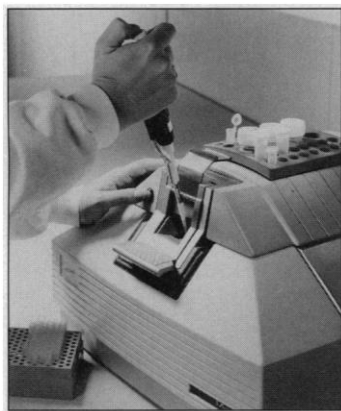


Biosensor Interaction Analysis

The IAsys system allows the kinetics of biomolecular interactions to be studied in real time in a broad range of sample types. Events such as protein-protein, protein-DNA, drug-receptor, and cell surface interactions can be analyzed in seconds without radiolabeling, laborious purification procedures, or tedious assay



development. The IAsys cuvette system features microstirring for kinetics analyses of solutions and cell or particle suspensions. **Fisons Applied Sensor Technology.** Circle 140.

RNase-Free DNase

Product D 5793, RNase-free DNase, is useful in nick translation, isolation of nuclear RNA, DNA footprinting, production of overlapping subclones for DNA sequencing, and detection of transcriptionally active regions of chromatin. **Sigma Chemical.** Circle 141.

3D Confocal Microscopy Software

ImageSpace 3.1 is a new software package for confocal microscopy that runs on silicon graphics workstations. It provides an integrated environment for collection, processing, analysis, and display of confocal images. New features allow investigators to perform quantitative image analyses

on three-dimensional data. Investigators can visualize individual nerve cells from within a bundle, determine the volumes occupied by subcellular organelles, and quantitate chromosomal hybridizations. Advanced analytical capabilities include automated object counting, intensity measurement, seeding, segmentation, and tools for colocalization studies. **Molecular Dynamics.** Circle 142.

RNA Purification from Small Samples

The GIBCO BRL GlassMax Microisolation Spin Cartridge System is designed to isolate RNA from small quantities of tissue (10 to 20 mg) or cells (1×10^4 to 10^6) in preparation for reverse transcriptase polymerase chain reaction. The entire isolation process, starting from intact cells or tissue to recovered RNA, takes less than 15 min. The RNA is liberated from the cells using a guanidine isothiocyanate solution. An acidic NaI solution is used to selectively bind the RNA to the membrane of a GlassMax Spin Cartridge. The purified RNA is then eluted in water by centrifugation. Amplification-grade DNase I is used to remove traces of DNA without degrading the RNA. **Life Technologies.** Circle 143.

DNA and RNA Hybridization

Dynabeads M-280 Streptavidin allows for the efficient coupling of biotinylated nucleic acids for complex hybridization reactions. DNA or RNA bound to the Dynabeads either as a probe or target may be hybridized directly with complementary sequences in free solution. For a direct hybridization reaction, biotinylated

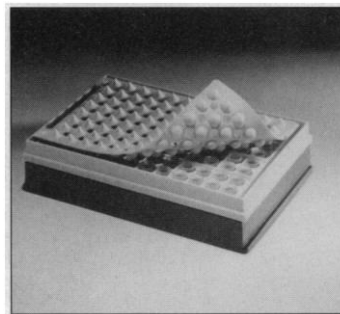
nucleic acid is immobilized onto the Dynabeads through the high affinity biotin-streptavidin linkage. The resulting magnetic DNA or RNA affinity beads bind the target sequence with a kinetics similar to that of DNA in free solution. For indirect hybridization, the Dynabeads M-280 are added directly to the hybridization solution containing the biotinylated probe and target sequences. Magnetic separation and elution of target nucleic acids are completed in minutes. **Dynal.** Circle 144.

Scientific Information Management Software

ISIS 1.1, the Integrated Scientific Information System for managing data in a multidatabase computing environment, is an upgrade with major changes concentrated in the areas of integration and sharing of data, application development, and stability. **MDL Information Systems.** Circle 145.

Microplate Cover

The MicroAmp Full Plate Cover for the GeneAmp Polymerase Chain Reaction System 9600 covers and seals 96 MicroAmp



reaction tubes in order to significantly decrease process time and increase sample throughput. The cover is designed for high-volume

researchers who use 96 samples for each amplification run and who want the greatest ease of sealing the tubes during amplification. The cover does not require an oil overlay. **Perkin-Elmer.** Circle 146.

Literature

Maxim Biotech, Inc.—1994 is a catalog featuring a wide range of products and services. Molecular biology products include oligonucleotides for DNA amplification, DNA probes for hybridizations, custom oligonucleotide synthesis services, and in situ hybridization and detection kits. Products for immunohistology include monoclonal and polyclonal antibodies, positive control tissue slides and tissue blocks, a custom antibody specificity test, staining kits, and protein immunoblotting kits. Biochemical reagents include chromogen substrates and hybridization buffers. **Maxim Biotech.** Circle 147.

The Axon Guide for Electrophysiology & Biophysics Laboratory Techniques focuses on neuroscience, cardiovascular, and plant physiology research. It includes chapters on the biological basis of bioelectricity, "noise-free" laboratory setup, experiment protocols and techniques, data acquisition and analysis, and the principles of operation underlying advanced equipment in the field. **Axon Instruments.** Circle 148.

TDS Numerica Technical Database Services is a catalog describing databases, software, and an electronic reference library for environmental assessment, chemical evaluation, process design, product development, technical research, and more for chemists and technical information specialists. **Technical Database Services.** Circle 149.

Disposable Devices for Reliable Small-Volume Filtration presents a complete line of sterile and nonsterile products. **Millipore.** 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

ASSISTANT PROFESSOR IN MICROBIOLOGY/IMMUNOLOGY

The Department of Microbiology and Immunology at the University of South Alabama College of Medicine is seeking applications for a tenure-accruing-track position (12-month appointment) for Assistant Professor. The research area is open, but applicants using modern molecular genetic-based research approaches and with the potential to mount vigorous independent research efforts are sought. Teaching loads are modest, but strong instructional skills are essential. This department has excellent, modern facilities and equipment. Additional new research facilities are also under construction and development. BL-3 containment facilities, primate and other excellent vivarium as well as biotechnical core services are available. The department has an established graduate program offering the Ph.D. Applications along with three references and their addresses should be sent to: Dr. Joseph H. Coggin, Chair, University of South Alabama, Department of Microbiology and Immunology, LMB, Mobile, AL 36688-0002. For telephone inquiries: (205) 460-7108. *The University of South Alabama is an Affirmative Action/Equal Opportunity Employer.*

ANIMAL PHYSIOLOGIST

A tenure-track appointment at the ASSISTANT PROFESSOR level is available starting Fall Semester 1994. We expect the candidate to have both Ph.D. and postdoctoral experience in animal physiology, and some teaching experience. The successful candidate will be expected to teach undergraduate and graduate courses in animal physiology, occasionally participate in teaching Introductory Zoology, Cell and Molecular Biology, and General Education.

Supervision of undergraduate research, training of graduate students at the M.S. level, and development of a fundable research program are expected.

Please send curriculum vitae, transcripts, names of three references, reprints and statements of teaching experience and philosophy, research plans, and career goals by February 15, 1994, to: Physiology Search Committee, Biological Sciences, Southern Illinois University at Edwardsville, IL 62026-1651.

SIUE is a comprehensive regional university located in the St. Louis Metropolitan Region, and dedicated to excellence in undergraduate education. *SIUE is an Affirmative Action Employer.*

FACULTY POSITION IN BIOLOGY/ENVIRONMENTAL SCIENCE. ASSISTANT PROFESSOR, tenure-track. Available fall 1994. Ph.D. required. Teaching will include comparative vertebrate anatomy, vertebrate physiology, and an advanced ecology course. Candidate should possess strong, dynamic teaching skills and ability to develop an active research program. Our present faculty expertise provides a research foundation in the areas of plant biology, cell biology, and biochemistry (particularly protein/peptide chemistry).

Philadelphia College of Textiles and Science (PCT&S) is a fully accredited, four-year, independent, career-oriented institution. Currently, we are developing a new major in environmental science with options in biology and chemistry.

Review of applications will begin February 15, 1994. Submit letter of application, curriculum vitae, statement of research interests, and names, addresses and telephone numbers of three professional references to: Dr. Richard A. Nigro, Vice President for Academic Affairs, PCT&S, School House Lane and Henry Avenue, Philadelphia, PA 19144. *PCT&S is an Affirmative Action/Equal Opportunity Institution.*

ASSISTANT PROFESSOR. Applications are invited for a tenure-track position in the Department of Entomology. The appointee will be expected to develop a competitive program in research emphasizing the application of molecular biology to the development and/or enhancement of biological control agents, contribute to the instructional program by teaching undergraduate and graduate-level courses, and by advising students. Salary, start-up funds and facilities are nationally competitive. Send letter of application, résumé, transcripts, statement of research and teaching interest and philosophy, and a copy of reprints and request four letters of reference be sent by 15 February 1994 to: B. C. Pass, Department of Entomology, University of Kentucky, Lexington, KY 40546-0091. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

MOLECULAR CELL BIOLOGIST

Tenure-track ASSISTANT/ASSOCIATE PROFESSOR. Must have Ph.D. requirements completed by 1 September 1994. Must have training and research experience in molecular cell biology. Preference given to those with experience in plant cell physiology and/or plant molecular biology. Applicants should have broad training in biology and strong commitment to teaching. Duties: teaching cell physiology, general biology, graduate courses; developing courses; advising; supervising graduate student research; serving on committees. Submit curriculum vitae, all transcripts, and names of three references to: M. Reihman, Chair, Department of Biological Sciences, California State University, Sacramento, CA 95819-6077. Applications must be postmarked by: 1 March 1994. *Affirmative Action/Equal Employment Opportunity.*

DEPARTMENT OF PHARMACOLOGY, THE OHIO STATE UNIVERSITY

COLLEGE OF MEDICINE. Applications are invited for an ASSISTANT, ASSOCIATE, or FULL PROFESSOR, tenure-track or tenured faculty position. Candidates with expertise in any area of pharmacology will be considered. Outstanding individuals with an active, NIH-funded research program are being sought. The successful candidate is expected to continue to expand his/her research program and to be involved with the teaching and training of medical and graduate students. Applicants, Ph.D. and/or M.D., should send curriculum vitae, statement of research and teaching interests and experience, and the names of three references to: Dr. Andrej Rotter, Chair, Search Committee, Department of Pharmacology, The Ohio State University College of Medicine, 5136 Graves Hall, 333 West Tenth Avenue, Columbus, OH 43210-1239. Review of applications will begin February 1, 1994, and will continue until the position is filled.

The Ohio State University is an Affirmative Action/Equal Employment Opportunity Employer. Qualified women, minorities, Vietnam-era veterans, disabled veterans and the disabled are encouraged to apply.

CELLULAR OR DEVELOPMENTAL BIOLOGY FACULTY POSITION AT THE UNIVERSITY OF ARIZONA

As part of a continuing expansion, the Department of Molecular and Cellular Biology is seeking a new tenure-track faculty member at the ASSISTANT PROFESSOR level for appointment in 1994. Preference will be given to applicants with research interests in the cellular or developmental biology of multicellular organisms, although exceptional candidates in other areas will be considered. Successful candidates will be expected to establish a competitive research program and to teach at both the undergraduate and graduate levels. Send curriculum vitae, a 1 to 2 page statement of research interests, and have at least three supporting letters sent to: Professor Samuel Ward, Head, Department of Molecular and Cellular Biology, Life Sciences South Building, Room 444, University of Arizona, Tucson, AZ 85721. To ensure consideration, applications should be received by January 21, 1994, although applications will be accepted until the position is filled. *The University of Arizona is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

ASSISTANT PROFESSORS IMMUNOLOGY and VIROLOGY The University of Texas at San Antonio (UTSA)

Applications are invited for two tenure-track faculty positions (one Immunologist and one Virologist) at the Assistant Professor level. Requirements include a doctoral degree in the appropriate discipline and two years of postdoctoral experience. The Division of Life Sciences offers the B.S. and M.S. in Biology, M.S. in Biotechnology and a Ph.D. in Biology with an emphasis in neurobiology. We seek candidates with demonstrated research accomplishments and a strong commitment to teaching. Set-up funds and laboratory space are available. Send curriculum vitae, a letter describing research interests, and three reference letters to: Chair, Immunology/Virology Search Committee, Division of Life Sciences, The University of Texas at San Antonio, 6900 Loop 1604 N.W., San Antonio, TX 78249. Applications will be accepted until February 1, 1994. *UTSA is an Affirmative Action/Equal Opportunity Employer. Minorities and women are especially encouraged to apply.*

POSITIONS OPEN

RESEARCH FACULTY

The Department of Psychiatry at Northwestern University is recruiting for an endowed faculty position at **ASSISTANT/ASSOCIATE PROFESSOR** level. Candidates must have capabilities in basic research relevant to neurobiology of bipolar disorder. Range of research interests considered if focused on affective disorders. Applications accepted from Ph.D.'s/M.D.'s. *Northwestern University is Affirmative Action/Equal Opportunity Employer. Hiring contingent on eligibility to work in United States.* Send curriculum vitae to: **Bill McKinney, M.D., Department of Psychiatry, Northwestern University, Passavant 554, 303 East Superior, Chicago, IL 60611.**

INTERDISCIPLINARY SCIENCE STUDIES: Portland State University invites applications for a tenure-track appointment as **ASSOCIATE PROFESSOR** in both the University Honors Program and the Portland State University Center for Science Education beginning fall quarter 1994. Responsibilities include providing leadership and teaching in an interdisciplinary science curriculum, sharing instructional responsibilities in a "Studies in Western Culture" sequence course, and developing courses treating science as cultural practice. Qualifications: Ph.D. in a natural science, postdoctoral experience in areas outside the sciences, demonstrated record of interdisciplinary scholarship, curriculum development and successful grantwriting, as well as a commitment to general education and substantial familiarity with current intellectual developments in the humanities and social sciences. Send letter of application, current curriculum vitae, and three letters of recommendation to: **Dr. Lawrence Wheeler, Director, University Honors Program, Portland State University, P.O. Box 751, Portland, OR 97207 by 1 March 1994.**

Portland State University is an Affirmative Action/Equal Opportunity Employer. Women, members of minority groups, and persons with disabilities are encouraged to apply.

