neumann, M.D., Chief, Nuclear Medicine Department, (301)496-6455, or Anna M. Gerig, Administrative Officer, (301)496-8007. All applications must be received at the Nuclear Medicine Department, 9000 Rockville Pike, Bldg. 10, Rm 1C401, Bethesda, MD 20892 within two weeks of the date of this notice.

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THE DEPARTMENT OF BIOCHEMISTRY AND CELL BIOLOGY AND THE CENTER FOR BIOTECHNOLOGY OF THE STATE UNIVERSITY OF NEW YORK AT STONY BROOK announce

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Stony Brook Symposium
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(516) 632-8575

May 23-25, 1994

CELLULAR AND MOLECULAR CANCER RESEARCH

The H. Lee Moffitt Cancer Center & Research Institute and the University of South Florida's College of Medicine are seeking applicants for Assistant, Associate and Full Professor level individuals to participate in the Cancer Center Research Programs in a stimulating academic environment that includes excellent laboratory and clinical facilities.

The individuals sought should hold a Ph.D. or M.D. with postdoctoral training. Candidates must have demonstrated productivity and experience in basic research related to cancer. The successful candidates will be expected to establish a vigorous independent research program in their area of expertise and successfully compete for extramural funding. These positions will be tenure earning. Academic appointments will be in the appropriate department. Salaries and start-up funds are competitive.

Send current curriculum vitae, the names, addresses and telephone numbers of three references, to Warren J. Pledger, Ph.D., Associate Director for Basic Research, Office of Faculty Recruitment, Moffitt Cancer Center, 12902 Magnolia Drive, Tampa, Florida 33612. Applicants who need a reasonable accommodation in order to participate in the selection process must notify Jody Swanson in the Office of Faculty Recruitment, (813) 975-7894, forty-eight hours in advance. Applications must be postmarked by deadline of June 16, 1994.

The H. Lee Moffitt Cancer Center & Research Institute is a rapidly growing research facility, adjacent to the Health Sciences Center on the University of South Florida campus in Tampa. The Center includes a 162-bed inpatient and ambulatory cancer facility for children and adults, a 20-bed bone marrow transplantation program, a recently established high volume screening program including a fixed site and a mobile unit.



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

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POSITIONS OPEN

POSTDOCTORAL POSITION available to examine human granulocyte colony-stimulating factor receptor structure and signaling in normal and leukemic myeloid cells. Experience in molecular biology/cell signaling desirable. Interested candidates should send curriculum vitae and names of three references to: **David J. Twardy, M.D., Departments of Medicine and Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine, Biomed Science Tower W1052, 200 Lothrop Street, Pittsburgh, PA 15213-2582.**

POSTDOCTORAL POSITION

Available to study local signaling between neurons and astrocytes using *in vivo* and *in vitro* preparations. (See: *Science* 263:1768-1771, 1994). Experience in neuronal cell biology, imaging techniques and/or electrophysiology is desirable. Submit curriculum vitae and reference list to: **Maiken Nedergaard, M.D., Ph.D., Department of Neurosurgery, Cornell University Medical College, 1300 York Avenue, New York, NY 10021. FAX: (212) 746-8038.**

POSTDOCTORAL POSITION DEVELOPMENTAL BIOLOGY

To study mechanisms of cell-specific gene regulation in embryonic lung in large NIH-funded laboratory. Experience with transcription factors, DNA-protein interactions, transgenics preferred. Send or FAX curriculum vitae and names of three references to: **Dr. Jerome S. Brody, Pulmonary Center, Boston University School of Medicine, 80 East Concord, Boston, MA 02118. FAX: 617-536-8093.**

POSTDOCTORAL POSITION—Molecular Biology. The successful applicant will work with a multidisciplinary team developing micromachined devices for cell isolation, polynucleotide amplification and detection. Experience with PCR and related molecular biology techniques is required. Biomedical Engineering experience would be advantageous. This is a three-year appointment with competitive salary and benefits. Please forward curriculum vitae and 3 letters of recommendation to: **Peter Wilding, Ph.D., HUP/Department of Pathology and Laboratory Medicine, 3400 Spruce Street, 7103 Founders Pavilion, Philadelphia, PA 19104-4283. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION to study ecology of endemic scrub lizards in naturally fragmented landscapes of central Florida. Researchers with interests in demography, conservation biology, and/or landscape ecology are especially encouraged to apply. Opportunity to integrate research with studies based on molecular genetics and landscape modeling. Send résumé, statement of research interests, transcripts, and three letters of recommendation to: **Lyn Branch, Department of Wildlife, 118 Newins-Ziegler, University of Florida, Gainesville, FL 32611. Position available immediately, starting date negotiable.**

