

## Cell Death Study Kit

The Cellular DNA Fragmentation enzyme-linked immunosorbent assay can be used to investigate two common types of cell death. In apoptosis studies, it determines the number of BrdU-labeled fragments in the cytoplasm of affected cells. In cell-mediated toxicity studies, it measures the BrdU-labeled DNA fragments that damaged cells release into the culture supernatant. The simple protocol takes 20 hours less than <sup>51</sup>Cr-release assays, without the hazards of radioactive assays. **Boehringer Mannheim Circle 140.**

## Quartz Microplates

Quartz microplates offer advantages over standard molded plastic, especially with processes involving aggressive chemicals (acids, alkalis, and solvents) and heat. The plates allow measurements to be taken at wavelengths in the ultraviolet region and can be used with inverted microscopes because they meet high optical standards. **Hellma Cells. Circle 141.**

## Nucleic Acid Hybridization

Dynabeads M-280 Streptavidin allows for the efficient coupling of biotinylated nucleic acids for complex hybridization reactions. DNA or RNA bound to the Dynabeads either as a probe or target can be hybridized directly with complementary DNA (cDNA) or RNA sequences in free solution. Sequences of cDNA from long regions of the human genome have been enriched 80,000-fold with this method. For a direct hybridization reaction, biotinylated DNA or RNA is immobilized onto the Dynabeads through the high affinity biotin-streptavidin linkage. The resulting magnetic DNA or RNA affinity beads bind the target with a kinetics similar to that of DNA in free solution.

For indirect hybridization, the Dynabeads M-280 Streptavidin is added directly to the hybridization solution containing the biotinylated probe and target DNA or RNA sequences. Magnetic separation and elution of target nucleic acids is completed in minutes. **Dynal. Circle 142.**

## RNA Isolator

Using RNA Isolator, researchers can obtain purified RNA in less than 1 hour. RNA Isolator comes premixed and can be used to isolate RNA from a wide variety of cells or tissues of human, animal, plant, yeast, or bacterial origin. The patent-pending formulation contains guanidinium thiocyanate and phenol in a monophasic solution. When added to the sample, it lyses cells, denatures proteins, and solubilizes RNA and DNA simultaneously. The addition of chloroform leads to a biphasic solution. The RNA is partitioned to the aqueous phase, and DNA and proteins remain in the organic phenol/chloroform



phase. The purified RNA can then be precipitated with isopropanol. If desired, DNA and proteins can be isolated by precipitation from the organic layer. **Genosys Biotechnologies. 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.

## Electroporation System

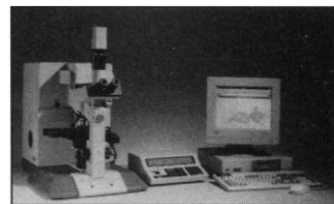
The ECM 600 Electroporation System is for transfecting or transforming cells by rendering a membrane transiently permeable so foreign genes, drugs, or other large molecules can be introduced into the cell by means of pulsed electric fields. The system features the technical advantages of two voltage ranges (2.5 kV and 500 V) for a variety of applications, an additive capacitor bank, resistance timing, and instantaneous monitoring, all within a single unit. The user can switch between electroporation of prokaryotic and eukaryotic cells with the turn of a knob. **BTX. Circle 144.**

## Mutagenesis Kit

The Chameleon double-stranded, site-directed mutagenesis kit allows single- and multiple-base substitution, insertion, and deletion mutations in virtually any double-stranded plasmid, eliminating the need for laborious subcloning steps. The kit's enhanced site-elimination mutagenesis procedure overcomes the limitations of other methods by introducing a new mutated host strain that removes an endonuclease that degrades miniprep DNA, greatly improving the yield and quality of mutated plasmid DNA. **Stratagene. Circle 145.**

## Infrared Microanalysis System

IR $\mu$ s infrared microanalysis system combines advanced optical microscopy and infrared spectroscopy with Windows-based software. The system allows the user to determine the chemical and molecular properties of a wide variety of organic and inorganic materials. Users can analyze



samples as small as the diffraction limit allows (typically 10  $\mu$ m). The system can be used for analyzing the chemical structure of multilayer films, pharmaceuticals, contaminants, biological samples, forensic evidence, and surface coatings. **Spectra-Tech. Circle 146.**

## Literature

*More than a Microplate Reader* is the title of a six-page brochure featuring technical and product information on the SPECTRA-max 250 Microplate Spectrophotometer. The brochure explains the features that allow users to perform a wide variety of assays. **Molecular Devices. Circle 147.**

*TechNotes* is a free newsletter for molecular biologists. Each 16-page issue features two or three technical articles and information on new product releases. Recent articles have dealt with such topics as increasing DNA probe sensitivity, ribonuclease protection for the detection and quantitation of mRNA, quantitating chloramphenicol acetyltransferase expression through mRNA detection, and the simultaneous isolation of RNA and DNA from samples. **Ambion. Circle 148.**

Grocyt is an electronic database of information on the structure, function, and physiology of growth factors and cytokines. **Ludwig Institute for Cancer Research. Circle 149.**

*A Guide to Selection, Care, and Use of Plasticware* includes a chemical resistance chart, best cleaning techniques, a quick reference guide to plastic abbreviations and their meanings, and the best uses of different plastics. **Markson Science. Circle 150.**

# SCIENCE

## PERSONNEL PLACEMENT

### LINE CLASSIFIED ADVERTISEMENTS

**Deadlines:** Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Call for holiday deadlines. Ads must be submitted in writing.

**How to Submit a Classified Ad:** Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training, Search Firms. *Science* cannot provide proofs of typeset line ads.

**Mail, FAX or Email materials to:**  
Science Classified Advertising  
1333 H Street, N.W., Room 814  
Washington, DC 20005  
Telephone: 202-326-6555  
FAX: 202-682-0816  
Internet Email: science\_classifieds@aaas.org

**Rates:** Ads are \$43 per line; \$430 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces. A 3% cash discount is granted to all prepaid ads.

**Estimates:** *Science* will provide a cost estimate for line ads. This is an approximate cost only. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment.

**Ads from Outside the U.S.:** A discount of \$30 will be offered to advertisers making payment in U.S. dollars by checks drawn on U.S. banks. Contact Gordon Clark at +44 223 302 067 (telephone) or +44 223 302 068 (FAX).

**Credit Cards:** *Science* accepts American Express, MasterCard and VISA. Discount does not apply to credit cards.

**Cancellations:** Deadline for cancellation is 10 a.m., Tuesday, 10 days prior to issue date.

### DISPLAY PERSONNEL ADVERTISEMENTS

For rates and info. for fractional display ads call:

Deborah Cummings  
Recruitment Advertising  
Telephone: 202-326-6541  
FAX: 202-682-0816

Janis Crowley  
Recruitment Advertising Manager  
Telephone: 212-496-7704  
FAX: 202-682-0816

Gordon Clark  
European Recruitment Advertising  
Telephone: +44 223 302 067  
FAX: +44 223 302 068

**CONDITIONS:** The AAAS encourages employers to actively recruit and employ underrepresented minority groups. *Science* reserves the right, at its discretion, to edit or decline to publish advertisements submitted to it.

## POSITIONS OPEN

### ASSISTANT, ASSOCIATE OR FULL PROFESSOR Control of Gene Expression in Eukaryotes

The Departments of Genetics and Cell Biology and Biochemistry and Biophysics invite applications for a tenure-track position to be filled at the **ASSISTANT, ASSOCIATE, or FULL PROFESSOR** level to begin August 1995 or later. Senior-level applicants are expected to have, while junior-level applicants are expected to establish, a strong, independent research program in the area of regulation of eukaryotic gene expression. Successful applicants are expected to have, or obtain, extramural research funding. Postdoctoral experience is required. Instructional responsibilities include participation in both graduate- and undergraduate-level courses in molecular genetics and biochemistry in a College that values quality teaching. The appointment will be at least half-time in the Department of Genetics and Cell Biology with the balance in the Department of Biochemistry and Biophysics. Both departments have strong programs in the area of gene expression in prokaryotes and eukaryotes, and the appointee's research is expected to complement one or several of these programs. Screening of applications will begin January 20, 1995, and continue until the position is filled. Applicants should indicate a preference for consideration at the Assistant, Associate or Full Professor level. Applicants should send a letter of application, a curriculum vitae, a statement of current research and long-term research interests, as well as three letters of recommendation to: **Dr. Raymond Reeves, Chair of the Search Committee, Department of Genetics and Cell Biology, Washington State University, Pullman, WA 99164-4234.** *Washington State University is an Equal Opportunity/Affirmative Action Educator and Employer. Members of ethnic minorities, women, Vietnam-era or disabled veterans, persons of disability, and persons age 40 and over are encouraged to apply.*

### BIOLOGY AND SOCIETY Arizona State University

The Department of Zoology invites applications for a tenured **ASSOCIATE or FULL PROFESSORSHIP** beginning fall 1995 from individuals who study relationships between biology and society. The position will involve active research, graduate and undergraduate teaching, and work with the Honors College in development of an interdisciplinary program in Biology and Society. The successful candidate must have a Ph.D. and a strong record that demonstrates commitment to excellence in research and teaching, and warrants a tenured appointment in a biology department.

Preferred: Because we are establishing a program based in biology and coordinated with other departments and centers, we prefer experience with relevant interdisciplinary programs and programmatic development, external funding, basic biological research and teaching, emphasis on social implications of biomedical and/or evolutionary/environmental/conservation sciences.

Applicants must forward a letter of application, curriculum vitae, up to five selected reprints, statements of teaching and research interests, and names and addresses of three references to: **Dr. Jane Maienschein, Department of Zoology, Box 871501, Arizona State University, Tempe, AZ 85287-1501.**

Review of applications will begin January 15, 1995, and continue weekly until the position is filled. Applications for a shared appointment will be considered.

*Arizona State University is an Affirmative Action/Equal Opportunity Employer.*

**EVOLUTIONARY BIOLOGIST and COMPARATIVE PHYSIOLOGIST.** Sonoma State University seeks to hire two broadly trained biologists for tenure-track positions at the **ASSISTANT/ASSOCIATE PROFESSOR** level starting August 1995. Responsibilities include: teaching lower- and upper-division and graduate courses; advising M.A. students; and developing a research program involving students. Required: doctorate (completed or near completion) and a strong commitment to teaching excellence. Preferred: experience with techniques that bridge laboratory and field approaches. Initial application postmark deadline is January 13, 1995. To obtain position opportunity announcement and complete application instructions, contact: **Dr. Chris Kjeldsen, Chair, Department of Biology, Sonoma State University, Rohnert Park, CA 94928.** FAX: 707-664-3012; Email: [Joyce.Francis@sonoma.edu](mailto:Joyce.Francis@sonoma.edu). TDD (for hearing impaired only) 707-664-2958. *Women, minorities, and persons with disabilities are especially encouraged to apply.*

## POSITIONS OPEN

The Biology Department of St. Lawrence University seeks to fill three faculty positions at the **ASSISTANT PROFESSOR** level. Successful applicants will be expected to develop an active research program that will involve undergraduates. Teaching expectations are four courses a year.

**Vertebrate Zoologist** (tenure-track): Field-oriented courses in Biology and in support of our Environmental Studies-Biology combined major. Previous offerings have included Conservation Biology, Ornithology, Vertebrate Natural History, Tropical Ecology, Comparative Vertebrate Morphology.

**Invertebrate Zoologist** (tenure-track): Field-oriented courses in Biology and in support of our Environmental Studies-Biology combined major. Previous offerings have included: Freshwater Biology, Invertebrate Biology, Environmental Biology (non-majors), Entomology, and Marine Biology (summer). The successful candidate will participate in the University's First Year Program prior to being considered for tenure.

**Developmental Geneticist** (term appointment, up to three years). Will teach Genetics and Developmental Biology and will also participate in the University's First Year Program. This program is based on residential colleges and stresses interdisciplinary approach to teaching and learning.