ASSISTANT/ASSOCIATE PROFESSOR BIOCHEMISTRY UNIVERSITY OF CONNECTICUT

The Department of Molecular and Cell Biology at the University of Connecticut invites applications for an anticipated tenure-track position with a target starting date of September 1, 1994. The successful candidate should have significant postdoctoral experience and will be expected to establish a strong, extramurally funded research program in the general area of protein science. We are particularly interested in receiving applications from individuals who combine biochemical and physical biochemical approaches. The successful candidate also will be expected to participate in graduate training and in the teaching program of the Department. Exceptional candidates will be considered for appointment at the Associate Professor level. Applicants should submit curriculum vitae, reprints or preprints of major publications, a statement summarizing research accomplishments and future plans, and have at least three letters of recommendation sent to: **Professor Richard Crain, Chair, Biochemistry Search Committee, University of Connecticut, Department of Molecular and Cell Biology, U-125, 75 North Eagleville Road, Storrs, CT 06269-3126.** The review of applications will begin on January 15, 1994, and continue until the position is filled. *The University of Connecticut encourages minorities, women, and people with disabilities to apply for this position.* (Search #3A143)

PHYSICAL SCIENCE/ ENVIRONMENTAL SCIENCE POSITION

Full-time, tenure-track **ASSISTANT PROFESSOR** position in Physics, Environmental Science and/or Earth Science/Geology. Position to begin fall semester, 1994. Responsibilities will include teaching a full year of Introductory Physics, a one-semester course in Earth Science, and additional courses in the following: environmental chemistry, environmental science, climatology-hydrogeology, or other specialty related to environmental science. The standard teaching load is 24 credits per year. Ph.D. in a physical science required with postdoctoral, professional and/or teaching experience preferred. Please send a letter discussing your teaching philosophy, three references and curriculum vitae to: **Martin D. Snyder, Ph.D., Provost, Saint Joseph College, 1678 Asylum Avenue, West Hartford, CT 06117.** Deadline for applications is March 1, 1994. *Saint Joseph College is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

TWO FACULTY POSITIONS MILLIKIN UNIVERSITY

Applications are invited for a **BIOCHEMIST** and a **BEHAVIORAL INVERTEBRATE BIOLOGIST** (entomologist preferred) for tenure-track positions at the **ASSISTANT PROFESSOR** level, starting August 1994. The Biochemist will join a thriving department of chemistry to teach in an ACS-approved curriculum. The Biologist/Entomologist should have strong computer/quantitative skills. Both faculty will be expected to involve undergraduates in research. Ph.D. and prior teaching experience preferred. Send curriculum vitae, description of teaching philosophy and research interests, transcripts, three letters of reference to: **Dean, College of Arts and Sciences, Millikin University, Decatur, IL 62522.** Review of applications begins January 18, 1994, and will continue until the position is filled. *An Equal Opportunity Employer.*

IMAGING SCIENTIST—Ph.D. in Electrical Engineering or Computer Science with postdoctoral work in a C/UNIX/X environment and research experience in medical image analysis with an emphasis on computer vision techniques, image databases and differential geometric modeling for appointment at the rank of **ASSISTANT PROFESSOR** in the Department of Diagnostic Radiology. This position is in a research group working on developing methods for geometric description of medical images for use in image databases and cardiac motion analysis. Please send applications with curriculum vitae to: **James S. Duncan, Ph.D., Associate Professor of Diagnostic Radiology and Electrical Engineering, Yale University School of Medicine, 333 Cedar Street, P.O. Box 208042, New Haven, CT 06520-8042.** Application deadline, January 22, 1994. *Affirmative Action/Equal Opportunity Employer.*

GENETIC/MOLECULAR MECHANISMS OF DISEASE

The University of Kentucky, Medical Center, in association with the Tobacco and Health Research Institute (THRI), invites applications for a tenure-track position from individuals with an established research track record in genetic/molecular mechanisms in disease pathogenesis. The applicant should have an M.D., Ph.D. or M.D./Ph.D. degree and qualifications for appointment at the **FULL PROFESSOR** level in a department in the Medical Center. Salary will be commensurate with experience. A record of successful extramural grant support is essential and the applicant will be expected to establish a research program directed at identifying genetic/molecular mechanisms of disease with emphasis on areas such as pulmonary cancer, chronic obstructive lung disease or cardiovascular disease. A substantial start-up package with continuing research support has been allocated to this program. Send curriculum vitae and four references to: **Director, University of Kentucky, Tobacco and Health Research Institute, Cooper and University Drives, Lexington, KY 40546-0236.** Deadline for applications is March 1, 1994.

The University of Kentucky is an Equal Opportunity Employer.

ASSISTANT PROFESSOR, Food Chemistry. The University of Maryland, College Park, will have available mid-August 1994, a 10-month, tenure-track, 50% teaching, 50% research position in the Department of Nutrition and Food Science in the College of Agriculture. Teaching an undergraduate food science course and development of a graduate course in area of research expertise is expected. The successful candidate is expected to develop an innovative, externally fundable research program in some area of food biochemistry, food toxicology or food safety that should strengthen the department's nutrition and food science programs. Candidate should possess the doctorate degree in food science, biochemistry or closely related field, and postdoctorate experience is desirable. Interested candidates should send a letter of application that includes curriculum vitae, a statement of teaching-research interests, and have four reference letters sent to: **Dr. George Bean, Chair, Food Chemist Search Committee, Department of Nutrition and Food Science, University of Maryland, College Park, MD 20742.** Telephone: 301-405-1592. For best consideration, completed applications should be received by March 1, 1994. Salary is competitive and commensurate with qualifications and experience. *An Equal Opportunity/Affirmative Action Educator/Employer.*

POSITIONS OPEN

MOLECULAR GENETICIST

The Department of Biological Sciences invites applications for a tenure-track position at the rank of **ASSISTANT PROFESSOR** beginning in fall 1994. Ph.D. in biological sciences required, postdoctoral experience desirable. Candidates should have a commitment to teaching and show evidence of participation in extramurally funded research. Main teaching responsibilities are in Genetics and Molecular Biology. Development of graduate courses in the candidate's area of specialization will also be encouraged. Initial teaching load reduced to allow time for required development of research program. Salary competitive. Graduate programs include the M.S. in Biology and Ph.D. in Marine Sciences. The Department of Biological Sciences has 15 full-time faculty and modern research facilities. USA has 12,000 students, 8 colleges, many M.S. programs, 4 Ph.D. programs, and includes a comprehensive medical center. The location is a wooded campus in a mild Gulf Coast environment. Send a letter of application, statement of professional goals, curriculum vitae, and names, addresses, and telephone numbers of at least 3 references to: **Dr. John A. Freeman, Chair, Department of Biological Sciences, University of South Alabama, Mobile, AL 36688 (Telephone: 205-460-6331).** Deadline for receipt of applications is January 24, 1994. *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF BIOLOGY Loyola University, New Orleans

The Department of Biological Sciences is seeking to fill a tenure-track faculty position at the level of **ASSISTANT PROFESSOR** for fall 1994, pending budgetary approval. The department is primarily dedicated to undergraduate education, but also has two graduate programs, an M.S. and a 5-year B.S./M.S. Departmental academic programs and resources are excellent and growing. Applicants should have a Ph.D. in the biological sciences, be committed to high quality undergraduate teaching, and are expected to establish a research program with extramural funding that involves undergraduate and graduate students. This faculty position will contribute to teaching 1 or more of the 5 core biology courses: (a) botanical/microbial diversity; (b) zoological diversity; (c) ecology and evolutionary biology; (d) genetics; (e) molecular, cell, and developmental biology. Other teaching opportunities may include courses for non-science majors, upper-division undergraduate, and graduate students. The research specialization is open. The biology faculty are very interactive and are seeking candidates who can interface well with existing faculty and facilities.

To apply, send curriculum vitae, a copy of your college transcripts, statements of teaching and research interests and expertise, and 3 letters of reference to: **Biology Search Committee, Department of Biological Sciences, Loyola University, New Orleans, LA 70118.** We will begin reviewing applications on February 1, 1994, and will continue until the position is filled. *Biological Sciences seeks a highly qualified, diverse applicant pool and especially encourages members of groups underrepresented in science to apply. Loyola University is an Equal Opportunity/Affirmative Action Employer.*

DEVELOPMENTAL BIOLOGIST

Tenure-track **ASSISTANT PROFESSOR** opening in fall 1994 for animal developmental biologist working on invertebrate or vertebrate systems, with preference given to those using cellular or molecular techniques. Experience in systems amenable to genetic or transgenic manipulation is also desirable. Primary teaching will be one course a semester alternating among undergraduate animal development, graduate courses, and occasional responsibility for an introductory-level course. Candidates must have Ph.D. with proven record of good teaching and research abilities (demonstrated by publications). Postdoctoral experience preferred. Screening begins 1 February 1994 and will continue until position is filled. Send curriculum vitae, four letters of recommendation, representative reprints, summary of teaching experience and description of research interests to: **Dr. James N. Thompson, Jr., Chair, Department of Zoology, University of Oklahoma, Norman, OK 73019.**

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Structural Biology at the University of Connecticut Health Center

2 tenure track positions at the junior or senior level are available to expand the existing Biomolecular Structure Analysis Center.

The successful candidates will be expected to develop strong research programs in forefront areas utilizing **macromolecular x-ray diffraction or NMR spectroscopy**. **Funds are available for the purchase of state-of-the-art equipment in each of these areas.**

Primary appointments will be made in any of the basic science departments according to the interests of the candidate.

Applicants should submit curriculum vitae, summary of research interests, and names of references to:

**Chair, Structural Biology Search Committee
Medical Dean's Office
University of Connecticut School of Medicine
263 Farmington Avenue
Farmington, CT 06030-1915**

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Central Research

POSITIONS OPEN

FACULTY POSITION IN ENVIRONMENTAL STUDIES Dartmouth College

Tenure-track ASSISTANT PROFESSOR position to begin fall 1994. Outstanding candidates at the Associate Professor level will be considered. We seek candidates with training in economic aspects of environmental issues and an interest in applying conceptual and analytical models to understanding interactions between humans, resources, and the environment. The successful candidate will participate in an interdisciplinary program drawing from the natural sciences, the humanities, and the social sciences. Teaching and research interests may include ecological economics, environment and sustainable development, and environmental policy formulation. Faculty in Environmental Studies participate in graduate programs with other departments. Training in both environmental studies and economics desired. A Ph.D. (or near completion) in a relevant area of economics, economic geography, or a related field is required. Submit curriculum vitae, statement of teaching and research interests, copies of representative papers, and three letters of reference to: ENVS Search Committee, Environmental Studies Program, Dartmouth College, 6182 Steele Hall—Room 306, Hanover, NH 03755-3577. FAX: (603) 646-1682. Review of applications will begin on January 24, 1994. Dartmouth College is an Equal Opportunity/Affirmative Action Employer.

The University of Michigan, Department of Pediatrics, Division of Biochemical Genetics and Metabolism: Tenure-track position (LECTURER through PROFESSOR). Candidate to initiate independent laboratory research program and provide clinical care to pediatric patients with inborn errors of metabolism. Potential for scientific interaction with the Division of Molecular Medicine and Genetics in the Department of Internal Medicine. Extensive core support and start-up resources available. Candidate should be board certified in pediatrics and board eligible or board certified in clinical biochemical genetics. Interested persons may contact: Jess Thoene, M.D., 313-763-3427 or David Ginsburg, M.D., Division of Molecular Medicine and Genetics, 313-747-4808. The University of Michigan is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

ASSISTANT PROFESSOR, MICROBIOLOGY. The Biology Department of Gettysburg College invites applications for a sabbatical replacement for the 1994-95 academic year. Teaching responsibilities include an upper-division course in Microbiology, participation in the first-year introductory biology course, and direction of student research projects. Candidates must have a doctorate in biology. Gettysburg College is a highly selective liberal arts college near the Washington/Baltimore area and offers among its benefits a Partner Assistance Program. Gettysburg College is an Equal Opportunity/Affirmative Action Employer; women and minorities are encouraged to apply. Submit curriculum vitae, a statement on teaching goals, and the names of three referees to: Dr. Ralph A. Sorensen, Chairman, Biology Department, Box 392, Gettysburg College, Gettysburg, PA 17325; (rsorensen@gettysburg.edu; FAX: 717-337-6157). The review of completed applications will begin March 1, 1994, and continue until the position is filled.

BIOLOGICAL SCIENCES: ASSISTANT PROFESSOR OF BIOLOGY, a tenure-track position beginning August 1994. Applicant must have a Ph.D. or equivalent. Responsibilities include teaching developmental biology and assisting in anatomy and physiology. Tissue culture experience desirable. Preference will be given those candidates with demonstrable effective teaching and research.

Purdue University Calumet, a campus of the Purdue system, enrolls over 9,000 students in more than 80 associate, Bachelor's and Master's degree programs in 16 academic departments. The 12-building, commuter campus is situated on 180 wooded acres in northwest Indiana, less than one hour by car or train from Chicago. The Department of Biological Sciences offers programs leading to a B.S. degree and an M.S. degree in biology.

Applicants should include a statement of teaching and research experience and interest, curriculum vitae, and the names, addresses and telephone numbers of three references by January 24, 1994, to: Chair, Search Committee, Biological Sciences, Purdue University Calumet, Hammond, IN 46323. Purdue University Calumet is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ENVIRONMENTAL SCIENCE/STUDIES

Occidental College invites applications for a tenure-track position in Environmental Science and Studies at the ASSISTANT or ASSOCIATE PROFESSOR level. Occidental is a liberal arts institution strongly committed to multicultural education, excellent teaching, and undergraduate research. Duties will include directing a new interdisciplinary program in Environmental Science/Studies; teaching in the candidate's area of specialization and in an introductory environmental science/studies course; and developing a rigorous research program involving undergraduates. Candidates should hold a Ph.D. in environmental science or a related area. We prefer an individual with demonstrated excellence in teaching and research in his/her field; interest in one or more other environmental areas (such as aesthetics, economics, ethics, or law) 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: John Swift, Associate Dean of the Faculty, Occidental College, 1600 Campus Road, Los Angeles, CA 90041, by January 28, 1994. Occidental College is an Affirmative Action and Equal Opportunity Employer; women and minorities are strongly encouraged to apply.