THE SCRIPPS RESEARCH INSTITUTE (TSRI) POSITIONS IN RECEPTOR BIOCHEMISTRY AND SIGNAL TRANSDUCTION. Applications are invited for **POSTDOCTORAL FELLOW** or **JUNIOR FACULTY** positions in the **DEPARTMENT OF IMMUNOLOGY** to study endotoxin/membrane receptor interactions in leukocytes and other cells. See *Curr. Opin. Immun.* 6:125, 1994, *PNAS* 90:2744, 1993, and *PNAS* 90:9930, 1993. Position available immediately. Send curriculum vitae and references to: **Richard J. Ulevitch, Ph.D. or Peter S. Tobias, Ph.D., IMM-12, TSRI, 10666 North Torrey Pines Road, La Jolla, CA 92037. (FAX: 619-554-3289.) TSRI is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH FELLOWSHIP available immediately at the Johns Hopkins University School of Medicine to study molecular aspects of human epithelial progeny or cell proliferation and differentiation with an emphasis on the identification of novel secreted protein factors by expression cloning or protein fractionation. Ph.D. in biochemistry or molecular biology required. To apply for this position, send curriculum vitae, a description of research experience, and the names, addresses and telephone numbers of three references to: **Dr. Christopher Burrow, 947 Ross Research Building, The Johns Hopkins University School of Medicine, 720 Rutland Avenue, Baltimore, MD 21205. Telephone: 410-614-1650; FAX: 410-955-0485; E-mail: Burrow@JHUIGF.Med.JHU.Edu. Equal Opportunity Employer/M/F/H. Drug-free and smoke-free.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS LINCOLN UNIVERSITY NEW ZEALAND

Two positions are available for research on ceroid-lipofuscinoses (Batten's Disease), inherited fatal neurodegenerative diseases of children and animals. Appointees will work in a well-established group directed by **Dr. D. N. Palmer** within the Centre for Molecular Biology. The appointments are initially for two years and require a Ph.D. or equivalent with experience in biochemistry, cell biology, or molecular biology. Applications close 21 May 1994.

Further information can be obtained from the **Personnel Section, Telephone: 64-03-325-2811, extension 8580, FAX: 64-03-325-3870, E-mail: Fucileh@lincoln.ac.nz, quoting vacancy number 94/20. Lincoln University is an Equal Opportunity Employer.**

POSTDOCTORAL RESEARCHER

M.D., Ph.D., or Master's in Molecular Biology, Biology or related field plus a minimum of two years of laboratory experience are required. The initial appointment will be for one year. Strong molecular biology background necessary. Focus of laboratory is stem cell transplantation and hematopoietic regulation. Send curriculum vitae to: **Dr. Renee Gardner, Assistant Professor, Division of Hematology/Oncology, Department of Pediatrics, LSU Medical Center, 1542 Tulane Avenue, New Orleans, LA 70112. Office: (504) 568-3150; FAX: (504) 568-7532. LSU New Orleans is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION available to study roles of protein tyrosine phosphatases in synaptic transmission and plasticity. Applicants should have Ph.D. in biological sciences. Experience in molecular biology, biochemistry, or cell culture methods is desirable. Salary commensurate with qualifications. Send curriculum vitae, names and telephone numbers of three references, and a statement of research interests to: **Dr. Lin Mei, Department of Pharmacology, Box 448 Jordan Hall, University of Virginia, Charlottesville, VA 22908. University of Virginia is an Equal Opportunity/Affirmative Action Employer.**

CELLULAR PHYSIOLOGIST RESEARCH ASSOCIATE

POSTDOCTORAL POSITION available to investigate cardiac excitation-contraction (E-C) coupling using patch-clamp, Ca^{2+} fluorescence imaging, and contractility techniques in intact and chemically skinned isolated myocytes and papillary muscles. The effects of membrane lipids on E-C coupling, in conjunction with diabetes and chronic alcohol consumption, is the focus of this research. Please send curriculum vitae, letter stating research experience and interests, and names of three references to: **Amy J. Davidoff, Ph.D., Wayne State University School of Medicine, Division of Cardiology, 421 East Canfield, Detroit, MI 48201. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE

The Section of Transplantation at Rush-Presbyterian-St. Luke's Medical Center is actively exploring the mechanisms of xeno rejection. A position is immediately available to study B-cell responses in xenotransplantation. Experience in B-cell immunology and molecular biology techniques are required. Applicants may submit curriculum vitae to: **James W. Williams, M.D., Rush Medical Center, 1653 West Congress Parkway, Chicago, IL 60612; Telephone: 312/942-4827; FAX: 312/942-2867.**

An entry-level **POSTDOCTORAL/RESEARCH ASSOCIATE POSITION** is available in a laboratory studying O-linked mucin type glycoproteins. Projects will involve the development of methods for expressing and isolating O-linked glycoproteins in mammalian and/or insect cells and the characterization of a human goblet cell line mucin. The successful candidate will have expertise in molecular biology, cell biology and protein chemistry. Send curriculum vitae and three references to: **Dr. Thomas Gerken, Case Western Reserve University, School of Medicine, BRB, 10900 Euclid Avenue, Cleveland, OH 44106-4948. CWRU is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE IN MOLECULAR PHARMACOLOGY available for studies on the molecular biology of melatonin receptor subtypes and gene expression. Interest and experience in neuropharmacology, molecular biology and/or protein chemistry is desirable. Excellent opportunity in a stimulating, interactive environment. Send curriculum vitae and names of three references to: **Dr. M. L. Dubocovich, Department of Pharmacology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611, USA.**