Appointments begin August 1995. Send curriculum vitae, three letters of reference, plus a statement of teaching and research interests by January 10, 1995, to:

**Dr. Karl McKnight  
Biology Department  
St. Lawrence University  
Canton, NY 13617**

*St. Lawrence University is an Affirmative Action/Equal Employment Opportunity Employer. Women, minorities, and persons with disabilities are encouraged to apply.*

### DEPARTMENT OF MICROBIOLOGY AND MOLECULAR GENETICS OKLAHOMA STATE UNIVERSITY

A position at the **ASSISTANT or ASSOCIATE PROFESSOR** level is available for a microbial physiologist in the Department of Microbiology and Molecular Genetics at Oklahoma State University. Applicants must possess a doctorate in microbiology or a related field as well as postdoctoral research experience. Duties of the position will include teaching microbial physiology, and a course in the applicant's specialty. The successful applicant will also be expected to develop an independent research program capable of attracting extramural funding and providing training for graduate students in molecular aspects of microbial physiology. Research areas of particular interest include processes related to cellular motility, bioenergetics, transport, trafficking, or degradation of classes of xenobiotics or pollutants by engineered or thermally stable systems. Applicants should submit a full curriculum vitae, statements of teaching and research interests and philosophy, and the names of three referees to: **Chair, Microbial Physiology Search Committee, Department of Microbiology and Molecular Genetics, 306 Life Sciences East, Oklahoma State University, Stillwater, OK 74078, by February 1, 1995, to be assured full consideration.**

*Oklahoma State University is an Affirmative Action/Equal Employment Opportunity Employer committed to multicultural diversity.*

### ASSISTANT PROFESSOR MICROBIAL ECOLOGY

The Duke University School of the Environment invites applications for a tenure-track position, at the level of **ASSISTANT PROFESSOR**, in microbial ecology. The successful candidate will be expected to develop a nationally recognized, externally funded research program and contribute to the School's graduate-level teaching programs. Specific areas of expertise may include microbial population dynamics; transformation and toxicity of nutrients, metals and organics; rhizosphere dynamics; biodegradation; and trace gas fluxes. Emphasis on research with an application to terrestrial, wetland, and/or aquatic ecosystem management is preferred. Send curriculum vitae, a one to two page summary of your research and teaching plans, and three letters of reference by February 1, 1995, to: **Dr. Daniel D. Richter, Chair, Microbial Ecology Search Committee, School of the Environment, Box 90328, Duke University, Durham, NC 27708-0328.** *Duke University is an Equal Opportunity/Affirmative Action Employer.*



Wellcome

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

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

## Research Scientist IV • REQ. #65918-29

This individual will study the control of the mammalian cell cycle with the aims of discovering novel anticancer therapeutics. Qualified candidates must have a B.S. degree in Cellular/Molecular Biology, Biochemistry or Chemistry PLUS 7 years of related experience **OR** an M.S. degree in Cellular/Molecular Biology, Biochemistry or Chemistry PLUS 5 years of related experience **OR** a Ph.D. in Cellular/Molecular Biology, Biochemistry or Chemistry PLUS 1 year of related Post Doctoral experience **OR** 1 year of relevant work experience. Other factors to be considered are experience in mammalian cell culture, recombinant DNA techniques, protein purification and characterization, and computer literacy.

## Research Scientist VI/VII • REQ. #65917-29

The **Research Scientist VI** will design and conduct experiments that elucidate the biochemical pharmacology of candidate drugs and that thereby expedite drug discovery and development. The successful candidate will be responsible for developing and implementing appropriate methodologies for characterizing the mode of action, pharmacokinetics, absorption, distribution, metabolism and excretion of novel compounds and for providing leadership in a team-oriented environment. Candidates should have achieved an appropriate publication record and should demonstrate good oral/written communication skills. The qualified candidate must have an M.S. in Biochemistry or Pharmacology PLUS 9 years of experience in research focused in Biochemical Pharmacology and Pharmacokinetics **OR** a Ph.D. in Biochemistry or Pharmacology PLUS 6 years of experience in research focused in Biochemical Pharmacology and Pharmacokinetics. Other factors to be considered include knowledge and experience in working under Good Laboratory Practices (GLPs), expertise in cell culture techniques, expertise in the use of computers for complex data analysis, and breadth of scientific knowledge and interests.

The **Research Scientist VII** will design and conduct experiments that elucidate the biochemical pharmacology of candidate drugs and that thereby expedite drug discovery and development. The successful candidate will be responsible for developing and implementing appropriate methodologies for characterizing the mode of action, pharmacokinetics, absorption, distribution, metabolism and excretion of novel compounds and for providing leadership in a team-oriented environment. Candidates should have achieved an appropriate publication record, have demonstrated supervisory capabilities as well as good oral/written communication skills. The qualified candidate must have an M.S. in Biochemistry or Pharmacology PLUS 11 years of experience in research focused in Biochemical Pharmacology and Pharmacokinetics **OR** a Ph.D. in Biochemistry or Pharmacology PLUS 8 years of experience in research focused in Biochemical Pharmacology and Pharmacokinetics. Other factors to be considered include knowledge and experience in working under Good Laboratory Practices (GLPs), expertise in cell culture techniques, expertise in the use of computers for complex data analysis, and breadth of scientific knowledge and interests.

We offer a competitive salary and comprehensive benefits. And our outstanding Research Triangle Park location is one of the most desirable areas of the country in which to work and live. To apply, please send your resume, indicating **REQ number** in your cover letter, by **Tuesday, December 20, 1994**, to: **Burroughs Wellcome Co., Human Resources Department, 3030 Cornwallis Road, Research Triangle Park, NC 27709.**

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



Wellcome

BURROUGHS WELLCOME CO.

An Equal Opportunity Employer

## POSITIONS OPEN

### FACULTY POSITION HUMAN GENE THERAPY

The College of Medicine at the University of Florida invites applicants for a non-tenured/research track faculty position at the **ASSISTANT or ASSOCIATE PROFESSOR** level with an anticipated start date in 1995. This position is available for an individual with an M.D. and/or Ph.D. degree who has a strong interest in commitment to the clinical application of Human Gene Therapy. Salary will be commensurate with experience. The position will involve joint appointments in the General Clinical Research Center (GCRC), the Human Gene Therapy Center, and in the appropriate department in the College of Medicine. The applicant will be director of the Gene Therapy Center Vector Core laboratory and the GCRC Good Manufacturing Practice (GMP) facility. The successful applicant will be expected to: a) coordinate independent research programs in mammalian genetics and/or human gene therapy; b) facilitate the development and administration of a GCRC-based, production-level gene therapy lab; and c) assist in the human application of current and future gene therapy research programs at the Health Sciences Center. Interested applicants are asked to submit a cover letter, curriculum vitae, and names of three references to: **Drs. Peter Stacpoole and Nicholas Muzyczka, Gene Therapy Center, c/o Department of Immunology and Medical Microbiology, Box 100266, University of Florida, Gainesville, FL 32610.** The deadline for applications is January 1, 1995.

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

### TWO TENURE-TRACK FACULTY POSITIONS SOUTHEAST MISSOURI STATE UNIVERSITY

Microbial Physiologist. **ASSISTANT PROFESSOR** beginning August 1995. Ph.D. preferred. Preference given to applicants with university teaching or postdoctoral experience, record of publication and external funding, and active research program in prokaryotic cell function. Teaching responsibilities include general microbiology and microbial physiology. An active research program is expected. Successful candidate may participate in introductory and service courses.

Plant Biologist. **ASSISTANT PROFESSOR**, beginning August 1995. Ph.D. preferred. Preference given to those with university teaching or postdoctoral experience, record of publication and external funding. Responsibilities include developing an active research program in experimental plant biology using molecular techniques. Preference given to those capable of teaching plant anatomy, plant physiology, and general botany. Successful candidate may also participate in introductory and service courses.

To apply for either position, send letter of application, curriculum vitae, transcripts, three reference letters, and statements of teaching philosophy and research interests to: **Dr. C. T. Train, Department of Biology, Southeast Missouri State University, Cape Girardeau, MO 63701** by January 30, 1995. *An Equal Opportunity/Affirmative Action Employer/Minorities/Females.*

### UNIVERSITY OF VIRGINIA Faculty Positions in Pharmacology

Applications are invited for two tenure-track positions in the Department of Pharmacology to be filled at the rank of **ASSISTANT PROFESSOR** or higher. The Department is seeking applicants with significant postdoctoral research experience and research interests relevant to cell signalling using contemporary approaches, including molecular structure, genetic analysis of function in model organisms or differentiated cells, control of transcription, and the organization and function of the cardiovascular, nervous, or immune systems. Successful candidates will be expected to develop or maintain externally funded research programs and to participate in graduate and medical student teaching. The University of Virginia provides a highly interactive scientific community well supported by core facilities, research centers and training programs. Highly competitive salary and start-up packages are available for these positions.

Curriculum vitae, statement of research accomplishments and plans, and three letters of recommendation should be directed to: **Dr. Carl E. Creutz, Chair, Faculty Search Committee, Department of Pharmacology, University of Virginia, Charlottesville, VA 22908.** *The University of Virginia is an Equal Opportunity/Affirmative Action Employer. Applications from women and underrepresented minorities are encouraged.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR DEPARTMENT OF MICROBIOLOGY AND CELL SCIENCE UNIVERSITY OF FLORIDA

The Department of Microbiology and Cell Science, University of Florida, invites applications for a **TENURE-TRACK POSITION** available August 1, 1995. This position is equally divided between teaching and research. It includes start-up funds and a salaried technician. The successful candidate is expected to develop an externally funded research program in the area of microbial physiology, microbial ecology, or bioremediation. Teaching responsibilities will include participation in undergraduate and graduate courses, training of graduate students and other University-related activities. Candidates should have a Ph.D. in Microbiology, Biochemistry, or related science and at least two years of postdoctoral experience. The closing date for this position is March 1, 1995. Applicants should submit a curriculum vitae, summary of research interests, and the names of three referees to: **Lonnie O. Ingram, Department of Microbiology and Cell Science, Museum Road, P.O. Box 11700, University of Florida, Gainesville, FL 32611-0700.** *The University of Florida is an Affirmative Action/Equal Employment Opportunity Employer. Minorities and women are encouraged to apply.*

### ENVIRONMENTAL PLANT BIOLOGIST WEST VIRGINIA UNIVERSITY

The Department of Biology at West Virginia University invites applications for a tenure-track position at the beginning **ASSISTANT PROFESSOR** level, available 16 August 1995. A Ph.D. is required and teaching experience and postdoctoral training are desirable. The successful candidate will be expected to teach an introductory undergraduate course in environmental biology, undergraduate and graduate courses in the candidate's area of expertise, and to establish a strong externally funded research program. We seek a candidate who will complement the skills of our current group of plant biologists, for example, candidates with interests in the areas of conservation biology, plant/animal interactions, environmental plant physiology, and restoration biology. Please submit a curriculum vitae, a statement of teaching and research interests, and provide the names, addresses, and telephone numbers of four referees to the **Environmental Biology Search Committee, P.O. Box 6057, Department of Biology, West Virginia University, Morgantown, WV 26506-6057.** Review of applications will begin January 15, 1995. *West Virginia University is an Equal Opportunity Employer. Women and minorities are strongly encouraged to apply.*

Biology: Entry-level, full-time, tenure-track **ASSISTANT PROFESSOR**. Required qualifications: Ph.D. in biological sciences with broad training in invertebrate biology, promise of excellence in teaching and scholarly activity; interest in candidates able to contribute to the University's interdisciplinary studies program. Duties: teach two courses per quarter to include: introductory and invertebrate biology and one or more of the following—biophysics, development, endocrinology, or parasitology; usual scholarly activity and service. Research involving undergraduates is encouraged. Review of applications will begin January 13, 1995, and will continue until the position is filled. Send letter of application, curriculum vitae, statements of teaching philosophy and professional interests, and arrange to have official graduate transcript and three confidential reference letters sent to: **Thomas A. Huber, Chair, Biology Department, College of Liberal Arts, Mercer University, Macon, GA 31207.** Telephone: 912-752-2714. The College of Liberal Arts is a selective residential college and the core of Mercer University, which founds upon its Baptist heritage an academic program distinguished for its rigor and its commitment to free enquiry. *Mercer University is an Equal Opportunity Employer/Affirmative Action Employer that actively encourages applications from women and minorities.*

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

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

## POSITIONS OPEN

### ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology, College of Veterinary Medicine at Cornell University, is seeking applications for a tenure-track position of **ASSISTANT PROFESSOR** of Physiology. Applicants must have a Ph.D., D.V.M. or M.D., or equivalent, with appropriate postdoctoral training. The successful candidate is expected to develop a strong, externally funded research program in reproductive physiology. Individuals whose research interests complement existing programs in ovarian function and early and late pregnancy are particularly encouraged to apply. Extensive facilities exist within the College and the Division of Biological Sciences to support molecular, cellular and systems-based approaches to reproductive physiology. The appointee will be expected to contribute to graduate education through the Graduate Field of Physiology and will participate in the problem-based learning curriculum for veterinary students.