ASSISTANT PROFESSOR Department of Radiation Oncology UCSF

The Department of Radiation Oncology at UCSF is seeking applications for an assistant professor position. Candidates should have a Ph.D. or M.D. degree, several years of postdoctoral research with expertise in molecular biology, and a fundable research program. The Department is especially interested in candidates who intend to apply molecular approaches to the study of radiation sensitivity but all candidates who have research programs broadly related to cancer genetics or DNA repair and metabolism will be considered. The University of California is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply. Interested applicants should send curriculum vitae, names and addresses of three references, and a very brief description of their research plans to: Chair of Search Committee, Radiation Oncology Research Laboratory, 1855 Folsom Street, Mission Center Building, Room 200, Box 0806, UCSF, San Francisco, CA 94103.

School of Science and Health Department of Chemistry and Physics

A full-time, one-year chemistry position is available at the ASSISTANT PROFESSOR level for fall 1994. Primary responsibility to teach general chemistry courses for chemistry and nursing majors. Ability to teach upper-level Analytical Instrumentation course and/or Organic Chemistry course is a strong plus. Ph.D. in chemistry preferred, but applicants who have nearly completed requirements for the Ph.D. degree will also be considered. Salary dependent upon background and experience. William Paterson College, located on a 250-acre suburban campus 20 miles from New York City, is an accredited state college offering 50 undergraduate and graduate programs. William Paterson College is an Affirmative Action/Equal Opportunity Employer. Send résumé and supporting materials by January 21, 1994, to: Dr. Gurdial M. Sharma, Chairperson, Drawer-5, Chemistry & Physics Department 5434, William Paterson College, 300 Pompton Road, Wayne, NJ 07470.

GENETICS/MICROBIOLOGY DEPARTMENT OF BIOLOGY SUSQUEHANNA UNIVERSITY

Initial three-year appointment with possibility of renewal, depending upon performance and departmental needs. ASSISTANT PROFESSOR to teach genetics, microbiology, and introductory biology; to conduct an active research program involving undergraduate students; and to develop an upper-level course in area of expertise. Ph.D. and postdoctoral experience preferred. A strong commitment to teaching undergraduates and to directing undergraduate research a must. Position begins August 1994. Send résumé and three letters of reference to: Dr. George Boone, Head, Department of Biology, Susquehanna University, Selinsgrove, PA 17870 by January 15, 1994. Susquehanna University is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and people of color.

POSITIONS OPEN

Louisiana State University Medical Center Department of Anesthesiology FACULTY POSITION

LSU Medical Center, Department of Anesthesiology has available a faculty position at the level of ASSISTANT PROFESSOR for a research electrophysiologist in the area of Neurobiology as applied to mechanisms of anesthesia and/or neuromuscular function. The successful candidate will be expected to develop a strong research program with extramural funding and will have the Ph.D., M.D., or M.D./Ph.D. degree. The candidate should already have sustained productivity in one of these areas of research as evidenced by publications in peer-reviewed journals. There is a thriving scientific environment at this university and the candidate should be able to obtain a joint appointment in a basic science department of the medical school. A 37-million dollar Biomedical Research Institute is under construction and will offer the possibility for the conduct of research in a unique interdisciplinary setting. Preference will be given to candidates who are interested in both basic and clinical problems and are capable of supervising medical residents in the conduct of laboratory research. Send curriculum vitae, statement of research interests and the names of three referees to: Dr. Richard Davis, II, M.D., Professor and Chairman, Department of Anesthesiology, LSU Medical Center, P.O. Box 33932, Shreveport, LA 71130-3932.

An Affirmative Action Employer.

Applications are invited for three appointments at the level of ASSISTANT PROFESSOR of Diagnostic Radiology at Yale University School of Medicine. The successful applicants will join the NMR Physics Research Group and pursue applications of MRI to study one or more of the following areas: cardiac wall motion, regional brain activity, water transport and diffusion in porous media, microcirculatory flow, or proton relaxation and contrast mechanisms. Applicants should possess a Ph.D. in physics or biophysics, have completed three or more years of postdoctoral training, and have practical experience of medical applications of NMR. Applications, including curriculum vitae and the names of three referees should be sent to: Dr. John Gore, Yale University School of Medicine, 333 Cedar Street, P.O. Box 208042, New Haven, CT 06520-8042. Application deadline is January 22, 1994. Affirmative Action/Equal Opportunity Employer.

PLANT MOLECULAR GENETICS UNIVERSITY OF MARYLAND, COLLEGE PARK

The Department of Botany invites applications for a 9.5-month, tenure-track position at the ASSISTANT PROFESSOR level beginning August 1994. We are seeking someone who is investigating fundamental problems of development, physiology or metabolism through molecular genetic manipulation of a higher plant model, like *Arabidopsis thaliana*. The successful candidate is expected to develop a nationally recognized, externally funded research program, and to actively participate in the undergraduate and graduate curriculum. Candidates should have a Ph.D. degree and postdoctoral experience. For full consideration, completed applications should be received by February 15, 1994. Applicants should send curriculum vitae, statement of research goals and teaching interests, key reprints, and have three letters of reference sent to: Dr. Heven Sze, Chair Geneticist Search Committee, Department of Botany, University of Maryland, College Park, MD 20742-5815. FAX: 301-314-9082. The University of Maryland is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.

The Department of Biological and Environmental Sciences at Georgia College invites applications for a tenure-track position at the level of DEPARTMENT CHAIR starting September 1994. Georgia College, part of the University System of Georgia, total enrollment 5500. Twelve biology faculty supervise majors at the undergraduate and Master's level. Senior faculty from all areas of Biology are encouraged to apply. Applicants should send curriculum vitae, official transcripts, description of administrative philosophy, summary of research interests, and four letters of recommendation by January 30, 1994, (or until position is filled) to: Dr. William P. Wall, Search Committee Chairman, Department of Biological and Environmental Sciences, Georgia College, Milledgeville, GA 31061. Georgia College is an Affirmative Action/Equal Opportunity Employer.

**SENIOR FACULTY POSITIONS:
BIOMEDICAL IMAGING
HARVARD-MIT DIVISION OF
HEALTH SCIENCES AND TECHNOLOGY**

The Massachusetts Institute of Technology seeks to appoint two senior faculty members to establish a major new academic and research program in the area of biomedical imaging, with emphasis on NMR imaging and in vivo spectroscopy. The program will be based at MIT in the Harvard-MIT Division of Health Sciences and Technology (in collaboration with the Francis Bitter National Magnet Laboratory). In addition to conducting active independent research program, these faculty members will have major responsibilities in the education of MIT and Harvard students who are preparing for careers as scientists, engineers, and physicians working at the forefront of technology and biomedicine. The primary faculty appointments will be made in HST. Research and educational collaborations are encouraged with the HST Clinical Research Center, academic departments in the MIT Schools of Engineering and Science, and with faculty at Harvard Medical School and its affiliated teaching hospitals.

Qualified applicants should send curriculum vitae and a statement of research and teaching objectives. Reprints of up to three representative publications may accompany the application. Applications from women and underrepresented minorities are particularly encouraged.

Address for responses:

Professor Nelson Y.S. Kiang, Chairman, Search Committee
c/o Ms. Joanne Sorrento
Room 20A-129
Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge, MA 02139

The closing date for applications is March 1, 1994. MIT is an Affirmative Action/Equal Opportunity Employer.

**FACULTY POSITION IN MAMMALIAN
DEVELOPMENTAL GENETICS**

**UNIVERSITY OF FLORIDA
COLLEGE OF MEDICINE**

The Center for Mammalian Genetics and the Department of Immunology and Medical Microbiology in the University of Florida College of Medicine invite applications for a tenure-track faculty position at the level of Assistant Professor. The successful applicant will have his/her primary appointment in the Department and will join 23 Center faculty with diverse interests in mammalian genetics. Applicants should have research interests in any of the following areas: embryonic manipulations, gene ablation, gene therapy, and transgenic development. The Center and Department are housed in the recently opened Academic Research Building, and the appointee will have excellent laboratory facilities, a competitive salary, an attractive start-up package, and access to outstanding state-of-the-art molecular genetic core facilities. This is an interdisciplinary appointment designed to encourage extensive interaction with faculty throughout the College of Medicine and University of Florida.

Candidates should have a Ph.D. and/or M.D. degree with strong research training in molecular and development mammalian genetics, including post-doctoral experience. A curriculum vitae, a description of research experience and interests, and three letters of reference should be sent to: Edward K. Wakeland, Ph.D. Director, Center for Mammalian Genetics, College of Medicine, University of Florida, Gainesville, FL 32610-0215. The closing date for submission of completed applications is February 15, 1994.

The University of Florida is an Equal Opportunity / Affirmative action Employer and specifically invites and encouraged applications from qualified women and minority candidates.

Amgen Inc., a global leader in the biotechnology industry, currently has career opportunities for the following professionals:

**Computational
Biology Department
COMPUTATIONAL BIOLOGIST**

Candidate must have a Ph.D. in Molecular Biology or related field, as well as a general knowledge of diverse gene families and genetic diseases, familiarity with the concepts of relational databases and a minimum of 3 years' programming experience. Candidate will provide analytical support for a number of molecular biology and molecular genetics projects. Your focus will be on sequence analysis and comparison, communication of the results to bench scientists and the design and assistance with the implementation of tools to accomplish the tasks at hand. Excellent communication skills with non-experts is essential. Familiarity with 4th Dimension for the Macintosh is desired.
(Job Code OA-SC-SC-001)

DATABASE BIOLOGIST

Candidate must have a Ph.D. in Molecular Biology or related field, or a Master's degree and 5 years of subsequent experience, as well as 2 years' experience building relational databases and 3 years of general programming experience. Candidate will design, develop and maintain relational databases for a number of molecular and cellular biological projects, and advise other database specialists with the design and implementation of similar databases. You will also determine the needs of experimental biologists and develop suitable databases. Excellent communication skills with non-experts is essential. Familiarity with 4th Dimension for the Macintosh is desired.

(Job Code OA-SC-SC-002)

**Developmental
Biology Department
RESEARCH ASSOCIATE**

Candidate must have a BS/MS degree in biochemistry, molecular biology or related discipline, coupled with 2+ years' experience in a research laboratory. Experience with ES cell and transgenic technology is highly desirable. **(Job Code OA-SC-SS-002)**

At Amgen, our staff plays an integral role in maintaining the highest of standards and product excellence. Interested candidates may FAX OR mail their resume to: **FAX: (805) 447-1985, Amgen Inc., Staffing, Job Code (See Above), Amgen Center, Thousand Oaks, CA 91320-1789.** For additional information regarding Amgen's recruitment process, please call (805) 447-4150. Please, principals only.

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POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY—Applications are invited for a tenure-track position in vertebrate zoology at Providence College in the Biology Department beginning September 1994. Applicants should have a Ph.D., the ability to establish a research program involving undergraduates, a commitment to undergraduate education of both biology majors and non-science majors, and the ability to teach and/or develop courses such as comparative anatomy, ornithology, mammalogy and animal behavior. Responsibilities include teaching advanced majors, participating in the introductory General Biology course for majors, and teaching existing courses (in the Biology Department and/or Natural Science) and developing new courses for non-majors. Providence College is a Roman Catholic, four-year, liberal arts college conducted under the auspices of the Dominican Friars. Applicants should submit curriculum vitae, transcripts, a statement of teaching philosophy especially as it relates to undergraduate education of majors and non-majors, a brief description of undergraduate research interests, and three letters of recommendation by February 14, 1994, to: Dr. Carol B. Crafts, Chairperson, Biology Department, Providence College, Providence, RI 02918-0001. Providence College is an Affirmative Action/Equal Opportunity Employer.

PROFESSOR OF MEDICINE—The Division of Endocrinology at San Francisco General Hospital is recruiting a clinician scientist for a position as Professor (tenure-track) at the University of California San Francisco (UCSF). Applicants should be Board-certified in Internal Medicine and Endocrinology and Metabolism, should be established in basic or clinical investigation and should have high-level skills in teaching and patient care. Administrative experience is also desirable. Research emphasis should be complementary to current division activities in Hypertension/Vascular Biology or AIDS. UCSF is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply. Applications should be submitted to: Ervin H. Epstein, Jr., M.D., Professor of Dermatology, Chairperson, Endocrine Search Committee, Building 100, Room 269, San Francisco General Hospital, 1001 Potrero Avenue, San Francisco, CA 94110.

COGNITIVE PSYCHOLOGIST/SCIENTIST—Rank Open—George Mason University (GMU) seeks candidates for a **TENURE-TRACK APPOINTMENT** to the Department of Psychology including a three-year half-time research appointment to the Krasnow Institute for Advanced Study. This position may be considered a career development appointment for an individual judged to be a leading investigator in cognitive science. Candidates should demonstrate high-quality teaching and potential for acquiring external funding in the application of cognitive science. The Krasnow Institute is a newly founded research institute with the mission of interdisciplinary study of cognitive science. The Department of Psychology has doctoral programs in applied experimental, clinical and developmental psychology. Please send curriculum vitae and three letters of references to: Dr. Jane Flinn, MAIL STOP 3F5, George Mason University, 4400 University Drive, Fairfax, VA 22030. Application review will begin January 2, 1994. No applications will be considered beyond March 1, 1994. GMU is an Equal Opportunity/Affirmative Action Employer.

FIELD BIOLOGY INSTRUCTOR Department of Environmental, Population, and Organismic Biology University of Colorado, Boulder

The Department of Environmental, Population, and Organismic Biology seeks applicants for a full-time (9-month) Instructor position. Duties will include multiple sections of a course in Field Biology for departmental majors. The position is non-tenure-track and emphasizes teaching, but allows modest time for research. Ph.D. required. Applicants should have experience in ecology, field methods, and natural history, including demonstrable familiarity with both plant and animal groups in both terrestrial and aquatic environments.

Salary will be \$24,000 for 9 months; there will also be opportunities for summer teaching. Submit résumé, three letters of reference, and a statement of interest to: Field Biology Search Committee, Department of EPO Biology, Campus Box 334, University of Colorado, Boulder, CO 80309-0334. Application deadline is 1 February 1994.