POSTDOCTORAL RESEARCH ASSOCIATE, BIOCHEMISTRY MONTANA STATE UNIVERSITY

Available immediately, 2-year minimum, to study the role of lipid peroxidation and antioxidants in age-related macular degeneration. Required qualifications: Ph.D. in Biochemistry or related field, experience with GC, HPLC, UV-VIS spectroscopy, managing large volumes of data, and written communications. Screening begins May 1, 1994. Contact: **Dr. Frederik van Kuijk, Chemistry and Biochemistry Department, Montana State University, Bozeman, MT 59717. ADA/Equal Opportunity/Affirmative Action/veterans preference.**

POSTDOCTORAL RESEARCH ASSOCIATE

The Section of Transplantation at Rush-Presbyterian-St. Luke's Medical Center is actively exploring the mechanisms of xeno rejection. A position is immediately available to study B-cell responses in xenotransplantation. Experience in B-cell immunology and molecular biology techniques are required. Applicants may submit curriculum vitae to: **James W. Williams, M.D., Rush Medical Center, 1653 West Congress Parkway, Chicago, IL 60612; Telephone: 312/942-4827; FAX: 312/942-2867.**

POSTDOCTORAL RESEARCH ASSOCIATE POSITION

A postdoctoral position in synthetic organic chemistry is immediately available. This position involves the design and synthesis of a variety of novel materials for multidisciplinary neurologic studies in Magnetic Resonance Imaging (MRI) and Positron Emission Tomographic (PET) imaging. The successful candidate will possess a strong background in modern chromatographic and spectroscopic techniques and a demonstrated expertise in multistep synthesis for biologically active molecules. Experience in radiochemical synthesis or isotopic labeling and molecular modeling is also desirable. The proposed starting date for this position is July 1, 1994, and all applications must be received by June 15, 1994, for consideration. Send résumé with names of three references to: **R. F. Williams, Ph.D., Research Imaging Center, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-6240. The University of Texas Health Science Center is an Affirmative Action/Equal Opportunity Employer.**

ASSISTANT RESEARCH SCIENTIST

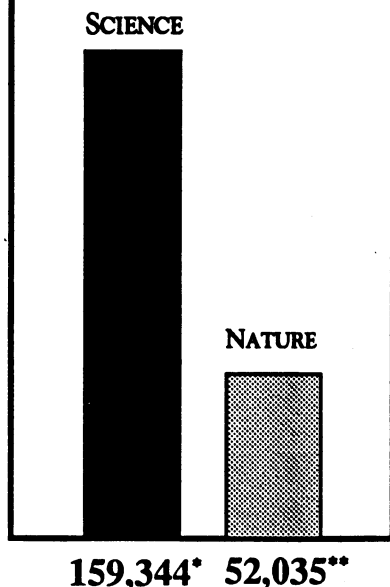
POSTDOCTORAL POSITION available in the lab of **Dr. Michael Garabedian** to study signal transduction via steroid hormone receptors. Experiments will utilize mammalian systems in conjunction with genetic screens and selections in yeast. Background in molecular biology required. Experience in yeast genetics, biochemistry or protein expression in insect cells using baculovirus preferred. Please submit curriculum vitae and names of three references to: **Maha Singh, Human Resources Department, NYU Medical Center, 550 First Avenue, Area GBH, New York, NY 10016. Equal Opportunity Employer.**

RESEARCH SCIENTIST

A research position is available to set up an independent group within the Research and Development Department with focus on the development of viral systems for heterologous protein expression in higher eukaryotes. This position requires hands-on technical expertise as well as ability to function as supervisor/trainer. The successful candidate will serve as a scientific resource for the Company, participating in grant writing and publishing original research. Salary dependent on experience and credentials. Send curriculum vitae and names and addresses of three references to: **Human Resources, Invitrogen Corporation, 3985 B Sorrento Valley Boulevard, San Diego, CA 92121. An Equal Opportunity Employer.**

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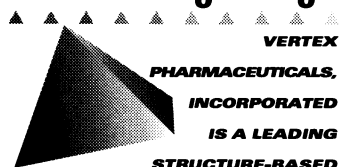
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PH.D. PHARMACOKINETICS AND DRUG METABOLISM

We are seeking an individual to design and conduct preclinical pharmacokinetic and drug metabolism studies, work on methods development for new chemical entities and their metabolites in biological fluids and analyze pharmacokinetic and statistical data. Preclinical pharmacokinetics studies will include the development of appropriate animal models for absorption and metabolism studies, using the knowledge of the physiochemical properties of the drugs, allowing the prediction of drug disposition in man.

Candidates must have a **Ph.D.** in Pharmaceutical Sciences with an emphasis on Pharmacokinetics, Biopharmaceutics and/or Drug Metabolism with 0-3 years of post-graduate experience. An excellent understanding of pharmacokinetic and metabolism principles is needed for study design, data interpretation and report writing. Candidates must have experience in bioanalytical methods development using HPLC, GC, TLC and radiometric techniques. Applicants must have experience in the use of pharmacokinetic and statistical software packages to solve kinetic problems. Excellent communication skills (both oral and written) are mandatory. A desire and interest in working "hands-on" in the laboratory is essential.

