

# Essential Reading from Cambridge

## A Practical Guide to Human Cancer Genetics

*Shirley V. Hodgson and Eamonn R. Maher*

Includes essential information about genetic predisposition to cancer. It introduces the basic concepts and mechanisms of tumorigenesis and then system by system, describes the incidence, significance, and management of individual cancers.

1993 258 pp. 40128-3 Hardcover \$79.95  
40951-9 Paper \$34.95

## Preconception and Preimplantation Diagnosis of Human Genetic Disease

*Edited by Robert G. Edwards*

An intriguing analysis of the latest technology for diagnosis of genetic disease in fetuses, with a consideration of the medical, ethical, and legal implications.

1993 352 pp. 40425-8 Hardcover \$99.95

## Cytokine Therapy

*Edited by David W. Galvani and John C. Cawley*

"...a concise and thoroughly readable account of important clinical specialties on which cytokine therapy has already made an impact."

— *Trends in Microbiology*

1993 205 pp. 41232-3 Hardcover \$65.00  
42337-6 Paper \$24.95

## Kinetic Theory of Living Pattern

*Lionel G. Harrison*

Explores the theories of the development of shape and size in living organisms and offers an exposition of the kinetic theory of shape.

*Developmental and Cell Biology Series 28*

1993 373 pp. 30691-4 Hardcover \$69.95

## Colorectal Cancer

A Scientific Perspective

*Anne R. Kinsella*

Aims to unravel the step-by-step processes that result in colorectal cancer - one of the commoner causes of death in the Western world.

*Cambridge Monographs on Cancer Research*

1993 173 pp. 36199-0 Hardcover \$79.95

## Ecology in Education

*Monica Hale*

Reviews progress and communicates ideas and strategies for incorporation of environmental education into formal and informal education.

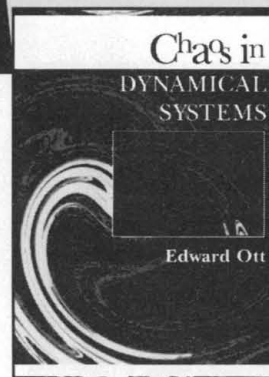
1993 200 pp. 43346-0 Hardcover \$49.95

## Chaos in Dynamical Systems

*Edward Ott*

In-depth treatment of the emerging science of chaotic dynamics aimed at physicists, mathematicians, and engineers.

1993 395 pp.  
43215-4 Hardcover \$69.95  
43799-7 Paper \$29.95



## The Renaissance of General Relativity and Cosmology

A Survey to Celebrate the 65th Birthday of Dennis Sciama

*Edited by George Ellis, Antonio Lanza, and John Miller*

Reviews the developments that have taken place during Sciama's career to date. Covers fundamental questions in general relativity and cosmology, active galactic nuclei, and large scale structure.

1993 342 pp. 43377-0 Hardcover \$49.95

## Atlas of Satellite Observations Related to Global Change

*Robert J. Gurney, Jim Foster, and Claire Parkinson*

Demonstrates the variety of satellite-derived global data sets now available, their uses, advantages and limitations, and the range of variation that has already been observed with these data.

1993 350 pp. 43467-X Hardcover \$49.95

## Gravitational Experiments in the Laboratory

*Y.T. Chen and Alan Cook*

Provides an account of the precise experiments exploring the nature of universal gravitation that can be performed in a laboratory.

1993 281 pp. 39171-7 Hardcover \$59.95

## Spectral Analysis for Physical Applications

Multitaper and Conventional Univariate Techniques

*Donald B. Percival and Andrew T. Walden*

This up-to-date introduction to univariate spectral analysis reflects a new scientific awareness of its complexity, as well as its widespread usage on digital computers with considerable computational power.

1993 580 pp. 35532-X Hardcover \$89.95  
43541-2 Paper \$39.95

## The Fullerenes

New Horizons for the Chemistry, Physics and Astrophysics of Carbon

*Edited by H.W. Kroto and D.R.M. Walton*

Examines the modern study of the chemistry, physics and astrophysics of carbon through contributions from leading workers.

*Royal Society Discussion Volumes*

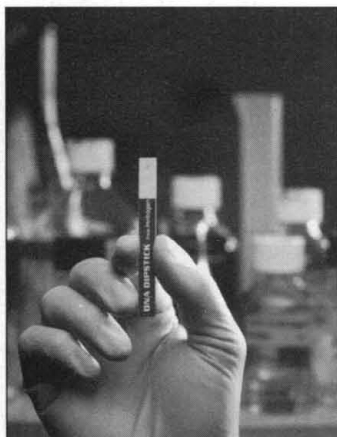
1993 160 pp. 45917-6 Paper \$24.95

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## DNA and Protein Sequence Analysis

Version 3.0 of MacDNASIS is an update of DNA and protein sequence analysis software for Apple Macintosh computers. The program provides a comprehensive array of sequence analysis functions and access to genetic information on CD-DATA, Hitachi Software's CD ROM containing the GenBank, EMBL, NBRF-PIR, SWISS-PROT, and Prosite databases. Release 3.0 includes a variety of new features including new multiple sequence alignment algorithms with phylogenetic trees, motif search, mutational site analysis, protein digest and protein coding prediction functions, and nearest neighbor calculation for primer design. **Hitachi Software Engineering America. Circle 137.**

## Cytokine Assays

Seven new nonradioactive cytokine assays could play a role in the research of molecular mechanisms that underlie major diseases, with applications in inflammation, cancer, immune re-

sponse, and cardiovascular research. The assays detect angiogenin, epidermal growth factor, fibroblast growth factor basic, macrophage inflammatory protein 1 $\alpha$ , platelet-derived growth factor AB, stem cell factor, and transforming growth factor  $\beta$ 2. The assays are based on an enzyme-linked immunosorbent sandwich assay with a same-day protocol. **Amersham International. Circle 138.**

## Dissolved Free Oxygen Measurement

OxySpot is an instrument that measures dissolved free oxygen noninvasively. Based on patented phosphorimetric technology, it determines oxygen concentration by the phosphorescence quenching of nontoxic probe molecules. The need for calibration is minimized because lifetime, not intensity, of the phosphorescence is used to determine oxygen concentration. Oxygen levels from saturation down to less than 0.01 torr can be measured. The technique has been used for in vitro metabolic assays of cell organelles, cells, and perfused organs, for in vivo research, and for clinical applications. **Medical Systems. Circle 139.**

## Antibodies

Anti Human basic-Fibroblast Growth Factor monoclonal antibody (mAb) is applicable in enzyme-linked immunosorbent assay immunostaining, in protein immunoblotting, and as an affinity ligand. **Wako BioProducts. Circle 140.**

A polyclonal antibody to neurofibrillary tangles specifically immunostains neurofibrillary tangles and degenerating plaque neu-

rites in cases of Alzheimer's disease and Down syndrome, and in normal-aged individuals. **Chemicon International. Circle 141.**

An mAb specific for nuclear pore complexes, which are large uniform masses associated with the nuclear envelope of all eukaryotic cells in regions where the two membrane bilayers of the nuclear envelope unite, can be used in immunoblotting, immunoprecipitations, immunofluorescence, and immunoelectron microscopy. **Berkeley Antibody Company. Circle 142.**

## Conductivity Monitor

Model ICM-180 is an economical flow-through conductivity monitor that can help optimize the separation and recovery of proteins using both classical column and high-performance liquid chromatography systems. The



conductivity cell attaches to the eluent end of the column and digitally displays conductivity during a run. Protein tracking can be accomplished by monitoring eluent conductivity during column separations because a protein usually elutes from the column at the same conductivity value run after run. **Lazar Research Laboratories. Circle 143.**

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.

## Literature

*Hamilton HPLC Application Handbook* features 270 high-performance liquid chromatography (HPLC) application chromatograms, more than 175 literature references, and 1200 compounds, alphabetically indexed by samples and compounds. The methods section provides a guide to column selection, mobile phase selection, controlling analyte retention, and detector selection for analysis, separation, and purification. **Hamilton. Circle 144.**

*Aprotinin Protease Inhibitor* is an eight-page technical bulletin on a powder for use in diagnostic and cell culture applications. *Trasylol VLE for Diagnostic and Cell Culture Applications* is a four-page technical bulletin on a serine protease inhibiting solution. **Miles. Circle 145.**

*Separation Products and Data Systems* describes products for liquid chromatography, capillary electrophoresis, and automated mercury analysis. **Thermo Separation Products. Circle 146.**

*DaqBook/200* is a brochure on a 16-bit, 100-kHz data acquisition system with an enhanced parallel port for notebook and desktop personal computers. **IOtech. Circle 147.**

*Gilson ASPEC XL Solid Phase Extraction System* describes how this system automates sample cleanup and concentration on disposable extraction columns. **Gilson Medical Electronics. Circle 148.**

*The Guide to Position Sensing* examines the principles, practices, and equipment used to make quick and accurate position measurements based on lateral effect photodiodes. **Graseby Optronics. Circle 149.**

*ATCC Animal Virus Catalogue 1993 Supplement* lists 70 strains added to the collection since publication of the 1990 catalog. **American Type Culture Collection. Circle 150.**

# SCIENCE

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## POSITIONS OPEN

### FACULTY POSITION CELL BIOLOGY

Department of Biology  
 University of Virginia

The Department of Biology at the University of Virginia invites applications for a tenure-track appointment at the **ASSISTANT PROFESSOR** level. An exceptional researcher using molecular and/or genetic methods to investigate fundamental questions in **CELL BIOLOGY** is being sought. Individuals studying prokaryotic, fungal, plant or animal systems will be considered. *Applications from women and members of minority groups are strongly encouraged.* Applicants should submit curriculum vitae, a summary of past research accomplishments, a description of future research plans and teaching interests, and at least three letters of reference to: **Cell Biology Search Committee, Department of Biology, Gilmer Hall, University of Virginia, Charlottesville, VA 22903-2477.** Screening of applications will begin January 15, 1994. *The University of Virginia is an Equal Employment Opportunity/Affirmative Action Employer.*

### ASSISTANT/ASSOCIATE PROFESSOR MEMBRANE BIOLOGY

University of California, Santa Barbara

Applications are invited for a ladder faculty position in the Department of Biological Sciences. A broad-based approach to membrane biology using modern molecular biology, biochemistry, structural biology, biophysics or physiology is desired. Areas of interest include, but are not limited to: membrane-cytoskeletal interactions, membrane turnover and biogenesis, protein trafficking, ion channels or membrane transport. Only applicants with a strong research record will be considered. Ph.D. degree or equivalent and postdoctoral experience are required. Teaching at the undergraduate and graduate levels will be expected. Interested candidates should arrange to have curriculum vitae, a statement of research interests, 3 to 5 relevant publications and 3 letters of reference sent to: **Chair, Department of Biological Sciences, University of California, Santa Barbara, CA 93106.** Application Deadline: January 15, 1994. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

**AQUATIC ECOLOGIST.** Mount Union College invites applications for an **ASSISTANT PROFESSOR** (tenure-track) in biology. Ability to teach aquatic ecology, environmental science, advanced ecology, participate in the freshman biology lab, contribute to the activities of the college's field station, and teach one course per year (hydrology/geomorphology) in the Department of Geology. Commitment to teaching and undergraduate research. Ph.D. required. Send résumé, graduate transcripts and three letters of reference to: **Dr. C. H. Brueske, Chair, Department of Biology, Mount Union College, Alliance, OH 44601.** Review of applications will begin on January 26, 1994, and continue until position is filled. *Mount Union College is an Equal Opportunity Employer.*

### TRENT UNIVERSITY

Trent University invites applications for a **tenure-track appointment** subject to budgetary approval, as a cell or molecular biologist in the Biology Department at the **ASSISTANT PROFESSOR** level, commencing July 1, 1994. Trent is a small liberal arts and sciences university, located in the Kawartha lakes region northeast of Toronto, Ontario. Members of the Biology Department actively participate in an interdisciplinary M.Sc. and Ph.D. program. Applicants preferably should have postdoctoral and teaching experience, and an active research program. The successful candidate will be asked to teach a second-year course in cell biology, share in the teaching of the cell biology portion of an introductory course in biology, and develop an upper half-year course in cell or molecular biology. The salary scale for the floor of the Assistant Professor rank is currently \$41,816, and salary will be concomitant with qualifications and experience. *In accordance with Canadian immigration regulations, this advertisement is directed to Canadian citizens and permanent residents. Trent University is an Employment Equity Employer and especially invites candidacies from women, aboriginal peoples, visible minorities and disabled persons.* Curriculum vitae and names and addresses of three referees should be sent to: **Chair of the Search Committee, Department of Biology, Trent University, Peterborough, Ontario K9J 7B8,** by March 1, 1994.

## POSITIONS OPEN

### ASSISTANT PROFESSOR, PLANT VIROLOGY.

Montana State University Plant Pathology Department seeks applicants with interests in basic and applied aspects of molecular plant virology for 12-month, tenure-track position (85% research, 15% teaching). Responsibilities: Develop competitive, externally funded research program in innovative area of plant virology; Teach graduate courses in plant virus diseases, virology research techniques. Required: Ph.D. in Plant Pathology or closely related field with experience in molecular plant virology. Start: July 1, 1994. Salary negotiable. Send: letter of application describing research and teaching interests, curriculum vitae, and names, addresses, telephone numbers of five references to: **Dr. John Sherwood, Plant Virologist Search Committee, Department of Plant Pathology, Montana State University, Bozeman, MT 59717-0314.** Telephone: 406/994-5153, FAX: 406/994-1848. Applicants strongly encouraged to request complete vacancy announcement before applying. Screening begins January 15, 1994; continues until suitable applicant is hired. *ADA/EQUAL OPPORTUNITY/AFFIRMATIVE ACTION/VETERANS PREFERENCE.*

**COMMUNICATION: ENVIRONMENTAL/SCIENCE.** This tenure-track, 12-month, **ASSISTANT PROFESSOR** position is divided between teaching (60%) and research (40%). Successful applicant will teach undergraduate and graduate courses in communication and area of specialization, and advise students. Appointee must maintain a strong research program in Environmental/Science Communication. Ph.D. in Communication or related social science field is preferred. Applicants must demonstrate their interest in and ability to do research that augments existing programs in Cornell's College of Agriculture and Life Sciences. Salary is competitive and commensurate with background or experience. An attractive fringe benefits package is included. Submit letter of application, résumé, academic transcripts, and the names and addresses of three references to: **Dr. Carroll Glynn, 327 Kennedy Hall, Department of Communication, Cornell University, Ithaca, NY 14853-4203.** Telephone: 607-255-8460. Closing date is February 1, 1994, or until filled; start date is July 1, 1994, or as negotiated. *Cornell University is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION IN BIOPHYSICS Department of Physics

University of California, San Diego

The Department of Physics seeks, subject to funding, to fill a position in experimental biophysics in the area of neural physics and neurobiology. The position is expected to be at the **ASSISTANT or ASSOCIATE PROFESSOR** level. Applicants should have a Ph.D. in physics or biophysics, a clear record of research accomplishments and, in addition to their research, a strong interest and ability to teach undergraduate and graduate courses in physics. Salary will be commensurate with experience and qualifications and based on University of California pay scales.

Applications, consisting of curriculum vitae, list of publications, summary of research interests, and the names, addresses and FAX numbers of at least three referees, should be postmarked no later than February 1, 1994, and sent to: **Search Committee for Experimental Biophysics, Department of Physics, University of California, San Diego, 9500 Gilman Drive, Department 0354, La Jolla, CA 92093-0354.** If you wish acknowledgment of receipt of your application, please include a stamped, self-addressed postcard.

*In compliance with the Immigration Reform & Control Act of 1986, individuals offered employment by the University of California will be required to show documentation to prove identity and authorization to work in the United States before hiring can occur. UCSD is an Equal Opportunity/Affirmative Action Employer.*

### ALBERT EINSTEIN COLLEGE OF MEDICINE DEPARTMENT OF MOLECULAR GENETICS

Candidates with outstanding academic achievements are being sought to fill two positions at the **ASSISTANT PROFESSOR** or higher level. We are seeking a mammalian developmental geneticist and a human geneticist. Candidates should send curriculum vitae, a research plan, and request three letters of recommendation to be sent to: **Dr. Raju Kucherlapati, Department of Molecular Genetics, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461.** *Equal Employment Opportunity.*



## POSITIONS OPEN

### BEHAVIORAL AND SYSTEMS NEUROSCIENCE

The Center for Behavioral Neuroscience,  
SUNY at Stony Brook

The Center for Behavioral Neuroscience (CBN) is a newly established facility dedicated to collaborative, multidisciplinary research on the functional organization of the nervous system. CBN invites applications for tenure-track positions at the **ASSISTANT OR ASSOCIATE PROFESSOR LEVEL**. Existing CBN faculty have strong interests in learning, memory and aging and new faculty will be selected to complement strengths in the Center. Researchers with interests in the functional organization of sensory systems, in functional neuroplasticity or in human neuroscience are particularly encouraged to apply.

Applicants should have the Ph.D. and/or M.D. degree, substantial postdoctoral training, and a proven record of research accomplishment. The successful applicant will establish an independent, funded research program and will participate in the teaching mission of the Center. Closing date for applications is January 17, 1994. Initial appointments will begin in September 1994, however, recruitment will continue for at least two additional years.

For consideration, applicants should submit current curriculum vitae, description of research directions and name, address and telephone numbers of three references to: **Search Committee, Center for Behavioral Neuroscience, SUNY at Stony Brook, Stony Brook, NY 11794-2575.**

**SUNY IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER.**

**PLANT MORPHOLOGIST and PLANT MOLECULAR BIOLOGIST.** The Department of Biology, University of Saskatchewan, invites applications for two tenure-track positions at the **ASSISTANT PROFESSOR** level, starting July 1, 1994. Ph.D. required. Send curriculum vitae, and names, addresses and telephone or FAX numbers of three referees, and a brief description of research and teaching interests to: **Dr. R. J. F. Smith, Department of Biology, University of Saskatchewan, Saskatoon, SK, S7N 0W0, Canada. Telephone: (306) 966-4400, FAX: (306) 966-4461, Email: SMITHR@SASK.USASK.CA.** Positions subject to budgetary approval. Deadline: January 15, 1994.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents. The University of Saskatchewan is committed to the principles of Employment Equity: women candidates, candidates of aboriginal descent, and candidates from other minority groups are especially encouraged to apply.

### VERTEBRATE ORGAN SYSTEMS/ NEUROBIOLOGIST

**ASSISTANT PROFESSOR** tenure-track position available. Ph.D. required and strong commitment to undergraduate teaching expected. Teaching duties include Human Anatomy and Physiology, Neurobiology, General Biology, and an advanced course. New laboratory facility opened recently. Candidates must submit a letter of application, curriculum vitae, teaching philosophy, research interests and plans, and three letters of recommendation to: **Orrie O. Stenroos, Ph.D., Chair, Biology Department, Lynchburg College, 1501 Lakeside Drive, Lynchburg, VA 24501-3199, by February 1, 1994. Applications from women and minority candidates are encouraged. Equal Opportunity Employer.**

### PLANT CELL BIOLOGIST

The Department of Botany at North Carolina State University (NCSU) invites applications for a position at the rank of **FULL PROFESSOR**. We are seeking individuals applying techniques in the forefront of cell biology to the study of plants, and whose research complements strong existing programs in plant molecular biology and genetics. Applicants should have an active, innovative research program and a strong record of research accomplishments; a commitment to training students; and evidence of effective and innovative teaching. Provide a summary of research interests and teaching experience, curriculum vitae and a list of publications to: **Dr. R. S. Boston, Chair, Search Committee, Department of Botany, Box 7612, NCSU, Raleigh, NC 27695.** Deadline for receipt of applications is February 15, 1994, or until a suitable candidate is identified. **NCSU is an Affirmative Action/Equal Employment Opportunity Employer.**

## POSITIONS OPEN

### 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 or January 1995. 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.

### MOLECULAR NEUROBIOLOGIST UNIVERSITY OF WASHINGTON

Applications are invited for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level in the Department of Pharmacology. A Ph.D. or M.D. degree and postdoctoral research experience are required. Selection will be based on scientific excellence and the potential to establish an outstanding independent research program using molecular and cellular approaches to research problems in neurobiology and neuropharmacology. The successful candidate will also teach and participate in graduate student training in the Department of Pharmacology, the Interdepartmental Graduate Program in Neurobiology, and the Interdisciplinary Program in Molecular and Cellular Biology. Applicants should send curriculum vitae, a statement of research plans, and three letters of recommendation by March 1, 1994, to: **Molecular Neurobiology Search Committee, Department of Pharmacology, SJ-30, University of Washington, Seattle, WA 98195.** The University of Washington is an Affirmative Action/Equal Opportunity Employer. We are particularly interested in receiving applications from qualified women and minority candidates.

### ASSISTANT PROFESSOR MICROBIAL GENETICS

Applications are invited for a tenure-track position in microbiology. Applicants must have a doctorate in microbiology or related field and postdoctoral experience using molecular genetic approaches to pathogenesis, microbial ecology or prokaryotic development. Responsibilities will include establishing an independent research program, directing M.S. and Ph.D. students, and teaching undergraduate and graduate courses, including microbial genetics. Appointment begins in August 1994. Review of completed applications will begin February 15, 1994, and continue until the position is filled. Send curriculum vitae, a statement of research goals and three letters of reference to: **Dr. Mary Woodworth, Chair, Department of Microbiology, Miami University, Oxford, OH 45056.** Miami University is an Equal Opportunity/Affirmative Action Employer.