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

POSITIONS OPEN

ASSISTANT DEAN FOR UNDERREPRESENTED STUDENT PROGRAMS COLLEGE OF SCIENCES, SAN DIEGO STATE UNIVERSITY

Half-time, twelve-month position (plus either half-time, nine-month faculty appointment in appropriate academic department—astronomy, biology, chemistry, geology, mathematics, physics, or psychology; or, half-time position coordinating San Diego State University's Alliance for Minority Participation program). Requires graduate science degree, preferably Ph.D. Responsibilities include coordinating the College's existing traineeship programs, maximizing use of resources, assessing future needs, and defining College goals. Available January 1994; position open until filled, but applications will be reviewed starting December 1, 1993. Rank open, with annual salary range to \$65,616, depending upon experience. Send curriculum vitae, a brief description of research interests, teaching philosophy, career goals, and names and addresses of three references to: Dr. Donald R. Short, Dean, College of Sciences, San Diego State University, San Diego, CA 92182-0413. San Diego State University is committed to a diverse workforce and Affirmative Action and is an Equal Opportunity Title IX Employer.

PROGRAM OFFICER PRECOLLEGE AND PUBLIC SCIENCE EDUCATION

The Howard Hughes Medical Institute (HHMI) conducts scientific research in laboratories affiliated with leading academic medical centers in the United States. We are seeking a Program Officer at our national headquarters in Chevy Chase, Maryland, to assist in the administration of our precollege and public science education grants program and in the development of new grants initiatives.

Responsibilities include: overseeing annual review and award cycles; organizing panel and directors meetings; reviewing payments and budgets to ensure the effectiveness of the program; assessing funded institutions' science education activities; and reviewing grant proposals from educational institutions.

Qualified candidates must have five years of experience in administration/management. In addition, a strong background in national science education initiatives and management of programs, budgets, and grants is required. A Ph.D. or M.S., preferably in Biology, is required, as well as excellent communication and writing skills.

HHMI offers an excellent salary and a generous, flexible benefits package including health, dental, and retirement plans. Please send your résumé to: Howard Hughes Medical Institute, Human Resources Department, 4000 Jones Bridge Road, Chevy Chase, MD 20815-6789. FAX: (301) 215-8937. Principals only. No telephone calls, please. Equal Opportunity Employer.

SCIENCE EDUCATION: A TENURE-TRACK TEACHING POSITION in the Science Education Program and the Geology, Biology, or Chemistry Department, beginning September 15, 1994. For position description and qualifications, write to: Dr. Donald Dietrich, Science Education Program, Central Washington University, Ellensburg, WA 98926-7540. FAX: 509-963-3112. Affirmative Action/Equal Opportunity Employer/TITLE IX Institution.

FACULTY POSITION—The Department of Obstetrics & Gynecology at the Ohio State University College of Medicine is seeking a Ph.D.-level researcher to join the Division of Gynecologic Oncology. The candidate should have background and experience in the areas of immunology or molecular biology, and is expected to collaborate with the clinical faculty to develop a successful research laboratory. Rank and salary will be commensurate with qualifications and experience. Excellent financial and manpower support available to run the laboratory. Send curriculum vitae and/or contact: Larry J. Copeland, M.D., Professor and Director of Gynecologic Oncology, N500 Means Hall, 1654 Upham Drive, Columbus, OH 43210. Telephone: (614) 293-8737. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam-era veterans, disabled veterans and the disabled are encouraged to apply.

POSITIONS OPEN

CHAIR IN STONE AGE PREHISTORY AND QUATERNARY ECOLOGY at the University of Tuebingen, Germany

The University of Tuebingen (Germany) has an opening for a tenured full professorship of Stone Age Prehistory and Quaternary Ecology. The position will involve teaching (in German) and research in the fields of Stone Age prehistory and quaternary ecology. The University of Tuebingen is an Equal Opportunity/Affirmative Action Employer. It would like to increase the quota of female researchers and therefore encourages female candidates to apply. Details about requirements and qualifications should be obtained from the: Dekanat der Geowissenschaftlichen Fakultät, Keplerstraße 17, D-72074 Tuebingen, Germany; FAX: ++49-7071-296413, where applications are due before January 31, 1994.

BOTANICAL GARDEN DIRECTOR

FAIRCHILD TROPICAL GARDEN seeks applications for the position of **DIRECTOR**. The Garden is revitalized since Hurricane Andrew and aims to be "the premier tropical botanical garden." An energetic Board of Trustees has begun a major five-year fund-raising campaign. Director heads a staff of 50, including six Ph.D.'s. Annual budget about \$3 million. Qualifications: Ph.D. or equivalent; record of dynamic leadership and administrative skills; knowledge of care and management of botanical collections. Job open immediately; deadline for applications is March 1, 1994. Applications should include a résumé and the names, addresses, and telephones of at least three references. Send applications to: Search Committee, Fairchild Tropical Garden, 10901 Old Cutler Road, Miami, FL 33156.

CHAIRPERSON DEPARTMENT OF MICROBIOLOGY, MOLECULAR GENETICS AND IMMUNOLOGY

The University of Kansas School of Medicine invites applications and nominations for the Chair of the Department of Microbiology, Molecular Genetics, and Immunology. Candidates must have a Ph.D. or M.D., with an outstanding record of research accomplishments, commitment to excellence in graduate and medical student teaching, the capability to offer scientific leadership to a department covering the broad discipline of Microbiology and the commitment to lead the department to national prominence and academic excellence. This recruitment is occurring simultaneously with the construction of a new research facility.

Curriculum vitae of applicants and 4 names of references should be sent to: Chair, Search Committee; c/o Executive Dean's Office; University of Kansas School of Medicine; 3901 Rainbow Boulevard; Kansas City, KS 66160-7300. Review of applications will continue until the position is filled. The University of Kansas Medical Center is an Equal Opportunity Employment/Affirmative Action Employer.

POSTDOCTORAL POSITION. Department of Neurosciences, Cleveland Clinic Foundation. Postdoctoral Fellow will join ongoing NIH-funded studies investigating the function of the amyloid precursor protein in normal development, normal ageing, and in Alzheimer diseased brains. Experience in cellular and molecular biological techniques required. Please send curriculum vitae, names of three references, and statement of research interests to: Bruce D. Trapp, Ph.D., Chairman, Department of Neurosciences, NC-30, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195. The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION VANDERBILT UNIVERSITY

Applications are invited for a postdoctoral research position to investigate the mechanisms and regulation of blood coagulation and fibrinolytic reactions with protein chemistry, enzymology, and fluorescence spectroscopy approaches (Bock, P. E. (1992) *J. Biol. Chem.* 267, 14963-14973). Interested individuals with a Ph.D. degree in biochemistry, biophysics, chemistry, or biology should send a copy of their curriculum vitae and arrange for two letters of recommendation to be sent to: Dr. Paul Bock, Vanderbilt University School of Medicine, Department of Pathology, C3321 Medical Center North, Nashville, TN 37232-2561. Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.

APOTEX FERMENTATION INC.

APOTEX FERMENTATION INC. is a progressive and rapidly growing Canadian manufacturer of bulk pharmaceuticals by fermentation. Expansion of the company has created several openings.

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The MANAGER, CHEMISTRY will oversee and participate in the expansion of a chemistry department focused on the extraction, purification and chemical modification of fungal metabolites. The ideal candidate will possess 6-10 years of post-doctoral experience in the fermentation, natural products or pharmaceutical industries. Experience in the following areas would be an asset: natural products chemistry, purification and identification of metabolites from natural or fermentation sources, industrial-scale chemical operations and Good Manufacturing Practices. Previous management experience would be useful, although the desired emphasis is technical leadership. This position reports to the Vice-President, Research and Development.

SENIOR RESEARCH SCIENTIST, PROTEIN BIOCHEMISTRY

The SENIOR RESEARCH SCIENTIST, PROTEIN BIOCHEMISTRY will be responsible for leading the PROTEIN BIOCHEMISTRY group, focused on the extraction, purification and characterization of protein products from recombinant expression systems. The ideal candidate will possess a Ph.D. plus 3-8 years of post-doctoral experience in protein biochemistry. Preferably this will include experience in Good Manufacturing Practices and/or the scale-up of protein purification processes in an industrial setting. Previous supervisory experience would be an asset.

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Call For Papers

Ninth Annual Conference on Contaminated Soils

Analysis, Fate, Environmental and
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University of Massachusetts at Amherst

October 17-20, 1994

Contributed papers and posters are invited
for presentation in the following areas:

- chemical analysis
- hydrocarbon identification
- site assessment/field sampling
- regulatory programs and policies
- environmental fate and modeling
- soil chemistry
- hazard, exposure, and risk assessment
- standard remedial technologies/corrective actions
- diesel fuel, military installation & shipping
port contamination
- chlorinated hydrocarbons, pesticides and
heavy metals
- ecological risk assessment
- innovative technologies
- case studies on any of the above

Deadline for submissions is February 11, 1994

For either a paper or poster to be considered please submit a one-page abstract containing: presentation title; 300 word narrative; and for each author, name, degree, title, affiliation and complete address and phone number. Please indicate your choice of either oral presentation or poster.

For further information and abstract submission please contact: Paul Kostecki, Ph.D., School of Public Health, N344 Morrill, University of Massachusetts, Box 35730, Amherst, MA 01003

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BIOORGANIC/SYNTHETIC CHEMIST Immunochemistry

Research will be aimed at novel detection methodologies, applying principles of fluorescence, chemiluminescence and biorecognition as they relate to immunoassay applications.

We require a PhD and 0-3 years experience, but will consider a highly qualified candidate with a MS in Organic Chemistry and 3-5+ years experience. Broad knowledge of physical organic chemistry is expected, along with proven aptitude in organic synthesis and strong quantitative and analytical skills. We prefer experience in molecular recognition, photochemistry and/or bioconjugation chemistry. **Reply to Job# 49278.**

PEPTIDE CHEMIST

We require a PhD in Chemistry, with specialization in peptide synthesis. The ideal candidate will be expected to develop programs in the preparation of novel peptide structures with applications to diagnostics and in novel or improved methods of peptide synthesis. Post doctoral or industrial experience is highly desirable. **Reply to Job# 49288.**

Abbott provides an excellent salary and benefits package including profit sharing and a stock retirement plan. We are located in an attractive suburban area, approximately 30 miles north of Chicago. For confidential consideration, please send a resume and salary history (indicating appropriate Job#) to: **Tony Faron, D-393, J30, Abbott Laboratories, One Abbott Park Rd., Abbott Park, IL 60064.** Abbott is an Affirmative Action Employer/Smoke-Free Environment.

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ASSISTANT PROFESSOR BIOENGINEER

The Institute of Gerontology at the University of Michigan invites applications from bioengineers studying muscle contractility at the single cell level with emphasis on the role of the individual protein components and other regulatory factors.

Candidates should have a Ph.D. in bioengineering, or in another field of engineering, with evidence of training in muscle physiology. A minimum of two years of postdoctoral experience is required. The candidate is expected to develop an independent research program, participate in an interdisciplinary group investigating molecular and cellular mechanisms of skeletal muscle impairments in old animals, and teach in graduate and professional courses. A joint tenure-track appointment as an Assistant Professor in an appropriate academic department is negotiable.

Applications, including curriculum vitae, description of research interest, and names of three references should be sent to: **Dr. Richard C. Adelman, Director, Institute of Gerontology, University of Michigan, 300 N. Ingalls, Ann Arbor, MI 48109-2007.**

Review of the applications will begin on January 1, 1994 and continue until a suitable candidate is identified. The University of Michigan is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY: Available immediately to investigate hypertension in pregnancy. The focus is to study renin gene expression in reproductive tissue. An enthusiastic individual with experience in molecular biology techniques (Northern-Southern blots, *in situ* hybridization, immuno-precipitation of labeled proteins, SDS-PAGE, etc.) should apply with curriculum vitae and contact information of references to: Dr. Dinesh Shah, The University of Texas Health Science Center at San Antonio, Obstetrics and Gynecology, 7703 Floyd Curl Drive, San Antonio, TX 78284-7836, FAX: (210) 567-4958. *The University of Texas Health Science Center-San Antonio is an Equal Employment Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH POSITIONS BRIGHAM AND WOMEN'S HOSPITAL AND HARVARD MEDICAL SCHOOL

The Department of Pathology at Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts, has available postdoctoral research positions for M.D. and/or Ph.D. candidates. The Department's principal research groups are working in the following areas: vascular cell biology (head: M. A. Gimbrone), molecular oncology and development (J. L. Sklar), immunology (A. K. Abbas), epithelial cell biology (J. L. Madara), molecular cytogenetics, experimental renal disease and pulmonary pathophysiology. The Department has an interactive research program with over 30 established investigators. Interested applicants should send curriculum vitae to: Ramzi S. Cotran, M.D., Chairman, Department of Pathology, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. *The Brigham and Women's Hospital is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately to participate in studies on the structure, function and regulation of components of the insulin signal transduction chain. Prefer applicants with experience in molecular cloning and recombinant DNA techniques. Send curriculum vitae to: Dr. Zahi Damuni, Associate Professor, Department of Cellular and Molecular Physiology, The Pennsylvania State University College of Medicine, 500 University Drive, Hershey, PA 17033. Telephone: 717/531-4195; FAX: 717/531-7667. *We are an Equal Opportunity/Affirmative Action Employer and encourage minority and female applicants to apply.*

POSTDOCTORAL FELLOW ENVIRONMENTAL HEALTH SCIENCES

The Department has an opening for a recent doctoral graduate with research skills and interests in exposure assessment, air dispersion modeling and/or environmental epidemiology. Primary responsibility will be development of innovative exposure assessment tools in a study of respiratory health effects near a hazardous waste incinerator. Applicant must have strong computer skills. Send curriculum vitae, a brief description of research experience, and the names, addresses, and telephone numbers of three references to: Dr. Charles E. Feigley, Chair, Department of Environmental Health Sciences, University of South Carolina, Columbia, SC 29208 by February 1, 1994. *The University of South Carolina is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.*

BOSTON UNIVERSITY COLLEGE OF ENGINEERING RESEARCH ASSOCIATE— MOLECULAR STRUCTURE

Applications are invited for the position of research associate in the Center for Biomolecular Engineering. Candidates should have at least one year of postdoctoral experience, a strong background in the mathematical and computational methods of the physical sciences, and a publication record in molecular immunology, especially in the calculation of immunoglobulin class structures and complexes. Please send a résumé, including a list of papers published in archival journals, to: Charles DeLisi, Boston University College of Engineering, 44 Cummings Street, Boston, MA 02215.