MOLECULAR BIOLOGY- EXPRESSION

We are seeking individuals with a **Master's** degree in the Biological Sciences to join our existing research team involved in the expression of recombinant proteins. Proficiency in routine genetic manipulation techniques including sequencing and site directed mutagenesis is necessary. Qualified candidates will have a minimum of 2 years experience in molecular biology. Experience in the use of expression systems for the production of recombinant proteins is required.

MEDICINAL CHEMISTS- BS/MS/PH.D.

Ideal candidates at the **Bachelor's** level will have a degree in synthetic organic chemistry with at least 2 years full-time bench experience and a demonstrated enthusiasm for bench-scale synthetic chemistry, preferably within the pharmaceutical industry. **Ph.D.** level candidates must also possess a degree in synthetic organic chemistry and experience with a proven record of creative contributions to challenging problems. The desire to apply insights from biology, structural biophysics and computational chemistry to design problems is essential.

X-RAY CRYSTALLOGRAPHY- PH.D./MS

The successful candidate will be involved in all aspects of structure determination from crystallization and data collection to map interpretation and refinement. Experience in molecular replacement techniques for low symmetry crystals with multiple protein copies per asymmetric unit is highly desirable. State-of-the-art facilities are available to support all aspects of the drug development process, including two Rigaku RU200 rotating anode generators with RaxisIIC image plate systems, a Siemens/Nicolet area detector, and Silicon Graphics 4D/480 and Iris R4000 workstations.

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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.

Molecular Neurobiology and Pharmacology **William C. Wetsel, PhD**

The regulation of neuropeptide gene expression, biosynthesis, processing, intracellular trafficking, and secretion are being studied. Particular emphasis is placed upon the signal transduction mechanisms which underlie these cellular events. Applicants should have experience in pharmacology, biochemistry, and molecular biology and have less than five years postdoctoral training. Laboratory of Cellular and Molecular Pharmacology (OE-45), NIEHS, P.O. Box 12233, Building 19-03, Research Triangle Park, NC 27709.

Neurobiology of Alcohol Consumption **Markku Linnoila, MD, PhD**

Operant conditioning techniques are being used to assess CNS mechanisms of interindividual differences in alcohol consumption in nonhuman primates. These procedures are used to pharmacologically assess reward, anxiety, and impulse control mechanisms related to alcohol consumption in rhesus macaques with known rearing and genetic backgrounds. Laboratory of Clinical Studies (OE-45), NIAAA, Building 10, Room 3C103.

Cellular and Molecular Neurophysiology **Mark L. Mayer, PhD**

Studies on mammalian glutamate receptor ion channels use patch clamp techniques combined with rapid perfusion to study native and recombinant AMPA, NMDA and kainate receptors. Systems in use include primary cultures, acutely dissociated neurons, HEK293 cells and *Xenopus* oocytes. Applicants should have training in patch-clamp and/or molecular biology techniques and less than five years postdoctoral experience. Laboratory of Cellular and Molecular Neurophysiology (OE-45), NICHD, Building 49, Room 5A78.

Immunobiology **Kelly P. Kearse, PhD**

T cell biology is being studied with particular emphasis on T cell differentiation, extrathymic migration, and developmental regulation of immune receptors. Applicants should have experience in immunology, molecular biology, or biochemistry and have less than five years postdoctoral experience. Experimental Immunology Branch (OE-45), NCI, Building 10, Room 3N105.

Molecular Endocrinology **Sheue-yann Cheng, PhD**

The molecular mechanisms mediating thyroid hormone induced growth, development, and differentiation are being studied with particular emphasis on the interaction of thyroid hormone nuclear receptors with the basal transcriptional factors. The tissue specific factors which regulate the transcriptional activity of the thyroid hormone receptors will also be identified and characterized. A strong background in molecular biology and biochemistry is preferred. Laboratory of Molecular Biology (OE-45), NCI, Building 37, Room 4B09.

Molecular and Cellular Toxicology **Lance R. Pohl, PhD**

The molecular and cellular basis of toxicities caused by reactive metabolites of endogenous molecules and drugs are being examined. Current studies involve the isolation and characterization of cellular targets of toxic reactive metabolites and the elucidation of both immune and non-immune-mediated mechanisms of toxicity caused by chemically altered cellular products. Studies utilize modern techniques of chemistry, biochemistry, immunology, cellular biology, and molecular biology. Applicants should have less than five years of postdoctoral training. Laboratory of Chemical Pharmacology (OE-45), NHLBI, Building 10, Room 8N115.

Mediators of Airway Inflammation **Paul Nettesheim, MD**

The role of lipid mediators and cytokines in airway inflammation/bronchial hyperresponsiveness induced or exacerbated by environmental factors are being investigated. The project is part of a larger clinical research effort to study the role of environmental factors in human asthma and it is conducted in collaboration with area medical schools. Applicants should have training in molecular biology and/or lipid biochemistry and less than five years of postdoctoral experience. Laboratory of Pulmonary Pathobiology (OE-45), NIEHS, P.O. Box 12233, Mail Drop D2-01, Research Triangle Park, NC 27709.

Additional Postdoctoral Fellowship Opportunities

For an on-line listing of additional postdoctoral openings you may access the NIH EDNET Bulletin Board's POSTDOC conference by Internet (wylber.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 terminal emulation, "F5E" for initial, 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 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.