**FACULTY POSITION IN MEDICINAL CHEMISTRY.** The Department of Medicinal Chemistry and Pharmacognosy, University of Illinois at Chicago, invites applications for a full-time, tenure-track **ASSISTANT or ASSOCIATE PROFESSOR** position. A Ph.D. in medicinal or organic chemistry and postdoctoral experience in synthesis as applied to biologically related research is required. The successful candidate must develop a strong, extramurally funded research program, work collaboratively with other faculty, and teach in the professional and graduate programs of the College. Evaluations begin on 15 January 1994 continuing until the position is filled. Send curriculum vitae, a research plan and 3 names of reference to: **Prof. John F. Fitzloff, Chair, Search Committee, Department of Medicinal Chemistry and Pharmacognosy, College of Pharmacy, University of Illinois at Chicago, M/C 781, 833 South Wood Street, Chicago, IL 60612-7231; Telephone: 312-996-7245, FAX: 312-996-7107.** Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### ASSISTANT PROFESSOR COMPUTATIONAL NEUROBIOLOGY/ BIOSTATISTICS

The University of Texas at San Antonio

Applications are invited for a tenure-track faculty position at the Assistant Professor level. Requirements include a doctoral degree in Biology or appropriate discipline and postdoctoral experience, along with a commitment to teaching and research. We seek candidates who use computational and/or statistical methods to solve fundamental problems in neuroscience. Set-up funds and laboratory space are available. 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. Send curriculum vitae and a letter of application describing research interests, and have three reference letters sent to: **Chair, Computational Neurobiology/Biostatistics Search Committee, Division of Life Sciences, UTSA, San Antonio, TX 78249.** Initial screening will begin January 1, 1994. Applications will be accepted until February 1, 1994. *An Affirmative Action/Equal Opportunity Employer. Minorities and women are especially encouraged to apply.*

### EXERCISE CELLULAR AND MOLECULAR BIOLOGIST

**ASSISTANT PROFESSOR.** The School of Kinesiology at the University of Illinois at Chicago invites applications for a tenure-track position in exercise cellular and molecular biology beginning fall 1994. Candidates should have a strong background in physiology. Those with training in cellular and molecular biology will be given preferential consideration. Applicants should have a doctoral degree (Ph.D. or M.D.) and should have intensive postdoctoral training. The applicant should demonstrate clear potential to develop a productive research program and the ability to be an effective teacher. Salary will be commensurate with qualifications. Interested individuals should send curriculum vitae and three letters of recommendation postmarked by February 1, 1994, to: **Robert C. Hickson, School of Kinesiology, M/C 194, University of Illinois at Chicago, 901 West Roosevelt Road, Chicago, IL 60608-1516.** The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.

### ASSOCIATE/FULL PROFESSOR CELL BIOLOGY AND ANATOMY

The Department of Cell Biology & Anatomy, Oregon Health Sciences University, invites applications for a full-time **Assistant, Associate or Full Professor**. Departmental research is focused on molecular mechanisms of cellular control and we seek applicants with interests in the analysis of cell growth and differentiation. We are particularly interested in analysis of oncogene function, regulation of the cell cycle, the role of signal transduction in the regulation of cellular proliferation or the relationship between changes in the cytoskeleton or extracellular matrix and cell growth. Applicants with interests in other areas of cell and molecular biology will also be considered. Individuals working with either higher or lower eukaryotes are encouraged to apply. Applicants at the Associate or Full Professor level should have an established research program with extramural funding. Interested persons should send curriculum vitae, a statement of research interests and the names of three references by February 28, 1994, to: **R. Maurer, Search Committee, Department of Cell Biology and Anatomy, Oregon Health Sciences University, Portland, OR 97201.** Oregon Health Sciences University is an Equal Opportunity/Affirmative Action Employer.

**MOLECULAR GENETICIST.** St. Mary's College of Maryland, a small, public, liberal arts honors college, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level, beginning August 1994. Applicants must have a Ph.D. in molecular genetics. Responsibilities include teaching genetics for majors, an upper-level molecular biology course, and biology for non-majors, and establishing a research program involving undergraduate students. Application review will begin January 15, 1994, and continue until the position is filled. Submit curriculum vitae, transcripts, three letters of reference, and statements of teaching philosophy and future research plans to: **William Williams, Genetics Search Committee, Department of Biology, St. Mary's College, St. Mary's City, MD 20686.** St. Mary's College of Maryland is an Equal Opportunity/Affirmative Action Employer.

## APPLIED ECOLOGY AND PARASITOLOGY Miami University, Oxford, Ohio

The Department of Zoology seeks two assistant professors for tenure track positions; to begin duties in August 1994. Ph.D. in zoology or biology required.

**Position 1—Parasitologist:** The successful applicant will be expected to develop a viable independent research program in any area of parasitology, i.e., from classical parasitology to host-parasitoid relationships. Yearly teaching responsibilities will include a parasitology course, and either invertebrate or vertebrate zoology, and participation in a team-taught general biology course every other year.

**Position 2—An Applied Terrestrial Ecologist** (e.g., research in agroecosystem ecology, conservation biology, integrated pest management, environmental toxicology, or factors related to global change) working at the population, community, or ecosystem level. Teaching responsibilities will include an undergraduate ecology course, participation in a team-taught general biology course, and either a vertebrate or an invertebrate zoology course. Depending upon the expertise of the successful applicant, graduate courses might include ecosystem ecology, ecotoxicology, or population ecology. Participation in the courses described above will be on a rotational basis. We seek an individual who would take full advantage of the research opportunities afforded by the Miami University Ecology Research Center (ERC), a facility comprising 178 acres of varied habitats ranging from agricultural fields, to old fields in various stages of succession, to woodland. The ERC, located 2 miles from campus, has full service research buildings, aviaries, a national network weather station monitoring long-term wet and dry deposition and climate parameters, and equipment required for manipulative ecological/agroecosystem/field toxicological studies. In addition, a full-time field manager and a graduate assistant are available to assist researchers in setting up field projects.

For both positions the successful applicants will be expected to develop viable independent research programs, and to seek external funding to support their research. We consider experience with obtaining extramural funding to be important. Both individuals will also be expected to supervise graduate and undergraduate research projects. Advancement will be based on teaching, research, and professional service, with primary emphasis on teaching and research. Miami University is a state-assisted institution in SW Ohio. The Department has excellent research facilities, strong Ph.D. and M.S. graduate programs, 32 faculty members and 54 graduate students. Qualified persons should submit a curriculum vitae, descriptions of teaching and research interests, and should arrange for three letters of recommendation and transcripts of all academic work to be sent to Dr. Douglas Taylor, Chair of Zoology, Miami University, Oxford, OH 45056. Application review will begin February 1, 1994. Miami University offers equal opportunity in employment and education.

## Molecular Neurobiologist

The University of Calgary Neuroscience Research Group invites applications for a full-time academic Molecular Neurobiologist at the Assistant Professor level or higher. This position offers an excellent opportunity to develop an independent research program and collaborative interactions within a multidisciplinary research environment. Duties include teaching and graduate student supervision. Qualifications include a PhD and/or MD (or equivalent), at least two years' postdoctoral experience and research interests in **molecular biology of voltage-gated or ligand-gated ion channels or receptors**.

The selected candidate must compete successfully for salary and establishment grant support from the Alberta Heritage Foundation for Medical Research and/or the Medical Research Council of Canada, and will have 75% of time protected for research.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary has an Employment Equity Program and encourages applications from all qualified candidates, including women, aboriginal people, visible minorities, and people with disabilities.

Please submit a curriculum vitae, a statement of research interests, two reprints of recent publications, and the names, addresses, telephone and FAX numbers of three referees by January 31, 1994, to:

**Dr. Brian A. MacVicar**  
Chair, Neuroscience Research Group  
The University of Calgary  
3330 Hospital Drive N.W.  
Calgary, Alberta T2N 4N1



National Institutes of Health • Public Health Service  
Bethesda, Maryland

A Senior Executive Service Vacancy

## DEPUTY DIRECTOR NATIONAL INSTITUTE ON AGING

**THE POSITION:** Deputy Director of the National Institute on Aging (NIA), one of the world's largest institutions in aging research. NIA conducts, fosters, and supports biomedical, social, and behavioral research and training pertaining to aging processes and common problems of older people. The Deputy Director serves as a member of the senior leadership of the Institute with responsibility for:

- development of Institute research programs and priorities;
- public and Congressional representation;
- development and defense of Institute budget proposals; and
- staff recruitment and development, including equal employment opportunity

The NIA has a budget of \$420 million and a staff of over 500 and is currently pursuing cutting edge research on Alzheimer's Disease, cardiovascular disease, cellular and molecular biology of aging, long term care, and osteoporosis, as well as a broad range of biologic and behavioral research related to the aging process.

**SALARY RANGE:** \$92,900 to \$115,700 per annum. Physicians may be eligible for Physicians Comparability Allowance up to \$20,000 per year. Exceptional recruiting difficulty may result in payment of a recruitment or relocation bonus.

**HOW TO APPLY:** An Application for Federal Employment (SF-171) accompanied by a current curriculum vitae and bibliography should be submitted to:

**National Institute on Aging  
Building 31, Room 2C02  
9000 Rockville Pike  
Bethesda, Maryland 20892**



**Applications must be postmarked no later than:  
February 4, 1994**

Further information about the position and qualifications requirements may be obtained by contacting **Ms. Ann Baldwin Nucci** at (301) 496-5347.

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

Please note this has been designated as a Federal Equal Opportunity Recruitment Program position.

**NIH is an Equal Opportunity Employer**



"Support actions in the area of research and information in favour of Animal Health, with a view to improving Man's Health and Environment."

# RESEARCH GRANTS

Offered by  
THE FONDATION  
PIERRE RICHARD DICK - VIRBAC  
under the aegis of the Fondation de France

IF YOUR RESEARCH  
CONCERNS  
INFECTIOUS  
DISEASES OF VIRAL,  
BACTERIAL OR  
PARASITIC ORIGINS

**A**ll qualified groups or individuals are invited to submit applications for research grants to undertake basic or applied medical and veterinary research for better understanding, treatment and prevention of infectious diseases.

Proposals may deal with viral, bacterial or parasitic diseases, and should include details of the proposed program. They will be evaluated by international authorities on the basis of their merits regarding innovative ideas and potential for making significant contributions to the improvement of both human and animal health.

Grants of \$ U.S. 50,000 max. will be awarded for one year beginning June 1994 and may be renewable annually.

The deadline for submission of your proposal is **March 31, 1994.**

PLEASE CONTACT US QUICKLY FOR AN APPLICATION FORM.

Orientation Committee  
Fondation Pierre Richard Dick - Virbac  
B.P. 305, 06514 CARROS Cedex, FRANCE  
Tel: (33) 92 08 72 49 Fax: (33) 92 08 72 82

## DEPARTMENT OF ENVIRONMENTAL ECONOMICS AND ENVIRONMENTAL MANAGEMENT

### LECTURESHIPS

The University of York recently established a department that crosses the traditional boundaries between economics, biology and environmental science. EEEM, the Department of Environmental Economics and Environmental Management, is actively developing both undergraduate and graduate programmes that integrate biology and economics in the treatment of the environmental effects of human activity.

As part of its ongoing academic recruitment programme applications are invited for appointment to the posts of:

**Lecturer, Systems Ecology (Ref: 4/3379)** EEEM seeks an ecologist with a research interest in the management of ecosystems. Preference may be given to applicants specialising in dryland systems or tropical moist forests.

**Lecturer, Environmental Management (Ref: 4/3380)** EEEM seeks an individual with a background in environmental management and/or science. Demonstrated competence in geographical information systems will be an advantage.

For both posts you will have a PhD or equivalent academic research experience. Salaries will be in the range £13,601 £25,107 per annum.



Six copies of a letter of application with full curriculum vitae, including the names of three referees, should be sent by 31 January 1994 to the Personnel Office, University of York, Heslington, YORK YO1 5DD, from whom further details are available. Please quote the appropriate reference number.



## KAROLINSKA INSTITUTE CENTER FOR BIOTECHNOLOGY (CBT) NOVUM

### Postdoctoral research positions in steroid/thyroid hormone receptor biochemistry & molecular biology

A couple of postdoctoral positions for work on the structure and function of steroid/thyroid hormone receptors as well as orphan receptors belonging to the same superfamily are available at the Center for Biotechnology, Novum, Karolinska Institute. The project involves state-of-the-art biochemical, molecular biological and cell biological approaches to understand the structure and function of these transcription factors.

The Center for Biotechnology (CBT) is situated at the South Campus of the Karolinska Institute, encompassing the Novum Research Center and Huddinge University Hospital. CBT has a staff of some 100 persons. Other research areas represented at CBT include molecular immunology and membrane biology. Novum Research Center also contains the Center for Nutrition and Toxicology as well as the Center for Structural Biochemistry (with facilities for X-ray crystallography, NMR-spectroscopy, EM and molecular modelling).

The positions as postdoctors/research associates are initially for two years with possibilities for extension for up to four years. Preference is given to applicants with experience in molecular biology. Adequate laboratory resources will be provided.

Applications should be sent to Professor Jan-Åke Gustafsson, Center for Biotechnology, Karolinska Institute, Huddinge University Hospital, Novum, S-141 57 Huddinge, Sweden, together with CV, relevant publications and two recommendation letters.

## **JOHNS HOPKINS UNIVERSITY**

### **BIOMEDICAL ENGINEERING**

**BIOMATERIALS SCIENCES** The Department of Biomedical Engineering at the Johns Hopkins University School of Medicine has a tenured track opening at the Assistant Professor level, although more senior levels will also be considered. Researchers with postdoctoral training working on different aspects of biomaterials are invited to apply. Successful candidates are expected to establish an externally funded research program and participate in the teaching of undergraduate and graduate students.

Please send curriculum vitae and three letters of reference to: Dr. Murray B. Sachs, Biomaterials Search, Department of Biomedical Engineering, Johns Hopkins School of Medicine, 710 Traylor Bldg., 720 Rutland Avenue, Baltimore, MD 21205.

The Johns Hopkins University is an Equal Opportunity/  
Affirmative Action Institution

## **JOHNS HOPKINS UNIVERSITY**

### **BIOMEDICAL ENGINEERING**

**BIOMEDICAL SENSORS/INSTRUMENTATION** The Department of Biomedical Engineering at the Johns Hopkins University School of Medicine is seeking candidates for a tenure-track faculty position at the Assistant Professor level with interests in the areas of Biomedical Sensors and Instrumentation. The successful candidate will be expected to build an independent research program, teach courses in biomedical sensors and instrumentation.

Applicants should send their CV and three letters of reference to: Dr. Murray B. Sachs, Biosensors/Instrumentation Search, Department of Biomedical Engineering, Johns Hopkins School of Medicine, 710 Traylor Bldg., 720 Rutland Avenue, Baltimore, MD 21205.

The Johns Hopkins University is an Equal Opportunity/  
Affirmative Action Institution.

## **JOHNS HOPKINS UNIVERSITY**

### **BIOMEDICAL ENGINEERING**

**SYSTEMS NEUROPHYSIOLOGY AND CELLULAR NETWORK MODELING** The Systems Neurophysiology Program of the Department of Biomedical Engineering at the Johns Hopkins University School of Medicine is seeking candidates for a tenure-track faculty position at all academic levels in the general area of Systems Neurophysiology and Cellular Network Modeling. Areas of strength represented within the department at present include physiology and modeling of the peripheral and central auditory system, cortical somatosensory physiology, and large-scale cell network modeling. The successful candidate must be able to establish an independently funded research program that builds on or complements these existing research programs.

Interested applicants should send their CV and three letters of reference to: Dr. Murray B. Sachs, Neurophysiology Search, Department of Biomedical Engineering, Johns Hopkins School of Medicine, 710 Traylor Bldg., 720 Rutland Avenue, Baltimore, MD 21205.

The Johns Hopkins University is an Equal Opportunity/  
Affirmative Action Institution

## **JOHNS HOPKINS UNIVERSITY**

### **BIOMEDICAL ENGINEERING**

**BIOMEDICAL IMAGING** The Department of Biomedical Engineering at the Johns Hopkins University School of Medicine is seeking candidates for a faculty position at the Assistant Professor level in the Biomedical Imaging Program. The applicant should have a Ph.D. and previous research experience in medical imaging, image analysis or scientific visualization. The successful candidate will be expected to build an independent research program, teach courses in biomedical imaging, and supervise graduate students and postdoctoral fellows. The department currently has 53 Ph.D. and 35 MSE students; 9 Ph.D. students and 5 MSE students are involved in medical imaging research. The current program is comprised of many interdisciplinary teams working on research problems and interaction with faculty in Radiology, Cardiology, Surgery, Biophysics and other departments.

Interested candidates should send CV and three letters of reference to: Dr. Murray B. Sachs, Biomaterials Search, Department of Biomedical Engineering, Johns Hopkins School of Medicine, 710 Traylor Bldg., 720 Rutland Avenue, Baltimore, MD 21205.

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**NATIONAL INSTITUTES  
OF HEALTH  
NATIONAL CENTER FOR  
HUMAN GENOME RESEARCH**

**Francis S. Collins, M.D.  
Director**

**Ph.D.'s and  
M.D.'s**

The new Intramural program of the National Center for Human Genome Research (NCHGR), part of the National Institutes of Health (NIH), located in Bethesda, Maryland, is now in operation. Senior scientists with a unique range of expertise and interests have been recruited to focus on identification, diagnosis, and treatment of the genetic elements of human disease.

Research opportunities for Ph.D.'s and M.D.'s with training in molecular biology/molecular genetics are immediately available in:

- **Cancer genetics**
- **Developmental genetics**
- **Fluorescence *in situ* hybridization**
- **Gene targeting and murine models**
- **Gene transfer and expression studies**
- **Genetic disorders of the immune system**
- **Human gene mapping**
- **Intracellular signaling**
- **Molecular biology of chromosomal aberration**
- **Molecular analysis of human genetic disease**
- **Positional cloning**
- **Quantitative and statistical genetics**
- **Stem cell biology**

Competitive salary and benefit packages are available. Please forward curriculum vitae and three references to:

**Jeffrey Trent, Ph.D., Director  
Intramural Research Program  
c/o Ms. Patricia Stewart  
NIH/NCHGR  
Building 49, Room 4A06  
9000 Rockville Pike  
Bethesda, MD 20892**

NIH is an Equal Opportunity Employer

**VIROLOGY R&D POSITIONS**

Intervet Inc. is an innovative veterinary health company devoted to the continued development and manufacture of quality biologicals and pharmaceuticals for food and companion animals. Intervet, based in Millsboro, Delaware and employing over 250 people, is a subsidiary of AKZO which employs 80,000 people worldwide in a variety of manufacturing and health related fields. As a result of Intervet's commitment to long term growth in the animal health field, career opportunities for qualified applicants are now available in the Virology section of the Research and Development Department for the following positions.

**RESEARCH ASSOCIATE**

Applicants must possess a M.S. plus experience in virology, preferably within an industrial setting. Individuals with a B.S. plus 4 or more years of post-graduate work in vaccine development will also be considered. The successful candidate will participate in an aggressive program of research and development regarding viral vaccines. Experience with virus propagation, cell culture, and diagnostic techniques (ELISA, SDS-PAGE Electrophoresis, Western Blot, serological and virological assays, etc.) associated with viral vaccine development is essential. Knowledge of statistical methods and experimental design for *in vitro* and *in vivo* studies are desired but not necessary. Responsibilities include the planning and performing of studies designed to satisfy USDA regulatory requirements for licensure of an animal vaccine. This position requires an individual who is goal oriented and enjoys the synergism of a project team approach.

**PROJECT LEADER**

Applicants must possess a Ph.D. plus experience in virology, preferably within an industrial setting. Applicants with a DVM or Master's plus post-graduate experience in vaccine development will also be considered. Experience with multiple virus systems, cell culture, standard laboratory diagnostic techniques (ELISA, SDS-PAGE Electrophoresis, Western Blot, serological and virological assays, etc.) and an understanding of the pathogenic mechanisms associated with viral diseases of veterinary importance are essential. Expertise in experimental design and application of statistical methods for *in vitro* and *in vivo* studies is an asset. Licensing experience is highly desirable. Responsibilities are to lead multiple vaccine project teams in conducting and completing studies to satisfy USDA regulatory requirements for licensure of animal vaccines. This position requires an individual with excellent supervisory, organizational and communication skills to effectively champion these vaccine projects through to product launch.

Intervet offers excellent working conditions, competitive salaries, and an outstanding benefits package. Please call (302) 934-8051 (X232), or forward resumes to: Human Resources Department, Intervet, Inc., P.O. Box 318, Millsboro, DE 19966.

**CHAIR,  
DEPARTMENT OF MICROBIOLOGY  
AND IMMUNOLOGY  
Medical College of Pennsylvania**

The Medical College of Pennsylvania invites applications and nominations for the position of Professor and Chair, Department of Microbiology and Immunology. The Medical College seeks a distinguished scientist with a strong record of significant scientific productivity and an ability to attract external funding. The successful candidate should also have a strong record of accomplishment in teaching and demonstrated administrative skills.

This is a challenging position and a most exciting time for the Medical College. The Medical College of Pennsylvania is the academic center of Allegheny Health Education and Research Foundation (AHERF) which has components in the Delaware Valley and in Pittsburgh. A new research and teaching building was recently completed at the main campus in Philadelphia and the Department has moved into newly renovated laboratories in that facility.

A letter of interest or nomination and curriculum vitae should be sent to **Donald Faber, Ph.D., Chair, Microbiology Search Committee, Department of Anatomy and Neurobiology, 3200 Henry Avenue, Philadelphia, PA 19129.**

Review of applications will begin on January 15, 1994 and will continue until the position is filled. Women and minority candidates are encouraged to apply. *The Medical College of Pennsylvania is an Equal Opportunity Employer.*



**FACULTY POSITION IN THE  
DEPARTMENT OF  
NEUROSCIENCES  
CLEVELAND CLINIC FOUNDATION  
RESEARCH INSTITUTE  
Excitable CNS Membranes**

The newly established Department of Neurosciences seeks an outstanding candidate to fill a faculty position at the Assistant, Associate, or full Staff level. Applicants must have a Ph.D. and/or M.D. and an active independent research program. Individuals must utilize state-of-the-art cellular and molecular biological techniques to investigate excitable CNS membranes, with the focus on synaptic structure and function, calcium imaging and analysis, and protein-protein interactions. Excellent departmental facilities and generous start-up funds are available. The Department of Neurosciences is housed in the Health Sciences Building, along with the Departments of Cell Biology and Molecular Biology. Opportunities for interaction with clinical Neuroscience departments are plentiful. Candidates should submit a curriculum vitae, a list of publications, a brief statement of research interests, and three letters of reference to: Dr. Bruce D. Trapp, Chairman, Department of Neurosciences - NC30, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195. The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.