Send letter of interest, brief statement of research interests, curriculum vitae and the names of three references to: **Dr. Robert F. Gilmour, Jr., Department of Physiology, T8 023B VRT, Cornell University, Ithaca, NY 14853-6401 USA.** Applications should be received by January 16, 1995. *Women and minority candidates are strongly encouraged to apply.*

### POPULATION ECOLOGY AND MODELING UNIVERSITY OF WYOMING

Tenure-track position for **ASSISTANT PROFESSOR** in vertebrate population ecology and ecological modeling. We seek applicants with ability to integrate organismal, population, and community processes across landscapes and/or levels of organization, and to relate such issues to wildlife and fisheries management. Experience with spatial analyses in computer simulations is desirable. The successful candidate will be expected to develop a vigorous program of graduate research; to teach undergraduate and graduate courses such as wildlife management, population ecology, and simulation modeling; and to interact with faculty, students, and local agencies in wildlife and fisheries biology, ecotoxicology, conservation biology, and other environmental disciplines. A Ph.D. is required. Applicants should submit (1) a curriculum vitae, (2) a maximum of three reprints or in press manuscripts, (3) a brief description of research and teaching interests and experience, and (4) three letters of recommendation to: **Population Ecology Search Committee, Department of Zoology and Physiology, University of Wyoming, Laramie, WY 82071-3166.** Telephone: 307-766-4207; FAX: 307-766-5625. Applications must be postmarked by 16 January 1995. *An Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR** (tenure-track) in Genetics/Developmental Biology. Ph.D. required. Successful candidate will: teach genetics, developmental and introductory biology; exhibit enthusiasm and potential for effective undergraduate instruction and research supervision; and demonstrate ability to conduct laboratories using recombinant DNA technology. Should be able to advise and support *Drosophila* labs (or an appropriate alternative model) in general biology. Columbus College is a unit of the University System of Georgia with current enrollment over 5,500. The Department of Biology has 10 faculty and around 200 majors; emphasis on undergraduate research is being expanded. Screening will begin after December 22, 1994; submit statement of interest and philosophy, résumé, and names and addresses of three references to: **George E. Stanton, Chair, Department of Biology, Columbus College, 4225 University Avenue, Columbus, GA 31907-5645.** The biology faculty is committed to recruiting members of underrepresented populations.

Biology. Entry-level **ASSISTANT PROFESSOR**, tenure-track position with major teaching responsibility in human anatomy and physiology. A commitment to teaching at the undergraduate level is essential; research interest in pharmacology, endocrinology, or developmental biology is desired. Ph.D. required; teaching load 15 credit hours per quarter. To begin September 1995. Augusta College is a 5,700 student, senior unit of the University System of Georgia. Application deadline 9 January 1995. Send curriculum vitae, a statement of teaching philosophy, and names, addresses, and telephone numbers of three references to: **Dr. Dianne Snyder, Department of Biology, Augusta College, Augusta, GA 30904-2200.** *Augusta College is an Affirmative Action/Equal Opportunity Institution and specifically invites and encourages applications from women and minorities.*

National Institute on Aging  
National Institutes of Health

### Postdoctoral Positions in Vascular Smooth Muscle Cell Signal Transduction

A postdoctoral position is available for research in one of the following two areas:

1) The regulation of vascular smooth muscle migration with particular emphasis on elucidating the changes in intracellular signalling pathways that account for the increased migration of smooth muscle cells in and from aging animals;

2) The intracellular signalling pathways associated with activation of the cytokine-like receptor(s) for advanced glycation endproducts and the role of these pathways during vessel injury and aging.

Women, minorities and persons with disabilities who meet the eligibility requirements are encouraged to apply. Salary will be commensurate with qualifications and experience.

Mail CV by 12-30-94 to National Institute on Aging, Gerontology Research Center, 4940 Eastern Avenue, Baltimore, MD 21224, Attention: Edward G. Lakatta, M.D., Chief, Laboratory of Cardiovascular Science.

For further information, contact Edward G. Lakatta, M.D. at (410) 558-8202.

NIH is an Equal Opportunity Employer

**THE WISTAR  
INSTITUTE  
invites  
applications  
for an  
Assistant/  
Associate  
Professor:**

Position available in the Albert R. Taxin Center for Brain Tumors at The Wistar Institute. We are looking for a successful Ph.D. or M.D./Ph.D. with a strong interest and track record in molecular genetics or immunology of brain tumors.

The Wistar Institute is an NCI designated Basic Cancer Center and is located on the campus of the University of Pennsylvania. Send curriculum vitae and the names of three references to: **Faculty Search Committee, THE WISTAR INSTITUTE, 36th & Spruce Streets, Philadelphia, PA 19104.**



We are an equal opportunity employer

# Imagine The Possibilities

At Berlex, we've built our reputation on FDA-approved product successes and a proven track record in the pharmaceutical industry. To meet the challenges before us, we are expanding our Oncology team to step up key programs in Oncology Research and Drug Discovery. If you've been looking for the chance to join forces with an internationally recognized pharmaceutical leader, imagine building your career with Berlex in the beautiful San Francisco Bay Area.

## SENIOR SCIENTISTS/SCIENTISTS

### Oncology-Assay Development

Using your skills in molecular biology (DNA, RNA, protein isolation and analysis, vector construction, transfection and immunoprecipitation), cell culture and flow cytometry, you will design assays to help identify novel targets for antitumor drug discovery and profile promising compounds. You will need a Ph.D. in molecular/cell biology with some postdoctoral training and 3-5 years' industry experience in antitumor drug discovery and assay design. Dept. B94-045.

### Oncology-In Vitro/In Vivo Tumor Models

You will develop in vitro and in vivo tumor models and conduct complex therapy and pharmacokinetic studies as part of our new Oncology Research team. Along with a Ph.D. in pharmacology/tumor biology/cell biology and some postdoctoral training, you'll need 2-5 years of tumor model development experience in industry, supporting a variety of mechanism-based antitumor drug discovery programs. Some experience in combination chemotherapy preferred. Dept. B94-046.

### Oncology-Enzyme Inhibitor Studies

Calling on your extensive experience with enzyme purification/kinetics, you will perform for structure/function studies, design enzyme inhibitor screens and characterize inhibitor mechanisms. Your Ph.D. in biochemistry/molecular biology/cell biology should be supported by some postdoctoral training and at least 5 years' industry experience focused on enzyme inhibitor drug discovery and screening strategies. Dept. B94-044.

As a US subsidiary of an international Fortune 500 company, Berlex is proud to offer competitive salaries, a generous benefits package, and one of the world's most desirable locations. To apply, send your resume, referencing the department number corresponding with the position of your interest, to: **BERLEX, HUMAN RESOURCES EMPLOYMENT, 15049 SAN PABLO AVE., RICHMOND, CA 94804-0099. EOE.**

**BERLEX**

THE BEST IS YET TO COME

## POSITIONS OPEN

### EVOLUTIONARY BIOLOGIST

The Department of Biology at East Carolina University invites applications for a tenure-track position at the level of **ASSISTANT PROFESSOR** beginning August 1995. We seek an individual with broad interests who uses molecular techniques in studies of evolution/coevolution, and whose research complements departmental strengths in coastal/estuarine biology and molecular biology. The individual is expected to develop externally funded research, participate in teaching undergraduate genetics and evolution, as well as a graduate level course in his or her specialty. Salary and set-up funds are competitive. Send curriculum vitae, a statement of research and teaching interests, up to three reprints of representative research, and three letters of recommendation to: **Dr. Terry L. West, Search Committee Chair, Department of Biology, East Carolina University, Greenville, NC 27858**. For inquiries, write, call **919-328-6314** or Email: **biwest@ecuvm.cis.ecu.edu**. Application received by 15 February 1995 will be guaranteed consideration. Documentation of identity and employability required at the time of employment. *East Carolina University is an Affirmative Action/Equal Opportunity Employer, accommodates individuals with disabilities, and strongly encourages applications from female and minority candidates.*

**ASSISTANT PROFESSORS:** Tenure-track beginning fall 1995. (1) Biology Education (Doctorate). Person to teach general biology, supervise and teach students in biology education and coordinate laboratories in general biology. Must have secondary school teaching experience, conduct research and seek external funding for innovations in introductory biology courses and inservice programs for secondary teachers. (2) Functional Morphologist (Ph.D.) with a research program in vertebrate functional morphology who will teach comparative anatomy, embryology and general biology. (3) Plant Systematist (Ph.D.) with a research program in vascular plant systematics who will teach plant anatomy, plant systematics, and general biology, and will curate herbaria. Successful candidates for all positions will direct M.S. candidates. Availability of positions contingent upon funding. Deadline for applications January 17, 1995. Send transcripts, curriculum vitae, publications, statement of teaching/research interests and three reference letters to: **Dr. L. M. O'Flaherty, Chair of Biological Sciences, Western Illinois University, Macomb, IL 61455**. *Western Illinois University is an Affirmative Action/Equal Opportunity Employer.*

**CARDIOLOGY FACULTY.** The University of Wisconsin (UW)-Madison, Department of Medicine. Ph.D. and/or M.D. at the rank of **ASSISTANT PROFESSOR**. Candidates with M.D. should be Board-certified/Board-eligible in Cardiology. Research interests in ion channel function and molecular biology of cardiovascular diseases are highly desirable. Responsibilities may include those of attending physician at UW Hospital and Clinics and VA Hospital, participation in teaching programs, and involvement in the interdisciplinary Cardiovascular Research Center.

Send current curriculum vitae to: **Craig T. January, M.D., Ph.D., University of Wisconsin-Madison, Department of Medicine, Cardiology Section, H6/3 Clinical Science Center, 600 Highland Avenue, Madison, WI 53792-3248**.

*UW-Madison is an Equal Employment Opportunity/Affirmative Action Employer.*

### SAINT LOUIS UNIVERSITY

**Evolutionary Ecology. ASSISTANT PROFESSOR.** The Department of Biology, Saint Louis University invites applications for a tenure-track position for the fall semester 1995, pending funding. Ph.D. required, postdoctoral experience preferred. Responsibilities include teaching ecology courses, graduate courses in area of expertise and establishing an externally funded research program. Send résumé, a statement of teaching goals and research interests, selected reprints, and names and telephone numbers of four references to: **Search Committee, Department of Biology, Saint Louis University, St. Louis, MO 63103-2010**. Review of applications will begin January 16, 1995. *Equal Opportunity/Affirmative Action Employer/Minorities/Female/Disabled/Veterans.*

## POSITIONS OPEN

The Biology Department of Widener University invites applications for two tenure-track positions (**ASSISTANT PROFESSOR**) expected to begin September 1995.

**Vertebrate Anatomy/Developmental Biology:** Teaching duties will include Comparative Vertebrate Anatomy and Developmental Biology.

**Phytology-Phycology/Ecotoxicology:** Teaching duties may include General Botany, Plant Physiology and Cell Biology. The successful applicant will contribute to the upper-level curriculum in Environmental Science.

For each position, commitment to excellence in undergraduate teaching is essential. Ph.D. is required. The successful applicants will be expected to develop active research programs involving undergraduate students. Widener is a private comprehensive university in the greater Philadelphia area.

Application, including statement of teaching philosophy and research interests, curriculum vitae, unofficial graduate transcripts and three letters of recommendation should be sent, by January 24, 1995, to: **Professor Kathleen Hornberger (Phytology) or Professor Robert Morris (Developmental Biology), Department of Biology, Widener University, One University Place, Chester, PA 19013**. Queries via Email: **kathleen.l.hornberger@cyber.widener.edu** or **robert.w.morris@cyber.widener.edu**.