SCIENCE

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POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to characterize cytokinin effects on pest and disease resistance in plants transformed with a cytokinin biosynthesis gene (*Plant Mol. Biol.* 23:325, 1993). Experience in molecular biology and plant pathology or entomology desired. Salary: \$33,623. Send curriculum vitae and three letters of recommendation to: A. C. Smigocki, Plant Molecular Biology Laboratory, U.S. Department of Agriculture, Agricultural Research Service, Building 006, Room 118, 10300 Baltimore Avenue, Beltsville, MD 20705. Telephone: (301) 504-5848. *ARS is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION is available immediately with the Research Triangle Institute (RTI) to work on the development of novel mechanistic bioassays in support of natural product drug discovery. The initial focus for assay development is inhibition of a cytosolic protein tyrosine kinase implicated in oncogenesis and cellular adhesion. Candidates must have broad experience in eukaryotic cellular molecular biology and biochemistry, including cell signal transduction. Candidates should be familiar with protein kinases, protein phosphatases, and the development and application of assays for their respective activities. Experience with yeast strain construction is an advantage. To apply, send résumé with the names of three references to: Research Triangle Institute, Office of Human Resources (64A), P.O. Box 12194, RTP, NC 27709. *RTI is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION IN MOLECULAR TUMOR BIOLOGY

Position available for a recent Ph.D. to study the signal transduction and therapeutic functions of Raf-1 kinase in radioresistant human cancer cells. Candidates with background and technical experience in biochemistry/molecular biology, specifically, gene transfer, PCR-based genetic analysis, cDNA cloning and sequencing, DNA-protein and protein-protein interactions, or cell cycle regulation will be preferred. Please send curriculum vitae and three references to: Dr. Usha Kasid, Associate Professor, Departments of Radiation Medicine and Biochemistry & Molecular Biology, S-113, Lombardi Cancer Research Center, Georgetown University, 3800 Reservoir Road, NW, Washington, DC 20007. *Georgetown University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION—NEUROPHARMACOLOGY: Immediate opening for a National Institute on Drug Abuse-funded laboratory position to study molecular biology of opioid dependence under the supervision of Kenneth Grasing, M.D. and Herbert Geller, Ph.D. Please send curriculum vitae with references to: Kenneth Grasing, M.D., UMDNJ-Robert Wood Johnson Medical School, One Robert Wood Johnson Place, CN19, New Brunswick, NJ 08901-0019. *UMDNJ is an Affirmative Action/Equal Opportunity Employer, M/F/D/V, and a member of the University Health System of New Jersey.*

POSTDOCTORAL POSITION DEVELOPMENTAL NEUROBIOLOGY/ IMMUNOLOGY

Project: The F5 gene encodes a novel, intracellular phosphoprotein that is expressed selectively in T lymphocytes and neurons. The F5 cDNA sequence was isolated initially from interleukin 2-stimulated cloned T helper lymphocytes. Characterization of F5 expression showed that it was present in activated, not resting, T lymphocytes and adult brain. Further characterization localized F5 expression in brain to neurons not glial cells; F5 is expressed postnatally, not in embryonic neurons, and reaches near maximal levels three weeks after birth. Thus, F5 expression is growth regulated in lymphocytes and developmentally regulated in neurons. Future studies include the following: (1) Defining the requirement for F5 expression for lymphocyte proliferation and neuronal development. Both *in vitro* and *in vivo* experiments are planned. The F5 gene has been cloned and mapped; a construct to obtain an F5 null mouse has been prepared. (2) Promoter elements and regulatory factors contributing to the tissue-specific expression of F5 will be defined. Contact: Dr. Michael B. Prystowsky, M.D., Ph.D., Department of Pathology, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461; Telephone: (718) 920-2456. *An Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION to study the role of proteoglycans in disease. Must have Ph.D. research experience in immunochemistry and proteoglycan biochemistry, and a knowledge of cell biology. Salary \$31,500 annually. Send curriculum vitae and three letters of reference to: Betty Jones, Box 1070, Mount Sinai Medical Center, Geriatrics Department, 1 Gustav Levy Place, New York, NY 10029.

POSTDOCTORAL POSITION. Department of Neurosciences, Cleveland Clinic Foundation. Postdoctoral Fellow will join ongoing NIH-funded studies investigating the cellular and molecular biology of myelination and the pathogenesis of dysmyelinating and demyelinating diseases. Experience in cellular and molecular biological techniques required. Please send curriculum vitae, names of three references, and statement of research interests to: Bruce D. Trapp, Ph.D., Chairman, Department of Neurosciences, NC-30, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195. *The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION supported by NIH funds available to study the regulation of cation transport across subcellular membranes. Relevant experience in energy transduction or membrane or muscle biochemistry/biophysics is desirable. Competitive salary and benefits. Please send curriculum vitae, statement of research interests and names, addresses and telephone numbers of three references to: M. Kirchberger, Ph.D., Department of Physiology/Biophysics, Box 1218, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574. *An Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS—Signal Transduction and Gene Regulation. Opportunities to study the molecular mechanism of a novel direct signaling pathway from polypeptide receptors to transcription factors (see Fu, *Cell* 70, 323, 1992; Fu & Zhang, *Cell*, September 24, 1993, issue) at this center of medical excellence. Two postdoctoral positions are available for candidates with a strong background and experience in Molecular/Developmental Biology and Genetics and/or Immunology. Individuals committed to research will find an opportunity to study a newly developed system. Applicants will be encouraged to apply for external fellowship; however, the funds for competitive salaries and benefits are secured for 3 years. Please submit curriculum vitae, copies of recent publications, a statement of your views on future studies on signal transduction, and 2 to 3 letters of recommendation, to: Dr. X.-Y. Fu, Department of Biochemistry, Box 1020, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574. *An Equal Opportunity Employer.*

MEMORIAL SLOAN-KETTERING CANCER CENTER SPECIAL FELLOWSHIP IN MEDICAL ONCOLOGY-HEMATOLOGY

The Department of Medicine at Memorial Sloan-Kettering Cancer Center is offering Special Fellowship training positions in medical oncology for physician scientists committed to an academic research career that is based in laboratory investigation. The fellowship positions will focus on intensive training in laboratory investigation, and will also provide the level of clinical experience required for board certification in medical oncology (and/or hematology). Successful candidates will have the opportunity to select from a large number of outstanding research laboratories in the Sloan-Kettering Institute and the Department of Medicine at the Center. The faculty includes investigators in areas with potential or direct application to the diagnosis and therapy of cancer, including genetics and genetic engineering, gene therapy, molecular biology, structural biology, growth regulation and signal transduction, oncogenesis, immunology and immunotherapy, and molecular pharmacology. Interested individuals should apply to: John Mendelsohn, M.D., Chairman, Department of Medicine, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Telephone: 212-639-5851. *Applications from minorities are encouraged.* Please enclose a copy of your curriculum vitae, a brief statement of your research interests, and the names of three individuals who can evaluate your potential for a successful career in laboratory investigation.

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Reporting to the Director of Medical Affairs & Tropical Diseases (Molecular Pathogenesis Laboratory), you will study the molecular mechanisms of parasite/host interactions, especially aspects relevant to vaccine development, as well as interface with numerous internal & external scientific groups. Responsibilities include supervising junior scientists, including postdoctoral trainees and one company research assistant; investigating parasite/host relationships, especially receptor-ligand interactions such as molecular mechanisms coupling signal transduction to receptor mediated endocytosis; investigating membrane turnover, cellular stress responses and lymphocyte activation by parasite antigens; presenting experimental results to scientific forums and planning new projects and collaborations. Applicants must have a PhD in Molecular Parasitology and at least 5 years' post doctoral experience. A strong background in signal transduction molecular biology and the ability to analyze receptor-ligand interactions, including erythrocyte-plasmodium falciparum merozoite interactions is required. Familiarity with the immunological techniques necessary to measure antibody responses and cytokine production, including recombinant DNA technology is a must as is experience manipulating lymphoid and hematopoietic cells.

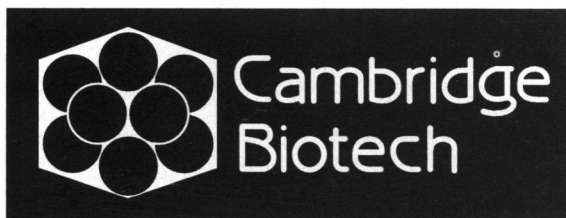
Molecular Immunologist/Senior Scientist

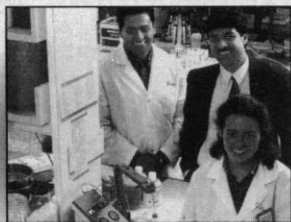
We seek a proven professional with molecular immunology experience, including methods to investigate T-cell receptor gene expression, antigen presentation, cytokines and adhesion molecules in the context of infectious diseases. This will involve establishing appropriate immunological assays and developing new methods to improve vaccines, including malaria, HIV-1 and schistosomiasis; supervising a junior research staff member, postdoctoral researchers and research assistants; as well as designing molecular strategies to optimize immunological recognition and responsiveness to protein antigens; improving immunogenicity of candidate vaccines; submitting grant applications to ad-hoc agencies for funding. The ideal applicant will have a PhD in Molecular Immunology and at least 6-8 years' post-doctoral experience with solid knowledge of cell biology and modern immunology. Extensive involvement with investigational techniques used in immunology, including those used to assess cell-mediated immunity (lymphocyte proliferation, CTL, ADCC, T cell receptor gene expression), and measuring antibody responses (ELISA, immunoblot, RIPA, in vitro antibody synthesis, monoclonal antibody production) required. Familiarity with the analysis of lymphocyte activation, including signal transduction of lymphocyte receptors, also necessary.

Research Associate - Molecular Biology

An excellent opportunity exists for a skilled Research Associate to perform protein expression using the baculovirus expression system and various mammalian cell lines. Responsibilities include maintaining cell lines and viral stocks used for protein expression, providing Protein Chemistry department with cell or medium harvest containing recombinant protein, optimizing expression systems, performing expression scale-up in 5-15 liter fermenters, as well as analyzing recombinant proteins using Western blots and ELISAs. Candidates must have a BS in Biology, other life science or equivalent and at least 2 years' laboratory experience in cell culture and sterile techniques. The ability to perform DNA transfections, SDS-polyacrylamide gel electrophoresis and Western blotting required. Knowledge of insect cell culture, baculovirus expression and CHO cell expression highly desirable.

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Neuropharmacology — Develop and implement novel and established animal models of neurodegeneration to evaluate therapeutic agents as possible treatments for Alzheimer's disease, Parkinson's disease and stroke. Must be comfortable working as part of a multidisciplinary team. Requires Ph.D. in neurobiology or related discipline with postdoctoral experience. Extensive knowledge of animal surgery and neuroanatomy is also needed.

Pharmacokinetics — Design and conduct pharmacokinetic and drug metabolism studies providing support for preclinical and clinical drug development programs. Responsible for evolving an in-depth drug metabolism perspective on a wide variety of pharmacological agents. Requires a Ph.D. in pharmacokinetics pharmacology plus 5 years postdoctoral experience. A strong background in drug metabolism and analytical chemistry is desirable.

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RESEARCH SCIENTIST In Molecular and Developmental Biology

The Laboratory of Molecular Genetics has an opening for a molecular/developmental biologist to conduct a research program on *Xenopus laevis* embryogenesis under the leadership of the Laboratory Chief. The position requires Ph.D., M.D. or equivalent, and broad research experience with substantive publications in recognized journals. Technical expertise is required in the following. Molecular biology: DNA manipulations, cloning, sequencing, in vitro transcription and translation, RNA measurements, bacterial expression of proteins, immunological procedures. Developmental biology: familiarity with amphibian embryology; injection of oocytes and embryos, dissection of embryos and explant culture, immunocytochemistry and in situ hybridization techniques, microscopic evaluation and photography. The salary range, depending on experience, is \$48,000 to \$58,000. Candidates should submit curriculum vitae and the names of three references to:

Dr. Igor B. Dawid
LMG, NICHD
National Institutes of Health
Building 6B, Room 413
9000 Rockville Pike
Bethesda, MD 20892
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Museum Informatics Project Information Systems and Technology University of California at Berkeley

Museum Informatics Specialist

The Museum Informatics Project invites applications for a state-funded position at the level Programmer/Analyst IV with a specialty in biological museum information systems. The successful candidate will work closely with faculty and collections staff, campus and external professional committees and workshops, and collaboratively with project leaders and staff at other institutions, to design and implement collections information systems with an emphasis on botanical, zoological, and paleontological collections. In this context, the successful candidate will:



- develop information technology infrastructure requirements
- provide project planning, management, and systems analysis
- draft strategic campus and individual collection information system plans
- identify and evaluate computing industry trends related to museum informatics
- participate in professional fora to create opportunities to effect change, locally and internationally, in museum informatics systems and practices
- seek funding opportunities and draft information systems grant proposals

Starting salary range: \$48,895-\$61,167 (midpoint)

Applicants should submit a curriculum vitae, a statement of background, current activities, and future goals related to museum informatics, and the names of three individuals to serve as references by January 26, 1994 to: U.C. Berkeley, Campus Personnel, Job #11-802-80, 2200 University Ave., Rm.7G, Berkeley, CA 94720.

EOE/AA.

EXECUTIVE DIRECTOR CHESAPEAKE RESEARCH CONSORTIUM (CRC)

The Chesapeake Research Consortium (CRC) is seeking applicants for the position of Executive Director (Director).

CRC is a consortium of academic and research institutions, with headquarters in the Annapolis, Maryland region, whose members include the Virginia Institute of Marine Science, the Johns Hopkins University, Old Dominion University, the Smithsonian Institution, the Academy of Natural Science of Philadelphia, and the University of Maryland System. The common interest of Consortium members is the promotion of collaborative and interdisciplinary research and related public service in the greater Chesapeake Bay region, including the outer continental shelf and watershed.

The Director is the Chief Executive Officer responsible for the operations of CRC, the supervision of staff, and the management of sponsored programs and awards to the CRC. The Director is appointed by a Board of Directors (Board) of member institutions for a term of five years with the first year being probationary, and subsequent renewable five year appointments at the discretion of the Board. Appointments are full time, and subject to twelve months notice if the Board determines a cancellation of the appointment for a cause.