## **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**

*AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER M/F/PwD/V*

## **MOLECULAR BIOLOGIST FORDHAM UNIVERSITY**

Individuals are invited to apply for a tenure-track position at the **ASSOCIATE PROFESSOR** level. The department has an active research program and provides excellent physical facilities, state-of-the-art equipment, a stimulating research environment, start-up funds and competitive salaries and benefits. Candidates should possess expertise in the area of molecular biology and have an ongoing grant-supported research effort underway. The appointee will be expected to establish an active research program and participate in teaching at the graduate and undergraduate levels.

## **ECOLOGIST FORDHAM UNIVERSITY**

The Department of Biological Sciences at Fordham University invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level, beginning Fall 1994. We are seeking an individual who will establish a vigorous, independently funded research program and supervise graduate students at the Louis Calder Center in Armonk, New York. The area of specialization is open, but possible research areas may include: population genetics of animals or plants, insect-plant interactions, experimental ecology of small mammals, or the ecology of reptile, fish or amphibian communities. The Louis Calder Center is a 113-acre wooded, biological field station with a diversity of terrestrial and aquatic habitats, laboratories, classrooms, a research library, and residences. The successful candidate will teach courses at the undergraduate and graduate levels within the Department of Biological Sciences. A Ph.D. is required and postdoctoral experience is preferred.

Please submit curriculum vitae, statement of research and teaching interests, and the names and addresses of three references by **30 January 1994** to: **Dr. Berish Y. Rubin, Chairman, Department of Biological Sciences Fordham University, Bronx, NY 10458**. *Fordham University is an Affirmative Action/Equal Opportunity Employer.*

## **The perfect environment for innovation.**

To achieve the utmost in scientific and engineering excellence, it takes the ability to put vision into proper perspective. It takes the kind of professional experts who can make the most of that perspective and, of course, it takes an environment that breeds innovation.

## **We're Los Alamos.**

### **Group Leader**

The Geology and Geochemistry Group in the Earth and Environmental Sciences Division consists of approximately 30 technical staff and 20 support staff, students and postdoctoral fellows and includes facilities for the analysis of waters, rocks and minerals. Current emphasis is on basic and applied research in selected geochemical, hydrogeologic, hydrothermal, geomorphic, volcanic, and mineralogic phenomena important to national priorities in the areas of environmental quality, energy security, and national defense related to the Department of Energy's mission. The group is active in laboratory, field, and computing studies. Excellent experimental laboratories, field test sites and computing facilities are available.

**Responsibilities:** Responsible for the overall performance of the group, to include providing skilled personnel management and leadership for defining strategic directions. Additional responsibilities include developing technical capabilities that support program requirements and scientific strengths, implementing TQM approach, team development for focused research, working with internal and external organizations on program development, negotiating funding/responsibilities/commitments. Will also promote technology transfer and personnel development and pursue both Environment, Safety and Health (ES&H) and Affirmative Action/Equal Employment Opportunity (AA/EEO) objectives.

**Requirements:** Must have experience in program development and execution, have sound business practices, a strong record of leadership, personnel management and development and a commitment to a diverse workforce. This position also requires a strong record of publication in peer-reviewed geosciences publications, a commitment to ES&H and AA/EEO goals and excellent interpersonal/oral/written communication skills. A successful record of strategic planning and technical, program, and technology transfer are desired, as is management training. Candidates must have a Ph.D. or the equivalent combination of education and experience in the geosciences or related fields.

**Closing date for applications is January 31, 1994.**

To formally apply for this position, interested candidates should forward a resume to Cathy Majerus (MS P282), Personnel Services Division **101388-L**, Los Alamos National Laboratory, Los Alamos, NM 87545. Affirmative Action/Equal Opportunity Employer. Individuals with disabilities needing reasonable accommodation should call (505) 667-8622. A Teletype Device for the Deaf (TDD) is available by calling (505) 665-5357. Los Alamos National Laboratory is operated by the University of California for the U. S. Department of Energy.

**Los Alamos**  
NATIONAL LABORATORY

## POSITIONS OPEN

**THE DEPARTMENT OF PATHOLOGY OF THE UNIVERSITY OF ILLINOIS AT CHICAGO** has an immediate opening for an Academic Pathologist at the **ASSISTANT/ASSOCIATE PROFESSOR** level. Qualifications include an M.D. or M.D./Ph.D. degree, and certification in Anatomic and/or Clinical Pathology. Ongoing funded research program desirable, but will also consider candidates with outstanding potential for developing independent, active, externally funded research program. The appointee is expected to contribute to the Department's undergraduate and graduate teaching programs. This is an excellent opportunity within the nation's largest medical school system with a graduate program in Experimental Pathology. Salary and rank dependent on experience and credentials. Direct inquiries and submit curriculum vitae to: **Jose R. Manaligod, M.D., Ph.D., DEPARTMENT OF PATHOLOGY (M/C 847), UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE, 1819 West Polk Street, Chicago, IL 60612-7335.** An Equal Opportunity/Affirmative Action Employer.

**ASSISTANT PROFESSOR OF BIOLOGY.** Tenure-track. Ph.D. required. Saint Joseph's University, a four-year, liberal arts Jesuit University is seeking a Eukaryotic Developmental Biologist to teach upper-division undergraduate courses in developmental biology and comparative anatomy with possible involvement in non-major general education offerings. The successful candidate would be expected to maintain an active research program involving undergraduate students. Please send curriculum vitae, unofficial copies of all transcripts, an outline of teaching and research goals, a list of equipment needs for both teaching and research, and names and telephone numbers of three references to: **Dr. John J. Tudor, Chair, Biology Department, Saint Joseph's University, 5600 City Avenue, Philadelphia, PA 19131.** Review of applicants will begin early February 1994. Equal Opportunity/Affirmative Action Employer.

**MOLECULAR BIOLOGIST.** Tenure-track, **ASSISTANT or ASSOCIATE PROFESSOR** position, beginning August 1994. Duties: To develop a vigorous research program in molecular biology, teach graduate and undergraduate courses, and participate in departmental service. Ph.D. and postdoctoral experience required. Salary range: \$38,000 to \$50,000 per 9 months. Send statement of current research pursuits and future research goals, curriculum vitae, reprints, and have 3 letters of recommendation sent separately to: **Dr. Robert F. Weaver, Department of Biochemistry, The University of Kansas, Lawrence, KS 66045-2106.** Consideration of applications will commence February 1, 1994, but applications will be accepted until May 1, 1994, or until the position is filled. An Equal Opportunity/Affirmative Action Employer.

**ASSISTANT PROFESSOR OF BIOLOGICAL SCIENCES.** Molecular Biologist to teach undergraduate courses in Genetics and Biochemistry and to develop a course in Molecular/Cell Biology. Tenure-track position starting fall 1994. Ph.D. and teaching experience required. Candidate must be enthusiastic about teaching and directing undergraduate research. Forward curriculum vitae, statement of teaching philosophy, description of research interests and three letters of reference to: **Dr. Carolyn F. Mathur, Ph.D., Chair, Department of Biological Sciences, York College of Pennsylvania, York, PA 17405-7199.** First consideration given to applications received by February 1, 1994. Affirmative Action/Equal Opportunity Employer.

### ASSISTANT PROFESSOR (RESEARCH) ASSOCIATE PROFESSOR (RESEARCH) FEINSTEIN WORLD HUNGER PROGRAM

Brown University seeks individuals with strong research background and commitment to interdisciplinary work in food/nutrition/public health/hunger. International field experience desirable. Positions are principally research, but candidates participate in some instructional, conference, public service and policy-related activities. Ph.D. in social or life sciences desirable. Applications will be accepted through February 1, 1994. Submit a description of background and research interests, curriculum vitae, and names of three references to: **Ellen Messer, Director, Alan Shawn Feinstein World Hunger Program, Brown University, Box 1831, Providence, RI 02912.** Brown University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### 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.

### PHYSIOLOGIST—NEBRASKA

The University of Nebraska Medical Center (UNMC) College of Dentistry, Department of Oral Biology, has a full-time, tenure-leading position at the **ASSISTANT/ASSOCIATE PROFESSOR** level available August 1, 1994. Responsibilities include undergraduate and graduate teaching in human physiology and establishment of a vigorous research program. Preference given to **expertise in hard tissue** appropriate for collaboration with ongoing research programs in craniofacial growth and immunoregulation of bone resorption. Ph.D. or equivalent degree required. Postdoctoral experience preferred. Salary and rank commensurate with background, training, and experience. Application deadline April 1, 1994, or until position is filled. An Equal Opportunity/Affirmative Action Employer. *Minorities and women are encouraged to apply.* Send curriculum vitae, statement of research plans, and three letters of reference to: **Search Committee, Position 3-6185, UNMC College of Dentistry, 40th & Holdrege Streets, Lincoln, NE 68583-0740.**

### ASSISTANT PROFESSOR—MICROBIOLOGY

Tenure-track position, beginning September 1994; Ph.D. required. The major teaching responsibility is an undergraduate laboratory course in microbiology serving biology and nursing students. In addition, the candidate will teach an upper-level undergraduate/graduate (M.S.-level) course in immunology and must be able to work with a culturally diverse student body. Strong commitment to teaching and the development of a research program are required. Applicants must submit a letter of application, statement of teaching philosophy, research goals, résumé, transcripts, and have three letters of reference sent to: **Edward J. Kelly, Assistant to the President, SUNY Brockport, Brockport, NY 14420** by January 16, 1994. Salary: Negotiable. Affirmative Action/Equal Opportunity Employer.

### TEACHING POSITION/BIOLOGY

St. Norbert College announces a tenure-track **ASSISTANT PROFESSORSHIP**. Ph.D. in Biology/Zoology required. Expected to teach Animal Physiology, Developmental Biology, specialty courses, and rotate in General Biology. A research program involving undergraduates is expected. We are a comprehensive, Catholic, liberal arts college in the Vatican II tradition. Send letter of application with teaching philosophy, curriculum vitae, and three letters of reference to: **James R. Hodgson, Ph.D., Chair, Division of Natural Sciences, St. Norbert College, DePere, WI 54115.** Screening of candidates begins January 31, 1994. Equal Opportunity/Affirmative Action Employer—women and diversity candidates are encouraged to apply.

## POSITIONS OPEN

### BIOMEDICAL SCIENCES BAYLOR COLLEGE OF DENTISTRY

The Department of Biomedical Sciences invites applications for tenure-track appointments at the **ASSISTANT/ASSOCIATE PROFESSOR** levels. Joint appointment for candidates who are also trained clinically is possible and will be considered on an individual basis. Areas of interest are: (1) Craniofacial developmental cellular/molecular biology. (2) Neuroscience, focusing on mechanisms of orofacial pain and neuromuscular function. The Department of Biomedical Sciences is responsible for teaching basic courses in anatomy, cell/molecular biology, physiology, biochemistry, and neuroscience. The department also has graduate programs leading to a Master's of Science in Biomedical Sciences and a Ph.D. in Craniofacial Biology. Current research includes studies of craniofacial development and growth, neuromuscular physiology, molecular mechanisms of neurodegeneration and pain, cell membrane physiology, and biomechanics of bone. Candidates should have a Ph.D. or a D.D.S. and postgraduate research training. Candidates also should exhibit clear evidence of independent research through publications and research grant support. There is no cut off date for these positions. However, to be assured of full consideration, applicants should submit applications by March 1, 1994. Send curriculum vitae and names of individuals who may be contacted for references to: **David S. Carlson, Ph.D., Chair, Department of Biomedical Sciences, Baylor College of Dentistry, P.O. Box 660677, Dallas, TX 75266-0677.** Baylor College of Dentistry is an Equal Opportunity/Affirmative Action Employer.

### ANIMAL BEHAVIOR

**ASSISTANT PROFESSOR,** Biology—Creighton University. The Biology Department of Creighton University's College of Arts and Sciences and the Nebraska Behavioral Biology Group invite applications for a tenure-track Assistant Professor position with emphasis on the mechanisms of behavior. Applicants should demonstrate the potential to be excellent scholar-teachers. Research areas in the neuroethology of invertebrates or lower vertebrates are strongly preferred, although candidates in all areas are encouraged to apply. The successful candidate will be expected to teach an introductory lecture/laboratory course in neurobiology plus additional courses in areas of expertise, establish an active research program, supervise undergraduate research, serve on graduate student committees, and participate fully in the activities of the Nebraska Behavioral Biology Group. Applicants with a Ph.D. (postdoctoral experience preferred) may apply by sending curriculum vitae, transcripts, statement of research interests and teaching philosophy, and names and addresses of three references to: **Dr. Theodore Burk, Nebraska Behavioral Biology Group, Department of Biology, Creighton University, Omaha, NE 68178-0103.** Applications received by February 1, 1994, will receive full review, and the position will remain open until a suitable candidate is hired. *Creighton University is an Equal Opportunity Employer. Creighton strongly encourages applications from women and members of minority groups.*

### YORK UNIVERSITY Toronto, Canada

Applications are invited for a tenure-track position at the **ASSISTANT PROFESSOR** level in **Cognition or Human Cognitive Neuroscience** with research interests in one or more of the following areas: attentional and/or memory systems, language processing and comprehension, categorization and concept formation, and spatial cognition. A Ph.D. in Psychology is required. Facility in teaching research methodology, including quantitative and/or qualitative data analysis, is desirable but not required. Duties include teaching in both the graduate and undergraduate programmes. Candidates should have a promising publication record and programme of research. Direct enquiries and applications, with curriculum vitae, three letters of reference, and relevant reprints to: **Prof. David Reid, Chair, Department of Psychology, Faculty of Arts, York University, North York, Ontario, Canada M3J 1P3.** Deadline for applications is January 31, 1994. This position is subject to budget approval. *York University is implementing a policy of Employment Equity, including Affirmative Action for women faculty. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.*

### Gene Therapy Cancer Prevention and Treatment

The following Assistant, Associate Professor or Full Professor level positions will be available as part of a new Gene Therapy Initiative at the Bowman Gray School of Medicine at Wake Forest University and the North Carolina Baptist Hospital.

**Biochemist/Molecular Biologist:** This person should have a primary interest in the mechanisms and pathways of cytotoxicity, apoptosis and/or toxin mediated cellular killing.

**Immunologist/Cytokine Biologist:** This person will have an interest in the local stimulation of the immune system via the transfection of immunomodulatory or immunoregulatory molecules which would enhance tumor cell killing.

**Cancer Biologist/Virologist:** This person will have an interest in tumor targeting with viruses and/or viral related peptides.

**Pharmacologist/Clinical Pharmacologist:** This person will have an interest in mechanism of DNA delivery to target cells.

**Transgenic Biologist:** This person should have expertise in transgenic/knock-out models of important cancer related genes.

**Bone Marrow Transplantation/Stem Cell Biologist:** This M.D. or M.D./Ph.D. candidate should lead the clinical efforts in the use of bone marrow stem cells as a target or vehicle for gene therapy.

This multi-departmental recruitment involves the Departments of Biochemistry, Cancer Biology, Microbiology/Immunology, Physiology/Pharmacology, the Section of Hematology/Oncology in the Department of Internal Medicine and the Comprehensive Cancer Center of Wake Forest University. Please send C.V. to Frank M. Torti, M.D., Director, Comprehensive Cancer Center of Wake Forest University, Bowman Gray School of Medicine, Medical Center Blvd., Winston-Salem, NC 27157-1082.

AA/EOE

### LECTURER/LABORATORY COORDINATOR BIOLOGY DEPARTMENT PENN STATE

The Biology Department seeks to fill two positions as part of a major reorganization of the biology core curriculum. This is an exceptional opportunity for two highly motivated biologists to make a significant impact on the delivery of basic biological education at a major Big Ten institution. These will be academic appointments with titles commensurate with credentials and interest.

**Instructional Position:** The successful candidate will have a Ph.D. in the Life Sciences, experience with large courses, and a major commitment to innovative instruction. This person will be responsible for lecturing in one section of a new course on Biodiversity and Paradigms in Biology, coordinating lecture topics among four new basic courses, integrating the laboratories for these courses, developing new laboratory exercises, working with other faculty in the training of Teaching Assistants, and overseeing general administration of four new courses.

**Coordinating Position:** The successful candidate will have a Master's degree in the Life Sciences and a major commitment to education. This person will work closely with the Lecturer in all aspects of the new courses, with emphasis on the daily logistic operations.

Send resume, transcripts, and three letters of recommendation to Dr. Linda Maxson, Head, Department of Biology, Box O, 208 Mueller Laboratory, University Park, PA 16802. Starting date will be July 1, 1994. Both positions are 12 month renewable appointments. Deadline for applications is February 11, 1994, or until a suitable candidate is found. Equal Opportunity/Affirmative Action Employer. Women and Minorities encouraged to apply.

McMASTER UNIVERSITY, Department of Geology invites applications for a contractually limited appointment at the rank of Assistant Professor, subject to budgetary approval. We seek a person in the area of either **BIOGEOLOGY or PHYSICAL PROCESSES IN GEOLOGY AND GEOPHYSICS**. The appointment has a duration of three years, commencing 1 July 1994. Candidates should have a Ph.D., demonstrated research ability and a lively concern with developing innovative teaching programs.

At both undergraduate and graduate levels, the Department requires all students to have a strong grounding in mathematics, physics and chemistry. The department also has a tradition of interdisciplinary research, in which we emphasize the importance of processes in geology. We wish to enhance further our current capabilities in environmental earth science, while maintaining the commitment to strong basic science.

The Department is very well equipped for isotopic studies, analytical work at all scales, applied geophysics, experimental sedimentology; it has access to NMR and ESR equipment, a reactor for NAA, a STEM facility, and to a well-equipped lab for X-ray diffraction, also to GIS facilities.

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. McMaster University is committed to Employment Equity and encourages applications from all qualified candidates, including aboriginal peoples, persons with disabilities, members of visible minorities and women. Applications, to include the names of three (3) referees, should be sent to: Dr. P.M. Clifford, Chairman, Department of Geology, McMaster University, Hamilton, Ontario, L8S 4M1 (FAX: 905-522-3141), to arrive no later than 18 March 1994.

### Oklahoma State University Department of Microbiology and Molecular Genetics

Applications are invited to fill a position at the level of **Assistant Professor**. The successful candidate will develop an innovative research program investigating a fundamental biological problem using a lower eukaryotic model system. The area of research specialization remains open, however, experimental approaches utilizing molecular techniques are viewed as advantageous. Applicants must have a Ph.D., a commitment to teach at the graduate and undergraduate levels in the area of his/her specialization, and the capability to teach a departmental course offering in either medical mycology or medical parasitology. Women and minorities are particularly encouraged to apply. Applicants should send curriculum vitae, a description of research interests, relevant pre-reprints, and the names and addresses of three references. Review of applications will begin **February 15, 1994** and will continue until a suitable candidate has been identified. Candidates are urged to make appropriate advance arrangements to ensure that referee letters are rapidly communicated upon the search committee's request. Correspondence should be addressed to:

Dr. Robert Burnap  
Chair, Search Committee  
Department of Microbiology and  
Molecular Genetics  
Oklahoma State University  
Stillwater, OK 74078  
Tel. (405) 744-7180  
FAX (405) 744-6790

Oklahoma State University is an Affirmative Action/  
Equal Opportunity Employer

## ANNOUNCEMENT

### CALL FOR RESEARCH PROPOSALS

The Johns Hopkins Center for Alternatives to Animal Testing (CAAT) is soliciting proposals for the 1995-96 grant period. These research proposals should provide fundamental knowledge needed to develop alternative methods to the use of whole animals for the safety/hazard evaluation, risk assessment and efficacy of commercial products.

We encourage the investigation of in vitro approaches to evaluating cellular and target organ toxicity. Some examples are: developing new cell culture systems, applying current testing methodology to human cells/cell lines, and designing new, mechanistic, state of the art methods that may utilize cultured cells, computer technology (e.g. structure activity relationships), or any other system applicable to toxicity/efficacy evaluation. **At the present time, CAAT does not fund projects relating to carcinogenicity or mutagenicity.**

To apply, submit a one-page preproposal abstract using **CAAT Preproposal Abstract Form (95-96)** to Ann Kerr, CAAT, 615 N. Wolfe Street, Baltimore, MD 21205, Tel. (410) 955-3343, Fax (410) 955-0258. **DEADLINE FOR SUBMISSION OF PRE-PROPOSAL ABSTRACTS IS MARCH 1, 1994.**

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\* December 1992 ABC Publisher's Statement

\*\* December 1992 BPA Publisher's Statement

## UNIVERSITY OF WISCONSIN - PARKSIDE Kenosha, WI

### Tenure-Track Assistant Professor: Biological Sciences

UW-Parkside Biological Sciences Department, a UW-System Center of Excellence, seeks a person desiring a balance of research and teaching starting in Fall, 1994:

Ph.D. with proven competence in applying the techniques of molecular biology in research. Post-doctoral and teaching experiences preferred. Teaching assignments in the undergraduate and graduate program may include upper division course(s) at the cell level (e.g. immunology, developmental biology, cell biology, virology, neurobiology etc.), laboratory modules on cell cultures, protein purification and immunotechniques, and an introductory course for majors or non-majors.

UW-Parkside is a predominantly undergraduate institution with a diverse student body located in the Chicago-Milwaukee corridor. The 14-person department offers excellent undergraduate options/concentration in General Biology, Pre-Health and Molecular Biology and a M.S. in Applied Molecular Biology. All faculty have active research programs. Collaborations are encouraged.

Send a letter of interest, curriculum vitae, a brief summary of research goals, representative publications and 3 letters of reference to: Dr. Ed Wallen, Chairperson, Department of Biological Sciences, University of Wisconsin-Parkside, P.O. Box 2000, Kenosha, WI 53141. Telephone: (414) 595-2446/5952327. FAX: (414) 595-2056. Applications are due by February 25, 1994. The University of Wisconsin-Parkside is an Equal Opportunity/Affirmative Action Employer.