### ASSISTANT PROFESSOR MICROBIOLOGY

The Department of Biology at Virginia Tech invites applications for a tenure-track faculty position (nine month) at the rank of **ASSISTANT PROFESSOR** to begin August 1995. It is expected that the applicants will have had postdoctoral experience and a broad background in microbiology. The responsibilities include undergraduate and graduate teaching in microbiology and development of a competitive research program in the individual's field of interest. A letter of application, curriculum vitae, statement of research and teaching goals, and three letters of reference should be received by January 15, 1995 (or until suitable candidates are identified). All correspondence should be directed to: **Joseph O. Falkinham, III, Department of Biology, Virginia Tech, Blacksburg, VA 24061-0406**. Telephone: **703-231-5931**; FAX: **703-231-9307**; Email: **JOEIII@VT.edu**. *Virginia Tech and its Department of Biology have a strong commitment to increasing the diversity of its faculty and, in that spirit, seek a broad spectrum of candidates including women, minorities, and people with disabilities. Individuals with disabilities desiring accommodations in the application process should notify Dr. Falkinham by the application deadline.*

### ASSOCIATE PROFESSORS MICROBIOLOGY

The Department of Microbiology and Immunology, SUNY College of Medicine, Syracuse, invites applications for two full-time, **TENURE-TRACK FACULTY** positions. We particularly seek candidates with strong, active research programs in molecular virology, cancer virology, or gene therapy. Salary, space and start-up funds are competitive with national levels. Teaching duties will be at the doctoral level, and support for graduate students is available. The Department is expanding and is committed to building new programs. Please send curriculum vitae, outline of research interests and names of three references to: **Edward J. Shillitoe, Ph.D., Chairman, Department of Microbiology and Immunology, SUNY College of Medicine, 750 East Adams Street, Syracuse, NY 13210**. Telephone: **315-464-5453**. Deadline for applications is January 15, 1995. *The SUNY Health Science Center at Syracuse is an Equal Opportunity/Affirmative Action Employer.*

**BIOLOGY VISITING INSTRUCTOR:** Teach General Biology for non-science majors, beginning August 1995. Master's in Biology and ability to communicate in English required. Nine-month position with possible renewal annually for up to five years. Send letter of application, curriculum vitae, statement of teaching philosophy, and names, addresses, and telephone numbers of three references to: **Dr. Leonard E. Lundquist, Chair, Division of Biological and Physical Sciences, Lander University, Greenwood, SC 29649**. Review of applications will begin January 2, 1995. Open until filled. *Women and minorities are most strongly encouraged to apply. Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### ASSISTANT PROFESSOR OF BIOLOGY

Manhattanville College, a premier liberal arts institution with a diverse student population, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level for the fall of 1995. Applicants should have experience in one of two areas: 1) Microbiology/Immunology, to teach upper-level courses in Biochemistry, Microbiology and Immunology; or 2) Environment/Ecology to teach courses in both Botany and Zoology and to maintain the Greenhouse and the Herbarium.

All applicants must have a doctoral degree in one of the above areas. In addition to teaching, responsibilities will include: participation in the Introductory Biology Sequence and the Senior Research Program, teaching non-major courses in the area of specialization and serving, as is appropriate, on department and college committees.

Applicants should send their curriculum vitae along with a statement of their educational philosophy and research interests and the names of three references to:

**Dr. Annemarie Bettica  
Chair, Biology Department  
Manhattanville College  
2900 Purchase Street  
Purchase, NY 10577**

*Minority and women applicants are strongly encouraged to apply. Manhattanville College is an Equal Opportunity/Affirmative Action Employer.*

**Academic Sleep Disorders Medicine—Harvard Medical School—New Section on Sleep Disorders/Circadian Medicine at Brigham and Women's Hospital, Boston** seeks two to three basic/clinical faculty (**ASSISTANT/ASSOCIATE PROFESSOR**) within: pathophysiology/treatment of sleep-related breathing disorders; circadian and sleep-related regulation of vigilance and performance; circadian sleep-wake physiology and quantitative analysis of sleep EEG; statistical analysis/modeling of circadian data. Also seeking a Clinical Director, Sleep Disorders Medicine, Brigham and Women's Hospital (Board-certified in Sleep Disorders Medicine). Documented commitment to basic research or clinical research/patient care required. Send statement of interests, full curriculum vitae, names of three references and representative reprints of three to five original reports to: **Dr. Charles Czeisler, Chief, Section on Sleep Disorders/Circadian Medicine, Division of Endocrinology, Department of Medicine, Harvard Medical School/Brigham and Women's Hospital, 221 Longwood Avenue, Boston, MA 02115**. *Brigham and Women's Hospital/Harvard Medical School are Equal Opportunity/Affirmative Action Employers; minorities and women are encouraged to apply.*

### DUKE UNIVERSITY CENTER FOR NONLINEAR AND COMPLEX SYSTEMS

Duke University is seeking to fill a **FACULTY POSITION** associated with the Center for Nonlinear and Complex Systems. The successful candidate will be offered a primary, tenure-track appointment in an existing department, and will also become a member of the center. Possible home departments include but are not limited to mathematics, physics, engineering, geology, biological sciences and environmental sciences. The successful candidate is expected to establish a strong interdisciplinary research program involving theoretical, computational or experimental nonlinear dynamics and/or complex systems. Send applications to: **Professor R. P. Behringer, Department of Physics, Box 90305, Duke University, Durham, NC 27708-0305**. Applications received by February 15, 1995, will be guaranteed consideration. *Duke University is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY FOR EUROPE AND ASIA

The University of Maryland anticipates openings for **FACULTY** to teach undergraduate science courses on U.S. military bases overseas. Requirements include the Ph.D. or two Master's degrees, recent college teaching experience, U.S. citizenship, and competence to teach in two of the following fields: astronomy, biology, chemistry, computer studies, geology, mathematics, and physics. Renewable annual appointments begin August 1995. Frequent travel and the cost of schooling make these positions difficult for those with children. Send résumé to: **Dr. Ralph E. Millis, University of Maryland University College, College Park, MD 20742-1642**. *Affirmative Action/Equal Employment Opportunity.*



The MIT-WHOI Joint Program in Oceanography  
and Applied Ocean Sciences and Engineering

## NSF GRADUATE RESEARCH TRINEESHIPS IN COASTAL OCEAN PROCESSES

The National Science Foundation has awarded five Graduate Research Trineeships in Coastal Ocean Processes to The Massachusetts Institute of Technology-Woods Hole Oceanographic Institution Joint Program in Oceanography and Applied Ocean Sciences and Engineering for interdisciplinary research leading to the Ph.D. or D.Sc. in Oceanography or Ocean Engineering. We invite applications from individuals who are U.S. citizens or permanent residents and who have a Bachelors or Masters degree in a relevant discipline; e.g., Physics, Mathematics, Geology, Geophysics, Chemistry, Biology, Engineering and Oceanography. Women, minorities and individuals with disabilities are strongly encouraged to apply.

Some examples of the many interdisciplinary research areas are: Air-sea interactions in the coastal ocean; Biogeochemistry and effects of chemicals of environmental concern; Wetlands research; Ecosystem field studies and modeling; Coastal fisheries; Instrumentation for coastal ocean studies; Benthic processes and benthos-water column interactions; Rivers and the coastal ocean; Plankton dynamics.

For more information and application forms, please contact: **Education Office**  
**Woods Hole Oceanographic Institution**  
**Clark Laboratory 223, Woods Hole**  
**MA 02543. Phone: (508) 457-2000 x 2219**  
**Email: education @who.edu.**

*MIT and WHOI are Equal Opportunity/  
Affirmative Action Employers. MIT and WHOI  
are non-smoking environments.*

## TOWARD NEW HORIZONS

Air Force Materiel Command (AFMC) invites applications from leading scientific and technical managers for the Senior Executive Service (SES) position:

### DIRECTOR, OCCUPATIONAL AND ENVIRONMENTAL HEALTH ARMSTRONG LABORATORY, HUMAN SYSTEMS CENTER BROOKS AIR FORCE BASE TEXAS

The ARMSTRONG LABORATORY is the provider-of-choice to meet the operational Air Force's needs for human systems science and technology. The laboratory is a center of excellence, bringing together in one organization the physical, medical and behavioral science and engineering disciplines and specialized research facilities required to address all aspects of the human role in air force operations.

The Director, Occupational and Environmental Health manages a broad research and development program to enable quantitative assessment of risks to personnel from hazardous materials, noise, lasers and radiofrequency radiation in Air Force and occupational environments and to develop technology to reduce such risks. This SES position requires extensive background in directing, planning and conducting cutting-edge research and skill in managing high priority programs of national importance. The incumbent must possess the executive leadership ability and professional stature to support and defend program and policy decisions at the highest levels of government and industry.

Salary range is \$95,771 - \$104,946

**APPLICATION INFORMATION:** Call the AFMC Senior Civilian Management Office at (513) 257-1094 or DSN 787-1094 for a copy of the vacancy announcement describing specific qualification requirements and application procedures. Please request announcement number, SES 94-11, when you call.

**U.S. citizenship required.**

Applications must be postmarked by January 6, 1995

DEPARTMENT OF THE AIR FORCE  
AN EQUAL OPPORTUNITY EMPLOYER

## ASSISTANT PROFESSOR Environmental Microbiology



The Department of Environmental, Population, and Organismic Biology and the Cooperative Institute for Research in Environmental Sciences at the University of Colorado at Boulder seek applicants for a tenure-track faculty position in environmental microbiology. Preference will be given to candidates at the Assistant Professor level, but all applicants will be considered. The successful candidate will have a record of scholarly achievement in the field of environmental microbiology with emphasis on topics such as the role of microbes in regulating release or consumption of trace gases, influence of microbes on nutrient cycling or decomposition, or other related aspects of microbial function in the environmental context. Candidates must hold a Ph.D. degree.

Interested persons should send a cover letter, a curriculum vitae, and the names of three references to:

**Professor Carol Wessman, Chair**  
**Environmental Microbiology Search Committee**  
**Cooperative Institute for Research in**  
**Environmental Sciences**  
**University of Colorado at Boulder**  
**Boulder CO 80309-0216**

The search committee will begin considering applications on December 19, 1994 and the search will continue until the position is filled.

*The University of Colorado at Boulder strongly supports the principle of diversity. We are particularly interested in receiving applications from women, ethnic minorities, disabled persons, veterans, and veterans of the Vietnam era*

**University of Colorado at Boulder**

## To DISCOVER To CONTRIBUTE To PROGRESS

*Merck Frosst Canada Inc., with its modern research facilities located near Montreal (Quebec) Canada, is the Canadian subsidiary of Merck and Company, USA.*

Currently, we have a challenging opportunity for an *in vivo* **Pharmacologist** at the level of:

## SENIOR RESEARCH FELLOW

Reporting to the Senior Director of Pharmacology, you will be responsible for co-ordinating, leading and developing several groups of researchers involved in our asthma programme. You will be responsible for developing existing, and initiating new, animal models of respiratory disease.

As our successful candidate, you have a Ph.D. in the Biological Sciences, with a minimum of four to ten years' post-doctoral experience in the field of respiratory (ideally) or related diseases, and some within the realm of management. In addition to possessing a proven track record of publications, you must have superior interpersonal and organizational skills, as well as a strong sense of priorities. Excellent communication skills, both oral and written, are essential. Preference will be given to well-qualified Canadians or landed immigrants.

We offer an excellent salary and benefit package. If you are interested in this position, please send your curriculum vitae in full confidence to:

**Staffing Associate, Merck Frosst Canada Inc., P.O. Box 1005,  
Pointe-Claire - Dorval, Quebec, Canada H9R 4P8**

*We are an equal opportunity employer and offer a smoke-free work environment.*



**MERCK FROSST**

## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR TENURE-TRACK, FISHERIES SCIENCE

Applicants must have a Ph.D., publications, teaching experience, and a commitment to a program integrating theoretical and applied aspects of ecology, conservation, and management. Send a letter of application, curriculum vitae, statements of teaching philosophy and research interests, and the names of at least three references by February 15, 1995, to: **Dr. R. B. Ditton, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, TX 77843-2258. Telephone: 409-845-5777.**

*Texas A&M University is an Affirmative Action/Equal Opportunity Employer and welcomes applications from qualified women and minority candidates.*

### TENURE-TRACK FACULTY POSITION IN BIOLOGICAL OCEANOGRAPHY

The School of Oceanography at the University of Washington invites applications for a tenure-track **ASSISTANT PROFESSOR** position in biological oceanography. Persons pursuing research on upper water column processes involving phytoplankton are encouraged to apply. Strong commitments to teaching at the undergraduate and graduate levels and working with students are required.