The duties of the Director are determined by the Board and include the following:

1. Provide effective liaison among the member institutions by becoming knowledgeable about their unique and complementary capabilities, and by maintaining active and current contacts with administrators, faculty and staff. Promote the Consortium's mission in research, service and education.
2. Maintain active contacts with Federal and State agencies in the region in order to inform those agencies of the unique capabilities of CRC, and provide a clearinghouse for information on research opportunities.
3. Actively seek sources of sponsored program support, and facilitate the coordination and management of research projects among member institutions.
4. Facilitate communication within the scientific community of the Chesapeake Bay region through the coordination and management of workshops, symposia, conferences, the publication of reports, proceedings and other scientific and technical documents.
5. Supervise staff and manage the fiscal affairs of the Consortium.
6. Provide secretariat services to the Board and other Consortium obligations such as the Scientific and Technical Advisory Committee of the Chesapeake Bay Program.
7. Report to the Board at their regular meetings.
8. Prepare and submit an annual report of Consortium activities and an annual budget to the Board for their acceptance and approval.
9. Perform any special functions that may be assigned at the discretion of the Board.

Nominations are welcomed. Interested applicants should send application, curriculum vitae, and the names of four references to:

Dr. Dennis L. Taylor, Chair
Search Committee Chesapeake Research Consortium
Virginia Institute of Marine Science
Gloucester Point, VA 23062
(804) 642-7103

Review of applications will start 1 February 1994

The Consortium is an Affirmative Action/Equal Opportunity Employer.



Research

Director Food and Nutrition Board

The Institute of Medicine of the National Academy of Sciences is seeking a Director for its Food and Nutrition Board. Will be responsible for the overall management and direction of the Board, including scientific, administrative, and financial planning. Responsibilities also include program development, fundraising, proposal preparation, recruitment and supervision of staff, and assuring the quality of committee and staff products. Will provide advice to the IOM President and Executive Officer on major policy and operational matters. Candidates should have a Ph.D. or equivalent in a health related science with emphasis on diet and nutrition with at least eight to nine years experience in the area of food and nutrition issues including five years experience in program management, development, and human resources management. Requirements include excellent written and oral communications skills; experience in report preparation; ability to evaluate scientific literature; ability to develop contacts in public and private sectors; and to deal effectively with committees comprised of leaders in the field of food and nutrition. Please send resume in confidence to: IOM, NAS 326 (SB), 2101 Constitution Avenue, NW, Washington, DC 20418. EOE



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AND ABSTRACT FORMS, PLEASE CONTACT:

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CLINICAL RESEARCH ASSOCIATE responsible for assisting in the design, planning, implementation and day-to-day direction of clinical research projects; and gathering and analysis of clinical data. Knowledge of FDA regulatory requirements. B.A./B.S. w/ 2 to 5 (or M.S./Ph.D. w/ 1 to 2) years clinical experience in medical research, nursing or pharmaceutical industry.

REGULATORY AFFAIRS ASSOCIATE responsible for preparing and updating submissions including IND's and amendments; conducting audits of GCP, GLP and GMP activities within company; interfacing with manufacturing, clinical, research, and regulatory authorities to support IND. B.A./B.S./M.S. w/ 2 to 5 years regulatory affairs experience in the pharmaceutical or biologics industry. Ability to function in multiple priority environment.

MOLECULAR BIOLOGIST/GENETICISTS responsible for the development of novel DNA vectors which target expression to specific eukaryotic tissues and cells. Ph.D. w/ 2 to 5 years postdoctoral experience in eukaryotic RNA transcription, processing and/or translation.

FORMULATION SCIENTIST responsible for the designing of preformulation and formulation studies for DNA and lipid components. Ph.D. with 2+ years formulations experience or equivalent combination of experience and technical training. Strong knowledge of cGMPs and a solid background in Biochemistry/Chemistry and Analytical techniques. Previous industry experience and strong communication skills a must!

SYNTHETIC/ORGANIC CHEMIST responsible for conducting synthetic and analytical procedures under cGMP guidelines. Ph.D. w/ 1 to 3 (M.S. w/ 2 to 5) years postdoctoral experience. Familiarity with distillation, recrystallization, liquid and solid measuring, ¹H-NMR and IR spectroscopies, preparative and analytical chromatographic techniques (TLC and HPLC). Must communicate well in spoken and written English.

ANALYTICAL CHEMIST responsible for the development/validation of assays for the characterization of DNA and lipid components. Ph.D. with 2+ years experience or equivalent combination of experience and technical training. Knowledge of biochemistry, molecular biology and GMP guidelines a must!

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CAREER RESEARCH POSITION MARINE LIFE RESEARCH GROUP SCRIPPS INSTITUTION OF OCEANOGRAPHY

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University of California, San Diego
Professor Michael M. Mullin
Director, Marine Life Research Group, 0227
Scripps Institution of Oceanography
9500 Gilman Dr.
La Jolla, CA 92093-0227

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should have a Ph.D. or equivalent in
physical sciences, chemical
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engineering, or other disciplines related
to health physics.

Candidates should also have at least
four to five years experience with
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(GG), 2101 Constitution
Avenue, NW, Washington,
DC 20418.** Applications
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EOE

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Applicants should submit a curriculum
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March 1, 1994:

**EM Director
Search Committee
Dept. of Cell Biology
Harvard Medical School
25 Shattuck St.
Boston, MA 02115**



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NeXagen, a Boulder-based biotechnology company dedicated to the identification and design of novel therapeutic agents for the treatment of several major diseases, currently has several opportunities available.

Group Leader Bioprocess

Responsibilities include production of oligonucleotides in gram quantities. Requires a Ph.D. in chemistry or biochemistry with a minimum of 4-6 years relevant experience in recombinant DNA expression of proteins and enzymology, especially RNA polymerases. Dept. 106.

Research Associate

Responsibilities include working with DNA and RNA using a variety of molecular biology techniques. Requires a BS/MS in chemistry or molecular biology with 2-5 years experience, with an MS preferred. Working knowledge of nucleic acid/protein interactions and molecular biology essential. Dept. 107.

Research Associate

Responsibilities include synthesis and characterization of modified oligonucleotides. Requires a BS in chemistry or biochemistry and a minimum of 2 years experience or significant undergraduate research experience in synthetic organic chemistry and biochemical techniques. Dept. 108.

A competitive salary and benefits package complement these offers. Interested candidates may submit their resume and cover letter indicating position desired and Dept. number to: Human Resources,

NeXagen, Inc.
2860 Wilderness Place
Suite 200
Boulder, CO 80301
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NEXAGEN
.....

TENURE-TRACK FACULTY POSITION

The Department of Obstetrics and Gynecology at New Jersey Medical School in Newark, New Jersey is actively seeking a basic scientist at the Assistant or Associate Professor level to fill a tenure-track position. Individuals with expertise in molecular biology are particularly of interest. Individuals with interests in or complementary to all areas of reproductive biology will be considered. Successful candidates will be expected to develop independent, extramurally supported research programs and interact with other basic and clinical scientists to train fellows, residents and students and help foster the scientific environment. Joint appointments in appropriate basic science departments are possible. The department presently has vital ongoing basic and clinical research programs investigating physiological, cellular and molecular aspects of various female and male reproductive processes. Please send curriculum vitae and a statement of research interests to Dr. Laura T. Goldsmith, Associate Professor, Department of Obstetrics & Gynecology, New Jersey Medical School, 185 South Orange Avenue, Newark, New Jersey 07103.

Tenure Track Positions in Cellular and Molecular Immunology of the GI Tract Department of Medicine University of Chicago

Special tenure track research positions at The University of Chicago are now available to establish a multidisciplinary approach to the study of inflammatory bowel diseases. The newly constructed Center has 6,000 sq. ft. and state-of-the-art resources, including laser scanning confocal microscopy and transgenic core facilities.

Initial recruitment is directed towards individuals with a strong background in mucosal immunology, oral tolerance, cytokine research, autoimmune disease mechanisms and basic cellular and molecular immunology. In addition, individuals interested in structural, cellular, and molecular biology of epithelial cells will be considered. Previous work or interest in inflammatory bowel diseases is not required. Individuals desiring to branch into studies related to inflammatory bowel diseases are encouraged to apply. Minimum requirements include doctoral degree and extensive post-doctoral experience.

Appointments will be considered at the Assistant and Associate Professor level and generous funding is available for the establishment and initial support of the individual research programs. Research by the Inflammatory Bowel Disease Research Center will be closely integrated with basic immunology, the IBD clinical program, and with other groups within the Divisions of Biological Sciences at The University of Chicago. Applicants should send a CV, reprints of recent work, a statement of research interests and names of suitable references to:

Eugene B. Chang, M.D., Director
Inflammatory Bowel Disease Research Center
The University of Chicago
Department of Medicine/GI, MC 6084
5841 S. Maryland Avenue
Chicago, IL 60637
Phone: 312-702-6458
Fax: 312-702-2281

An affirmative action, equal opportunity employer.

ECOLOGY/POPULATION BIOLOGY

UNIVERSITY OF CALIFORNIA, IRVINE ASSISTANT/ASSOCIATE PROFESSOR

The Department of Ecology and Evolutionary Biology at the University of California, Irvine solicits applications for one or two tenure-track (assistant professor) or tenured (professor) positions in the field of Ecology. The Department will consider applications from all outstanding candidates in behavioral, populations or community ecology. The successful applicant(s) will be expected to participate in both the undergraduate and graduate teaching programs in Ecology. The deadline for receipt of materials will be February 11, 1994. Please submit curriculum vitae, description of research and teaching interests, and the names, addresses and phone numbers of at least three referees to: Ecology Search Committee, Department of Ecology and Evolutionary Biology, University of California, Irvine, CA 92717-2525.

UCI is an Equal Opportunity/Affirmative Action Employer committed to excellence through diversity.

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SmithKline Beecham is a \$9.2 billion global pharmaceutical and health care company. Our world famous products and reputation mean unsurpassed opportunities for individuals to combine their scientific and marketing expertise as Regional Medical Associates.

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To qualify, you must have a Ph.D. in Pharmacology, Toxicology, Microbiology or related life sciences. Strong marketing and communication skills and a high degree of initiative are also required. Opportunities currently exist in the Texas and in the Northern California areas.

We offer one of the best compensation packages—including a car—in the industry. If you'd like to be a part of our success, send your resume with salary history to: SmithKline Beecham, Central Employment, FP1135, 200 S North 16th Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/D/V.



SmithKline Beecham

Human Genome Science is an exciting new biotechnology company that utilizes automated large scale sequencing to identify new human genes and to analyze patterns of gene expression under defined conditions of cell activation and development. Positions are available in the area of...

Protein Expression/Purification

SCIENTISTS

Qualified candidates should possess 3-5 years practical experience in the expression and/or purification of recombinant proteins. Scientists with experience in eucaryotic expression systems are particularly encouraged to apply. A background in biochemistry is essential. (Ref. Job 126)

POSTDOCTORAL FELLOWS

To work on novel human genes, e.g. chemokines and their cell surface receptors and factors involved in gene regulation. Qualified candidates should have a familiarity with standard cell culture techniques and a knowledge of recombinant gene expression in eucaryotic systems. (Ref. Job 127)

HGS offers an exciting work environment, competitive salaries, a comprehensive benefit package including a 401(k) plan and a Flexible Benefits plan. For immediate consideration, please forward your resume indicating appropriate Job # to:



HGS

Human Genome Sciences, Inc.
9620 Medical Center Drive
Suite 300
Rockville, MD 20850
(Reference Number)
Fax: (301) 309-8512

An Equal Opportunity Employer

Associate Provost for Research and Dean of the Graduate School

The University of Maryland at College Park invites applications and nominations for the position of Associate Provost for Research and Dean of the Graduate School. This position represents a redefinition of research and graduate education leadership at the institution as part of an overall reorganization of the Office of Academic Affairs. The successful candidate, therefore, will be expected to provide both vision and dynamic leadership appropriate to the mission of a comprehensive research and land-grant university. The Associate Provost and Dean reports to the Vice President for Academic Affairs and Provost, is a member of his senior staff, and operates with a large degree of delegated authority. The position will be filled July 1, 1994, or as soon thereafter as possible.

The University of Maryland at College Park is the flagship institution within the eleven-campus University of Maryland System. The Office of Graduate Studies and Research includes such offices as Research Advancement and Administration; Technology Liaison; Fellowships; Graduate Minority Education; and Graduate Admission and Records.

As Associate Provost for Research, the incumbent is responsible for all aspects of the University's research program. This includes advocacy and general management of sponsored and State-funded research activity at an institution that in FY 1993 received over \$122 million in external research support. The Associate Provost is expected to take an active role in representing the University to national and international research and educational agencies, business, and industry, assuming a position of leadership in the formulation and interpretation of research policy. The Associate Provost is also charged with assisting a large and diverse faculty in the conduct of their research, scholarship, and creative work.

As principle academic officer of the Graduate School, the Dean is responsible for policy development and administration of a decentralized Graduate School offering over 80 advanced degree programs, and enrolling over 9,000 students. In cooperation with academic departments and colleges, the Dean is responsible for the development of new graduate programs, the review and modification of existing programs, and the recruitment, admission, support, and education of graduate students.

Qualifications: A substantial record of scholarly achievement that would justify appointment at the rank of Professor in one of College Park's academic units is required. A record of several years of successful administrative work, familiarity with strategic planning and budget management, and graduate program experience constitute criteria for selection. Preference will be given to candidates who are not only familiar with sources of research funds, but who also have an established administrative record of obtaining and maintaining competitive funding from external sources.

The search committee expects expressions of interest to consist of (1) a letter setting forth the candidate's ideas concerning the role of a research university in the 21st century, especially from the perspective of research and graduate study; (2) a curriculum vitae; and (3) the names, addressees, and telephone numbers of at least four persons who can be contacted by the search committee in reference for the candidate. Nominations are encouraged and will be received at any time. All materials should be sent to:

Dean Richard Herman, Chair
Associate Provost and Dean Search Committee
The College of CMPS
University of Maryland
3400 A.V. Williams Building
College Park, Maryland 20742-3281

Please feel free to call the chair of the committee, Dean Richard Herman, at 301-405-2316 to discuss the position (e-mail rherman@cmcs.umd.edu). For best consideration, all materials should be received by February 15, 1994.

The University of Maryland actively subscribes to a policy of equal education and employment opportunities. Women and minority candidates are encouraged to apply.

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CELL AND DEVELOPMENTAL BIOLOGY

Opportunities exist to work on growth/differentiation factors and gene expression and to participate in the development of *in vitro* and *in vivo* models for the evaluation of efficacy for novel growth/differentiation factors, morphogenes and cytokines. Requirements include mammalian cell culture and recombinant techniques. Experience in the following is required: *in situ* hybridization, RNA and DNA analysis, cell culture, gene transfection and amplification, immunohisto-chemistry, matrix-cell interactions, receptor-ligand interactions and cellular and immunoassays.