## CURATOR OF VERTEBRATE ZOOLOGY

The University Museum and Department of Environmental, Population, and organismic Biology invite applications for a joint, tenure-track, 11-month appointment as curator of vertebrate zoology. Preference will be given to candidates at the ASSISTANT PROFESSOR level, but candidates at all levels will be considered. Primary responsibilities will be to curate and develop existing collections of fishes, amphibians, and reptiles, to conduct an active research program on the systematic or evolutionary biology of one or more of these groups, and to teach evolutionary biology of one or more of these groups, and to teach undergraduate and graduate courses, including areas of specialty. Applicants must have a Ph.D. or equivalent degree and a record of published research; appropriate curatorial experience is preferred. Send curriculum vitae, representative publications, statements of teaching and research interests, and the names and addresses of four references to: Dr. James Hanken, University of Colorado Museum, Campus Box 218, Boulder, CO 80309-0218. Complete applications must be postmarked no later than 28 January 1994. *Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.*

## ANNOUNCEMENT



The John P. Roberts  
RESEARCH  
INSTITUTE

### Nominations are Solicited for the J. Allyn Taylor International Prize in Medicine

The Prize of \$10,000 is awarded annually to one or more individuals who have made significant contributions in basic or clinical research in diseases of the brain, circulation or immune system.

The tenth annual J. Allyn Taylor International Prize in Medicine in 1994 will be awarded to a scientist(s) who have made outstanding contributions in **THE GENETIC AND MOLECULAR BASIS OF DISEASE: IMMUNOLOGY OR NEUROSCIENCES.**

Nominations, accompanied by a Curriculum Vitae and a letter of support of the nominee, should be sent prior to March 31, 1994 to: Dr. M.J. Poznansky, The J. Allyn Taylor International Prize in Medicine, The John P. Roberts Research Institute, P.O. Box 5015, 100 Perth Drive, London, Ontario, Canada, N6A 5K8.

## GENE THERAPY POST-DOCTORAL POSITIONS

### ALBERT EINSTEIN DIABETES RESEARCH CENTER

HSV-derived vectors will be used to develop potential gene therapies for diabetes and its vascular complications. Scientists with experience in molecular biology or virology are encouraged to apply.

Send curriculum vitae with the names of three references or inquire to:

Howard Federoff, M.D., Ph.D.,  
Department of Neurosciences, or  
Michael Brownlee, M.D.,  
Diabetes Research Center

Albert Einstein College of Medicine  
1300 Morris Park Avenue  
Bronx, New York 10461



## POSTDOCTORAL POSITION

Actin binding protein gene

### *Saint Francis Hospital & Medical Center*

(A Teaching Hospital with University  
of Connecticut School of Medicine)

A postdoctoral position is available to study the regulation of an actin binding protein gene. Applicants should have a recent Ph.D. in biochemistry or molecular biology. Background in molecular cloning is desirable.

Please send a curriculum vitae, selected publications and names of three references to:

**Samuel Varghese, Ph.D.,  
Department of Research, Saint  
Francis Hospital & Medical  
Center, 114 Woodland Street,  
Hartford, CT 06105-1299.**



**SAINT FRANCIS**

Hospital and Medical Center

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Pre-Employment Drug Testing

## Associate Senior Investigator, Pharmacokinetics

The specific duties include: (i) design, conduct, analyze and report on human pharmacokinetics and toxicokinetic studies for Phase I through Phase IV drug development in collaboration with clinical research scientists including population pharmacokinetic and pharmacodynamic analyses using appropriate statistical/pharmacokinetic software such as NONMEM; (ii) develop and coordinate comprehensive program of pharmacokinetic studies for worldwide regulatory submission; and (iii) prepare reports of clinical pharmacokinetic and toxicokinetic studies, present research findings to scientific bodies and publish clinical pharmacokinetic studies in scholarly professional journals.

Minimum requirements are a Ph.D. degree in Pharmacy or Pharmaceuticals and either two (2) years of experience in the job offered or two (2) years of experience in Clinical Pharmacy which shall include two (2) years graduate research experience in clinical pharmacokinetics involving (i) the application of basic and advanced clinical pharmacokinetic theories including population pharmacokinetics and pharmacodynamics, (ii) the analyses of population pharmacokinetic data employing non-linear and mixed effects techniques and (iii) the use of pharmacokinetic/statistical software packages. Must have published in the area of advanced pharmacokinetic methods and population analysis techniques in scholarly professional journals. This experience may be acquired in conjunction with the required graduate education.

Salary of \$55,000 with employee benefits; M-F, 8am-4pm. No fee charged. For prompt and confidential consideration, submit resume or C.V. to The Phila. Job Bank, 444 N. 3rd St. - 3rd Fl., Phila., PA 19123 and refer to Job Order Number 4542235.

## NATIONAL SCIENCE FOUNDATION (NSF)

NSF's Division of Integrative Biology and Neuroscience (IBN) and Division of Molecular and Cellular Biosciences (MCB) and the Division of Biological Instrumentation and Resources (BIR) are seeking qualified applicants to serve as Program Directors under the provisions of NSF's Visiting Scientist Program. Since responsibilities include research proposal evaluation, budget development and scientific planning, broad knowledge and specific research accomplishment are key qualifications. The positions are excepted from the competitive civil service and are filled on a one- or two-year rotational/temporary basis. The positions become available periodically and will be filled beginning in the summer or fall, 1994. The current, per annum, salary range is \$56,627 to \$88,255; qualification requirements include the Ph.D. or equivalent experience plus 6 or more years of research experience beyond the Ph.D. In IBN, there are openings in: (1) Developmental (one position); (2) Physiology and Behavior (one position); and (3) Neuroscience (four positions).

In MCB, there are openings in: (1) Cell Biology (one position); (2) Biochemistry/Molecular Structure and Function (three position); and (3) Genetics (one position).

In BIR, there are openings in: (1) Instrumentation & Instrument Development (one position); and (2) Database Activities (one position).

Applicants should send resumes or SF-171, Application for Federal Employment, to: National Science Foundation, Staffing and Classification Branch, Room 315, 4201 Wilson Boulevard, Arlington, VA 22230. Attn: Catherine Handle. For further technical information call Dr. Thomas E. Brady, IBN (703) 306-1420; or, Dr. James H. Brown, MCB (703) 306-1440; or Dr. James H. Brown BIR (703) 306-1470. Hearing impaired individuals should call (202) 357-7492. No person, otherwise qualified, shall be discriminated against on the basis of race, color, religion, sex, national origin, age, or disability or otherwise be excluded from being hired at NSF.

## TENURE-TRACK FACULTY POSITION AT CARB COMPUTATIONAL BIOCHEMISTRY AND MODELING

The Center for Advanced Research in Biotechnology (CARB) is seeking outstanding candidates for a tenure-track faculty position in computational chemistry and molecular modeling applied to problems in macromolecular structure and function. Individuals with demonstrated ability for creative research and strong interests in the broad areas of molecular dynamics, molecular recognition and docking, macromolecular structure prediction, and theoretical approaches to drug design and protein engineering are invited to apply. We are especially seeking a scientist who will develop new computational approaches using advanced high-performance computing tools including scalable parallel computer architectures. The successful candidate will be expected to develop a strong, independent, externally-funded research program, and to interact with other CARB scientists involved in macromolecular crystallography, high-field NMR spectroscopy, molecular biology, physical biochemistry, computational chemistry, and protein folding, stability, modeling and engineering. CARB is a joint research center of the National Institute of Standards and Technology and the University of Maryland Biotechnology Institute devoted to fundamental problems of macromolecular structure, function, and engineering. Interested candidates should send a curriculum vitae, three letters of reference, and a summary of research interests and plans to:

Faculty Search Committee  
Center for Advanced Research and Biotechnology  
9600 Gudelsky Drive  
Rockville, MD 20850

Review of applications will begin on February 15, 1994. CARB is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply. Preference will be given to applicants who are U.S. citizens.



## GEORGETOWN UNIVERSITY CHAIR, DEPARTMENT OF NEUROSCIENCE

The MEDICAL CENTER is seeking an internationally known scientist to chair a new Department of Neuroscience and lead a federally funded program in cognitive and computational sciences. The ideal candidate should be a recognized neuroscientist capable of directing the program's primary research areas of cognitive neuroscience (which include fields as diverse as molecular biology and *in vivo* electrophysiology) and biological neural networks.

Qualified applicants will have demonstrated experience in coordinating a diverse group of neuroscientists, as well as a track record in developing extramural research support. Review of applications will begin immediately. Applicants should send a letter of interest stating qualifications and accomplishments specific for this position, and a Curriculum Vitae with names of at least three references (telephone and fax numbers) to:

**Robert Martuza, M.D.**  
(Chair, Neuroscience Search Committee)  
Dept. of Neurosurgery, 1 PHC  
GEORGETOWN UNIVERSITY HOSPITAL  
3800 Reservoir Road, NW  
Washington, DC 20007

*An Equal Opportunity/Affirmative Action Employer.*

## The David Starr Jordan Prize for Innovative Contributions to the Study of Evolution, Ecology, Population or Organismal Biology

In 1986, Cornell, Indiana and Stanford Universities established a joint endowment to fund a prize in honor of David Starr Jordan, a scientist, educator, and institution builder with important ties to each of these institutions. The prize is international in scope and presented approximately every three years to a young scientist (40 years of age or less) who is making novel, innovative contributions in one or more of the areas of Jordan's interest; evolution, ecology, population and organismal biology.

The intent of this prize is to recognize young scientists who are making research contributions likely to redirect the principal focus of their fields. In addition to a cash award, the recipient will receive a commemorative medal and will attend an awards ceremony, visit each of the institutions and five scholarly presentations of her/his work. The selection of the prize winner will be made by a committee composed of representatives from each of the three institutions.

The third David Starr Jordan Award will carry a prize of \$15,000 and will be announced in late 1994. Nomination forms are available from:

Dr. William L. Crepet  
L.H. Bailey Hortorium, Cornell University  
462 Mann Library  
Ithaca, NY 14853  
607/255-2131; FAX 607/255-7979

All nomination materials must be received prior to April 1, 1994.

## Faculty Positions

### Derald H. Ruttenberg Cancer Center

**Mount  
Sinai**

The Mount Sinai School of Medicine is undergoing a major expansion of its research programs in cancer. As part of this initiative, opportunities exist for tenure track academic positions. Areas of particular interest for individuals with records of research excellence include:

oncogenes; tumor suppressor genes; cell cycle control; apoptosis and tumor metastasis. Send your CV, statement of research interests, goals and plans, and three letters of reference to: **Stuart A. Aaronson, M.D., Derald H. Ruttenberg Cancer Center, Box 1130, One Gustave L. Levy Place, New York, NY 10029-6574.** An Equal Opportunity Employer.

The Mount Sinai Medical Center of New York

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# Viral Vaccine Development

The Lederle-Praxis Biologicals Division of American Cyanamid Company has an exciting and challenging position available in Viral Vaccine Development for a Biochemist with experience in the development and manufacture of human vaccines.

As a key member of our Downstream Process Development team, we'll look to you to carry out bench-scale investigations of protein and viral purifications, focusing on characterizing and improving purification processes for candidate vaccines. You will also be expected to identify innovative new processes and carry out independent projects of limited scope within the overall goals of a project. Results of such investigations may be presented in peer-reviewed publications.

To qualify, you must possess a Master's Degree and 5-6 years' experience or a PhD and 2 years' post-doctoral experience in Biochemistry, Biology, Biophysics or a related field. A background in protein purification, chromatography, and protein characterization is also required along with familiarity with modern experimental protein characterization methods, excellent communication skills, and the ability to function effectively in a team environment. Knowledge of cGMPs is helpful.

We offer a state-of-the-art facility in Rockland County, a competitive salary and excellent benefits. For consideration, please forward your resume with salary history to: Lederle-Praxis Biologicals, Dept. KM8808/34A/123, Pearl River, NY 10965. Equal Opportunity Employer M/F/D/V. Principals only, please.



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## TENURE-TRACK FACULTY POSITIONS IN BIOCHEMISTRY, MOLECULAR BIOLOGY AND CANCER BIOLOGY

Faculty members at the rank of **ASSISTANT, ASSOCIATE OR FULL PROFESSOR** will hold academic appointments in the Department of Biochemistry and Molecular Biology and membership in the Center for Excellence in Cancer Research, Treatment and Education. The Department, other basic science departments, and the Center are undergoing a major expansion in both faculty size and research space. A ten-story biomedical research institute is currently under construction adjacent to the medical school. The Department and Center will assist new faculty appointees in developing a vigorous independent research program with technical researchers and start-up funds. Applicants should have a Ph.D. or M.D. degree, postdoctoral research experience, and a commitment to excellence in both teaching and research. Faculty members are expected to develop funded research programs and teach both medical and graduate students. Applications are especially encouraged in areas of signal transduction, developmental biology, receptors, oncogenes, cell cycle regulation and related areas. Send c.v., a brief statement of current and future research interests and the names of three referees to:

**Robert E. Rhoads, Ph.D.,**  
Professor and Head  
Department of Biochemistry  
and Molecular Biology  
Louisiana State University Medical Center  
1501 Kings Highway  
Shreveport, LA 71130-3932

LSUMC is an Equal Opportunity/Affirmative Action Employer.

## DIRECTOR, DIVISION OF PHYSICS NATIONAL SCIENCE FOUNDATION Arlington, VA 22230

NSF's Directorate for Mathematical and Physical Sciences (MPS) seeks qualified candidates for the position of Director, Division of Physics. Incumbent provides overall direction and management to NSF program activities supporting research and education endeavors in physics, interacts with programs throughout NSF with related activities, and works as an integral part of the MPS management team.

Appointment to this Senior Executive Service position may be on a career or 2-to-3-year limited term basis, with a \$92,900 to \$107,300 salary range. Alternatively, selectee may be assigned under Intergovernmental Personnel Act (IPA) provisions, retaining current salary and benefits. Applicants must have a Ph.D. or professional experience in physics or closely related field; substantial research experience and strong evidence of scholarship in physics or recognized leadership in research administration; and demonstrated supervisory skills.

Applicants should contact George Pittmon on 703-306-1187 (hearing impaired individuals may call TDD 703-306-0090) to request announcement EP-94-5 (SES career), EP 94-15 (SES limited term) and/or EP 94-25 (IPA) for complete qualification requirements and application procedures. Applications should be mailed to George Pittmon, National Science Foundation, Executive Personnel and Development Branch, Room 315, 4201 Wilson Blvd., Arlington, VA 22230. Applications must be received by February 11, 1994.

**NSF IS AN EQUAL OPPORTUNITY EMPLOYER COMMITTED TO EMPLOYING A HIGHLY QUALIFIED STAFF THAT REFLECTS THE DIVERSITY OF OUR NATION.**

## NATIONAL INSTITUTES OF HEALTH NATIONAL CENTER FOR HUMAN GENOME RESEARCH

**Francis S. Collins, M.D., Director**

The new Intramural program of the National Center for Human Genome Research (NCHGR), part of the National Institutes of Health (NIH), located in Bethesda, Maryland, is now in operation. Senior scientists with a unique range of expertise and interests have been recruited to focus on identification, diagnosis, and treatment of the genetic elements of human disease.

*Research opportunities for technicians with interests in molecular biology/molecular genetics are immediately available in:*

- Cancer genetics
- Developmental genetics
- Fluorescence *in situ* hybridization
- Gene targeting and murine models
- Gene transfer and expression studies
- Genetic disorders of the immune system
- Human gene mapping
- Intracellular signalling
- Molecular biology of chromosomal aberration
- Molecular analysis of human genetic disease
- Positional cloning
- Quantitative and statistical genetics
- Stem cell biology

Competitive salary and benefit packages are available. Please forward curriculum vitae and three references to:

**Jeffrey Trent, Ph.D.,**  
Director Intramural  
Research Program  
c/o Ms. Patricia Stewart  
NIH/NCHGR  
Building 49, Room 4A06  
9000 Rockville Pike  
Bethesda, MD 20892



NIH is an Equal Opportunity Employer

## POSITIONS OPEN

### FACULTY POSITION IN MARINE BIOLOGY

**ASSISTANT/ASSOCIATE PROFESSOR** of Marine Biology to develop an undergraduate marine biology program at a small, state-supported, liberal arts university. The successful candidate will be expected to teach up to nine semester hours per semester of undergraduate courses in physiology, marine mammalogy, oceanography and other biology courses and to develop a viable undergraduate research program in the area of marine biology. A Ph.D. in marine biology or related field is required. Commitment to quality teaching at the undergraduate level is essential; prior biology teaching at the college or university level is preferred. This is a 9-month, tenure-track appointment. Submit a letter of application, curriculum vitae, names of three references and unofficial transcripts to: **Chair, Marine Biology Search Committee, University of Alaska Southeast, Office of Personnel, 11120 Glacier Highway, Juneau, AK 99801-8675.** Closing date: March 1, 1994. Official transcripts will be required before hiring. *The University of Alaska Southeast is an Affirmative Action/Equal Opportunity Employer and educational institution.*

### ANTICIPATED—ASSISTANT PROFESSOR/ INSTRUCTOR—ASSOCIATE RESEARCH (non-tenure)

The Pennington Biomedical Research Center, a research facility of Louisiana State University, invites applications for a research position in developmental biology and transgenics. Rank and salary dependent upon qualifications and experience. The successful applicant will work in a new transgenic laboratory and collaborate with faculty and research staff in the development of gene transfer/therapeutic approaches to nutritionally related health problems. Minimum qualifications are an M.S. (Research Associate); Ph.D. (Instructor); Ph.D. with postdoctoral experience (Assistant Professor) in molecular biology, reproductive physiology, embryology, developmental biology or a related field. Applications, including curriculum vitae, list of publications, summary of research interest, names and addresses of three references should be sent by **JANUARY 15, 1994**, to: **Dr. David York, c/o Evelyn Bennett, Assistant Director, HRM Pennington Biomedical Research Center, 6400 Perkins Road, Baton Rouge, LA 70808.** *LSU/PBRC is an Equal Opportunity/Affirmative Action Employer.*

**COMMUNITY ECOLOGIST**—The Institute of Ecology at the University of Georgia invites applications for a tenure-track, 9-month **ASSISTANT PROFESSOR** position beginning September 1994. Instructional responsibilities will include an undergraduate course in Population and Community Ecology and a graduate course in area of specialty. Research area within community ecology is open and could include empirical or theoretical studies of terrestrial, aquatic and/or microbial systems, plant-animal interactions, biodiversity, community restoration or the effects of disturbances on communities. Before closing date of **24 January 1994**, send curriculum vitae, statement of teaching and research interests, 4 to 5 key reprints, and names and addresses of 4 referees to: **David C. Coleman, Chair, Search Committee, Institute of Ecology, 711 Biological Sciences Building, University of Georgia, Athens, GA 30602-2602.** *The University of Georgia is an Equal Opportunity/Affirmative Action Employer.*

### PLANT ECOLOGIST

The Department of Botany at the University of Vermont seeks applicants with exceptional research accomplishments for a tenure-track appointment as **ASSISTANT PROFESSOR**. The successful candidate will be expected to develop a competitive research program in the ecology or evolutionary ecology of **terrestrial plant communities**, and to actively participate in teaching undergraduate- and graduate-level courses. Applicants with a Ph.D. degree should forward 2 to 3 reprints, curriculum vitae, statements of teaching and research interests, and arrange for three letters of reference to be sent to: **Ecologist Search Committee, Department of Botany, Life Science Building, University of Vermont, Burlington, VT 05405-0086.** *Women and representatives of diverse racial, ethnic and cultural backgrounds are strongly encouraged to apply.* Applications must be postmarked no later than **January 31, 1994**. No FAX applications will be accepted. *THE UNIVERSITY OF VERMONT IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER.*

## POSITIONS OPEN

### FISH BIOLOGIST

**DALHOUSIE UNIVERSITY** (subject to budget approval) seeks probationary tenure-track **ASSISTANT PROFESSOR** starting September 1, 1994.

*In accordance with the Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. DALHOUSIE UNIVERSITY is an Employment Equity/Affirmative Action Employer. We encourage applications from qualified women, aboriginal people, visible minorities and persons with disabilities.* Send curriculum vitae, summary of research/teaching interests and names of 3 referees by **January 31, 1994**, to: **Dr. M. Willison, Department of Biology, Dalhousie University, Halifax, Nova Scotia, Canada B3H 4J1.**

### 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 interest 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, UMDNJ, New Jersey Medical School, 185 South Orange Avenue, Newark, NJ 07103.** *UMDNJ, New Jersey's university of health sciences, is an Affirmative Action/Equal Opportunity Employer, M/F/D/V, and a member of the University Health System of New Jersey.*

### YORK UNIVERSITY Toronto, Canada

Applications are invited for a tenure-track position at the **ASSISTANT PROFESSOR** level in **Visual Sensation/Perception**, with research interests in the psychophysics of spatial vision, motion perception, or colour vision. A Ph.D. in Psychology is required. Facility in teaching research methodology, including quantitative and/or qualitative data analysis, is desirable but not required. Duties include teaching in both the graduate and undergraduate programmes. Candidates should have a promising publication record and programme of research. Direct enquiries and applications, with curriculum vitae, three letters of reference, and relevant reprints to: **Prof. David Reid, Chair, Department of Psychology, Faculty of Arts, York University, North York, Ontario, Canada M3J 1P3.** Deadline for applications is **January 31, 1994**. This position is subject to budget approval. *York University is implementing a policy of Employment Equity, including Affirmative Action for women faculty. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.*

### ASSISTANT PROFESSOR

The Division of Hematologic Malignancies of the Dana-Farber Cancer Institute and Department of Medicine, Harvard Medical School, is inviting applications from individuals interested in the areas of gene transfer for cancer therapy or hematopoietic stem cell biology. Individuals with experience in the development of vectors for gene transfer into human cells or experience with introduction of genes which modify the host's immune response to neoplasms are particularly sought for this tenure-track position.