Informal requests for further information may be directed via Internet to **Dr. Bruce Frost** at the following address:

**frost@ocean.washington.edu.**

Applicants should send a curriculum vitae, a statement of research and teaching interests, a list of publications, recent reprints, and the names of four references to:

**Professor Arthur R. M. Nowell, Director  
School of Oceanography, WB-10  
University of Washington  
Seattle, WA 98195**

Closing date for applications is 13 January 1995.

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



### ACADEMIC UROLOGIST M.D./Ph.D.

This **FACULTY POSITION** requires a candidate who has fellowship training in oncology and a Ph.D. in Molecular Biology with clinical and research interests in prostate cancer. Please send inquiries to: **Jay Y. Gillenwater, M.D., Department of Urology, Box 422, University of Virginia Health Sciences Center, Charlottesville, VA 22908. The University of Virginia is an Equal Opportunity/Affirmative Action Employer.**

### CHAIR

**Department of Anatomy and Cell Biology  
University of Florida College of Medicine**

The University of Florida College of Medicine invites applications and nominations for the position of **PROFESSOR** and **CHAIR** of the Department of Anatomy and Cell Biology. The successful candidate will assume a leadership role to administer and continue to develop the department's research, teaching and graduate training missions. The department currently has 13 primary faculty with research interests in cell and structural biology and responsibility for teaching graduate, medical, and other professional students. Candidates must have a Ph.D. and/or M.D. degree with an established record in research and a commitment to teaching. Previous administrative experience is desirable. Salary is negotiable. Interested individuals should submit a curriculum vitae, a statement of their research and teaching interests, and the names and addresses of at least three references. The deadline for applications is January 31, 1995, with an anticipated start date of August 1995. Applications should be sent to: **Stephen P. Baker, Ph.D., Search Committee Chair, Department of Pharmacology, University of Florida College of Medicine, Box 100267, Health Science Center, Gainesville, FL 32610.**

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

## POSITIONS OPEN

### CHAIRPERSON DEPARTMENT OF PHARMACOLOGY UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

The F. Edward Hébert School of Medicine of the Uniformed Services University of the Health Sciences (USUHS) invites nominations and applications for the position of **PROFESSOR** and **CHAIRPERSON**, Department of Pharmacology. The department has particular research strengths in signal transduction, neuropharmacology, drug metabolism and toxicology, and clinical pharmacology. It participates in the education of medical students, Ph.D. candidates in programs encompassing traditional pharmacology and interdisciplinary subjects, and postdoctoral fellows. USUHS provides a strong and secure environment for academic growth and excellence. Applicants for this position must have a doctoral degree (Ph.D., M.D., D.O.). They should demonstrate an outstanding record of research accomplishment, strong commitment to excellence in education, successful experience as a mentor for junior faculty, and proven administrative and managerial skills. The new chairperson will be expected to build upon the existing strengths of the department while adding new depth and dimension to the department's activities. Review of applications will begin in January 1995 and will continue until the position is filled. Applicants should submit a curriculum vitae with bibliography, a cover letter describing their investigative, didactic, and administrative experiences, and the names of three references to: **Robert E. Goldstein, M.D., Chairman, Search Committee, Uniformed Services University of the Health Sciences, CHR (JK/PC), 4301 Jones Bridge Road, Bethesda, MD 20814-4799.** Foreign nationals will be considered only if qualified United States citizens are not available. *USUHS is an Equal Opportunity/Affirmative Action Employer strongly committed to racial, cultural, and ethnic diversity.*

**PROFESSOR of PSYCHIATRY and SCIENTIFIC DIRECTOR** of the Psychiatric Institute at the University of Illinois at Chicago. Candidates are sought for leader of a research institute within the Department of Psychiatry. The Institute consists of several neuroscience laboratories; clinical psychopharmacology and mental health services research units; educational and training programs. The Institute is funded by substantial state support and is augmented by grant and contract funds. The director is expected to build a program integrating basic, clinical and services research and to develop consultation programs useful to the State Department of Mental Health. The candidate must have demonstrated the capacity to obtain external support or evidence of leadership roles in research enterprises, to develop and oversee research in diverse areas, and to establish an organized system which stimulates growth of young investigators. M.D. or M.D./Ph.D. or equivalent. This is a full-time tenured position. Please submit curriculum vitae to: **Markus Kruesi, M.D. and Mark Rasenick, Ph.D., Co-Chairs, Search Committee, Department of Psychiatry (M/C 913), University of Illinois at Chicago, 912 South Wood Street, Chicago, IL 60612-7327. The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.**

### STAFF ASSOCIATE

Position available to study structure-function of gap junctional proteins in oocyte pairs. Must possess an M.S. or Ph.D. in Biological Sciences with a minimum of four years of experience in molecular biology and/or electrophysiology. Send curriculum vitae and names of three references to: **Dr. Lisa Ebihara, Department of Pharmacology, College of Physicians and Surgeons of Columbia University, 630 West 168th Street, New York, NY 10032.**

*Columbia University is an  
Equal Opportunity/Affirmative Action Employer*

### ABSTRACTOR

International biomedical publisher seeks freelancer to summarize articles from the literature in cardiology, otolaryngology, anatomic pathology and pain medicine for publication in professional medical journals. Science or medical background preferred. Good writing skills and computer literacy required. Payment per article. Send résumé and payment requirement to: **Kathy Bubbeo, Raven Press, 1185 Sixth Avenue, New York, NY 10036. An Equal Opportunity Employer.**

## POSITIONS OPEN

### UNIVERSITY OF MASSACHUSETTS DARTMOUTH

Marine Chemistry/Geochemistry/Environmental Chemistry. One or two **TENURE-TRACK FACULTY** positions. Marine Chemistry/Geochemistry/Environmental Chemistry have been a high priority at this southeastern Massachusetts campus for many years. A new marine research laboratory in nearby New Bedford, Massachusetts, will complement evolving relationships with Woods Hole Oceanographic Institute, Marine Biological Laboratory, National Marine Fisheries Service, Naval Undersea Warfare Center and the University of Rhode Island. Appointment requires a Ph.D. in Chemistry, Biochemistry, Chemical Oceanography, Marine Geochemistry, or Environmental Chemistry and appropriate postdoctoral experience. Responsibilities include graduate and undergraduate teaching, developing an externally funded research program, and participating in the development of an interdisciplinary Doctoral Program in Marine Sciences. Research interests and accomplishments in Marine Chemistry/Geochemistry/Environmental Chemistry and demonstrated expertise or strong promise for successful teaching in one or more traditional areas of chemistry and in the candidate's specialty area are essential. The appointments will most probably be made at the **ASSISTANT PROFESSOR** level, although appointment at a higher rank is possible. Send applications including curriculum vitae, undergraduate and graduate transcripts, statement of teaching philosophy, description of research plans and have three letters of recommendation sent to: **Dr. Joseph C. Deck, Chairperson, Chemistry Department, University of Massachusetts Dartmouth, North Dartmouth, MA 02747-2300.** Review of applications will begin January 1, 1995, and continue until the positions are filled. *Applications from women and minorities are strongly encouraged.*

### SAMUEL L. AND FAY M. SLOVER ENDOWED CHAIR IN PHYSICAL OCEANOGRAPHY

**Center for Coastal Physical Oceanography  
Department of Oceanography  
Old Dominion University**

Old Dominion University, the Slover Endowment, the Department of Oceanography, and the Center for Coastal Physical Oceanography are pleased to announce the availability of an **ENDOWED CHAIR** in physical oceanography. The position was made available by the retirement of **Professor G. T. Csanady**. The University has selected oceanography in general and physical oceanography specifically for emphasis in the recently announced five-year strategic plan. The Center for Coastal Physical Oceanography, where the chair would reside, offers excellent computing resources to facilitate research in a beautiful waterside setting with a group of fifty collegial scientists.

We encourage both nominations of people appropriate for the position and applications.

Applicants must be at the senior level, have active research programs, and be committed to graduate education.

Applicants should send a curriculum vitae, a brief description of research interests, and names of three references to: **Carole E. Blett, Search Committee Administrator, Center for Coastal Physical Oceanography, Crittenton Hall, Old Dominion University, Norfolk, VA 23529.** Evaluation of applications will begin on January 2, 1995, and continue until the position is filled.

*Old Dominion University is an Affirmative Action/Equal Opportunity Employer and requires compliance with the Immigration Reform and Control Act of 1986.*

### CHAIR, PHARMACEUTICAL SCIENCES SCHOOL OF PHARMACY, TEXAS TECH

Applications invited for **CHAIR**, Department of Pharmaceutical Sciences, Texas Tech University Health Sciences Center Amarillo. The newly established School is accepting its first class of 55 Pharm.D. students fall 1996. A Ph.D. program is proposed for 1998. Department will have 17 FTE's in all Pharmaceutical Sciences. Chair is responsible for faculty recruitment, development and program planning. The successful candidate will have a mature, extramurally funded research program in one of the disciplines. Experience in pharmaceutical education required. Submit letter with statement of research interest; name, address and telephone number of three references to: **Chair Search, School of Pharmacy, 1400 Wallace Boulevard, Amarillo, TX 79106. Equal Opportunity/Affirmative Action 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 January 1, 1995. 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**

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

S C I E N T I S T S

## Providing the vital link between research and manufacturing...

### *That's Schering-Plough*

*The transition from theory to practical application. Throughout Schering-Plough's Biotechnology Development facility in Union, NJ, scientists skillfully devise innovative methods to bring quality pharmaceutical products to market.*

### ASSOCIATE SCIENTIST Molecular/Cellular Biology

As a member of a team of respected research professionals, you will be involved in the development of new therapeutic entities through biotechnology. This will include developing mammalian cell lines for the high level gene expression of heterologous proteins (transfection, clonal selection and maintenance of cell lines).

To qualify, you will need a BS degree and 4-7 years of relevant experience; or an MS degree and 2-4 years of relevant experience. Background must include knowledge of laboratory techniques of rDNA and microbial

physiology, and procedures such as plasmid manipulations, PCR technology, DNA sequencing, Western analysis and data acquisition. Experience in manufacturing technical support and troubleshooting as well as characterization and development of fermentation protocols preferred. Knowledge of bacterial gene expression helpful. Excellent oral and written communication skills essential.

We offer an excellent compensation package which includes a competitive salary and comprehensive benefits. For prompt, confidential consideration, we invite you to forward a resume with salary requirements to: Human Resources Manager, Dept. PL-BD94-12/SC, Schering-Plough Research Institute, 1011 Morris Avenue, Union, NJ 07083. We are an equal opportunity employer. *We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.*



**Schering-Plough  
Research Institute**

U s i n g   S c i e n c e   F o r   H u m a n   A d v a n t a g e



### In-vivo Synaptic Neurophysiology with PET Montreal Neurological Institute McGill University

The Montreal Neurological Institute invites applications for a tenure-track position at Assistant or Associate Professor level. We are seeking an individual with expertise in the use of PET to study receptor/transmitter mechanisms underlying human neuropathology and normal brain function. The successful candidate would be expected to develop a strong independently-funded research program as well as fulfilling the responsibilities of a senior team member within a larger group of PET researchers.

The MNI has a well-established Neuroimaging group with numerous links to the clinical/basic research groups in the McGill and Montreal academic communities, a new 8-target medical cyclotron and an extensive image analysis environment. Candidates should submit a curriculum vitae, a brief statement of research interests and arrange for three letters of reference to:

Dr. Alan Evans  
Chairman  
Synaptic Neurophysiology Search Committee  
Montreal Neurological Institute  
3801 University Street  
Montreal, Quebec, Canada H3A 2B4

## PHARMACOLOGIST

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

This position involves the development of pre-clinical small animal models for a wide variety of activities and/or diseases. This candidate will be expected to take proteins with demonstrated desirable in vitro activities and test them in appropriate animal models for confirmation of in vivo efficacy. In addition, the candidate is expected to collect, analyze and report data on these findings in a professional and efficient manner with little or no supervision. Position requires the ability to think and work independently, and to work closely with a large group of committed scientists in broad areas of research, especially hematopoiesis, immunology and cancer. Requires at least 3 years of laboratory experience in related fields and demonstrated record of past performance. Ph.D. in related fields such as pharmacology, physiology or immunology is necessary.