**ACT
CREATIVE**

PROTEIN CHEMISTRY

Challenges exist in the isolation and characterization of biologically active proteins. Successful candidates will develop purification processes for naturally sourced and recombinant protein therapeutics from project initiation through the start of clinical manufacturing. These individuals will also perform structural/functional analysis of recombinant therapeutic proteins under development for assessing functionally important domains. Requirements include familiarity with analytical methods including HPLC, peptide mapping and chemical modification of protein as desired.

ANALYTICAL PROTEIN CHEMISTRY

Successful candidates will assist in the characterization of protein products through the use of state-of-the-art techniques and instrumentation from micro-scale elucidation of the primary and secondary structures of proteins. The senior candidates are expected to be familiar with gas phase protein/peptide sequencing, microbore HPLC separations of proteins and peptide, amino acid analysis, etc.

MOLECULAR BIOLOGY

Opportunities for the study and cloning of morphogenes and receptors, regulation of gene expression during development, organogenesis and neoplastic transformation. Research includes gene transfer, amplified mammalian gene expression and protein engineering with some emphasis on single chain antibodies. Desirable experience includes Northern hybridization, *in situ* hybridization, PCR, cDNA, cloning, and in particular phage display technology, mutagenesis and microbial secretion.

DRUG DELIVERY MANAGER

The selected candidate will assist in the design and improvement of systems for the effective delivery of protein-based product candidates. Background in drug formulation or polymer chemistry and a Ph.D., MD, DVM, or equivalent degree and 3-5 years' relevant experience in pharmaceutical and/or biotechnology industries.

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CREATIVE**

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Creative BioMolecules offers an excellent compensation and benefits package including 3 weeks' vacation, employee stock purchase plan, and a company-matched 401(k) plan. For immediate consideration, please send or fax your resume, indicating position of interest, to: Human Resources, Creative BioMolecules, 45 South Street, Hopkinton, MA 01748. FAX: (508) 435-0992. An Equal Opportunity Employer.

EXTENSION WEED SPECIALIST

The University of California at Davis invites applications and nominations for an Assistant Extension Specialist in Vegetation Management/Weed Ecology. Responsible for statewide extension education programs and applied research in vegetation management/weed ecology, including their physiological and population responses to the environment, biological weed control, and other vegetation management techniques. The emphasis will be on weed problems primarily related to non-cultivated, managed ecosystems. Ph.D. or equivalent level of experience in weed science or a related discipline, plus expertise in one or more of the following areas: taxonomy, ecology, or botany. Experience in plant identification and field ecological methodology is essential. Candidates should submit curriculum vitae, a statement of interest in extension education and research interests, reprints, and the names and addresses of five professional references sent to Dr. Clyde Elmore, Chair, Search Committee, Cooperative Extension, Section of Plant Biology, University of California, Davis, CA 95616. Telephone: (916) 752-0612. FAX: (916) 752-5410. All applications and materials must be received by February 28, 1994. The University of California is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR Harvard Medical School Department of Cell Biology

The Department of Cell Biology invites applications for a tenure track Assistant Professor. We are seeking innovative individuals with strong research accomplishments and outstanding promise. Applicants should have proven expertise in applying modern approaches to problems in cell or developmental biology. Successful candidates will be expected to maintain a vigorous, externally funded research program and to participate in the teaching of medical and graduate students. Harvard University is committed to increasing the number of women and minorities among its faculty, so applications from such candidates are especially encouraged.

Applicants should submit a curriculum vitae, a brief statement of research accomplishments and future objectives, and the names of three references by March 1, 1994:



Dr. Marc Kirschner
Chair
Dept. of Cell Biology
Harvard Medical School
25 Shattuck St.
Boston, MA 02115

Harvard Medical School is an Equal Opportunity/Affirmative Action Employer.

Plant Biology Swarthmore College

Applications are invited for two positions in plant biology in the Department of Biology, starting September 1994.

Plant Evolutionary Biology

This three-year, non-tenure track position involves teaching an intermediate-level course in plant biology related to evolution (e.g. plant systematics or plant reproductive biology), another plant biology courses, and participating in the Department's introductory biology sequence. Ability to teach in some area of applied plant biology, such as agricultural botany or ethnobotany, would be desirable.

Plant Ecology

This is a one-year leave-replacement position that involves teaching an intermediate-level course in ecology and an advanced-level seminar in some area of plant ecology, and participating in the Department's introductory biology sequence.

To apply for either position, send curriculum vitae, a statement of teaching and research interests, and have three letters of recommendation sent to Jacob Weiner, Department of Biology, Swarthmore College, 500 College Avenue, Swarthmore, PA 19081-1397. Closing date for application is February 15, 1994. Swarthmore College is an equal opportunity employer.

BIOPHYSICAL CHEMIST

The National Heart, Lung, and Blood Institute is recruiting for a senior postdoctorate position (salary range \$36,000 - \$46,000 depending on experience) to perform thermodynamic measurements on biological macromolecule and complex systems. The candidate should have broad experience in calorimetry, fluorometry, circular dichroism, spectroscopy, and ultracentrifugation. Particular expertise in computer programming is desirable. The candidate should have experience in protein purification, enzymology, and some knowledge of nucleic acid chemistry. U.S. Citizenship is required.

Interested applicants should submit an Application for Federal Employment (SF-171) or Resume to:

Dr. Ann Ginsburg
Laboratory of Biochemistry,
Section on Protein Chemistry
National Heart, Lung,
and Blood Institute
National Institutes of Health
Building 3, Room 208
9000 Rockville Pike
Bethesda, Maryland 20892

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DEAN OF HUXLEY COLLEGE OF ENVIRONMENTAL STUDIES

Huxley College of Environmental Studies seeks a dean to represent the faculty and administer its undergraduate and Master's programs. The Dean reports to the Provost and is the general administrative officer responsible for all programs in the College, including academic affairs, research, budget and related student activities.

The College: Huxley College, founded in 1968, takes an interdisciplinary approach to the broad field of environmental studies. Courses range through environmental toxicology and chemistry, ecology, environmental policy, geography and planning, and environmental education. Two research institutes report to the dean: Watershed Studies and Environmental Toxicology and Chemistry. The College also includes a GIS Laboratory and Map Library. Huxley coursework is mostly offered at the junior, senior and graduate levels.

Undergraduate programs center on five academic majors: environmental sciences, environmental policy and assessment, environmental education, geography, urban and regional planning. Graduate studies include M.S. degrees in Environmental Science, and Geography, plus cooperative graduate programs with other units: an M.A. in Environmental Policy (with Political Science) and an M.Ed. in Environmental Education (with Science Education). At present there are 20 faculty, 24 affiliated faculty from other units of the university, and nine adjunct faculty. Total enrollment is currently about 600, including 60 graduate students.

The University: Western Washington University is a comprehensive university of over 10,000 students located between Seattle and Vancouver, B.C. Situated on a beautiful campus overlooking Bellingham Bay, the University includes six colleges, a graduate school, and a number of teaching and research centers and institutes. Western has received national recognition for its academic endeavors and is characterized by a faculty and student body of strong preparation and accomplishment.

Qualifications: A relevant Ph.D. degree, experience with multi-disciplinary programs, an academic record that would qualify for appointment at the rank of tenured full professor, and relevant administrative experience. Salary: \$70 - 75,000 per year. Send application materials including a letter describing administrative experience and academic interests, a curriculum vitae, and the names, addresses, and phone numbers of at least four references to:

Prof. Scott Babcock, Chair, Dean of Huxley College Search Committee, Western Washington University, Bellingham, WA 98225-9033, FAX: 206-650-6141.

Review of applications will begin in late January and continue until a Dean has been appointed. Western Washington University is strongly committed to equal opportunity and affirmative action. Women, members of ethnic and racial minorities and persons with disabilities are encouraged to apply. Persons with disabilities needing assistance in the application process may call (206) 650-3306, for the hearing impaired, call the Wash. State TDD Relay Service at 1-800-833-6388.

THE COMPREHENSIVE CANCER CENTER OF WAKE FOREST UNIVERSITY THE BOWMAN GRAY SCHOOL OF MEDICINE

Applications are invited for 11 new faculty positions at the Assistant, Associate or Full Professor level. The Bowman Gray School of Medicine and the North Carolina Baptist Hospital have recently completed a \$200,000 construction and renovation program.

Three faculty positions for Ph.D. scientists are available in a newly formed Department of Cancer Biology. Areas of institutional interest include signal transduction pathways of oncogenes and tumor suppressor genes, cytokine biology, growth regulation, carcinogenesis and oxidative injury.

Six of these faculty positions are for scientists who will develop research programs in gene therapy. Two appointments will be M.D. or M.D./Ph.D. oncologists (one in bone marrow transplantation, one in clinical pharmacology), and four will be Ph.D. scientists (transgenic biologist, cytokine immunologist, virologists, molecular biologist).

One medical oncologist with a research interest in cancer clinical trials.

The Center is also recruiting an M.D. as Director of Cancer Prevention, a major leadership position within the Comprehensive Cancer Center. This person should be well versed in classic prevention and/or epidemiology, but primary research interests should be in the molecular aspects of cancer diagnosis or prevention.

Applicants should submit a curriculum vitae and statement of research interests to Frank M. Torti, M.D., Director, Comprehensive Cancer Center of Wake Forest University, The Bowman Gray School of Medicine, Medical Center Boulevard, Winston-Salem, North Carolina 27157.

AA/EEO

Two Faculty Positions

University of California, Riverside
Department of Entomology

Assistant Professor/Assistant Entomologist: Systematist. Tenure-track position available July 1, 1994, 11 mo., 10% teaching, 90% research. Appointment level and salary commensurate with research/teaching experience. Ph.D. in Entomology or related discipline, and graduate training or postdoctoral experience in the systematics of Hymenoptera or entomophagous arthropods with experience in molecular techniques required. Responsibilities: Conduct research in systematics of parasitic Hymenoptera or other entomophagous arthropods. Supervise graduate students and participate in the Department's teaching program in morphology and systematics. Send CV, transcripts, statement of research interests, reprints and manuscripts in press, names/addresses of 5 referees to Dr. R.F. Luck, Search Committee Chair (address below). **Application deadline: February 15, 1994.**

Assistant Extension Toxicologist. Full-time, career-track extension position in agricultural toxicology, available July 1, 1994. Appointment level and salary commensurate with experience. Ph.D. or equivalent degree in chemical and/or biological science required. Responsibilities: Develop an independent, applied research program addressing statewide problems in environmental toxicology and pollution associated with agriculture; extend education programs by acting as liaison and resource providing perspectives on the biological impact of pesticides and related compounds to government agencies, community groups and the public. Supervision of graduate students encouraged. Opportunities exist for interactions with other campus units including Environmental Sciences, Environmental Toxicology Graduate Program and Statewide Air Pollution Research Center. Send CV, transcripts of graduate work, statement of research interests, reprints, and names/addresses of 5 referees to Dr. S.N. Thompson, Search Committee Chair. **Application deadline: February 22, 1994.**

Address: Department of Entomology, University of California, Riverside, CA 92521.

*The University of California is an equal opportunity/
affirmative action employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION. Available immediately to study oxidative stress and aging, using yeast as an experimental model. Applicants with experience in yeast genetics/molecular biology and/or free radical biology are preferred. Send curriculum vitae and names of references to: **R. O. Poyton, MCD Biology, Box 347, University of Colorado, Boulder, CO 80309-0347.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION. Available immediately to study oxygen sensing and oxygen control of transcription in yeast. This research involves recombinant DNA techniques, genetics, and fermentation. Candidates should have a Ph.D. in biochemistry or molecular biology and interest in the development of methods for maintaining and growing cells to steady state at very low oxygen levels. Send curriculum vitae and references to: **R. O. Poyton, MCD Biology, University of Colorado, Boulder, CO 80309-0347.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW—PENN STATE. Applications are being accepted for positions on an NIH training grant in Endocrinology, Diabetes and Metabolism at the Pennsylvania State University College of Medicine. M.D. or Ph.D. candidates will be trained for an academic research career by faculty members working in the areas of diabetes, reproductive endocrinology, and endocrine/oncology. *Qualifications include U.S. citizenship or permanent resident status, strong academic background and plans for a career in academic research.* Application deadline is February 28, 1994. The salary is commensurate with NIH stipend guidelines. For a detailed descriptive brochure and application, write to: **Dr. Leonard S. Jefferson, The Pennsylvania State University College of Medicine, Department of Cellular and Molecular Physiology, P.O. Box 850, Hershey, PA 17033.** *We are an Equal Opportunity/Affirmative Action Employer and encourage minority and female applicants to apply.*

POSTDOCTORAL FELLOW—Available immediately, to study structural and functional properties of the human acute phase protein, C-reactive protein. Persons with Ph.D. in Molecular Biology, Biochemistry, or related field and experience in molecular studies of receptors, recombinant protein expression, and mutagenesis are especially encouraged to apply. *Must be U.S. citizen.* For a full listing of the **MINIMUM REQUIREMENTS** and **CONDITIONS OF EMPLOYMENT** please obtain a **COMPLETE** vacancy announcement at UNM's Human Resource Office. Submit curriculum vitae and a statement of interest to: **Terry W. Du Clos, M.D., Ph.D., Department of Medicine, The University of New Mexico School of Medicine, Albuquerque, NM 87131.** Telephone: 505-256-5717 or FAX: 505-256-2877. Refer to **Requisition # 1218-93B.** Application deadline is January 14, 1994. *Equal Opportunity Employer.*

NORTHWESTERN UNIVERSITY ROBERT H. LURIE CANCER CENTER RESEARCH ASSOCIATES

Applications are invited for the position of Research Associates to work in Molecular Biology of Breast Cancer. New laboratory studying cell replication and the estrogen receptor in Breast Cancer. Ph.D. in Molecular Biology required, experience in eukaryotic biochemistry and cell culture essential with evidence of competence in standard techniques in Molecular Biology.

Send curriculum vitae and names of three references to: **Dr. V. Craig Jordan, Ph.D., D.Sc., Director Breast Cancer Research Program; Robert H. Lurie Cancer Center; 303 East Chicago Avenue; Chicago, IL 60611.**

Northwestern University is an Equal Opportunity Employer.