Applicants should have an M.D. or M.D./Ph.D. degree and should have a particular interest in translational medical research. The new faculty member will be expected to develop an independent research program and participate in the teaching of medical and graduate students. Competitive space and start-up funds are available.

Applicants should submit curriculum vitae, a description of research plans and names of three references, to: **James D. Griffin, M.D., Division of Hematologic Malignancies, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.** *The Dana-Farber Cancer Institute is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**VISITING ASSISTANT PROFESSOR, PHYSIOLOGICAL ECOLOGY.** The Department of Zoology, Connecticut College, invites applications for a 2-year, non-tenure-track appointment (replacement for an administrative leave). Teaching responsibilities include Ecology, Comparative Physiology, Invertebrate Zoology and involvement in team-taught General Biology and Zoology courses. Visiting faculty teach six courses per year, with lecture and laboratory sections counting as separate courses. A Ph.D. is required. Connecticut College is a small, private, highly selective liberal arts institution with a strong tradition of original research at the undergraduate level. Send curriculum vitae, reprints, a statement of teaching and research interests, and three letters of recommendation to: **Dr. Phillip Barnes, Chair, Department of Zoology, Box 5406, Connecticut College, 270 Mohegan Avenue, New London, CT 06320-4196.** Review of applications will begin **January 17, 1994.** *Connecticut College is an Affirmative Action/Equal Opportunity Employer. Women and minorities are strongly encouraged to apply.*

**ECOLOGIST.** One-year position at the **ASSISTANT PROFESSOR** level. Responsibilities include team-teaching introductory biology course; teaching advanced course in some area of ecology, and supervision of student research in Biology and Environmental Studies. *Mount Holyoke College is committed to fostering cultural diversity and multicultural awareness in its faculty, staff and students and is an Affirmative Action/Equal Opportunity Employer. Women and minorities are especially encouraged to apply.* Send statement of teaching and research interest, curriculum vitae, recent reprints, list of relevant courses, and transcript. Please arrange to have three letters of recommendation sent by **January 21, 1994**, to: **Dr. Susan M. Smith, Department of Biological Sciences, Mt. Holyoke College, South Hadley, MA 01075.** FAX: **413-538-2327;** Email: **ssmith@MHC.mtholyoke.edu.**

### University of Northern Colorado (UNC) 3 Positions, Biological Sciences

Three tenure-track positions: Gross Vertebrate Anatomy/Histology (#20202); Vertebrate Zoology/Physiology (#20203); Mammalian Physiology/Pharmacology (#20204). All tenure-track **ASSISTANT PROFESSORSHIPS.** Start August 1994. Teaching experience in human anatomy, physiology, sexuality or gerontology desirable. Excellence in teaching and research and an active research program are expected; doctorate required. Individuals may apply for more than one position if they provide a complete application packet for each. Each packet must include: application letter, curriculum vitae, teaching philosophy, transcripts, three recommendation letters with at least one addressing teaching ability. Due **February 1, 1994.** Inquiry/Packets to: **Chair, Search Committee, Department of Biological Sciences, University of Northern Colorado, Greeley, CO 80639.** FAX: **(303/351-1085);** Telephone: **(303/351-2921).** *UNC is an Equal Opportunity/Affirmative Action Employer.*

### RESEARCH MANAGER

The Jewish Hospital Heart & Lung Institute in Louisville, Kentucky, is seeking a Research Manager to provide direction, guidance, and management to their research activities. Jewish Hospital is a 440-bed, tertiary hospital serving as the leading Cardiopulmonary Center in the State of Kentucky and southern Indiana. A 14-story free-standing Heart & Lung Center is under construction with planned occupancy in late 1994. In 1992, the 60 cardiologists, 19 cardiothoracic surgeons and 11 pulmonologists performed over 7,587 invasive procedures, including 1581 Open Hearts. Currently, the Heart & Lung Institute has a Scientific Committee of 12 M.D.'s and Ph.D.'s overseeing a variety of ongoing projects and clinical trials. These include ventricular assist devices, cardiomyoplasty, coronary laser angioplasty, restenosis trials, atherectomy and CAVEAT. Jewish Hospital has a close affiliation with the University of Louisville and a dual appointment will be encouraged. The successful candidate will be expected to develop and maintain a high-quality extramurally funded research program. Please send curriculum vitae and a brief description of research interests by **February 1, 1994**, to: **Rebecca H. Adams, Vice President, Jewish Hospital Heart & Lung Institute, 217 East Chestnut Street, Louisville, KY 40202.** *Jewish Hospital is an Equal Employment Opportunity/Affirmative Action Employer. A Drug-free Workplace.*



**POSITION AVAILABLE  
ASSISTANT PROFESSOR  
DEPARTMENT OF LABORATORY MEDICINE & PATHOLOGY  
UNIVERSITY OF MINNESOTA**

A full-time tenure track academic position is available approximately May 1, 1994 at the rank of assistant professor in the Division of Clinical Virology of the Department of Laboratory Medicine and Pathology at the University of Minnesota. Minimum requirements are M.D., eligible for licensure in the state of Minnesota, postgraduate training in internal medicine or pathology, board certified or eligible in infectious diseases, demonstrated research productivity with acceptance of publications in peer-reviewed journals and at least four years teaching experience. Teaching duties include didactic teaching/training of residents, medical students, graduate students, fellows and medical technologists. Candidate selected will be expected to initiate an independent research program.

Other duties include serving as Assistant Medical Director of the Virology Diagnostic Laboratory and the HIV Detection and Research Laboratory with responsibilities for laboratory-based research and diagnostics as well as patient management. The University of Minnesota is one of 14 NIH sponsored institutions having a AIDS Clinical Trials Unit (ACTU) with a core research HIV laboratory. Candidates must be familiar with the latest virology testing methods including quantitative virology and PCR. At least four years experience in supervising a virology diagnostic laboratory conducting antiviral clinical trials is required. A major focus of the Division of Clinical Virology has been and continues to be development of antiviral drugs, particularly for herpes viruses and human immunodeficiency virus (HIV).

Deadline for receipt of applications is March 31, 1994. Applicants please send curriculum vitae, names of three references and a brief synopsis of recent activities to:

**Clinical Virology Search Committee  
c/o Marilyn Green  
Department of Laboratory Medicine and Pathology  
Box 198 UMHC, 410 Delaware St. SE  
Minneapolis, MN 55455**

*The University of Minnesota is an equal opportunity educator and employer.*

**FRENCH "ACADEMIE DES SCIENCES" PROFESSORSHIPS**

In order to foster international cooperation between academic and industrial research, the French Académie des Sciences, the Centre National de la Recherche Scientifique and Elf Aquitaine will open a limited number of one-year professorships in France for the 94-95 academic year.

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

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

- Earth Sciences, with an emphasis on surface seismology, sedimentology, organic and mineral geochemistry and the physics of oil-related fluids, including interactions with rocks;
- Atmospheric Sciences, in relation to the "Global Warming Process", i.e. physicochemistry of the atmosphere, or modelization of such phenomena;
- Chemical Sciences, with an emphasis on polymers, halogen and thio-chemistry, catalysis, and process engineering research.

Prearranged agreements with French academic laboratories are eligible for these professorships, and they will be appreciated although not mandatory.

There are no citizenship restrictions. Mastery of French is not required, although some familiarity with French culture would be helpful.

Additional information can be obtained from the following contacts:

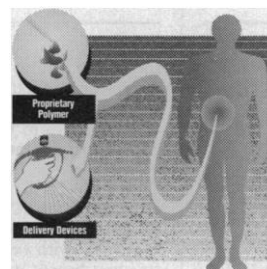
—For North America-based candidates:

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

—For other candidates:

**C. JABLON, Chief Scientist  
Elf Aquitaine, DRTE  
Tour Elf, Cedex 45  
92078 Paris-La-Défense, FRANCE**

Formal applications should include a detailed résumé, a description of the research project and any other relevant information in order to select the most qualified candidates. They should be sent to the above addresses before February 11, 1994. They shall be processed in confidence and the professorships are scheduled for announcement in May 1994.



## COMBINING TECHNOLOGIES TO TREAT LOCAL DISEASES

*By combining our proprietary polymer and delivery device technology, we're creating products that prevent post-surgical adhesions, thrombosis and restenosis. With our innovative product pipeline and exciting healthcare technology, we're poised for the future—offering outstanding opportunities to continuously challenge you and help you reach your full potential.*

## MATERIALS AND PHARMACEUTICAL DEVELOPMENT

### DRUG DELIVERY SENIOR SCIENTIST

Develop processes for the controlled release of low and high molecular weight drugs; generate novel fabrication and configuration of drug delivery matrices; conduct *in vitro* and *in vivo* evaluations of degradation and drug release kinetics. Ph.D in Life Sciences, Chemical Engineering or Pharmaceuticals required with a minimum of 5 years' industrial experience developing and evaluating novel polymer drug delivery systems. Expertise working with small molecules, proteins, monoclonals etc. for the controlled release of these drugs in a stable and reproducible manner. Experience working with pharmacology, clinical, regulatory, and QA/QC groups a must.

### FORMULATIONS SENIOR SCIENTIST/GROUP LEADER

Develop stable formulations for biodegradable polymers and conduct *in vitro* and *in vivo* evaluations of polymer stability and drug-polymer interactions. Ph.D in Pharmaceuticals required with a minimum of 5 years' industrial experience developing and evaluating therapeutics. Expertise with small molecules, proteins, monoclonals a plus. Must have experience working with pharmacology, clinical, regulatory, and QA/QC groups. Working knowledge in design and formulation of parenteral products and/or drug delivery systems a must.

*We offer a competitive compensation and benefit package and equity participation, as well as a highly creative work environment. Please send your resume to **Human Resources, FOCAL, INC., One Kendall Square, Building 600, Cambridge, MA 02139.** No phone calls please. We're continuously striving for diversity through equal opportunity employment.*

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INTERVENTIONAL THERAPEUTICS

## POSITIONS OPEN

### TWO POSITIONS AT ASSISTANT PROFESSOR, FALL 1994

**NEUROBIOLOGIST AND PLANT COMMUNITY ECOLOGIST.** **Neurobiologist:** Teach Cell Physiology, Histology. Participate in teaching Animal Physiology and Basic Biology. Develop course and conduct research in cellular neurobiology. **Plant Ecologist:** teach Basic Biology, Botany. Participate in Plant Ecology. Develop course and conduct research in plant community dynamics. For both positions, university teaching experience desired. Service and student advising expected. Qualifications: Ph.D. in a Biological Science or related field. For further information, contact: **Search Committee, Biological Science Department, California State Polytechnic University, Pomona, CA 91768.** Postmark February 16, 1994. Official confirmation of Ph.D. required of all finalists. *An Affirmative Action/Equal Employment Opportunity Employer. The university hires only individuals lawfully authorized to work in the United States.*

### MOLECULAR AND CELL BIOLOGY ASSISTANT PROFESSOR

Juniata College, a selective independent liberal arts college with traditional strength in the natural sciences, invites applications for a continuing position in Biology (begin fall 1994). Experience in undergraduate instruction, strong interest in teaching and academic advising, commitment to undergraduate research, understanding of the role of the natural sciences in a liberal arts curriculum and Ph.D. required. Send letter of application, current curriculum vitae, statement of teaching and research interests including major equipment essential to support such interests, and three letters of reference to: **Dr. Karen Wiley Sandler, Vice President and Dean of Academic Affairs, Juniata College, Huntingdon, PA 16652.** Review of applications has begun and will continue until position is filled. *Juniata College is committed to cultural and gender diversity and encourages applications from women and minority candidates. Affirmative Action/Equal Opportunity Employer.*

**CENTER TECHNICAL OPERATIONS MANAGER FOR SURGICAL ENDOCRINOLOGY.** Supervise and coordinate scientific data analysis; writing of scientific reports, papers and grants. Master's/Ph.D. in Chemistry, Micro/Biology. In-depth knowledge of chromatography, peptide purification, radioimmunoassay, tissue culture and statistics. Resumes accepted until January 1, 1994: **Louisiana State University Medical Center—Surgery, 1542 Tulane Avenue, New Orleans, LA 70112.** *Equal Employment Opportunity/Affirmative Action Employer.*

**DIVISION CHIEF, Pediatric Endocrinology and Metabolism.** We are seeking a Physician-Scientist to lead the Division of Endocrinology and Metabolism at the Children's Memorial Hospital, Department of Pediatrics, Northwestern University Medical School, Chicago. This individual will develop and lead a state-of-the-art research program in the field and will provide overall direction to the clinical programs. Submit applications to: **Dr. Stanford Shulman, Chair, Endocrine Search Committee, Box #20, The Children's Memorial Medical Center, 2300 Children's Plaza, Chicago, IL 60614.** *Women and underrepresented minorities are encouraged to apply. We are an Equal Opportunity Employer.*

**DIRECTOR OF RESEARCH (M.D. or Ph.D.) METROHEALTH MEDICAL CENTER** (a teaching hospital of Case Western Reserve University School of Medicine.) New position created for individual responsible for coordination of all research programs. Duties include: develop and implement research strategic plan, allocate research space in new, 80,000 square foot building, assist development of departmental research programs, recruitment and allocation of hospital research funds. Active research in area of personal interest and experience expected. Candidate's research focus is open; those with expertise in Molecular or Structural Biology particularly encouraged. Patient care activities not required. Appointment with appropriate academic rank awarded at Case Western Reserve University. Must have proven record of experience in directing research programs and continuing national funding. Send curriculum vitae to: **John J. Moore, M.D., Search Committee Chair, Department Pediatrics, MetroHealth Medical Center, 2500 MetroHealth Drive, Cleveland, OH 44109-1998.** *An Equal Opportunity Employer.*

## POSITIONS OPEN

Director of Molecular Oncology Research Program in the Department of Pediatrics and the Midwest Children's Cancer Center at the Medical College of Wisconsin seeks M.D. or Ph.D. to complement the internationally recognized strength in **Pediatric Oncology and Bone Marrow Transplantation.** Collaborative research projects with molecular biologists at the Medical College of Wisconsin and the Blood Center of Southeast Wisconsin are encouraged. Program growth expected with additional new faculty and postdoctoral fellows. Rank commensurate with experience. Competitive salary and outstanding benefit package. Excellent lab space in a dedicated and new oncology research building adjacent to the modern 220-bed Children's Hospital of Wisconsin. Send curriculum vitae to: **Robert M. Kliegman, M.D., Professor and Chair, Department of Pediatrics, Medical College of Wisconsin, MFRC, 8701 Watertown Plank Road, Milwaukee, WI 53226.** *Equal Opportunity/Affirmative Action Employer, M/F/D.*

### CHAIR, DEPARTMENT OF MOLECULAR IMMUNOLOGY

Applications and nominations are being accepted for the Chair of the Department of Molecular Immunology. The research and academic department consists of 27 members and 19 students and postdoctoral fellows in a well-equipped, modern building. Space and positions for recruitment of new faculty are available. This comprehensive cancer center is currently entering a period of renewed growth and there are excellent opportunities for research and academic activity. Substantial academic credentials and research interests in immunology are required. A faculty appointment will be at the Roswell Park Graduate Division, SUNY at Buffalo. The Chair will be responsible for the overall effective and efficient leadership of the department's research and educational programs. Send curriculum vitae to: **Carleton C. Stewart, Ph.D., Director, Laboratory of Flow Cytometry, ROSWELL PARK CANCER INSTITUTE, Elm and Carlton Streets, Buffalo, NY 14263.** *Affirmative Action/Equal Opportunity Employer, M/F/D/V.*

### COLLECTIONS MANAGER, INVERTEBRATES

The Canadian Museum of Nature\* is searching for a Collections Manager for the Invertebrate Section of the Collections Division. In this position you will budget, plan, supervise, and report on collections management functions and projects, and conduct original research related to collection care and management. Knowledge requirements include: invertebrate systematics, especially mollusc systematics, and collection management practices, procedures and techniques. The two official languages are required for this position. You must have an M.Sc. in biology or zoology, museum studies, or related field, or equivalent through accreditation. If you meet the above qualifications, send your application to: **Pierre Boivin, Personnel Division, Canadian Museum of Nature, P.O. Box 3443, Station "D," Ottawa, Ontario, CANADA K1P 6P4. FAX: (613) 991-0117.** State competition #2090-93-CMN-OC-037. Statement of qualifications is available from Suzanne Renaud-Walli at (613) 991-0015. Closing: 17 January 1994. \*formerly the National Museum of Natural Sciences.

The Department of Physiology at the University of Massachusetts Medical School invites applications for a senior-level tenure-track position. Applicants should have an especially strong record of research productivity and extramural funding in an area of molecular aspects of cellular physiology. The Department has excellent research facilities and provides exceptional opportunities for interdisciplinary collaboration in biochemical and molecular biological aspects of signal transduction in the heart, smooth muscle, kidney, endocrine tissues and adipocytes, sensory organs, and the brain. Applicants should submit by January 15, 1994, curriculum vitae, a summary of research plans, and three letters of reference to:

**Dr. Fredric S. Fay,  
Chairman of the Search Committee,  
Department of Physiology,  
University of Massachusetts Medical School,  
55 Lake Avenue North,  
Worcester, MA 01655**

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

## POSITIONS OPEN

**KINESIOLOGY DEPARTMENT HEAD—KANSAS STATE UNIVERSITY.** The College of Arts and Sciences invites applications for Head of the Department of Kinesiology. Candidates must have an active research program and a record sufficient to be tenured at the professor or associated professor level. Faculty laboratory facilities are housed in Kinesiology and in the College of Veterinary Medicine. Evaluation of applications for the 12-month position will begin January 15, 1994. Send a letter of application, curriculum vitae, and a list of names, addresses, and telephone and FAX numbers of 3 references to: **Dr. David Dzewaltowski, Kinesiology Search Committee, c/o Dean of Arts and Sciences, Eisenhower Hall, Kansas State University, Manhattan, KS 66506-1005.** *An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

### CHAIR Department of Microbiology Medical College of Ohio at Toledo (MCO)

Nominations and applications are requested for a microbiologist/immunologist to fill the position of Professor and Chair of the Department of Microbiology. An applicant should have a record of accomplishments in research, education and administration. The Chair will be responsible for overall direction of a growing department that currently includes eight full-time faculty members and nineteen doctoral students. The Department of Microbiology has an active research program in the areas of bacterial genetics, immunology, mycology, and virology. The teaching responsibilities of the Department include the Ph.D. program and the education programs of medical and nursing students. The new Chair will have the opportunity to recruit additional tenure-track faculty members. Applications will be reviewed beginning February 1, 1994, and continuing until the position is filled. Please submit a letter outlining your research and administrative goals and curriculum vitae to: **Professor Louis Weinstein, Chair, Microbiology Search Committee, c/o Dean's Office, Medical College of Ohio, P.O. Box 10008, Toledo, OH 43699-0008.** *NCO is an Affirmative Action/M/D/D/V/Equal Opportunity Employer.*

### 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.*

**Department of Anatomy, Tuskegee University:** Applications are invited for two **FACULTY POSITIONS**—one each in gross anatomy and histology. Duties include teaching of gross anatomy and/or histology to the first-year veterinary students and developing an independent research program. A Ph.D. degree is required, but applicants with D.V.M. and/or teaching experience are preferred. Starting date and salary negotiable. Please send a letter, curriculum vitae, and two letters of recommendations to: **H. O. Goyal, School of Veterinary Medicine, Tuskegee, AL 36088.**

**POSTDOCTORAL POSITION** available in chromatin research. Molecular biological and biochemical approaches will be used to investigate novel core histone proteins that have a chimeric structure containing both histone and nonhistone regions [*Science* 257, 1398 (1992)]. Send curriculum vitae and three letters of reference to: **Dr. John Pehrson, 146 VET/6048, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104.**

# TOXICOLOGY

Battelle Pacific Northwest Laboratories (PNL) is an international leader in the practical application of technology. Battelle PNL is dedicated to both basic and applied research to find ways to preserve our environment and keep America technologically competitive. Our LIFE SCIENCES CENTER has an immediate opening for:

## TOXICOLOGY DEPARTMENT MANAGER

This position requires a DVM with a Ph.D. in anatomic pathology, clinical pathology, or toxicology and/or board certification in one of these disciplines. Previous experience in managing a multidisciplinary research organization conducting studies under FDA's Good Laboratory Practices (GLP) regulations is essential. Must have an outstanding research record in toxicology, pathology, or related field. The ideal candidate will have experience in inhalation toxicology, service as Study Director on GLP-regulated projects, and laboratory experience in cell proliferation and molecular toxicology.

Will provide technical leadership for a technical and professional staff of over 100 organized into seven groups: Pathology, Clinical Pathology, Analytical Chemistry, Inhalation Toxicology, Aerosol & Inhalation Research, Bioengineering & Exposure, and Animal Resources. Will be responsible for development of new programs and administrative leadership of the department.

Battelle PNL, one of the nine U.S. Department of Energy multiprogram research laboratories is located in Southeast Washington state and offers the advantages of a pleasant life style and the extraordinary environment of the Pacific Northwest.

Interested candidates should send a resume and salary history to: **Battelle Recruiting Center, Attn: Dept. 941018CSP, P.O. Box 999, Richland, WA 99352.** Principals Only. EOE.



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...Putting Technology To Work

## CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA

### Director - Center for Regenerative Studies Position Available

California State Polytechnic University, Pomona invites applications and nominations for the position of Director of the Center for Regenerative Studies. The Director will lead the University's new Center for Regenerative Studies, an interdisciplinary university-based setting for education, demonstration and research in regenerative practices and technologies, located on a 16 acre site on the Cal Poly campus. The Director currently reports to the Dean of the College of Environmental Design, and is charged with providing innovative leadership, vision and direction for the undergraduate and graduate academic programs, the physical facilities and their operation, and the continued support of the Center through advancement and proposal-writing activities.