For immediate consideration, please send your curriculum vitae to Human Resources Department, Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD 20850. FAX: (301) 309-8512. An Equal Opportunity Employer.



**HGS**

**Human Genome Sciences, Inc.**

*Dedicated To Discovery For Health*

## POSITIONS OPEN

### UNIVERSITY OF OKLAHOMA

#### Grayce B. Kerr Endowed Chair in Biochemistry

The Department of Chemistry and Biochemistry, The University of Oklahoma (OU), Norman Campus, is seeking an outstanding individual to occupy the **GRAYCE B. KERR ENDOWED CHAIR** in Biochemistry. Candidates must have an active, funded research program in any area of biochemistry, a strong record of research accomplishments, and a demonstrated commitment to undergraduate and graduate education. The successful candidate must qualify for a tenured professor appointment in the department. The Kerr Chair will occupy ample newly renovated research space and will have continuing discretionary research support funds. A competitive salary, fringe benefits, and start-up package will be offered. Applicants should submit a complete curriculum vitae including salary history, a summary of teaching experience, a description of current research activities with plans for future work, and the names, addresses, telephone and FAX numbers of three individuals who are willing to supply letters of reference. Review of applications will begin 15 January 1995 and continue until an appointment is made. Application materials should be sent to: **Dr. David A. Young, Dean and Chair, Grayce B. Kerr Endowed Chair Search Committee, College of Arts and Sciences, University of Oklahoma, 601 Elm, Room 1100, Norman, OK 73019-0315.** The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply. OU has a policy of being responsive to the needs of dual career couples.

### EMORY UNIVERSITY

#### Dean of the Graduate School of Arts and Sciences

Emory University invites applications and nominations for the position of **DEAN** of the Graduate School of Arts and Sciences. Emory University currently enrolls approximately 10,000 students in nine schools, taught by 1,700 full-time instructional faculty, of whom 700 are graduate faculty. The Graduate School of Arts and Sciences enrolls 1,300 students and awards Master's and doctoral degrees in 23 departments and divisions. The Dean is responsible for providing academic leadership in all aspects of the graduate program and representing graduate studies within the administration of the University.

Candidates must have a record of teaching and scholarship commensurate with appointment to the rank of professor. Evidence of administrative interest and aptitude is required, as is commitment to rigorous graduate education.

Applicants should submit a letter detailing their interest and pertinent experience, together with a current curriculum vitae. Applications and letters of nominations should be sent to: **Professor Thomas S. Burns, Chair, Graduate Dean Search Committee, Department of History, Bowden Hall, Emory University, Atlanta, GA 30322.** The search committee will begin reviewing dossiers December 15, 1994.

Emory is an Affirmative Action/Equal Opportunity Employer.

### ASSOCIATE DIRECTOR FOR RESEARCH

#### Little Rock Geriatric Research Education and Clinical Center

The Departments of Biochemistry, Molecular Biology and Medicine at the University of Arkansas for Medical Sciences and the Little Rock VA Hospital are searching for an internationally known Ph.D. or M.D. **SCIEN-TIST** to head an existing, highly productive research group in molecular aspects of aging. The successful candidate will have a tenured professorship in the Department of Biochemistry and Molecular Biology, or Medicine, and will occupy about 2,500 square feet of laboratory space. Excellent start-up funds are available to equip the laboratories and support laboratory personnel. We seek an individual with demonstrated excellence in areas of cell function relevant to aging or age-dependent diseases, such as cancer, Alzheimer's disease or osteoporosis. Individuals with expertise in the regulation of gene expression, signal transduction, cell cycle regulation or glycolipid metabolism, are encouraged to apply. Send applications by January 15, 1995, including a résumé and names and addresses of three to five references to: **Dr. Alan Elbein, University of Arkansas for Medical Sciences, Biochemistry and Molecular Biology, 4301 West Markham, Slot 516, Little Rock, AR 72205.** The VA and University of Arkansas for Medical Sciences are Equal Opportunity Employers.

## POSITIONS OPEN

### UNIVERSITY OF CALIFORNIA

#### SANTA BARBARA

#### School of Environmental Science and Management

We invite applications for two **SENIOR POSITIONS** in the new graduate school: (a) Earth System Science, including the physical climate system, hydrologic cycle, biogeochemical cycles, and their interactions; (b) Environmental Policy and Resource Management, including environmental regulation and policy analysis, economic valuation, and resource management. We seek distinguished applicants with strong publication records, vigorous, original research programs, evidence of excellence in teaching, and a commitment to helping start a new, interdisciplinary program that will admit its first students in fall 1996. Appointment level is open. Rank and salary will depend on teaching and research experience.

Application deadline is January 27, 1995. Start date is July 1, 1995. Send curriculum vitae, names of four references, statement of proposed research and teaching interests, and reprints of no more than five publications to: **Jeff Dozier, Dean, School of Environmental Science and Management, University of California, Santa Barbara, CA 93106.** Email: [dozier@crseo.ucsb.edu](mailto:dozier@crseo.ucsb.edu).

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

**POSTDOCTORATE** in Animal Behavior: The Zoological Society of San Diego announces availability of the **J. Dallas Clark Postdoctorate** in animal behavior, to investigate effects of captive living on mating behavior and reproduction in solitary mammals. Includes archival analyses and observational studies under semi-free ranging conditions. Candidates must be willing to spend up to six months in a third world country. Two year position, with third year renewal optional. Start date no later than March 15, 1995. Stipend \$25,000 (12 months). Interested applicants should send curriculum vitae, a statement regarding current and future research interests, and names of three references by January 13, 1995, to: **Postdoctoral Search Committee, Center for Reproduction of Endangered Species, P.O. Box 551, San Diego, CA 92112.** An Equal Opportunity Employer.

**POSTDOCTORAL TRAINING** in Reproductive Biology. Opportunities in cell and developmental biology, molecular biology, reproductive endocrinology, neuroendocrinology, biophysics, and male contraceptive development are offered by the University of Washington Population Center for Research in Reproduction and sponsored by The National Institutes of Health and The Andrew W. Mellon Foundation. Additional information: please contact **Dr. Robert A. Steiner, Department of Physiology and Biophysics, SI-40, University of Washington, Seattle, WA 98195.** Telephone: 206-543-8712; FAX: 206-685-0619; Email: [steiner@u.washington.edu](mailto:steiner@u.washington.edu). The University of Washington provides equal opportunity in education without regard to race, color, creed, religion, national origin, sex, sexual orientation, age, marital status, disability, or status as a disabled veteran or Vietnam era veteran in accordance with University of Washington policy and applicable federal and state statutes and regulations.

### POSTDOCTORAL POSITION

**POSTDOCTORAL POSITION** available immediately to investigate the mechanisms that lead to reprogramming of differentiated skeletal cells induced by the intracellular nematode *Trichinella spiralis*. Interest in parasitology with experience in cell or molecular methodologies is highly desirable. Send curriculum vitae and names of three references to: **Douglas P. Jasmer, Department of Veterinary Microbiology and Pathology, Washington State University, Pullman, WA 99164-7040.** FAX: 509-335-8529; Email: [Djasmer@vetmed.wsu.edu](mailto:Djasmer@vetmed.wsu.edu). Washington State University is an Equal Employment Opportunity/Affirmative Action Employer and Employer. Protected group members are encouraged to apply.

### POSTDOCTORAL POSITION MOLECULAR AND ENVIRONMENTAL VIROLOGY

**POSTDOCTORAL POSITION** available immediately to study the tissue distribution of Norwalk virus within shellfish following bioaccumulation. Expertise in molecular biology techniques is preferred. Send curriculum vitae including the names of three references to: **Robert L. Atmar, M.D., Department of Medicine, Baylor College of Medicine, 1 Baylor Plaza, Room 559E, Houston, TX 77030.** Telephone: 713-798-4775; FAX: 713-798-6802.

## POSITIONS OPEN

**POSTDOCTORAL POSITIONS** available in multidisciplinary group with stable funding to study the electrophysiology, second messenger pharmacology, neurotoxicity and molecular biology of HIV-related proteins and peptides. Stipend commensurate with experience. The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aboriginal people and persons with disabilities. The University offers a smoke-free environment, save for specially designated areas. The University exercises a Canadian-first policy, however, non-Canadians are encouraged to apply. Send résumé, letter describing research interests, reprints of recent publications and names of three referees to: **Dr. A. Nath, Department of Medical Microbiology, University of Manitoba, 730 William Avenue, Winnipeg, Manitoba, R3E 0W3 Canada.** Telephone: 204-789-3273; FAX: 204-783-5255. Email: [Nath@bldghsc.lan1.umanitoba.ca](mailto:Nath@bldghsc.lan1.umanitoba.ca).

### MEMBRANE TRANSPORT

**POSTDOCTORAL POSITIONS** are available for studies of the molecular structure and mechanism of the neurospora plasma membrane  $H^+$ -ATPase. This membrane transporter has been crystallized and its structure is beginning to emerge. An efficient mutagenesis system for the  $H^+$ -ATPase has also been developed. Join us in our efforts to elucidate the molecular mechanism of membrane transport catalyzed by this enzyme. Send curriculum vitae and names of three references to: **Dr. Gene A. Scarborough, Department of Pharmacology, CB No. 7365, F.L.O.B., University of North Carolina, Chapel Hill, NC 27599.** An Equal Opportunity Employer.

### POSTDOCTORAL POSITIONS HUMAN GENOME RESEARCH

**Ph.D./M.D. POSITIONS** to isolate and characterize genes associated with breast cancer, Wilms' tumor, leukemias, retinopathies, and deafness. Also, positions available in physical and transcription mapping of human chromosome 11. Experience in molecular genetic and genome technology is required. Please send curriculum vitae, a research description and future interests and names and telephone numbers of three references to: **Thomas B. Shows, Ph.D., Chair, Department of Human Genetics, Roswell Park Cancer Institute, Buffalo, NY 14263.** Roswell Park is a Minorities/Female/Disabled/Veterans/Affirmative Action Employer.

**POSTDOCTORAL POSITION.** Available immediately to study the effects of nucleic acid sequence and regulatory proteins on RNA polymerase II ternary complex structure and function (see *Genes and Development*, 6: 1342-1356, *J. Biol. Chem.*, 268: 12864-12873, *J. Biol. Chem.*, 268: 12874-12885). Experience in molecular biology and biochemistry preferred. Send curriculum vitae and three reference names to: **Dr. Michael G. Izban, Department of Obstetrics and Gynecology and Sealy Center for Molecular Science, University of Texas Medical Branch, Galveston, TX 77555-1068.**

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

**POSTDOCTORAL POSITION** available immediately to study voltage-dependent ion channel gating and regulation. Require Ph.D. or M.D. and experience using single-channel and macroscopic patch-clamp recordings and/or molecular biology. Applicants should forward curriculum vitae with names of references and description of previous research experience to: **Dr. T. Hoshi, Department of Physiology and Biophysics, The University of Iowa, Iowa City, IA 52242.** FAX: 319-335-7330; Email: [ToshinoriHoshi@uiowa.edu](mailto:ToshinoriHoshi@uiowa.edu). The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and minorities are strongly encouraged to apply.

### POSTDOCTORAL POSITION IN IMMUNOLOGY

Immediately available, well funded position for recent Ph.D. interested in cytokine receptor immunology. Training in molecular biology is essential and experience in cytokine receptor immunology and gene transfection or antisense research preferred. Please submit curriculum vitae and a brief statement of research interests to: **D. B. Kaufman, M.D., Ph.D., Northwestern University Medical School, 303 East Superior Street, Passavant Pavilion, Suite 535, Chicago, IL 60611.**



HEMOSOL

## Research Scientist

Hemosol Inc., a dynamic Toronto biotechnology company has an opening for a Research Scientist.