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**FACULTY POSITION
DEPARTMENT OF PHARMACOLOGY
AND TOXICOLOGY
UNIVERSITY OF UTAH**


Applications are invited for a TENURE-TRACK position in the Department of Pharmacology and Toxicology at the Assistant Professor level. Applicants must have a doctoral degree, significant postdoctoral research experience, and demonstrated ability to be productive in an academic setting; salary will be commensurate with experience. Current areas of strength in the department include neuropharmacology, neurotoxicology, human and biochemical toxicology, drug metabolism, cardiovascular pharmacology, molecular pharmacology and molecular biology. We are seeking a candidate who either has expertise in one of these fields or can augment the department's areas of expertise. Successful applicants will be expected to develop a strong, independent research program with external funding as well as participate in teaching at both graduate and professional levels. The department particularly encourages applications from women and minorities for this position.

Candidates should submit a letter of application, a brief statement of research objectives, curriculum vitae, and at least three letters of recommendation. Please submit responses to Douglas E. Rollins, M.D., Ph.D., Search Committee Chair, Department of Pharmacology and Toxicology, 112 Skaggs Hall, University of Utah, Salt Lake City, UT 84112. (801) 581-5117. Applications should be submitted by July 1, 1994, but later applications may be considered if no suitable candidates have been identified by the deadline. The University of Utah is an Equal Opportunity/Affirmative Action Employer.

C OMPUTATIONAL BIOCHEMIST

We seek a scientist interested in helping to design safe and effective crop protection chemicals in our Agricultural Products organization. You will work with protein crystallographers, biochemists and synthesis chemists to design enzyme inhibitors and receptor active compounds using protein structural and molecular modeling approaches. You will also be responsible for maintaining software systems for structure based design, and have skills in the application of protein modeling programs to the study of protein-ligand interactions. A working knowledge of physical organic chemistry and structural biochemistry and the ability to critically evaluate crystallographic data are desirable. A PhD in Chemistry or Biochemistry is required and postdoctoral and/or industrial experience is preferred.

Interested candidates are invited to forward their resumes and a list of references to: Human Resources, Dept. SCI, Stine-Haskell Research Center, P.O. Box 30, Newark, DE 19714. An Equal Opportunity Employer.

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The University of Kansas Medical Center seeks to recruit a distinguished physician/scientist with national and international reputation and achievements in molecular medicine. The professorship is established in partnership with the Hall Family Foundation which will endow the salary and expenses of the successful candidate. We seek an internationally recognized physician/scientist with a clear history of productive, innovative, and progressive clinical and research achievement in the field of molecular medicine. The successful candidate will establish a basic science and clinical program in molecular medicine at the University of Kansas School of Medicine. The individual will be allocated research space in a new research building slated for completion in Summer, 1994. The incumbent will have interactions with 350 full-time faculty members at the University of Kansas School of Medicine who have extensive research centers in cancer, aging, neurosciences, environmental health, mental retardation and reproductive biology. The environment will provide the candidate with rich opportunities for clinical applications of molecular medicine and continuation of basic research in molecular biology. This appointment will be at the full professor level with tenure in either a clinical or basic science department. Applications from interested individuals or nominations of suitable individuals are invited. Please contact: **Daniel Hollander, M.D., Executive Dean, School of Medicine, University of Kansas Medical Center, Kansas City, KS 66160-7300.** The University of Kansas is an Equal Opportunity/Affirmative Action employer.

**Chair, Department of
Biochemistry and Biophysics
School of Medicine
University of North Carolina
at Chapel Hill**

The School of Medicine of the University of North Carolina at Chapel Hill seeks an individual to provide scholarly, academic and administrative leadership for the research and teaching programs of the Department of Biochemistry and Biophysics. The department has excellent facilities and strong collaborative relationships with other departments, research centers and programs within the University. Other academic and industrial institutions in the Research Triangle enhance the scientific environment. Minimum qualifications include a Ph.D. and/or M.D. degree, a distinguished record of creative scientific productivity and a commitment to graduate and medical education. Review of applications will begin on June 27, 1994 and continue until the position is filled. Reply with a letter of interest, curriculum vitae and the names/addresses/phone numbers of three or more references to Stanley C. Froehner, Ph.D., Chair of Biochemistry and Biophysics Search Committee, c/o Office of the Dean, School of Medicine, CB# 7000 MacNider Hall, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27599-7000 (Attention: L.J. Murphy). AA/EOE. Women and members of minority groups are encouraged to apply.