The successful candidate must demonstrate a desire and proven ability to work in an interdisciplinary environment and be committed to a collegial and consultative form of decision-making involving the faculty team, students and staff. Because the Center is an academic program, candidates must have an established record of scholarship and teaching excellence in sustainable or regenerative technologies or related endeavors. Candidates should also possess administrative experience, preferably in an academic setting including the management of budgets, personnel and academic programs. Successful fund raising and proposal writing is particularly important. The candidate should possess a Ph.D. or an appropriate terminal degree. Other desirable characteristics include experience working with a residential student/faculty program, experience working with academic program development activities; research for or participation in other environmental/sustainable programs sponsored by national or international government or non-governmental organizations; experience in private industry.

Please address nominations or requests for application packages to: Dr. William Stine, Chair, CRS Director Search Committee; California State Polytechnic University; 3801 W. Temple Ave.; Pomona, CA 91768-4062; Phone (909) 869-2597; e-Mail: [WBSTINE@CSUPOMONA.EDU](mailto:WBSTINE@CSUPOMONA.EDU)



**Yale** UNIVERSITY

## Molecular Cell Biologist

The Department of Biology at Yale University is seeking a candidate for a tenured faculty position in the field of Molecular Cell Biology. Applications are invited from individuals using genetic, molecular and cytological approaches to study cell biology in simple systems. The successful applicant is expected to conduct a vigorous research program, to have a record of attracting grant support, and to have a proven capacity and interest in teaching at the undergraduate and graduate levels.

Please send curriculum vitae, description of research interests and the names and addresses of at least three references by February 15, 1994 to:

Molecular Cell Biology Search Committee  
c/o Chair, Department of Biology  
Yale University  
Kline Biology Tower, Room 706  
P.O. Box 208103  
New Haven, CT 06520-8103

*Yale University is an Affirmative Action/  
Equal Opportunity Employer. Women and  
members of minority groups are especially  
urged to apply.*

## IMMUNOLOGISTS

The University of Washington seeks superbly qualified applicants for a tenure-track appointment in the Department of Immunology. Applicants must hold Ph.D. or M.D. degrees and have demonstrated the ability to establish an independent research program in immunobiology. Although the Department is seeking an assistant professor, appointment may be made at the rank of associate professor or full professor, depending on the individual's qualifications. The Department of Immunology offers excellent new laboratory space, flow cytometry, biopolymer synthesis, and transgenic animal facilities.

Send curriculum vitae, a brief description of proposed research, and three letters of recommendation (by March 1, 1994) to:

R.M. Perlmutter, M.D., Ph.D.  
Chairman  
Department of Immunology, SL-05  
University of Washington  
Seattle, WA 98195

*The University of Washington is an  
Equal Employment/Affirmative Action  
Employer*

## FISHERIES ECOLOGY

The School of Natural Resources and Environment, The University of Michigan, in cooperation with the Michigan Department of Natural Resources, invites applications for a 12-month faculty position at the level of **Assistant Research Scientist**, to be filled by Spring 1994. Funding for the position is committed for a five-year period; the position is long term and non-tenure track. Primary responsibilities are to design and conduct research on anadromous and potamodromous fishes and fisheries in the Great Lakes region. In addition, the successful candidate will cooperate with the Michigan Department of Natural Resources in developing management policies and practices, develop and teach a graduate course in fisheries at the School of Natural Resources and Environment, and participate in advising of mainly graduate students. This position will be located at the Institute of Fisheries Research, a cooperative program between the Michigan Department of Natural Resources and the university that was established in 1930. Applicants must possess a Ph.D. with specialization in fisheries ecology, including substantial knowledge of life histories of anadromous and potamodromous fishes and the ability to apply stock assessment techniques to fisheries. A strong quantitative background is required, as well as an ability to work effectively with state, federal, and private organizations. Submit a letter describing research interests and qualifications, resume, college transcripts, copies of publications, and three letters of recommendation by February 1, 1994 to Dr. James S. Diana, School of Natural Resources and Environment, University of Michigan, Ann Arbor, MI 48109-1115, phone 313-763-5834. *The University of Michigan is an Equal Opportunity and Affirmative Action Employer.*

## POSITIONS OPEN

### ANTICIPATED—INSTRUCTOR/ POSTDOCTORAL RESEARCHER

The Pennington Biomedical Research Center, a research facility of Louisiana State University, announces a position available to study cellular expression of key enzymes involved in arachidonic acid metabolism. Doctoral degree in biological sciences is required. Experience in recombinant DNA technology and protein purification is preferred. Rank and salary will be dependent on qualifications. Send curriculum vitae by January 4, 1994, to: **Dr. Daniel Hwang, c/o Evelyn Bennett, Assistant Director, HRM, Pennington Biomedical Research Center, 6400 Perkins Road, Baton Rouge, LA 70808.** LSU/PBRC is an Equal Opportunity/Affirmative Action Employer.

**FACULTY POSITION**—The Jonsson Comprehensive Cancer Center at UCLA is committed to establishing a program in signal transduction. We seek candidates for a junior-level tenure-track or mid-level tenure position. Candidates should have an interest in establishing a research program emphasizing signal transduction in eukaryotic cells and have demonstrated expertise in this area. A primary appointment will be made in an appropriate basic science or clinical department of the UCLA School of Medicine. Candidates are invited to submit curriculum vitae, a statement of research aims, and three letters of reference to: **Marsha Emmer Addis, Deputy Director, Jonsson Comprehensive Cancer Center, 10-247 Louis Factor Health Sciences Building, Los Angeles, CA 90024-1781.** UCLA is an Affirmative Action/Equal Opportunity Employer.

### PLANT ECOLOGY FACULTY POSITION

**Central College:** Tenure-track faculty position in plant ecology beginning September 1, 1994. Responsibilities include teaching undergraduate courses in Ecology, Evolution, Biostatistics, Field Botany and introductory biology; assisting seniors with research projects and participating in departmental seminars. Ph.D. required; ABD acceptable. Write for position description to: **W. H. Beare, Dean of the College, Central College, Pella, IA 50219.** Central College is an Equal Opportunity/Affirmative Action Employer. We actively seek and encourage applications from persons of color and female candidates. Review of applications will begin January 10, 1994, and continue until position is filled.

### POSTDOCTORAL POSITION

Available February 1994 for studies of photosynthetic O<sub>2</sub> evolution, electron donation and photoactivation processes in PSII using biochemical, spectroscopic and molecular biological approaches. Structural studies are of ancillary interest. The position is for 1 year; extension is possible. Salary is highly competitive. Send curriculum vitae, statement of research interests, and names of 3 references, with telephone numbers to: **Dr. Michael Seibert, National Renewable Energy Laboratory, 1617 Cole Boulevard, Golden, CO 80401.** We are an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

**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** available to study neural mechanisms involved in regulation of prolactin secretion. Research focuses on hypothalamic neuropeptides and neurotransmitters. Qualifications include a Ph.D. and a background in molecular/cellular biology with tissue culture experience. Send/FAX curriculum vitae and names of three references to: **Dr. James L. Voogt, Department of Physiology, University of Kansas Medical Center, 3901 Rainbow Boulevard, Kansas City, KS 66160; FAX: (913) 588-7430.** Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**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

Postdoctoral position available in Molecular Virology. RNA viruses (including poliovirus, mengovirus, yellow fever virus) are being genetically modified to express fragments of proteins derived from other pathogenic agents (HIV, SIV, RSV, HBV, etc.). The molecular aspects of viral replication and gene expression, and potential use of these recombinant viruses as vaccines will be evaluated. Experience in molecular biology required. Send curriculum vitae, research interests (one page), and three references to: **Dr. Raul Andino; The Gladstone Institute of Virology and Immunology, UCSF; P.O. Box 419100; San Francisco, CA 94141-9100.** Equal Opportunity Employer.

**POSTDOCTORAL POSITION in Molecular and Developmental Muscle Biology** to study the regulation of contractile protein gene expression during cardiogenesis and skeletal myogenesis. Tissue culture and transgenic (overexpression and "knockout") technologies are employed. Experience in molecular biology and/or development preferred. Send curriculum vitae and names with addresses and telephone numbers to: **Dr. David Wiczorek, Department of Molecular Genetics, Biochemistry, and Microbiology, University of Cincinnati Medical Center, 231 Bethesda Avenue, Cincinnati, OH 45267-0524; Telephone: 513-558-0058; FAX: 513-558-8474.**

### POSTDOCTORAL POSITIONS

The Dana-Farber Cancer Institute and Harvard Medical School seek to fill research positions at the postdoctoral level to study the development of T-lymphocytes at the cellular and molecular level. Training in cellular immunology and/or molecular biology using murine models is desirable. A joint appointment will be held at an appropriate department of Harvard Medical School. Send curriculum vitae and three references to:

**Laboratory of Immunopathology  
Dana-Farber Cancer Institute  
44 Binney Street, D730  
Boston, MA 02115  
617-632-4630; FAX**

### POSTDOCTORAL POSITION

For studies of the mechanism(s) by which thyroid hormone and medium-chain fatty acids regulate transcription of the gene for fatty acid synthase. Please send curriculum vitae and the names and addresses of three references to: **Dr. Alan G. Goodridge, Department of Biochemistry, University of Iowa, Iowa City, IA 52242.**

*The University of Iowa is an Equal Opportunity and Affirmative Action Employer. We encourage applications from women and minority groups.*

### POSTDOCTORAL POSITION IN MOLECULAR REPRODUCTIVE ENDOCRINOLOGY

**Center for Studies in Reproduction  
University of Maryland**

Available immediately to Ph.D. to study molecular biology of peptide growth factor expression, e.g., IGF, IGFBP within maternal-fetal-placental unit during baboon pregnancy. Experience with primates is not necessary. Background in reproductive endocrinology and U.S. citizenship essential. Option of developing into faculty position exists thereafter. Send curriculum vitae to: **Eugene D. Albrecht, Ph.D., Department of Obstetrics and Gynecology, University of Maryland School of Medicine, Bressler Laboratories 11-019, 655 West Baltimore Street, Baltimore, MD 21201.**

## POSITIONS OPEN

**SENIOR POSTDOCTORAL POSITION (JUNIOR RESEARCH FACULTY POSITION)** available immediately for HIV drug discovery project. Molecular biology experience is required. Competitive salary. Send curriculum vitae to: **Beatrice H. Hahn, M.D., University of Alabama at Birmingham, 701 South 19th Street, 613 LHRB, Birmingham, AL 35294.** Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION, MOLECULAR RETROVIROLOGY.** Available immediately to participate in ongoing research project on simian immunodeficiency virus (SIV) and human immunodeficiency virus (HIV). Current project focuses on a variety of virus-host interactions including molecular mechanisms of virus cell tropism and neuropathogenesis. Applicants should have experience in recombinant DNA technology and/or virology. Interested individuals are encouraged to send a letter of research interest, curriculum vitae, and three references to: **Dr. Toshiaki Kodama, Division of Primate Medicine, Oregon Regional Primate Research Center, 505 NW 185th Avenue, Beaverton, OR 97006. Telephone: (503) 690-5284; FAX: (503) 690-5563.** The ORPRC is an Equal Opportunity/Affirmative Action Employer.

## POSTDOCTORAL POSITIONS CHANNELS AND PORES

### Worcester Foundation for Experimental Biology

Postdoctoral positions are available for interdisciplinary mechanistic studies of ion channel and pore proteins. Projects include: the remodeling of prokaryotic pores for applications in materials science, biosensors and drug delivery [*J. Biol. Chem.* 267, 21782 (1992); 268, 5285 (1993)]; the mechanism of action of ethanol and general anesthetics on cloned eukaryotic channels [*FEBS Lett.* 305, 27 (1992); *Neurosci. Lett.* 152, 13 (1993)]; the molecular mechanism of channel modulation by protein kinases in the central nervous system [*Neuron* 8, 387 (1992); *PNAS* 89, 1641 (1992)].

Call **Hagan Bayley at (508) 842-9146** for details or send curriculum vitae and the names of references to: **Hagan Bayley, c/o Human Resources, Worcester Foundation, 222 Maple Avenue, Shrewsbury, MA 01545.** Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL—MOLECULAR VIROLOGY

Postdoctoral position available to work on the molecular virology of HSV-1 latency and pathogenesis. Experience in either molecular biology, molecular genetics, molecular/classical virology (especially herpes virology), or immunology (especially viral immunology) is highly desirable, but not essential. Funding for this position is guaranteed for at least 3 years at a highly competitive salary. Send curriculum vitae with names and telephone numbers of 3 references to: **Dr. Steven L. Wechsler, Director, Virology Research Laboratories, Halper Building-124, Cedars-Sinai Medical Center Research Institute/UCLA School of Medicine Affiliate, 8700 Beverly Boulevard, Los Angeles, CA 90048-1869. FAX: (310) 657-0190.** Affirmative Action/Equal Opportunity Employer.

A **POSTDOCTORAL POSITION** is available to investigate the developmental regulation of lung fluid transport and gene transfer to the fetal/neonatal lung. The laboratory is using both molecular biological and physiological techniques to understand ion transport processes and their regulation in the developing lung. The approach involves studies of the developmental expression of both specific membrane ion channels and ion transporters combined with the physiologic assessment of function *in vivo* and in cell culture models. There is also a major focus on gene transfer to the fetal/neonatal lung with a particular emphasis on gene therapy for cystic fibrosis. Gene transfer will also be used in evaluating the cellular mechanisms of fluid transport.

Qualified candidates should have a Ph.D. or M.D. in the biologic sciences and experience with molecular biology techniques. Familiarity with ion transport physiology will be helpful. Experience with *in situ* hybridization, Northern analysis, and recombinant DNA techniques is desirable. Send curriculum vitae and names of three references to: **Dr. Paul B. McCray, Jr., Department of Pediatrics, University of Iowa College of Medicine, Iowa City, IA 52242.** Equal Opportunity/Affirmative Action Employer.



## POSTDOCTORAL FELLOWSHIP

**The Comparative Medicine Division at St. Jude Children's Research Hospital**, a premier research center for catastrophic diseases of childhood and biomedical research, offers a FELLOWSHIP IN BASIC SCIENCE RESEARCH.

The fellowship is open to postdoctoral candidates who wish to study the pathobiology and therapeutics of Cryptosporidiosis. Experience in protozoan pathobiology is advantageous.

The fellowship award is made for up to three years and is based on merit, recommendations, and promise of a productive career in biomedical research. Stipend available is highly competitive and based on qualifications.

Applicants should provide curriculum vitae, a brief description of their research interests and the names of three individuals who have agreed to serve as references.



**Jerold E. Reh, D.V.M.**  
Comparative Medicine Division  
**St. Jude Children's  
Research Hospital**  
P.O. Box 318  
Memphis, TN 38101-0318  
U.S.A.

All information to be received by 1 April 1994.  
An Equal Employment/Affirmative Action Employer

# BIOTECH UPDATE

American Cyanamid Company has a longstanding and highly successful commitment to the discovery and development of new products through innovative scientific research. Our Immunology Group, in Princeton, NJ, seeks a creative and highly motivated individual to join a productive group utilizing modern techniques in immunology to manipulate the host's neuroendocrine system. An interest in integrating research projects with established programs with classical biologicals, recombinant cytokines and novel immunomodulators is desired.

## POSTDOCTORAL SCIENTIST T Cell Epitopes & Antigen Presentation

The successful candidate will establish an independent research program in T cell epitopes, and/or antigen presentation and processing. A PhD in Immunology, Molecular Immunology or Protein Biochemistry, familiarity with cellular immunology, protein chemistry and molecular immunology, as well as a good publication record, and a documented ability to establish and implement independent scientific programs are required.

Individuals with a desire to broaden their career opportunities and be recognized for a diversity of scientific achievements, are encouraged to apply to: Employment Office, Dept., MD, American Cyanamid Company, Agricultural Research Division, P.O. Box 400, Princeton, NJ 08543-0400. An Equal Opportunity Employer.



## MIT Neurobiologist

### Department of Brain and Cognitive Sciences

A tenure track faculty position is open for a Neurobiologist in molecular/cellular neurobiology. The position will require a strong research program and teaching. There is opportunity for a joint appointment in the Department of Biology, and for participation in interactive neuroscience programs at the Institute.

Applicants should submit a curriculum vitae and a summary of current and proposed research work, and should arrange to have three letters of recommendation sent to: **Chair, Neurobiology Search Committee, Dept. of Brain and Cognitive Sciences, E25-406, MIT, Cambridge, MA 02139-4307**. Applications will be considered as soon as they are complete and letters of recommendation have been received. Qualified women and minority candidates are especially encouraged to apply.

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MIT is a non-smoking environment

MASSACHUSETTS  
INSTITUTE OF TECHNOLOGY



**Yale** UNIVERSITY

## Molecular Neurobiologist

The Department of Biology at Yale University is seeking a candidate for a tenured faculty position in the field of Molecular Biology of Sensory Systems. Applications are invited from individuals using molecular and/or genetic approaches to the study of sensory transduction and related processes. The successful applicant is expected to conduct a vigorous research program, to have a record of attracting grant support, and to have a proven capacity and interest in teaching at the undergraduate and graduate levels.

Please send curriculum vitae, description of research interests and the names and addresses of at least three references by February 15, 1994 to:

Molecular Neurobiology Search Committee  
c/o Chair, Department of Biology  
Yale University  
Kline Biology Tower, Room 706  
P.O. Box 208103  
New Haven, CT 06520-8103

*Yale University is an Affirmative Action/  
Equal Opportunity Employer. Women and  
members of minority groups are especially  
urged to apply.*

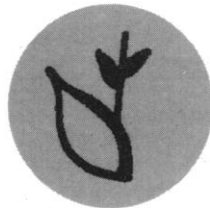
## Research Scientist, Life Sciences

- **Nunc, Inc.**, the world leader in specialized plastic labware for tissue culture, immunology, molecular biology and cryogenic storage has an opportunity for a Research Scientist in our manufacturing and research facility located 30 miles west of Chicago, in Naperville, Illinois.
- We are seeking an outstanding individual with a Ph.D. and at least two years research experience in biochemistry, molecular biology, chemistry or cell biology to participate in a multi-disciplinary approach to the investigation of molecular and cellular interactions with surface modified and specialty plastics. The successful candidate will have experience in tissue culture, immunology and recombinant DNA technology. Research projects encompass several areas of basic and applied science.
- This rewarding career opportunity combines the creative challenge of research with the dynamics of international business. You will interface with engineering, manufacturing and marketing specialists, as well as scientists in Naperville and at our sister company in Denmark, to further research efforts for product modification and new product development.
- We offer a comprehensive salary and benefit package. Please send your Curriculum Vitae to:  
**Maria Dalianis**  
Manager, Human Resources



**Nunc Inc.**

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ciba

## Plant the Seeds of a Better Harvest

Ciba's Agricultural Biotechnology Research Unit, a pioneer in the area of plant molecular biology, seeks exceptional candidates to direct and conduct research with the goal of achieving disease control in crop plants.

To qualify, candidates must have a PhD (or equivalent) in plant molecular biology or related discipline, plus two years' postdoctoral experience. The individuals we seek must be highly motivated scientists, with a proven record of creative, independent research and a demonstrated ability to work as part of a multi-disciplinary team.

We offer a competitive salary and a generous benefits package. Please send c.v., transcripts and three letters of professional reference to: **Manager, Human Resources, Dept. 9315, Ciba-Geigy Corporation, P.O. Box 12257, Research Triangle Park, NC 27709.** We Are An Equal Opportunity Employer M/F/D/V.

## Postdoctoral Position

Monsanto Corporate Research is interested in hiring an individual to collaborate with our Protein Biochemistry and Mass Spectrometry groups. The work will involve the development of a new methodology for high sensitivity protein sequencing and characterization using state-of-the-art Mass Spectrometry. This would include using capillary column LC/ES-MS and LC/MS/MS for sequencing of femtomole quantities of peptides, developing new PTH amino acid derivatives and detection techniques, and expanding the role of laser desorption mass spectrometry in the analysis of trace biological materials. It is expected that the work will be published in peer reviewed scientific journals. The selected individual will be using a number of state-of-the-art mass spectrometers, liquid chromatographs and an ABI model 470A protein sequencer.

**REQUIREMENTS:** PhD in biology, protein chemistry, analytical chemistry or related field with strong interest in instrumental techniques. A background in HPLC is strongly preferred but mass spectrometry experience is not required. Salary will be in the \$30's. This two year position begins in January, 1994 and is renewable on an annual basis.

Interested candidates should send their CV to **MONSANTO; Attn: Denise J. Cooper; KD-1; 800 North Lindbergh Blvd.; Mail Zone 02H; St. Louis, MO 63147.** Monsanto is an Equal Opportunity Employer M/F/D/V.

**Monsanto**



## DEAN, SCHOOL OF DENTISTRY

The University of California, San Francisco (UCSF) invites nominations or applications for the position of Dean, School of Dentistry.

The School of Dentistry currently offers professional programs leading to the Doctor of Dental Surgery degree, the Bachelor of Science degree in dental hygiene, and postgraduate programs and residencies in dental specialties. In conjunction with the Graduate Division, the school also sponsors postgraduate academic programs leading to the MS and PhD degrees in Oral Biology.

Reporting to the Chancellor of UCSF, the Dean is the Chief Executive Officer of the School of Dentistry and is responsible for providing leadership and direction in meeting the research, educational, and service missions of the school as well as the overall management of the school and its programs. The Dean serves on the Chancellor's cabinet of senior officers and represents the school both within the university and to external constituencies.

**Qualifications:** Applicants must be professionally qualified in dentistry or have earned a doctorate in a health science field related to dentistry, have had administrative, teaching and research experience commensurate with appointment at the tenured professorial level and present evidence of administrative ability and leadership.

**Position Open:** July 1, 1994. To ensure full consideration, letters of application should be received by February 15, 1994. Send nominations or letters of application with complete curriculum vitae and bibliography to Search Committee c/o Jeanne Coombs, Chancellor's Office, University of California, San Francisco, San Francisco, CA 94143-0402. (FAX 415-476-9634)

EOE/AA/MFDV

## Research Scientist Cambridge, MA

**Nissan** has established its new **Cambridge Basic Research** facility in **Cambridge, MA**. This facility is engaged in basic science studies of "the driving experience", especially factors that might improve driving skills and comfort as they relate to driving safety.