RESEARCH POSITIONS

Two or three positions are available to study the molecular mechanisms of carcinogenesis, the inhibition of carcinogenesis by tea and garlic compounds, or the active site dynamics of cytochrome P450 2E1. Successful candidates should have Ph.D. in related field and demonstrated research ability. Outstanding candidates may be appointed at the Research Associate or Assistant Research Professor level. Please send curriculum vitae and supporting materials to: **Dr. Chung S. Yang, Laboratory for Cancer Research, College of Pharmacy, Rutgers University, Piscataway, NJ 08854.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

VIROLOGY TECHNICIAN

Small biotech firm is seeking a virology technician with 3 to 5 years of experience in tissue culture-based virology. GLP and commercial experience desirable. Plaque assays and viral stock production experience preferred. Send résumé to: **HR-VIR, TSI Washington, 2 Taft Court, Rockville, MD 20850.** FAX: 301-230-2369. *Equal Opportunity Employer, M/F.*

DANA-FARBER CANCER INSTITUTE— HARVARD MEDICAL SCHOOL

TWO RESEARCH ASSISTANTSHIPS (one at predoctoral level) are available immediately to participate in ongoing research projects in HIV research. Emphasis is on research on the use of *in vitro* and *in vivo* (SCID mouse model) assays to investigate the anti-viral properties of several candidate drugs. In addition, successful applicants will also participate in a project pertaining to immunology and molecular biology of the antigen presenting cells in HIV-pathogenesis. Candidates must have basic technical experience in tissue culture (particularly with peripheral blood mononuclear cells), molecular and cell biology. Experience in HIV research would be an added bonus although full training will be given. The positions are funded for a minimum period of two years with an excellent and competitive salary package. Please submit résumé and names of three references to: **Mrs. Kathleen Walsh, Division of Cellular and Molecular Biology, Dana-Farber Cancer Institute, Mayer 840, Harvard Medical School, 44 Binney Street, Boston, MA 02115.** *The Dana-Farber Cancer Institute is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATE POSITIONS to study the molecular pharmacology of Malaria and *Pneumocystis carinii*. One position will involve the identification and molecular cloning of drug receptors; a strong background in biochemistry and molecular biology is preferred. A second position may be available for someone with a strong chemistry/biochemistry background to study how drugs are metabolized by the parasites. Salary is commensurate with experience. Send curriculum vitae and the names of three people who could provide letters of reference. Contact: **Dr. Steven Meshnick, Department of Epidemiology, University of Michigan School of Public Health, Ann Arbor, MI 48109-2029.** Email: Meshnick@umich.edu. *The UM is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH SCIENTIST positions available in Immunology to join a group studying the basis of immunity and molecular pathogenesis of bacterial infections. The program is focused on the nature and characterization of immunity and vaccine development against plague and anthrax. Experience in immunochemistry, protein chemistry and molecular immunology, or cellular immunology and cell biology is required. Interested applicants should send curriculum vitae, reprints of representative publications, and names of three references to: **Dr. Arthur M. Friedlander, Chief, Bacteriology Division, U.S. Army Medical Research Institute of Infectious Diseases, Fort Detrick, Frederick, MD 21702-5011.** Telephone: (301) 619-7341. FAX: (301) 619-2152.

Montana Tech is seeking a **PROJECT SCIENTIST** to manage a two-year research program involving the design, construction and monitoring of demonstration wetlands for the clean-up of metal sulfide acid mine drainage. Team investigators include a geochemist, environmental engineer, hydrologist, and design engineer. Preference will be given to those having a research background that complements/supplements that of the team members and includes experience with anaerobic systems. The successful applicant should have a Ph.D. degree plus 3 years of relevant experience in either environmental engineering, microbiology, hydrology, or geochemistry with a demonstrated record of research and project management. The non-tenured Research Faculty appointment will be for one year with the potential for renewal for a second year. Applicants should send a letter of introduction and a recent résumé to: **Dr. Joseph Figueira, Associate Dean of Research and Graduate Studies, Montana Tech, 1300 West Park Street, Butte, MT 59701-8997** no later than January 14, 1994. This position is contingent upon the availability of funds. *Equal Employment Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

RESEARCH ASSOCIATE POSITION available for investigating the molecular basis of *in vitro* transformation of human cells by physical and chemical carcinogens. Research involves genomic, cDNA cloning of genes, characterization of gene structure and studies in protein expression associated with transformed human cells. Experience with molecular biology techniques of DNA cloning, PCR amplification, DNA hybridization single-strand conformational polymorphism analysis and sequencing required. Interested individuals should send curriculum vitae and names of three references by January 21, 1994, to: **Dr. Gary R. Pearson, Professor and Chairman of Microbiology and Immunology, Georgetown University Medical Center, 3900 Reservoir Road, N.W., Washington, DC 20007.** *Georgetown University is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH HYDROGEOLOGIST, twelve-month, tenure-leading faculty appointment in the Conservation and Survey Division beginning August 1994. Successful candidate will provide leadership in quantitative hydrogeology to integrate with existing program of research on hydrogeologic systems of Nebraska, develop and apply new approaches to characterizing groundwater flow and contaminant transport with an emphasis on regional-scale processes, and provide scholarly service to private and public sectors. Opportunities to teach and advise graduate students are available within other departments. Requires Ph.D. in hydrogeology, geology, or closely related field earned by date of employment. Special consideration given to applicants with experience in deterministic and/or stochastic modeling, field-oriented studies, and working on interdisciplinary research teams. Send detailed curriculum vitae, university transcripts, description of current and planned research, record of funding, and names, addresses and telephone numbers of three references postmarked by **February 28, 1994** (or until suitable applicant is found thereafter), to: **Dr. Jerry F. Ayers, Chair, Hydrogeologist Search Committee, Conservation and Survey Division, University of Nebraska-Lincoln, 113 Nebraska Hall, Lincoln, NE 68588-0517.** Telephone: 402/472-7545; FAX: 402/472-2410. *UNL is committed to a pluralistic campus community through Affirmative Action and Equal Opportunity and is responsive to the needs of dual-career couples. We assure reasonable accommodation under the Americans With Disabilities Act; contact Dr. Ayers for more information.*

AQUATIC ECOLOGIST ILLINOIS NATURAL HISTORY SURVEY

The Center for Aquatic Ecology invites applications for a position at the **ASSISTANT PROFESSIONAL SCIENTIST** level available summer 1994. Applicants must hold a Ph.D. in an appropriate discipline, and conduct research on freshwater lentic or lotic systems. Applicants with interests in the responses of organisms, populations, communities, and ecosystems to natural or anthropogenic perturbations are especially welcome. Preference will be given to candidates whose research complements existing strengths within the Center. The successful candidate will be expected to develop an active, externally funded research program. The primary function of Professional Scientists at the Survey is to conduct self-directed research in their area of interest. Opportunities to teach and direct graduate students are available through the University of Illinois. Please send a letter of application, curriculum vitae, a statement of research interests, reprints of no more than three representative publications, and the names and addresses of three references to: **Jacqueline Sanders, Personnel Officer, Illinois Natural History Survey, 607 East Peabody, Champaign, IL 61820.** Telephone: 217-244-7790; FAX: 217-333-4949. Applications should be received by **January 21, 1994**, to receive full consideration. *The Illinois Natural History Survey is an Equal Employment Opportunity/ADA Employer.*

MOLECULAR BIOLOGIST

Applications are invited from candidates with substantial research experience in molecular biology and recombinant DNA techniques in "Role of cytokines in implantation, and cancer biology." Positions will be at Universities of South Florida, and California. Send résumé to: **Dr. Tabibzadeh, Department of Pathology, Moffitt Cancer Center, 12902 Magnolia Drive, Tampa, FL 33612** or call 813-979-7237.

POSITIONS OPEN

JOSLIN DIABETES CENTER HARVARD MEDICAL SCHOOL PANCREATIC ISLET TRANSPLANTATION

The Joslin Diabetes Center is expanding its program in islet transplantation. A position is available for a qualified M.D. and/or Ph.D. with expertise in large animal islet isolation, immunobARRIER technology, and transplantation techniques. Academic appointment at Harvard Medical School appropriate to seniority. *Women and minorities are encouraged to apply.* Interested individuals should send curriculum vitae with names and telephone numbers of three possible references to: **Dr. Gordon C. Weir, Joslin Diabetes Center, One Joslin Place, Boston, MA 02215.**

WASTE REDUCTION SPECIALIST: Organizes and conducts waste reduction programs on small businesses throughout Iowa. Conducts on-site reviews of businesses covering environmental regulation review and recommendation for both waste reduction and compliance in the areas of air, water, solid and hazardous waste management. Duties include helping small businesses meet requirements under the Clean Air Act, e.g., air permits, emission inventory, air dispersion modeling, etc. Research new and emerging waste reduction techniques and equipment. Provide technical assistance to business and state agencies. Conduct short training courses and make presentations to trade associations and other small business groups on environmental regulations and requirements, waste reduction, pollution prevention, recycling, etc. Experience must include 2 years in project management (inspection and evaluation, project appraisal, feasibility study) of industrial projects and 1 year of working with hazardous material in an R&D environment. Must have completed coursework in solid and hazardous waste management and air quality management covering Resource Conservation and Recovery Act (RCRA), Superfund Amendment and Reauthorization Act (SARA), and Comprehensive Environmental Response Liability Act (CERCLA). Must have an M.S. in Chemical Engineering and at least 2 years of experience in job offered or as Officer (Engineer). 40 hours per week; 8:00 a.m. to 4:30 p.m.; \$33,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send your résumé to: **Job Service of Iowa, P.O. Box 2160 (925 East 4th Street), Waterloo, IA 50704.** Refer to Job Order #IA 1100238. This advertisement is paid for by the employer.

SCIENCE WRITER—to join the Office of Public Affairs of a scientific society representing 22,000 members. Responsibilities include interviewing scientists, assembling news releases, preparing a column on issues that affect science, and preparing articles explaining the importance of basic neuroscience research. Experience required: at least 5 years of reporting and writing about science—preferably neuroscience; proven ability to make complicated concepts understandable to the public; knowledge of science politics. Salary from mid 30's to low 40's. Excellent benefits, including health and pension plans. Mail cover letter, résumé and 3 clips of science articles to: **Science Writer, Society for Neuroscience, 11 Dupont Circle NW, Suite 500, Washington, DC 20036.** No telephone calls, please.

DIVISIONAL TOXICOLOGIST, for Manufacturer in the Cincinnati area.

Provide human safety support for the development and marketing of personal hygiene products. Review product designs, materials, and existing chemical and toxicological data on new chemical ingredients. Design, execute and interpret state-of-the-art toxicological and clinical studies to support safety of products for intended use and foreseeable misuse. Consult with company and external resources, conduct risk assessment, and coordinate final approval for product prior to marketing. Ph.D. in Toxicology or Biology with emphasis in Toxicology required plus one year of experience in job offered or one year of experience as a pre- or postdoctoral researcher in immunotoxicology. One year of experience must involve *in vivo* and *in vitro* assessments of toxicity and design of new bioanalytical methods for determining effects of chemicals living systems via trans-dermal exposure.

40 hours per week, 8:30-4:30, Salary \$52,500 per year. *Must have proof of legal authority to work indefinitely in United States.* Send résumé in duplicate (no calls) to: **G. Maugans, JO# 1230929, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

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MEDICAL UNIVERSITY OF SOUTH CAROLINA offers programs leading to Ph.D. and M.D./Ph.D. degrees in each of the basic Biomedical Sciences (Biochemistry, Microbiology/Immunology, Pathology, Pharmacology, Physiology), Biometry/Epidemiology, Pharmaceutical Sciences, and Molecular & Cellular Biology. Competitive stipends (\$10,000 to \$15,000) available. Contact: **College of Graduate Studies, MUSC, 171 Ashley Avenue, Charleston, SC 29425-2501.**

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CAENORHABDITIS GENETICS CENTER (CGC)

The CGC acquires, maintains and distributes genetic stocks of *Caenorhabditis elegans* for use by investigators initiating or continuing research on this nematode. The CGC's collection of more than 1900 strains includes one allele of each mapped gene, all available chromosome rearrangements, and selected multiply mutant stocks for genetic mapping. Requests for strains should include a brief statement of the research or training activity for which the stocks are intended. Recipients are asked to acknowledge the CGC, which is supported by NIH's National Center for Research Resources, in publications resulting from use of the strains and to provide the CGC with reprints of those publications. The CGC also provides information about *C. elegans*, largely through the publication and distribution of a newsletter, the *Worm Breeder's Gazette*. Inquiries should be addressed to:

**Theresa L. Stiernagle, Curator
Caenorhabditis Genetics Center
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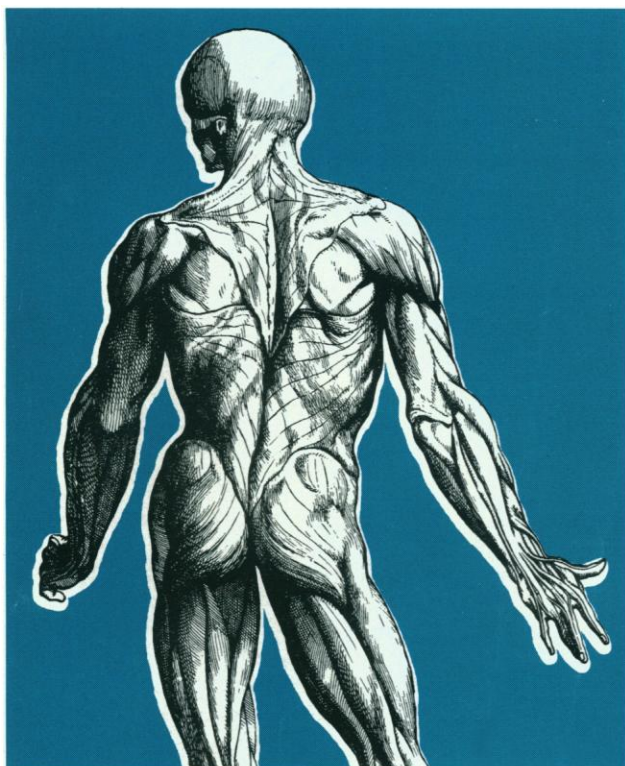
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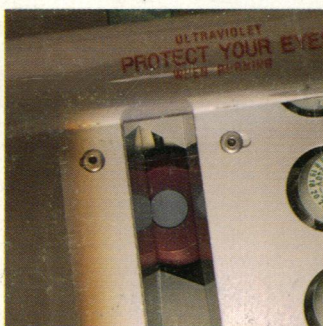
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