POSITIONS OPEN

MOLECULAR/CELLULAR PHARMACOLOGY

The Department of Pharmacology, University of Kentucky College of Medicine, at Lexington, is further expanding its programs in Molecular and Cellular Pharmacology. Excellent facilities and new resources are available to support these programs. Several tenure-track positions are available immediately at the ASSISTANT/ASSOCIATE PROFESSOR levels. Candidates whose research involves modern molecular approaches to structure/function analysis of ion channels and receptors, the regulation of steroid and/or growth factor genes, calcium homeostasis or second messenger systems particularly in relation to brain aging and Alzheimer's Disease, cell toxicity, carcinogenesis, cardiovascular disease, drug abuse, pain or other major health problems and/or who are utilizing gene therapy approaches, are especially encouraged to apply. The successful candidate should have demonstrated clear evidence of the ability to develop a state-of-the-art research program that is competitive for extramural support. Participation in departmental training of medical and graduate students in Pharmacology also is an important aspect of these positions. A Ph.D. or M.D. degree, and postdoctoral experience are required. Interested candidates should send curriculum vitae and the names, addresses and telephone numbers of three references to: Search Committee, Department of Pharmacology, University of Kentucky College of Medicine, MS-305 Chandler Medical Center, Lexington, KY 40536-0084. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

ASSISTANT PROFESSOR TO ASSOCIATE PROFESSOR IN MARINE BIOLOGY

The University of Guam Marine Laboratory invites applications for a tenure-track, 12-month faculty position in marine biology with initial contract for three years. Position available August 1994. Preference will be given to investigators employing molecular approaches to studying such areas as symbiosis, population genetics, or evolutionary biology. Applicants must have a Ph.D. in a relevant field and a strong record of research. A commitment to developing an extramurally funded research program, a willingness to participate in graduate and undergraduate teaching, and thesis supervision at the M.S. level are expected. Postdoctoral experience is preferred. Closing date is June 30, 1994, or until a suitable candidate is found. Applicants should send curriculum vitae, statement of research interests and plans, names and addresses of three references, and copies of selected publications to: Dr. Charles Birkeland, Chair, Search Committee in Marine Biology, c/o Personnel Services Division, University of Guam, UOG Station, Mangilao, Guam 96923, USA. An Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.

ASSISTANT/ASSOCIATE PROFESSOR: Tenure-track position for NMR spectroscopist with research interests in applying multinuclear NMR to studies of the structure and/or function of biomolecules. The successful candidate will have primary responsibility for a Varian VXR 500S and will be expected to pursue independently funded research and to participate in departmental teaching activities. Interested persons should submit curriculum vitae, a summary of research interests, and three letters of recommendation to: NMR Faculty Search Committee, Department of Biochemistry, University of Kentucky Medical Center, Lexington, KY 40536-0084.

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ASSISTANT/ASSOCIATE PROFESSOR

One Long-Term-Track Faculty Position. Begin August 1994. Ph.D. required, teaching experience—NEUROANATOMY/NEUROSCIENCE/NEUROPATHOLOGY. Expected to teach undergraduate and graduate students in a weekend Physical Therapy Program. Expectation to conduct research. Experience in small college setting preferred. Liberal arts environment. Letter stating interests, complete résumé, transcripts and three letters of reference due prior to May 15, 1994. To: Dr. Luis G. Vargas, Director, Program in Physical Therapy, Barry University, 11300 Northeast 2nd Avenue, Miami Shores, FL 33161.

POSITIONS OPEN

NEUROPATHOLOGIST. The Division of Neuro-pathology, Department of Pathology, at Northwestern University Medical School is looking for a board eligible/board certified academic neuropathologist at the ASSISTANT PROFESSOR level. We are looking for an individual with both clinical and basic research training, and with demonstrated capacity for independent fundable research. Cellular and/or molecular biology training will be a definite asset. Preference will be given to individuals with research interests in neurodevelopment and/or neuro-oncology. The selected applicant will have ample opportunities to interact with a very strong Neuroscience Program, a recently established Immunobiology Program and the Cancer Center. Please send curriculum vitae and three names of references to: Mauro C. Dal Canto, Department of Pathology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611. Northwestern University is an Affirmative Action/Equal Opportunity Employer, and women and minorities are particularly encouraged to apply.

POSTDOCTORAL RESEARCH ASSOCIATE UNIVERSITY OF VIRGINIA

A postdoctoral position is available starting June 1, 1994, or soon thereafter on a recently funded DOE project to study the functional determinants involved in substrate binding and catalysis in tetrapyrrole biosynthetic enzymes, with particular emphasis on the light-dependent Protophytyl reductases of higher plants and algae. Applicants should have a fundamental training in biochemistry and molecular biology. A strong background in enzyme purification and kinetic analyses is highly desirable. Interested individuals should send curriculum vitae, list of publications, and the names and addresses of two individuals willing to provide letters of recommendation to: Michael P. Timko, Department of Biology, University of Virginia, Charlottesville, VA 22903. Inquiries by E-mail may be made to: mpt9g@cyclops.micr.virginia.edu; FAX: 804-982-5626. The University of Virginia is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION, ANIMAL BEHAVIOR. Research involves hormones and social behavior in rodents and nonhuman primates, including parental behavior. Background in behavioral biology essential, experience in physiological techniques (e.g., RIA/EIA, histology, HPLC) helpful. Position available immediately and will remain open until suitable candidate is appointed. Forward curriculum vitae, statement of research interests, and names of 3 references to: Dr. J. A. French, EPSCoR Postdoctoral Search, Psychology Department, University of Nebraska at Omaha, Omaha, NE 68182; FAX: 402-554-3296; Internet: jfrench@unomaha.edu. The University of Nebraska at Omaha is an Equal Opportunity/Affirmative Action Employer, and encourages applications from women and minorities.