Problems of special interest include cognitive loads, attention and search, optical flow field assessment, navigation, early recognition of dangerous situations, and strategies for improving driver and pedestrian safety. The lab has a close working relationship with faculty at MIT and Harvard, and houses a variety of experimental facilities, including several Graphics workstations.

Temporary assignments will be for 2-3 years, renewable. Ph.D. required. Level of appointment is open. **Nissan Research & Development, Inc.** is the North American Development arm of Nissan Motor Co., Ltd. Please forward resume, representative reprints, and the names of 3 references to our Cambridge Basic Research laboratory by 1 March 1994:

**Nissan Cambridge Basic Research, 4 Cambridge Center, Cambridge, MA 02142.** Equal Opportunity Employer.





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## Research Scientist III/IV

This position will carry out research in the area of opioid-receptors. Position will be filled at the Research Scientist III or Research scientist IV level. The level of responsibility to be assigned will depend on the individual applicant's background and experience level.

**Research Scientist III:** Candidates need a B.S. in the Biological Sciences plus 6 years of experience in *in vivo* pharmacology OR an M.S. in the Biological Sciences plus 4 years of experience in *in vivo* pharmacology OR a Ph.D. in the Biological Sciences OR Pharmacology OR an M.D.

**Research Scientist IV:** Candidates need a B.S. in the Biological Sciences plus 7 years of experience in *in vivo* pharmacology OR an M.S. in the Biological Sciences plus 5 years of experience in *in vivo* pharmacology OR a Ph.D. in the Biological Sciences OR Pharmacology plus 1 year of experience in *in vivo* pharmacology OR an M.D. plus 1 year of experience in Neuropharmacology and receptor biology.

Candidates selected for an interview at either level will take an on-site Scientific writing assessment. Other factors to be considered include experience in opioid and behavioral pharmacology.

At Burroughs Wellcome Co., you will enjoy a compensation and benefits package that is among the best in the pharmaceutical industry, along with the advantages of being part of an innovative pharmaceutical leader. Please send your resume, indicating REQ. #65309-29 in your cover letter, by January 18, 1994, to: Burroughs Wellcome Co., Human Resources-RD&M, 3030 Cornwallis Road, Research Triangle Park, NC 27709.

For information on other job opportunities with Burroughs Wellcome Co., call our Job Information Line at (919) 315-8347.



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**P**

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## S R . RESEARCH ASSOCIATE

### Homologous Recombination in Maize (Job # 1362-E-Jorgensen)

We are looking for a highly motivated individual to join a group working on site-specific integration and gene targeting in maize. This position will be responsible for engineering appropriate expression of heterologous proteins in maize and for isolating maize genes of interest. Support in the areas of transformation and vector construction will be available, and the successful candidate will interact with other researchers who have expertise in protein biochemistry and molecular biology. **EDUCATION/EXPERIENCE:** MS degree, in molecular cell biology or equivalent experience plus 4 years directly related lab experience in gene expression and isolation; or 6 years directly related experience in addition to BS degree. Direct experience in molecular techniques such as vector construction, oligonucleotide mutagenesis, gene isolation by PCR, cDNA library screening, Northern and Western blots, familiarity with computers and DNA sequence analysis software, and good communication skills are required. Familiarity with either protein expression techniques (e.g. *in vitro* or in *E. coli*) or immunolocalization methods in plant cells would also be desirable.

## RESEARCH ASSOCIATES

### Transgenic Plant Analysis (Job # 1388-A-Meyer)

This position will join a lab which is responsible for analyzing primary transformants and their progeny. The successful candidate will be interacting with several research groups and will participate in the planning as well as implementation of experiments. Required skills include proficiency in nucleic acid manipulation and analysis (including Southern blot, PCR and RNA analysis). **EDUCATION/EXPERIENCE:** BS degree or equivalent in molecular biology, biochemistry or a related field, plus 2 years relevant experience; or MS degree. Excellent communication skills are essential. Knowledge of computers and statistical analyses are preferred.

### Protein Biochemistry (Job # 1374-A-Blacketer)

We seek two Research Associates in the area of protein biochemistry. The focus of the positions is the isolation, purification and characterization of enzymes involved in carbohydrate metabolism. The successful applicants will have experience with cell fractionation techniques and protein purification using the FPLC. You will also devise and execute the experiments necessary for characterization, including kinetic analyses, of the isolated proteins. Experience with expression vector construction and *E. coli* expression systems is a plus, however, it is not a prerequisite. **EDUCATION/EXPERIENCE:** MS degree or equivalent in biochemical sciences or a BS degree and 2+ years of directly related experience.



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Pioneer Hi-Bred offers excellent compensation, benefits and career growth potential, as well as excellent facilities and a highly cooperative research environment. Please send TWO resumes by January 14, 1994 indicating the job # in your correspondence and on the envelope, to: Pioneer Hi-Bred International, Inc., Department of Biotechnology Research, PO Box 1004/Pony Stop 35, Johnston, IA 50131-1004. We are an Equal Opportunity Employer.

## POSITIONS OPEN

### POSTDOCTORAL POSITION Emory University School of Medicine

NIH-funded position to study signal transduction and calcium regulation in smooth muscle using electrophysiological and fluorescence imaging techniques. Candidates having experience with either technique are strongly encouraged to apply. Send curriculum vitae and names of three references to: **Dr. Peter L. Becker, Department of Physiology, 1648 Pierce Drive, Emory University, Atlanta, GA 30322.** Emory University is an Equal Employment Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITION Available After January 1, 1994

The Lyme disease research group at the Centers for Disease Control (CDC) in Ft. Collins, Colorado, has a postdoctoral research position available for the study of the immune response to *B. burgdorferi* in a model using natural tick transmission of infection to mice. Experience in basic immunology and molecular biology techniques is required and knowledge of vector biology and/or microbial pathogenesis is desirable. The position is funded by a Collaborative Research and Development Agreement between CDC and SmithKline Beecham Animal Health. Salary is commensurate with experience. Please send curriculum vitae and three letters of reference to: **Dr. William T. Golde, Division of Vector-Borne Infectious Diseases, CDC, P.O. Box 2087, Ft. Collins, CO 80522.**

**POSTDOCTORAL POSITION** available immediately to study structure-function relationships for human CYP2C hemoproteins. Practical experience with site-directed mutagenesis and expression of cytochrome P450 in heterologous systems is a necessary prerequisite. Salary begins at \$22,000. Applicants should hold a Ph.D. degree in Biochemistry, Molecular Biology or a related field and should submit curriculum vitae and three letters of recommendation to: **Dr. Allan E. Rettie, Department of Medicinal Chemistry, BG-20, University of Washington, Seattle, WA 98195.** Inquiries can be made at (206) 685-0615. Equal Opportunity Employer.

**POSTDOCTORAL FELLOW.** Position available for two years to study the role of vitrified sugars in desiccation tolerance. The project focuses on effects of vitrified sugars on membranes and lipids. Send curriculum vitae and names of three referees by January 21, 1994, to: **Dr. K. L. Koster, Department of Biology, University of South Dakota, 414 East Clark Street, Vermillion, SD 57069.** FAX: (605) 677-6557. Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL FELLOW WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

Position available for a postdoctoral fellow in human immunology in the laboratory of **Dr. T. Mohanakumar** in the Department of Surgery. Research interests include: immunoregulation in human renal and hepatic transplantation; structure-function relationship of non-MHC antigens of human kidneys and endothelial cells; and biochemical and molecular characterization of lymphoid antigens and receptors. Experience in cellular immunology and/or molecular biology is desirable. U.S. citizenship or permanent residency is required. Send résumé, a brief statement of research interests and names of references to: **Dr. T. Mohanakumar, Washington University School of Medicine, Departments of Surgery and Pathology, Box 8109-4449 CSRB, 4939 Children's Place, St. Louis, MO 63110.**

**GLOBAL CHANGE POSTDOCTORAL FELLOWSHIPS** are available from the Department of Energy for research related to the U.S. Global Change Research Program carried out by DOE and the Committee on Earth and Environmental Sciences. Areas include climate modeling and prediction, global water and energy cycles, global carbon cycle, and ecological systems and population dynamics. Stipend is \$35,000. A doctoral degree received after May 31, 1991, is required as is U.S. citizenship or PRA status. Deadline is February 15, 1994. Contact: **Global Change Postdoctoral Fellowships, Science/Engineering Education Division, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831-0117; Telephone: (615) 576-9934.**

## POSITIONS OPEN

### Boston University College of Engineering Department of Biomedical Engineering POSTDOCTORAL SCIENTIST, MOLECULAR BIOPHYSICS

The Laboratory for Biomolecular Engineering seeks an outstanding researcher to play a leading role in our computational programs in drug and vaccine design. The Laboratory is part of a group of approximately 60 researchers in the general area of biotechnology, and is housed in new and well-equipped facilities. Minimal qualifications are a strong background in chemistry and computation, and a serious interest in the biological sciences. Applicants should send curriculum vitae and the names and addresses of three references to: **Charles DeLisi, College of Engineering, Boston University, 44 Cummington Street, Boston, MA 02215.**

### POSTDOCTORAL FELLOWSHIPS in Signal Transduction and Molecular Virology Waksman Institute, Rutgers University

A postdoctoral research position is available immediately to study, at the biochemical and molecular levels, signal transduction during induction of disease resistance and synthesis of pathogenesis-related proteins following viral infection of tobacco and *Arabidopsis*. Particular emphasis is being placed on defining the salicylic acid signal transduction pathway(s) (*Plant Cell* 4:359, 1992; *Plant J.* 2:643, 1992; *Plant J.* 4:593, 1993) and characterization of the salicylic acid receptor (*PNAS* 90:9533, 1993; *Science*, this issue). A second postdoctoral position is available to study the prototypic eukaryotic single strand DNA binding protein (DBP) encoded by human adenoviruses. The multifunctional DBP plays several roles in viral DNA replication and regulation of viral early and late gene expression. An opportunity exists to contribute to structure-function analyses of DBP using a combination of molecular genetic, cell biological and biochemical approaches (*J. Biol. Chem.* 267:17,872, 1992; *Virology* 196:269, 1993).

Applicants should have research experience in the area of molecular biology and/or biochemistry. Send a cover letter detailing experience, curriculum vitae, and three letters of recommendation to: **Dr. Daniel Klessig, Waksman Institute, Rutgers University, P.O. Box 759, Piscataway, NJ 08855.**

Rutgers University is an Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL FELLOWSHIP

At the Division of Experimental Oncology, the Karolinska Institute. The project focuses on cloning of new tumor suppressor genes in leukemic malignancies. A background in molecular biology is required and experience in cloning techniques is an advantage. The present position is for one to two years. It is funded by the Swedish Cancer Society and is available immediately. Applications including curriculum vitae and names of two referees should be sent to: **Dr. Stefan Einhorn, Division of Experimental Oncology, Radiumhemmet, Karolinska Hospital and Institute, S-171 76 STOCKHOLM, SWEDEN.** Telephone: 46 8 729 5513, FAX: 46 8 339031.

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

Program Director: Thomas W. Smith, M.D.

Postdoctoral positions are available in basic and clinical research for U.S. citizens and permanent residents. The primary purpose of the research fellowship is to develop expertise in a specific area of basic or clinical investigation. This work may be pursued with an emphasis on molecular biology, cell biology, physiology, or clinical research. We are particularly interested in applications from qualified minority candidates. Fellows will be under the direct supervision of a program faculty member who shares their interests.

Direct inquiries to:

**Carol Stuart  
Cardiovascular Division  
Brigham and Women's Hospital  
75 Francis Street  
Boston, MA 02115**

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## POSITIONS OPEN

### POSTDOCTORAL FELLOWSHIPS

Two postdoctoral positions available to study the molecular mechanisms that regulate isoprenoids and sterols. Candidates must have a strong background in molecular biology and an interest in developmental biology. Send curriculum vitae and names of three references to: **Dr. I. Shechter, Eleanor Roosevelt Institute, 1899 Gaylord Street, Denver, CO 80206.** Equal Opportunity/Affirmative Action Employer. Minorities and women encouraged to apply.

### RESEARCH POSITION IN PHARMACOLOGY

The Department of Pharmacology at Baylor College of Medicine is seeking applications for a **RESEARCH ASSOCIATE** or **POSTDOCTORAL FELLOW** with experience in modern techniques of molecular biology and/or biochemistry to undertake a research project on localization of nucleolar proteins. The initial stipend is dependent on training and experience. The Department of Pharmacology has a long-standing program in molecular biology, protein chemistry, RNA structure and function. Studies on the mechanisms are in progress. Applications should be sent to: **Harris Busch, M.D., Ph.D., Chairman, Department of Pharmacology, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030.** Baylor College of Medicine is an Equal Opportunity Employer.

### POSTDOCTORAL RESEARCHERS

The Department of Physiology and Biophysics, University of California, Irvine, is developing a postdoctoral candidate pool for possible openings during the remainder of the 1993-1994 fiscal year. Openings may be available in the following research areas: ion channels in lipid bilayers; physical chemistry of membranes; mechanisms and regulations of steroid hormone biosynthesis; exercise physiology; molecular properties of ion channels in excitable cell membranes; molecular and electrophysiological aspects of lymphocyte activation. Salary is in accordance with current NIH/NSF postdoctoral stipends which are based upon qualifications and years of prior, relevant postdoctoral experience. Minorities and women are encouraged to apply. Send curriculum vitae and names of three references to: **Michael D. Cahalan, Ph.D., Chairman, Department of Physiology and Biophysics, University of California, Irvine, Irvine, CA 92717.** The University of Irvine, California, is an Affirmative Action/Equal Opportunity Employer.

### FUNGUS MOLECULAR BIOLOGY

The USDA Agricultural Research Service is seeking to fill a two-year **POSTDOCTORAL RESEARCH ASSOCIATE** position. The successful candidate will study the cellular and molecular biology of insect pathogenic fungi as part of a team whose goals include the development of fungi for pest insect control. Work will involve (1) selection of fungus strains with improved tolerance for environmental conditions, (2) determination of mechanisms of virulence, and (3) development of molecular markers as tools for related field studies. Ph.D. in Mycology, Molecular Biology, Plant or Insect Pathology, Microbiology, or related field. Salary range \$33,623 to \$40,298 per year. Position open until filled. For further information contact: **Dr. John D. Vandenberg, USDA-ARS, U.S. Plant, Soil & Nutrition Laboratory, Tower Road, Ithaca, NY 14853.** Telephone: 607-255-2456. USDA Agricultural Research Service is an Equal Opportunity Employer.

**RESEARCH ASSOCIATE, M.D.** or equivalent degree with 3 years of training in naval or diving medicine. 5 years of experience in diving research and medicine. Publications in scientific journals and presentations at scientific meetings. Will develop software and use to collect and analyze epidemiological data relating to recreational diving accidents from both national and international sources, develop and assist in research programs to further diving safety based on the analysis of the epidemiological data, brief human subjects on the risks and their responses to experimental dives, perform statistical analysis of pressure profile and dive data to assess the risks and associated factors from diving or altitude exposures. Salary \$30,000 per year, 40 hours. 8:30 a.m. to 5:00 p.m. Apply: **Employment Security Commission, 1105 Briggs Avenue, Durham, NC 27703** or your nearest job service office. Refer to Job Order # **NC3030596, DOT Code 090 227-010.** State social security number. If not U.S. citizen, state basis for work authorization in the United States.



## Assistant/Associate Professor Position

Assistant/Associate Professor tenure-track/tenured position is open in the College of Pharmacy. A Ph.D. in pharmaceutical chemistry, pharmaceuticals, medicinal chemistry or related discipline with at least one year postdoctoral experience is required. The successful applicant will be responsible for teaching pharmaceutical analysis to pharmacy students in the professional degree program. Graduate level instruction will also be required. The development of a strong, independent research program that is compatible with the research interests of the faculty at the College of Pharmacy is essential.

Applications should include a current curriculum vitae, description of research interests, the names of at least three references and should be directed to Dr. Henry Mosberg. Applications completed by February 28, 1994, will receive preference in consideration.

Henry I. Mosberg, Ph.D.  
University of Michigan  
College of Pharmacy  
428 Church Street  
Ann Arbor, MI 48109-1065  
(313) 764-7144

The University of Michigan is a non-discriminatory, Affirmative Action employer.



## Assistant/Associate Professor Department of Biochemistry Louisiana State University

The Department of Biochemistry at Louisiana State University is seeking an anticipated Assistant/Associate Professor position (tenure track). Candidates must have a Ph.D. in biochemistry or closely related discipline and a strong record of postdoctoral research experience in modern enzymology, enzyme mechanisms and protein chemistry. Preference will be given to a protein X-ray crystallographer, who would develop and utilize an X-ray diffraction facility at the LSU CAMD synchrotron facility. The candidate is expected to establish a vigorous independent research program and participate in teaching at both the graduate and undergraduate level. The department has excellent facilities for studies on enzymes and proteins. The university's new synchrotron facility provides intense X-rays up to 10 keV, and will become equipped for X-ray diffraction and EXAFS capability. This facility affords a superb opportunity for structural biochemistry, a priority area for growth at LSU. Send curriculum vitae, description of current and proposed research programs and names and addresses of three references to:

Search Committee, Department of Biochemistry  
Room 322, Choppin Hall  
Louisiana State University  
Baton Rouge LA 70803-1806  
Phone: (504) 388-1556; Fax: (504) 388-5321

Application deadline: February 15, 1994

An Affirmative Action/Equal Opportunity Employer

## THE NATIONAL RESEARCH COUNCIL announces

### Postdoctoral & Senior Research Associateship Awards for Filovirus Research

Awards sponsored by the National Research Council are available at the U.S. Army Medical Research Institute of Infectious Diseases. Applications are invited from individuals interested in pursuing molecular approaches to understanding pathogenic mechanisms of Marburg and/or Ebola virus infection. Research opportunities include the use of mammalian cell expression systems to study the role of individual proteins in infection and immunity, and the characterization of viral epitopes recognized by cellular and/or humoral immune responses using animal model systems. Stipends begin at \$32,400 per annum and are appropriately higher for applicants with greater than 5 years experience. Requirements: Ph.D. or equivalent. U.S. citizenship preferred; experience in animal virology and/or molecular pathogenesis would be advantageous. Awards are for 1 year with possible renewal for up to 3 years.

#### FOR FURTHER INFORMATION CONTACT:

Dr. Kevin Anderson (301) 698-7462 or  
Dr. Peter Jahrling (301) 619-2772

MAILING ADDRESS: Virology Division, USAMRIID  
Bldg. 1425, Ft. Detrick, Frederick, MD 21702-50011  
FAX: (301) 619-2439 or 619-4625

Applications, submitted directly to the NRC, are accepted on a continuous basis throughout the year. Those postmarked by January 15 will be reviewed in February; by April 15, in June; and by August 15, in October.

For application materials contact:

THE ASSOCIATESHIP PROGRAMS (TJ 2094/UD)



NATIONAL  
RESEARCH COUNCIL  
2101 Constitution Avenue, NW  
Washington, DC 20418  
FAX: (202) 334-2759

## GRADUATE RESEARCH FELLOWSHIPS TEXAS TECH UNIVERSITY

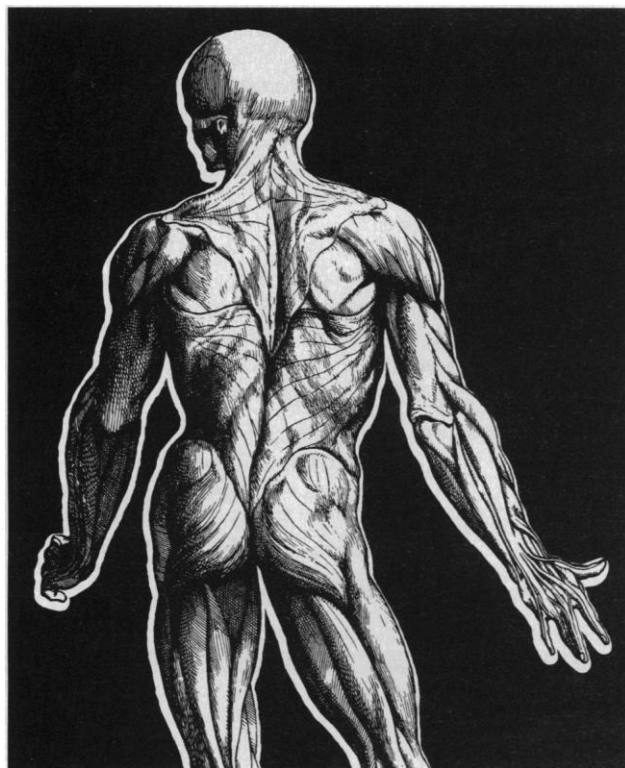
Graduate research fellowships are available to support superior Ph.D. candidates interested in biochemistry, cell biology, molecular biology, microbiology, physiology and genetics through the Institute for Biotechnology at Texas Tech University. The Institute has over fifty faculty members mainly from the Department of Biological Sciences, and Department of Chemistry and Biochemistry. Faculty research interests include regulation of cell wall synthesis, plant responses to environmental stresses, regulation of gene expression, molecular markers and genome mapping, plant tissue culture and transformation systems, evolutionary genetics, cytogenetics, microbial genetics, mechanisms, of photosynthesis, and structure-function relationship in proteins and enzymes in bacteria and plants. Excellent field, greenhouse, growth chamber, and laboratory facilities are available for various aspects of biochemical, cellular, and molecular investigations. A modern protein and DNA instrumentation core facility funded by NSF, an electron microscopy laboratory, and antibody productions facilities are available to support the research programs. The graduate fellowship is a one year \$15,000 stipend for the academic year from September 1, 1994 to August 31, 1995. Interested students should submit a graduate admission application, a statement of research interests (1-2 pages), a resume, official college transcripts, GRE scores, and TOEFL scores (foreign students). We would also request that foreign students have their registrar send us a certified copy of your GPA calculated on a 4.0 scale. All application materials must be received no later than March 1, 1994 for awards beginning in fall 1994. Please submit all application materials and have three reference letters sent to: Dr. David B. Knaff, Institute for Biotechnology, Mail Stop 1163, Texas Tech University, Lubbock, Texas 79409. Telephone: (806) 742-3067. FAX (806) 742-1289.