Candidates must have a Ph.D. degree with relevant post-doctoral and/or industrial experience. An expert current knowledge of hematopoiesis, hematopoietic cell growth factors and hematopoietic cell culture is a prerequisite. Knowledge and/or experience with advanced cell culture technology is highly desirable. A strong general background in cell biology, molecular biology and hematology is expected. Good oral and written communication skills are required, as is a high level of self-motivation.

We offer a competitive salary and benefit package in a stimulating work environment. If you are interested in joining our talented team, please send your resume to: Human Resources Department, Hemosol Inc., 115 Skyway Avenue, Etobicoke, Ontario M9W 4Z4 or Fax (416) 798-0151. Preference will be given to Canadian citizens and landed immigrants.

No agencies please.

# JOIN THE FIRST NAME IN BIOSAFETY TESTING

**MICROBIOLOGICAL ASSOCIATES (MA)** is a rapidly growing international provider of biological and toxicological safety testing services to the pharmaceutical, personal care and biotechnology industries. Our entry into new cGMP businesses has created the following opportunities:

## STUDY DIRECTORS

Qualified candidates for the **Study Director** opportunities will have a Ph.D. with a minimum of 2 years industry experience, including management of a lab under GLP/cGMP guidelines. Unsurpassed oral, written and PC communication skills are key for effective client interactions.

**MASS SPECTROMETRY:** Expertise in LC/MS, electrospray and MALDI-TOF of protein/peptide, cGMP experience highly desirable.

**CHROMATOGRAPHY VALIDATION:** Develop and validate chromatographic methods for biopharmaceuticals. Protein characterization experience: sequencing, AAA, peptide mapping, highly desirable.

**PROCESS VALIDATION:** Experience in design and performance of viral inactivation/clearance studies for biopharmaceutical processes.

Expertise in classical virology, retrovirology and biochemical separation techniques is required.

**CELL BANKING:** A background working with both anchorage dependent and anchorage independent cell lines is required. Preparation of MCB and MWCB desirable. (An M.S. degreed individual with 8+ years directly related experience may be considered).

**VIRAL END POINT ASSAY:** Perform and validate plaque, focus and other assays supporting quantitation of virus and retrovirus-containing process intermediates.

## DIRECTOR OF MOLECULAR BIOLOGY

This highly visible position requires a Ph.D. and 5+ years experience managing an industrial laboratory or department under GLP/cGMP guidelines. A demonstrated commitment to excellence in molecular virology, toxicology, oncology or cell biology will enable the successful individual to skillfully develop and direct the newly formed molecular biology group at MA. Qualified candidates will have a strong publication record, developed management and communication skills.

## PURIFICATION PROCESS VALIDATION TECHNICAL SERVICES MANAGER

The Technical Services Manager will interact with the scientific & marketing/sales staff to draft technical proposals and coordinate all on-site validation activities. The ideal candidate will have an M.S. degree and 3-5 years experience in virology or viral clearance studies and protein purification development/validation.



Join us at our state-of-the-art facility in the Washington, DC suburbs as we build on our 40-year tradition of scientific excellence. For immediate consideration please forward a resume with salary history indicating specific area of interest to the Human Resources Department:

## MICROBIOLOGICAL ASSOCIATES

9900 Blackwell Road, Rockville, MD 20850

Fax (301)738-1036 EOE m/f/v/d

## MARINE BIOLOGICAL LABORATORY

**1995 Summer Research Fellowships at the MBL  
(Focusing on Younger Investigators)**

### Full Fellowships

These fellowships cover most costs of conducting summer research, plus living and travel expenses, in the following areas:

**Nikon Fellowship** - any area of biological sciences requiring the use of advanced microscopy; **Laklan Summer Fellowships (2)** - any area of biomedical research.

### Partial Fellowships

These fellowship funds may be available individually or in concert to cover many of the costs of conducting summer research, including living and travel expenses in the following areas:

**Robert Day Allen Fellowship** - cell motility and cytoarchitecture; **Frederik B. Bang Fellowship Fund** - for research using marine models in molecular biology or biomedicine; **John O. Crane Fellowship Fund** - independent research in any area; **Bernard Davis Fund** - microbiology and evolution; **M.G.F. Fuortes Fellowship** - neuroscience; **Daniel S. Grosch Fund** - environmental toxicology; **Ann E. Kammer Fellowship Fund** - for women researchers, with a preference for neuroscience; **Stephen W. Kuffler Fellowship** - neurobiology; **Lucy B. Lemann Fellowship** - research in any area; **MBL Associates Fellowships** - research in any area; **James A. and Faith Miller Memorial Fund** - any area, with developmental biology preferred; **Porter Fellowship for Minority Investigators** - collaborative research in any area of physiology; **The Evelyn and Melvin Spiegel Fellowship Fund** - any area, developmental biology preferred; **H. B. Steinbach Fellowship** - cell biology and physiology.

Application deadline for Fellowships and Laboratory Space Rental is January 15, 1995. Applications are reviewed by the MBL Fellowship Committee. Notification of decisions mailed by March 15, 1995.

For application forms and additional information, contact: Fellowship Coordinator, Office of Research Administration, Marine Biological Laboratory, Woods Hole, MA 02543; phone: (508) 548-3705, ext. 441; Fax: (508) 457-1924. Or download information from the MBL Home Page on the Internet/World-Wide-Web at <http://www.mbl.edu> or via the MBL Gopher at <gopher.mbl.edu>. MBL is an EEO/Affirmative Action Institution



## BS/MS BioOrganic Chemist

PARKE-DAVIS, Pharmaceutical Research Division of the Warner-Lambert Company, has an immediate opening in the BioOrganic Chemistry Section of the Chemistry Department.

The successful candidate will function as a member of a highly motivated team to investigate nucleic acids as targets for drug intervention using modern chemical and biochemical methods. This position requires a BS or MS in Chemistry, or equivalent, with a working knowledge in nucleic acid chemistry. Experience in DNA/RNA synthesis, purification, and analysis are preferred.

PARKE-DAVIS research facilities, located in Ann Arbor adjacent to the University of Michigan campus, are exclusively devoted to drug discovery and development. Our scientific staff enjoy excellent compensation and benefits, a new chemistry building, and an exceptional living environment with diverse activities associated with a major university.

Qualified applicants should forward curriculum vitae, list of references, and salary requirements to: PARKE-DAVIS, Human Resources, Attn: LJB-94138, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment"



## PARKE-DAVIS

People Who Care

"Equal Opportunity  
in Action"

## POSITIONS OPEN



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

### RESEARCH ANIMAL SCIENTIST/ RESEARCH PHYSIOLOGIST ANIMAL

The Gene Evaluation and Mapping Laboratory, Livestock and Poultry Sciences Institute, Beltsville Agricultural Research Center, in Beltsville, Maryland, seeks a permanent staff member to isolate, culture, and transfect embryonic stem cells from livestock species. Ph.D. in animal, dairy, or poultry sciences is desired. Must have knowledge and skills in application of mammalian cell culture, livestock embryo development, and isolation of cell lines from livestock embryos. Salary commensurate with experience: \$42,003 to \$64,928 per annum. Must be a U.S. citizen. For information about the position, call **Dr. Rexroad at 301-504-8534**. Call **301-344-3954** for application directions. Must submit SF-171/curriculum vitae, transcripts, and response to selective factors to: **USDA, ARS, Personnel Division, 6305 Ivy Lane, Room 305, Greenbelt, MD 20770-1435**. Responses to this announcement should be marked **5E001** and must be postmarked by December 19, 1994. *ARS is an Equal Opportunity Employer.*

### PREDOCTORAL AND POSTDOCTORAL FELLOWSHIPS

The Eppley Institute at the University of Nebraska Medical Center, one of 12 National Cancer Institute-designated Laboratory Cancer Research Centers, has excellent training opportunities in all areas of cancer research including: cellular, molecular and structural biology; chemical carcinogenesis; cancer cause and prevention; and developmental therapeutics. Funds are available through an NIH training grant, individual grants, and other sources. Predoctoral stipends are \$12,000 per year, plus tuition remission and medical insurance. Postdoctoral fellowship stipends are commensurate with experience and are nationally competitive. Prospective postdoctoral fellows should forward a curriculum vitae, three letters of recommendation and a brief description of research interests. For complete information, prospective predoctoral students and postdoctoral fellows should contact: **Director, Eppley Institute, UNMC, Box 986805, Omaha, NE 68198-6805**. *Affirmative Action/Equal Opportunity Employer.*

Cardiovascular Training Fellowships for Minorities: **PRE- AND POSTDOCTORAL FELLOWSHIPS** for minority scholars are immediately available. Areas of training include signal transduction, second messenger systems, drug-receptor interactions and *in vivo* techniques as they pertain to cardiovascular research. Postdoctoral candidates should have a Ph.D./M.D./D.D.S./D.V.M. Candidates must be either U.S. citizens or permanent residents. Please send curriculum vitae, summary of research interests and three letters of reference to: **Mohammed A. Maleque, Ph.D., Program Director, Pharmacology Training Grant (NHLBI), Meharry Medical College, 1005 D. B. Todd Boulevard, Nashville, TN 37208**. Telephone: 615-327-6302; FAX: 615-327-6632. *Meharry Medical College is an Equal Opportunity Employer.*

**POSTDOCTORAL RESEARCH POSITIONS** available in cell and molecular biology/immunology for studying the immunoregulation and mechanisms of autoimmune arthritis, the cellular mechanisms of pathological bone resorption, and the prospective immuno- and gene therapies of these processes. Positions are available from March/June of 1995. Prior experience in molecular biology is desirable. Applicants should send a curriculum vitae, a brief summary of research experience and the names of the current preceptor and at least one other referee to: **Tibor T. Glant, M.D., Ph.D., Professor, Department of Biochemistry, Rush Medical University at Rush-Presbyterian St. Luke's Medical Center, 1653 West Congress Parkway, Chicago, IL 60612**.

**POSTDOCTORAL POSITION** available January 1995 to study metabolism of chemotherapy drugs and enzyme induction as part of a collaborative interdisciplinary group interested in ovarian cancer within the University of Virginia Cancer Center. Must have Ph.D. or M.D. degree with experience in molecular biology techniques. Send curriculum vitae and names of three references to: **Drs. Peyton Taylor and Marie Hanigan, Division of Gynecologic Oncology, Box 387 Health Sciences Center, University of Virginia, Charlottesville, VA 22908**.

## POSITIONS OPEN

**POSTDOCTORAL POSITION** to study mechanisms of hepatic detoxification and transport of electrophilic compounds, and specifically to characterize a novel xenobiotic transport protein. Experience with cDNA libraries and cDNA cloning is desirable. Send curriculum vitae and names of three references to: **Dr. Ned Ballatori, Department of Environmental Medicine, University of Rochester School of Medicine, Rochester, NY 14642**. *Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL RESEARCH ASSOCIATE IN MOLECULAR NEUROBIOLOGY

A position is available immediately to study the role of proteoglycans in nervous system development, with an emphasis on their role in neural cell-cell interactions. A strong background in molecular biology, cell biology, and tissue culture is desired. Applicants should send curriculum vitae, a summary of research interests, and names and telephone numbers of three references to: **Dr. Gregory J. Cole, Neurobiotechnology Center, The Ohio State University, 184 Rightmire Hall, 1060 Carmack Road, Columbus, OH 43210**. *The Ohio State University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITIONS** available in gene regulation at The University of Pennsylvania. Projects relate to the regulation of developmental and lineage-specific gene transcription in the mammalian intestinal tract (See **Traber, et al., MCB, 12:3614-3627, 1992** and **Suh, et al., MCB, November 1994**). Fully funded positions on NIH scale are available immediately. Send curriculum vitae and letters of recommendation to: **Dr. Peter G. Traber, Suite 600, Clinical Research Building, 415 Curie Boulevard, Philadelphia, PA 19104**. FAX: 215-573-2024. Email: **traber@pobox.upenn.edu**. *An Equal Opportunity/Affirmative Action Employer/Minorities/Disabled/Veterans.*

### POSTDOCTORAL/RESEARCH ASSOCIATE

Two NIH-funded positions are available to study transcriptional regulation of genes involved in cardiovascular diseases. Experience in molecular biology or yeast genetics preferred. Salary will be commensurate with experience. Please send a curriculum vitae to: **Dr. Kamal D. Mehta, Department of Biochemistry and Molecular Biology, Slot 516, University of Arkansas College of Medicine, 4301 West Markham, Little Rock, AR 72205**. FAX: 501-686-8169.