BIOCHEMISTRY AND MOLECULAR BIOLOGY OF HOST DEFENSE SYSTEMS UNIVERSITY OF CALIFORNIA, IRVINE (UCI)

Four POSTDOCTORAL POSITIONS and a FACULTY ASSISTANT/ASSOCIATE RESEARCHER POSITION are available in the UCI Department of Pathology for studies on cell-mediated and humoral host defense systems. This ongoing research program seeks to characterize the molecular basis of innate immunity provided by natural antibiotic peptides (e.g., indolicidin, defensins and β -defensins) produced by leukocytes and epithelial cells. Unique research opportunities are available for postdoctoral applicants with experience in (1) production and characterization of peptide libraries, (2) heterologous expression of bioactive molecules in bacteria and yeast, (3) biophysical characterization of peptide-bilayer interactions, (4) production of liposomal formulations of bioactive peptides/proteins, (5) tissue culture models of cellular injury, and (6) regulation of eukaryotic gene expression.

Applicants for the Faculty Research Position should have at least 5 years of postdoctoral experience, a strong background in biochemistry and molecular biology, and demonstrated ability to direct and coordinate activities of more junior researchers. Send curriculum vitae, research experience and interests, and names of three references to: Dr. Michael E. Selsted, Department of Pathology, College of Medicine, University of California, Irvine, CA 92717-4800. The University of California is an Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE POSITIONS. The Plant Molecular Genetics Institute (PMGI), University of Minnesota, has temporary (1 to 2 year) Postdoctoral Associate positions available for persons with a doctorate degree and applicable research training and experience. Positions may be available in: regulation of gene expression during different stages of development and in transformed plants; structure and function of chromosomes and chromosome elements, plant pathogenesis, pathogenicity, and plant microbe interaction, evolution, cell cytoskeleton; mitochondria and plastid biogenesis; molecular cytogenetics and genome mapping; tissue culture selection and biochemical genetics; and transposon tagging. Positions emphasizing different aspects of plant molecular genetics/biology are supervised by one or more of 20 PMGI faculty members located in 6 Departments. By June 1, 1994, send personal curriculum vitae, a brief statement of research interests and experience, and names, addresses and telephone numbers of three references to: Dr. Ronald L. Phillips, Director PMGI, 411 Borlaug Hall, 1991 Upper Buford Circle, University of Minnesota, St. Paul, MN 55108; (Telephone: 612-625-1213; FAX: 612-625-1268). The University of Minnesota is an Equal Opportunity Employer and Employer and specifically invites and encourages applications from women and minorities.

POSTDOCTORAL POSITION in Neuroimmunology available July 1994. NIH-supported position to study immunological and molecular mechanisms of the autoimmune disease Myasthenia Gravis. Development of novel therapeutic strategies for specific treatment of experimental and human Myasthenia including induction of anergy; "targeting" specific T cells; and new agents for specific therapy of autoimmune diseases. Must have Ph.D. or M.D., knowledge of cellular immunology and some molecular biology, and laboratory experience. Send letter describing background and interest, curriculum vitae, and 3 references to: Daniel B. Drachman, Director Neuromuscular Unit, Johns Hopkins School of Medicine, 600 North Wolfe Street, Baltimore, MD 21287-7519; or FAX: 410-955-1961. An Equal Opportunity Employer.

RESEARCH ASSOCIATE. Positions are available in the Molecular Urology Laboratory for candidates with potential for individual approach to studies of the genetic changes associated with human prostate cancer development and progression and for the formulation of genetic approaches to enhance apoptosis of prostate cancer cells.

Strict requirements include a graduate degree in the basic sciences and authoritative experience with recombinant DNA methods and nucleic analysis. Experience with other techniques such as immunocytochemistry, Western blot analysis, *in situ* hybridization and/or antisense oligonucleotide suppression of gene activity also preferred. Salary range commensurate with expertise.

Send curriculum vitae and names of references to: Dr. Ralph Buttyan, Department of Urology, Columbia University College of Physician and Surgeons, 630 West 168th Street, New York, NY 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSISTANT II—This position involves carrying out specific experiments with liver cells, including hepatocytes and Kupffer cells. Isolation of these cells from livers (involves surgical procedures) and their maintenance in culture. Isolation of mRNA from these cells and its quantitation by Northern blot analyses are part of the duties. Experiments involving the isolation of fragments of fibrin and their use in tissue culture as specific inducers of gene expression are to be carried out. Other responsibilities of this position include maintenance of all radio isotopes used in the laboratory and their required records; the repair and maintenance of laboratory equipment and photography skills for making slides of data for oral presentation. Some teaching of molecular biology techniques and animal surgery will also be part of the duties of the individual selected for the position. Requires a Master's of Science in Biology/Chemistry with 5 years of experience in research and teaching to include handling small animals (rats, mice and rabbits) including surgery is an essential part of the position. 8:00 a.m. to 5:00 p.m., 40 hours per week. Salary \$26,601.40 per calendar year. Contact: Ms. Sandra T. Starnes, Alabama State Employment Service, 3440 3rd Avenue South, Birmingham, AL 35222.