## DEAN COLLEGE OF SCIENCE SAN JOSE STATE UNIVERSITY

Applications and nominations are invited for the Dean of the College of Science which comprises of the Departments of Biological Sciences, Chemistry, Geology, Mathematics and Computer Science, Meteorology, Physics and Science Education. Qualifications include teaching experience, research productivity and grant development, administrative, fiscal, and personnel management experience, commitment to shared academic governance, establishment of partnerships with scientific, technological, and educational communities, proven ability to develop funding for College projects and programs, sensitivity to student concerns in a multicultural campus. For a detailed announcement, contact Bonnie White at (408) 924-2400 or FAX (408) 924-2410. Candidates should send a letter of application, a curriculum vitae, and a list of five professional references. All inquiries and nominations will be held in confidence. The screening process will start by January 24 for full consideration and remain open until the position is filled with an expected date for appointment on or about July 1994. Submit nominations and applications to: Professor Leon Yengoyan, Chair, Dean of Science Search Committee, Office of the Academic Vice President, San Jose State University, One Washington Square, San Jose, CA 95192-0020. SJSU is an Equal Opportunity/Affirmative Action Employer and committed to diversity.

# SCIENCE

## and HUGO Present



# HUMAN GENOME

1 9 9 4



## THE GENES AND BEYOND

HORIZONS IN MEDICINE,  
BASIC RESEARCH, AND TECHNOLOGY

**OCTOBER 2 - 5, 1994**  
**WASHINGTON, D.C.**

Mark your calendar now! For the fifth year, Science magazine and The Human Genome Organisation (HUGO) are pleased to sponsor the most comprehensive update on the genome project. The meeting will span issues in mapping, development, signal transduction, genome analysis, medical ethics, and policy.

The genome project is having a revolutionary effect on medical diagnosis, biotechnology, and investigations in cell and molecular biology.

- What are the newest advances in technology?
- How can the genome project be applied to understanding fundamental cellular processes?
- What are the latest developments in identifying disease genes?
- What are the social and policy issues facing us in the future?

For answers to these questions and a complete update on the genome project, don't miss this meeting!

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Mail or fax to: Global Trade Productions, Inc., 5203 Leesburg Pike,  
Suite 1313, Falls Church, VA 22041. Fax (703) 671-7695.

Call (703) 671-1400 today or send  
in the coupon for more information.

## Scientific Officer, Arctic Environmental Sciences

The Office of Naval Research is seeking a highly qualified individual to plan and manage a contract research program in the broad field of arctic environmental sciences. The sponsored research is conducted principally at universities and government/industrial laboratories by leading scientists in the field. This is a Civil Service position at the GS-13, 14 or 15 level, (\$47,920 - \$86,589), depending on qualifications.

The individual selected will establish goals for and conceive, organize and direct research and development programs in new areas of arctic environmental sciences including but not limited to dynamics of air-ice-ocean interaction, shelf dynamics, shelf-basin interaction and/or ice acoustic interaction. The incumbent will identify new research opportunities, evaluate and select research proposals for funding, manage funding resources, communicate ONR's interests to the scientific community and represent the program within the Navy and DoD. This position provides the opportunity to have a significant impact on the direction and quality of research in arctic environmental sciences at the national level. Additionally, the opportunity exists to establish or maintain an individual research program at an academic institution or government laboratory.

Applicants must have a Ph.D. or equivalent training in oceanography, or in a physical science area (i.e., physics) related to physical oceanography and at least one year of professional experience OR an equivalent combination of education and experience. To be qualifying, this experience must have been at a level of difficulty and responsibility equivalent to that of the next lower grade level in the Federal Service. In addition, the applicant **MUST** have knowledge and experience in current state-of-the art research involving oceanography or physics which is evidenced by recent and significant publications in scientific literature. Applicants without this knowledge and experience will not be rated qualified for this position. Demonstrated experience in managing a basic and/or applied research program or project is strongly preferred.

Interested persons should send a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers or from the address below), resume (optional); and, a list of publications to: Office of Naval Research, Satellite Human Resources Office, ONR Code 00HR, ATTN: Announcement #93-37 (SC), 800 North Quincy Street, Arlington, VA 22217-5660. The express mail address is: 4105 Wilson Blvd., Room 103, Arlington, VA 22203.

Applications will be accepted through 11 February and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. To request a copy of the vacancy announcement and supplemental forms, call (703) 696-4654; for further information, please call (703)696-4163 or 696-4587 or TDD (telecommunication device for the deaf) 703-696-2681.

**U.S. Citizenship Required**

**An Equal Opportunity Employer**



### Tenure-Track Faculty Positions Department of Genetics

The Department of Genetics of the University of Pennsylvania School of Medicine is undergoing expansion, and plans to make several appointments in each of two areas: 1. Molecular genetics of lower eukaryotes, and 2. Mammalian or developmental genetics, including human molecular genetics. Attractive new laboratory space and other resources are available.

The deadline for applications is April 1, 1994. Send curriculum vitae, including bibliography, statement of research interests, and names and addresses of three references to:



Chair, Search Committee  
Department of Genetics  
School of Medicine  
University of Pennsylvania  
422 Curie Boulevard  
Philadelphia, PA 19104

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THE



### MISSION

Biogen is a dynamic young biotechnology company principally engaged in developing genetically engineered human pharmaceuticals. Now in our 16th year, we are one of the few profitable biotech companies in the U.S. Revenues come from five products -- including Intron (R)A alpha interferon and hepatitis B vaccines and diagnostics -- sold throughout the world by licensees or affiliates. Current research is directed toward the discovery and development of proprietary products to treat inflammation, cardiovascular disease, AIDS and certain cancers.

### Research Scientists - Immunology

The Department of Immunology at Biogen is a dynamic group of investigators exploring basic immunology to discover new therapeutics and immune intervention in disease. We are seeking two scientists to augment our existing strengths in T and B lymphocyte biology. Current needs are for a scientist with experience in the role for cytotoxic T lymphocytes in viral disease models, and for a scientist with a background in B lymphocyte growth and differentiation. Successful candidates should have a PhD or MD degree and postdoctoral work in the area of immunology and demonstrate a record of scientific excellence and creativity.

**Biogen offers what few companies in our industry can - Scientific Challenge, Stability, Profitability, and Growth. In addition, our compensation and benefits package, which includes relocation assistance, is one of the best in the industry, and is designed to attract and retain the finest talent available. If you are one of the best, you have an opportunity to join us now.**

We encourage your immediate response. Please forward your resume, to Human Resources, Biogen, Inc., 14 Cambridge Center, Cambridge, MA 02142; FAX# (617) 252-9595. Biogen is an Equal Opportunity Employer.

BIOGEN

## POSITIONS OPEN

**POSTDOCTORAL RESEARCH FELLOW.** The Cancer Institute of New Jersey, a partnership of UMDNJ-New Jersey's University of the Health Sciences, UMDNJ-Robert Wood Johnson Medical School, Robert Wood Johnson University Hospital and St. Peter's Medical Center, has a position immediately available in the area of calcium mediated signal transduction and multidrug resistance in malignant tissues. Ph.D. in a relevant science, preferably Molecular Pharmacology. Send curriculum vitae and letters of recommendation to: **William Hait, M.D., Ph.D., UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY-Robert Wood Johnson Medical School, 679 Hoes Lane, Piscataway, NJ 08854. UMDNJ is an Affirmative Action/Equal Opportunity Employer, M/F/D/V, and a member of the University Health System of New Jersey.**

**POSTDOCTORAL RESEARCH ASSOCIATE:** A 1-year position is available starting February 1, 1994, on a National Science Foundation-funded project. Strong background in chemistry of soils/sediments/glacial till, PCB chemistry and naturally occurring organics in soils/sediments/glacial tills, as well as a demonstrated ability to conduct independent research are required. Submit curriculum vitae and (3) letters of reference to: **Dr. Shobha K. Bhatia, Department of Civil and Environmental Engineering, 220 Hinds Hall, SYRACUSE UNIVERSITY, Syracuse, NY 13244-1190. Telephone: (315) 443-2311, FAX: (315) 443-1243. Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL RESEARCH POSITION** is available with the Agricultural Research Service, U.S. Department of Agriculture, to work on wheat transformation. Appointment is for two years. Candidate to join a project working to bioengineer wheat storage protein genes and to improve wheat transformation technology. Experience in molecular biology and plant tissue culture desired. Send letter and curriculum vitae to: **Dr. Olin D. Anderson, USDA, ARS, WRRRC, 800 Buchanan Street, Albany, CA 94710. Telephone: (510) 559-5773** by January 15, 1994. Candidate must be able to start by May 1, 1994. Beginning salary of \$36,313 per annum plus benefits. *The USDA is an Equal Opportunity Employer.*

**NASA PLANETARY BIOLOGY INTERNSHIPS.** The Marine Biological Laboratory, Woods Hole, Massachusetts, invites applications from graduate students and seniors accepted to graduate programs for awards of \$2200 plus travel to participate in research at NASA centers and collaborating institutions for approximately 8 weeks. Typical intern programs include: global ecology, remote sensing, microbial ecology, biomineralization, and origin and early evolution of life. Application deadline: 1 March 1994. For information/applications, contact: **Lorraine Olendzenski, Planetary Biology Internship, Department of Biology, University of Massachusetts, Amherst, MA 01003-5810. Email: PBI@botany.umass.edu. An Equal Opportunity/Affirmative Action Institution.**

**CANCER GENETIC EPIDEMIOLOGIST AND GENETIC ASSOCIATE.** Roswell Park Cancer Institute is an NCI-designated Comprehensive Cancer Center. Level of position and programmatic needs are flexible and will depend on experience and research program. Candidates must provide evidence of strong background in genetic epidemiology and familial cancer or in the isolation of such genes once markers are identified. Close productive interaction with both clinical and basic science departments is expected. Candidates must be board certified. Send curriculum vitae to: **Nicholas J. Petrelli, M.D., ROSWELL PARK CANCER INSTITUTE, Elm and Carlton Streets, Buffalo, NY 14263. Affirmative Action/Equal Opportunity Employer, M/F/D/V.**

## CONSERVATION BIOLOGIST TANZANIA

University of Dar es Salaam, with support from Global Environment Facility, invites applications at postdoctoral level. Post involves teaching at under- and postgraduate levels plus research. Applicants need field and teaching experience, preferably in Africa. Appointee is eligible for local salary and benefits, return air fares for family and generous tax-free foreign currency allowance. Applications with full curriculum vitae and details of referees to: **Chief Academic Officer, University Dar es Salaam, Box 35091, Dar es Salaam, Tanzania within 1 month.** Further details from: **Rodgers FAO/GEF, FAX: Dar es Salaam 255-51-32979.**

## POSITIONS OPEN

The Division of Pediatric Hematology/Oncology at New York Medical College is seeking an M.D. or Ph.D. to establish a laboratory research program. Experience in drug resistance (MDR, P-glycoprotein) studies or minimal residual disease in leukemias would be desirable. Please send curriculum vitae and/or inquiries to: **S. Jayabose, M.D. Chief, Pediatric Hematology/Oncology, New York Medical College, Munger Pavilion, Valhalla, NY 10595.**

## MOLECULAR BIOLOGIST

Neurex Corporation is a rapidly growing biopharmaceutical company involved in cloning and expressing ion channels and receptors. We are seeking a highly motivated dynamic Molecular Biologist to join our team. Requires a Ph.D. in Molecular Biology with 2 to 3 years of experience. Preference will be given to candidate with experience in a variety of gene expression techniques. Send résumé to: **BH-SC-1, Neurex Corporation, 3760 Haven Avenue, Menlo Park, CA 94025. Equal Opportunity Employer.**



## RESEARCH ANIMAL SCIENTIST

Ruminant Nutrition Laboratory, Beltsville Agriculture Research Center, Beltsville, Maryland.

ARS is seeking a ruminant nutritionist to work in the area of energy metabolism of dairy and beef cattle with particular focus on visceral organ nutrient hormonal flux and whole body energy use. Candidate must have knowledge of ruminant nutrition, biochemistry and energy metabolism, and skills in experimental design and analysis, measures of energy balance, and surgical techniques for chronic indwelling vascular cannula placement. Ph.D. is desirable. *Must be U.S. citizen.* Salary is commensurate with experience (\$33,623 to \$52,385 per annum). For information on the research program and/or position, contact: **T. S. Rumsey, Research Leader (301/504-9100).** Applications in response to this advertisement should be marked **ARS-D-4-B0014-4** and must be postmarked by January 10, 1994. Mail applications to: **J. Harrington, USDA, ARS, Personnel Division, 6305 Ivy Lane, Room 345, Greenbelt, MD 20770. ARS is an Equal Opportunity Employer; women and minorities are encouraged to apply.**

## PLANT SCIENCE/ ENVIRONMENTAL STUDIES

The Biology Department at Bowdoin College is seeking a Ph.D. plant scientist for a one-year position beginning September 1, 1994. Responsibilities will include teaching a laboratory course in botany/plant science and an interdisciplinary introductory course in environmental studies. We will expect the successful candidate to direct upper-level independent studies students in biology and/or environmental studies. Evidence of an environmental perspective in teaching and research will be an advantage. Bowdoin is a highly selective coeducational liberal arts institution of approximately 1500 students located on the coast of Maine. Application materials must be received by January 31, 1994. Send résumé and three letters of recommendation to: **Plant Science Search Committee, Biology Department, Bowdoin College, Brunswick, ME 04011. Bowdoin College is committed to Equal Opportunity through Affirmative Action. Women and members of minority groups are urged to apply and invited to identify themselves as such.**

## GIS SPECIALIST

World Wildlife Fund-US (WWF) seeks a GIS specialist for its Conservation Science Program. Responsibilities: serve as principal GIS resource person for WWF technical staff; supervise and manage the GIS platform, software, and databases; develop and implement training programs in GIS; and explore innovative uses for GIS in conservation. Requires: advanced degree, preferably in a natural resource or GIS-related field; technical proficiency with Hewlett-Packard UNIX workstation and Arc/Info software; three years in the use and management of relational databases and GIS; and willingness to train staff and travel. Please forward cover letter, résumé, and the names, addresses, telephone and FAX numbers of three references to: **WWF, Human Resources Department, 371E, 1250 24th Street, NW, Washington, D.C. 20037.**

## POSITIONS OPEN

**MICROBIAL PHYSIOLOGIST** (Groton, Connecticut). As a Microbial Physiologist in the Bioprocess Research Group, to be responsible for the research and development aimed at improving the fermentation of a number of drug candidates used in human and animal health, food and industrial applications, by applying the principles of microbial physiology. Efforts are directed at culture improvement using classical mutagenesis and media alteration, using reverse genetics as a tool for culture improvement, and implementing high throughput screening methodologies to increase the biosynthesis of pharmaceutically important agents for animal and human health. Requirements: Ph.D. degree in Biochemistry, Microbial Physiology, Pharmacology or Microbiology; 1 year of experience in job offered or 1 year of experience as Graduate Research Assistant; the related experience must have included secondary metabolic research and running fermentors (up to 14L) and carrying out protein purifications using FPLC. Forty hours per week; salary: \$63,800 per year. Send résumés to: **Attention Job Order #3123568, Operational Support Unit, 2nd Floor, Connecticut Department of Labor, 200 Folly Brook Boulevard, Wethersfield, CT 06109.**

**SENIOR RESEARCH SCIENTIST** (Groton, Connecticut). Responsible for contributing to the discovery of potential new therapies for inflammatory diseases which represent significant clinical problems on a worldwide basis. Develop screening assay systems to discover novel anti-inflammatory agents effective against rheumatoid and osteoarthritis. Develop novel assay systems for measuring cytokine production and cartilage degradation in laboratory animals. To work in close collaboration with a staff of medicinal chemists who are involved in the design, preparation and improvement of new drugs. Requirements: Ph.D. degree in Pharmacology or equivalent; 1 year of experience in job offered or 1 year of experience as Graduate Research Assistant, Pharmacology; the related experience must include the use of *in vitro* and *in vivo* models to develop antiarthritic drugs. Forty hours per week; salary: \$79,400 per year. Send résumés to: **Attention Job Order #3123553, Operational Support Unit, 2nd Floor, Connecticut Department of Labor, 200 Folly Brook Boulevard, Wethersfield, CT 06109.**

## TECHNOLOGY LIAISON

The Edison BioTechnology Center is seeking a Ph.D. to be a Technology Liaison with the University of Cincinnati to identify biotech/biomed technologies with commercial potential and assist in their transfer to industry. Requirements include Ph.D. in cutting-edge science, technology assessment experience, and strong communication skills. Biotech start-up experience and understanding of intellectual property and licensing issues are preferred. Submit résumés by January 15, 1994, to: **Edison BioTechnology Center, 2055 Reading Road—Suite 420, Cincinnati, OH 45202.**

Here at Chiron, we are on the leading edge of biotechnology research and scientific advancement, producing an array of therapeutic and diagnostic tools to advance potential cures for Cancer and serious infectious diseases. We are currently seeking the following individual:

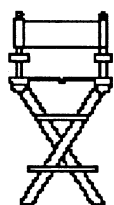
## SCIENTIST

Initial responsibilities include basic and applied research on the inhibition of proteases for the treatment of human diseases. You will collaborate with a multidisciplinary team to purify and characterize native and recombinant proteases, study their role in protein processing and identify lead inhibitory compounds through screening and structure-activity relationships. A Ph.D. or equivalent experience in Biochemistry or a related field is required. Postdoctoral experience is preferred.

If you are a dedicated, flexible researcher interested in a career-track position, please send your résumé to: **Chiron Corporation, Human Resources, Box #93-0332, 4560 Horton Street, Emeryville, CA 94608. We are an Equal Opportunity Employer.**

**Chiron Corporation**

# 1994 Recruitment Advertising Sneak Preview:



## **West Coast Biotechnology/ Pharmaceutical Careers**

**11 February**

Bonus distribution:  
**Biotechnology/Pharmaceutical  
Job Fairs**

11-12 February, New Jersey  
25-26 March, La Jolla, CA

## **East Coast Biotechnology/ Pharmaceutical Careers**

**1 April**

Bonus Distribution:  
**Biotechnology/Pharmaceutical  
Job Fairs**

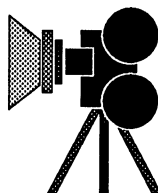
22-23 April, Cambridge, MA  
13-14 May, Chevy Chase, MD  
**Experimental Biology (FASEB)**  
24-28 April, Anaheim

## **Women In Science**

**11 March**

Bonus distribution:  
**Biotechnology/Pharmaceutical  
Job Fairs**

25-26 March, La Jolla, CA  
22-23 April, Cambridge, MA



## **B.S./M.S. Careers**

**26 August**

Bonus distribution:  
**Top 50 Universities in the U.S.--  
Chemistry and Biology Depts.**

For recruitment advertising deadlines  
or reservations call Janis Crowley at  
212-496-7704.

In Europe,  
contact Annemarie Vis  
on 44-223-302-067.

## **Careers IV**

**23 September**

Bonus distribution:  
**Biotechnology/Pharmaceutical  
Job Fairs**

23-24 September, La Jolla, CA  
30 September, 1 October,  
Cambridge, MA

# SCIENCE



## POSITIONS OPEN

The Department of Biological Sciences announces the following positions for fall 1994:

**TERRESTRIAL ECOLOGIST** (tenure-track) to teach plant, wildlife and general ecology courses, closing date: 15 January 1994.

**INTRODUCTORY BIOLOGY TEACHING** (tenure-track) to organize and teach introductory-level biology courses, closing date: 1 February 1994. Both positions require a Ph.D. and teaching/research experience. For a detailed position description and application requirements, contact: **Dr. Stamford D. Smith, Chair, Department of Biological Sciences, Central Washington University, Ellensburg, WA 98926. Telephone: (509) 963-2731, FAX: (509) 963-3296. CWU is an Equal Opportunity/Affirmative Action Employer.**

## PLANT/SYSTEMS ECOLOGIST Desert Laboratory, University of Arizona

The Desert Laboratory of the University of Arizona invites applications for a tenured/tenure-track faculty position focused on **ecosystem function and management in grasslands and deserts**. Position will utilize the resources of the Desert Laboratory, a research facility with a 90-year legacy in ecological research and monitoring, and the Animas Foundation, an institution established to study the sustainability of grazing in the southwestern United States. The Foundation's primary resource is the Gray Ranch, a 1320-square kilometer tract dedicated to conservation of southwestern ecosystems, maintenance of traditional rural livelihoods, and long-term ecological research. Academic responsibilities, including teaching, can be in Ecology & Evolutionary Biology, Geosciences, or School of Renewable Natural Resources. Send cover letter with names and telephone numbers of 3 references, curriculum vitae, and copies of up to 5 significant papers to: **Dr. Jay Quade, Chair of Search Committee, Desert Laboratory, Department of Geosciences, University of Arizona, Tucson, AZ 85721; Telephone: (602) 621-2579 or 621-4051. Applications will be reviewed beginning February 7, 1994. The University of Arizona is an Equal Opportunity/Affirmative Action Employer. Women and minorities are urged to apply.**

**MARINE/FRESHWATER BIOLOGIST. ASSISTANT PROFESSOR, tenure-track**, beginning August 15, 1994. Responsibilities include undergraduate courses in marine biology, supervision of a 3,000-gallon marine laboratory for undergraduate research, and advising Ph.D. and M.S. students. Active, fundable research program expected. Research area open with preference to individuals who will collaborate with colleagues in established programs in animal physiology or Great Lakes ecology. Submit letter of application, résumé, statement of professional interests, and three letters of recommendation by January 15, 1994, to: **Marine/Freshwater Biology Search Committee, Department of Biological Sciences, Bowling Green State University, Bowling Green, OH 43403. Affirmative Action/Equal Opportunity Employer.**

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