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POSITIONS OPEN

POSTDOCTORAL RESEARCH SCIENTIST POSITION available after May 1994 at the Whitney Lab, St. Augustine, Florida, to conduct studies of the bioavailability and biotransformation of benzo(a)pyrene and metabolites in aquatic species. Ph.D. in Analytical Chemistry, Toxicology or a related area required. Please send curriculum vitae and the names of 3 references to: **Dr. M. O. James, Department of Medical Chemistry, P.O. Box 100485, University of Florida, Gainesville, FL 32610. Equal Opportunity Employer.**

RESEARCH SCIENTIST: DEEP-SEA BENTHIC BIOLOGIST

The Life Sciences Division of the Monterey Bay Aquarium announces an opening for a **RESEARCH SCIENTIST** to conduct basic research on the biology of deep-sea benthic organisms, and to contribute to the aquarium's live exhibit and educational programs. Position is available in November 1994. Research interests should take advantage of the aquarium's extensive facilities for holding captive marine organisms, access to the nearby Monterey Submarine Canyon, and close intellectual ties with neighboring scientific institutions. Scholarly publication of research findings, participation in aquarium educational and husbandry research and development programs is expected. Requires a Ph.D. and postdoctoral experience. Send letter of application, statement of professional interests, resume and names of three references to: **Research Scientist Search, Human Resources Division, Monterey Bay Aquarium, 886 Cannery Row, Monterey, CA 93940. Deadline for application is 5:00 p.m. May 20, 1994. Equal Opportunity Employer.**

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Please send curriculum vitae and references to: **Miguel Castro, Bio-Synthesis, Inc., P.O. Box 1202, Lewisville, TX 75067.**

ELECTRON MICROSCOPY RESEARCH TECHNICIAN—Applicant will assist in experimental studies of various biological systems. B.S./B.A. or M.S. with experience in routine electron microscopy procedures, ultramicrotomy, immunogold labeling, and dark-room work is required. Additional experience with immunofluorescence and confocal microscopy is desirable. Applicants should send curriculum vitae and names of three references to: **Dr. Scott Henderson, Director of Microscopy, Department of Cell Biology and Anatomy, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574. An Equal Opportunity Employer; women and minorities are encouraged to apply.**

VACUUM SCIENTIST at Laboratory of Nuclear Studies, Cornell University, to join the Vacuum Group responsible for vacuum systems of particle accelerators, consisting of the CESR electron-positron storage ring and injectors consisting of a Synchrotron and Linac. CESR's ultra high vacuum system is being upgraded, presenting a considerable challenge and an opportunity to participate in design and fabrication of a system using innovative UHV concepts. Responsibilities of the position include: research into materials, processes, and equipment needed for maintaining and improving vacuum systems required for high beam current operation; design and assembly of laboratory apparatus and carrying out of procedures to evaluate new concepts, as well as generally assisting in improving accelerator performance including further training of technicians.

A Master's degree with experience in vacuum science is required. Experience with accelerator or other large vacuum systems is highly desirable. A complete job description will be provided on request.

Interested candidates should contact: **Chairman, Accelerator Physics Search Committee, c/o search@lns62.lns.cornell.edu, FAX: 607-254-4552, or Telephone: 607-255-4951. Mail contact can be made at: Newman Laboratory, Cornell University, Ithaca, NY 14853-5001. Cornell University is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

ASSOCIATE RESEARCH SCIENTIST

A position is available immediately for a Ph.D. in **molecular biology** with experience in mitochondrial biology and genetics, tissue culture (including DNA transfection), protein blotting, and quantitative PCR determinations of mtDNA. Computer skills helpful. Salary commensurate with experience. Comprehensive benefits package. Send letters of inquiry and curriculum vitae to: **Dr. Eric A. Schon, Room 4-431, Department of Neurology, Columbia University, 630 West 168th Street, New York, NY 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.**

BPS INTERNATIONAL is an executive search firm specializing in placing Biotechnology and Pharmaceutical professionals. We currently have positions in Research and Development, Process Development, QA/QC, Regulatory and Clinical Affairs and Manufacturing. Interested parties please contact: **BPS INTERNATIONAL, 63 Calle de Industrias, Suite 454, San Clemente, CA 92672. Telephone: 714-492-9911, FAX: 714-492-1629.**

MEETINGS

19TH INTERNATIONAL HERPESVIRUS WORKSHOP JULY 30-AUGUST 5, 1994 UNIVERSITY OF BRITISH COLUMBIA

The 19th International Herpesvirus workshop will bring together researchers with interests in basic, medical and veterinary herpesvirus research. Posters will be an important part of the 19th Workshop and will be displayed for the entire meeting. A partial list of the topics include: Virus entry, Vaccines, Gene regulation, DNA replication, Antiviral agents and resistance, Enzymes, Epidemiology, Pathogenesis, Gene therapy, Immunology, Transformation, and Virus assembly. The abstract deadline is May 2, 1994.

For more information, please contact: **Dr. Frank Tufaro, 19th International Herpesvirus Workshop c/o Venue West, 645-375 Water Street, Vancouver, B.C. V6B 5C6. Telephone: 604-681-5226. FAX: 604-681-2503.**

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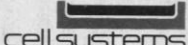
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