**RESEARCH ASSOCIATE POSITION** available immediately for self-motivated Ph.D./M.D./M.S. to study neuropeptide receptors and second messengers, and investigate the efficacy of synthetic peptide analogs on various cell lines on a NIH-funded project. Experience on radioreceptor assay and/or on determination of cAMP/Ca<sup>2+</sup>/IP3 is essential. Initial two year appointment may be renewed depending on funding. Salary commensurate with experience. Send curriculum vitae, addresses and telephone numbers of three references to: **A. Balasubramaniam, Ph.D., Department of Surgery, University of Cincinnati Medical Center, Cincinnati, OH 45267-0558**. Telephone: 513-558-3819; FAX: 513-558-3474.

**RESEARCH ASSOCIATE POSITION** available immediately to investigate (1) the metabolism of polynuclear aromatic hydrocarbons by bacteria, and (2) characterization of metabolites. Ph.D. in microbiology, microbial biochemistry, or bioorganic chemistry required. Experience in product isolation and characterization desirable. Please send résumé and names of three references to: **Dr. H. Sikka, Laboratory of Environmental Toxicology and Chemistry, Science 261, State University of New York College at Buffalo, 1300 Elmwood Avenue, Buffalo, NY 14222**. Telephone: 716-878-5422; FAX: 716-878-5400.

**CLINICAL CYTOGENETIC FELLOWSHIP** is available in January 1995 at the Cytogenetic Laboratory. Doctoral degree (M.D. or Ph.D.) is required and experience in cytogenetics is desirable. The training is approved by American Board of Medical Genetics and includes routine and molecular cytogenetic studies in blood, amniotic cells, CVS, tissues, leukemias and solid tumors. Send curriculum vitae to: **Carmen B. Luzzio, M.D., Director, Developmental and Genetic Center, University of Tennessee Medical Center, 1930 Alcoa Highway, Suite 435, Knoxville, TN 37922**. FAX: 615-544-6675. *An Equal Opportunity Employer.*

## POSITIONS OPEN

### POSTDOCTORAL FELLOW RESEARCH ASSOCIATE

Applications are invited for **POSTDOCTORAL/RESEARCH ASSOCIATE** positions to study the regulation of extracellular matrix in the kidneys, heart, and blood vessels in hypertension and Type II diabetes. Candidates must have a Ph.D. or an M.D. with an interest in physiological research and training in cellular and/or molecular biology of extracellular matrix regulation. Salary will be commensurate with experience and credentials. Interested applicants should send a curriculum vitae, a statement of research interests and names of at least three references to: **Dr. John Hall, Department of Physiology and Biophysics, University of Mississippi Medical Center, Jackson, MS 39216**. *The University of Mississippi Medical Center is an Equal Opportunity Employer, Male/Female/Disabled/Veterans.*

A **POSTDOCTORAL FELLOWSHIP** is available to study stimulators and inhibitors of angiogenesis in breast cancer. Applicants must have training in molecular biology and less than three years of postdoctoral experience. Salary range \$25,000 to \$30,000, depending on experience. U.S. citizenship or permanent residency status is required.

To apply, please send a curriculum vitae and list of references to: **Dr. Unnur P. Thorgeirsson, Tumor Biology and Carcinogenesis Section, National Cancer Institute, NIH, Building 37, Room 2D-02, 9000 Rockville Pike, Bethesda, MD 20892**.

*NIH/NCI is an Equal Opportunity Employer.*

### POSTDOCTORAL RESEARCH FELLOWSHIPS

available in the Center for Human Nutrition at the University of Colorado Health Sciences Center (UCHSC). Areas of interest include human energy metabolism, nutrient control of gene expression, obesity/insulin action, mineral/trace element metabolism, and hormone/nutrient control of lipid and protein metabolism. Positions available July 1, 1995, to U.S. citizens and permanent residents with M.D. or Ph.D. degrees. Send curriculum vitae, three letters of recommendation and a statement of research interests/goals to: **Steven D. Clarke, Ph.D., UCHSC, 4200 East Ninth Avenue, Box C225, Denver, CO 80262** by March 1, 1995. *The UCHSC is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL FELLOWSHIP** in Neurobiology. Available immediately at the University of Maryland Medical Center, Baltimore, Maryland, to study immunoregulatory molecules expressed by glial cells. Applicant should have a Ph.D. or M.D. and at least two years of experience in molecular biology or have primarily focused in this area during doctoral training. A familiarity with signal transduction and protein/lipid chemistry is also desirable. Interested applicants should respond to: **Carol Lee Koski, M.D., Department of Neurology, University of Maryland Medical System, 22 South Greene Street, Baltimore, MD 21201**. *The University of Maryland encourages women and minorities to apply. An Equal Opportunity Employer.*

### CEDARS-SINAI MEDICAL CENTER POSTDOCTORAL FELLOW

Fellows in Neurology will be involved in the molecular genetic study of neurodegenerative disorders and the molecular analysis of familial CNS tumors. Requires a Ph.D. or M.D. degree with a background in molecular and positional cloning. Please send full curriculum vitae plus names and addresses of two references to: **Job No. 1940193, Dr. Stefan M. Pulst, Cedars-Sinai Medical Center, SSB 610, 8723 Alden Drive, Los Angeles, CA 90048**. *An Affirmative Action/Equal Opportunity Employer.*

The Department of Zoology offers two tenure-track positions in the following: 1. **LECTURER**. Neurobiologist/neuroethologist with a strong background in behavioral studies and research at the organismic level. 2. **RESEARCH ASSOCIATE**. Scientific Director of research zoo. Ph.D. in Zoology with behavioral or ecological background, or a veterinarian. The position demands administrative responsibilities with the possibility for independent research. Candidates should submit curriculum vitae, list of publications, and request three letters of reference to be sent to: **Chairman, Department of Zoology, Tel Aviv University, Ramat Aviv 69978, Israel**, not later than January 15, 1995.

## HORMONE-REGULATED SIGNAL TRANSDUCTION

The University of Calgary Endocrine Research Group invites applications for a full-time academic position to develop an independent research program in hormone action, with a focus on intracellular covalent modification reactions and cell signalling pathways. Duties include teaching and graduate student supervision. Qualifications include a PhD and/or MD with the equivalent of at least two years' postdoctoral training in molecular endocrinology or related disciplines, and a proven record of excellence in research. Academic appointment will be with an appropriate department in the Faculty of Medicine.

The selected candidate must compete successfully for salary and establishment funding from agencies such as the Alberta Heritage Foundation for Medical Research and/or national agencies such as the Medical Research Council of Canada, and will have at least 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 is committed to Employment Equity.

Please submit a curriculum vitae, a synopsis of research interests and two reprints of recent publications, and arrange for three letters of reference to be sent directly, by February 15, 1995, to:

Dr. M.D. Hollenberg, Chair, Endocrine Research Group  
The University of Calgary, 3330 Hospital Drive N.W.  
Calgary, Alberta, Canada T2N 4N1



## POST-DOCTORAL BIOCHEMIST

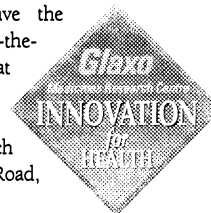
GREENFORD/STEVENAGE UK

An exciting opportunity has arisen for an enthusiastic, innovative post-doctoral scientist to work in our Glycobiology Research Group. As part of a large multidisciplinary team, you will work alongside molecular biologists and enzymologists who are investigating the roles and regulation of glycosyltransferases involved in the biosynthesis of ligands for mammalian lectins. Preference will be given to candidates with experience in protein biochemistry and/or studies of reaction mechanisms.

Publication of research findings and the establishment of links with academic groups is encouraged. This post is for a minimum of two years, extendable to three.

Glaxo is one of the world's largest research-based pharmaceutical companies with an excellent reputation for the quality of its research. You will have the opportunity to work in our new state-of-the-art purpose-built research centre at Stevenage.

Please write, enclosing CV to: Kate Lawrey, Human Resources, Glaxo Research and Development, Gunnels Wood Road, Stevenage, Herts, SG1 2NY, UK.



## Corixa™ T Cell Vaccines

Corixa Corporation is a new biotechnology company dedicated to the development of T cell vaccines and therapies for cancer and infectious diseases (*Mycobacterium tuberculosis*, as well as parasite and viral targets). Scientist and post-doctoral positions are available in the areas of Immunology, Molecular Biology, Biochemistry, Vaccine Formulations and Tumor Biology. Please send CV, statement of research interests, and names of three references to:

### Corixa Corporation

1124 Columbia, Suite 464  
Seattle, WA 98104.  
FAX: 206-667-5715

Facilities located at Fred Hutchinson  
Cancer Research Center.

#### Scientific founders:

Steven Gillis, Ph.D.  
Steven Reed, Ph.D.  
Kenneth Grabstein, Ph.D.  
Syamal Raychaudhuri, Ph.D.

*Equal Opportunity Employer.*

## SMITH & NEPHEW CHAIR IN CELLULAR AND MOLECULAR BIOLOGY OF TISSUE REPAIR

Smith & Nephew are funding a new research chair with generous support for a nucleus of staff, equipment and running costs in the Department of Biology at the University of York. Its focus will be new approaches to understanding the biology of tissue repair and novel methods of replacement. We wish to encourage novel developments in the study of tissues damaged by surgery, trauma and by acquired or genetic disease. We are particularly interested in new approaches to treatment. Applications are invited from those with a good track record and an active research group working in one or more of the above areas.

The Department of Biology has 36 members of academic staff and a total research staff of over 300. It provides an exciting and well-equipped research environment across a wide range of biology. The principle relevant research areas are infection and immunity, cancer, muscle biology, hard and soft tissue mechanics, reproductive biology, epithelial transport and cell signalling.

Smith & Nephew is one of the world's leading healthcare companies, with a history of advances in medical technology. A strong R & D programme is recognised as essential for growth. The Group Research Centre, based on the University's Science Park with 180 staff, is Smith & Nephew's interface between market-driven demands and the pioneering research being pursued in academic centres. The Group Research Centre is mainly involved in studying biological repair and regeneration, new polymeric materials, and interactions between materials and tissues which improve healing.

The University of York and Smith & Nephew see great advantage and potential in their close proximity, and enjoy a close collaborative relationship.

The appointment is for a permanent Professorship in the Department of Biology. Smith & Nephew's initial support is for five years. This will be a full-time research post whilst external funding for the Chair is provided. Further particulars are obtainable from the Personnel Office. Informal enquiries may be made to the Head of the Biology Department (Dr David White) on 0904 432850.

Salary, within the professorial scale, is by negotiation.

Applications (ten copies) with full curriculum vitae and the names of three referees, should be sent by 31 December 1994 to the Personnel Office, University of York, Heslington, YORK YO1 5DD. Please quote reference number 5/1047.

# THE UNIVERSITY of York

# INNOVATIVE RESEARCH SCIENTISTS

GREENFORD/STEVENAGE

As the largest research based pharmaceutical company in Europe, Glaxo Research and Development aims to promote quality of life the world over. Our medicines combat illness and disease in more than 150 countries and our product range includes the world's best selling prescription medicine.

Initially based at Greenford, West London, you will relocate to our brand new £multi-million research site at Stevenage, Herts, some 30 miles north of London, in early 1995. There you'll find the world's finest state of the art equipment - everything you need to help us make future breakthroughs.

We're now looking for three innovative, enthusiastic and hard-working Scientists to join our Virology Department working in multi-disciplinary teams as follows:

## BIOCHEMIST

To work on purification and characterisation of proteases from the herpes viruses and hepatitis C virus. You should have experience in protein purification and/or enzymology, and an interest in enzyme

mechanism and inhibition. You are likely to have a minimum of a PhD degree or equivalent experience. Ref: VT/VIR/23.

## VIROLOGIST

To lead the work of a research team in the Virology Department aimed at understanding hepatitis virus replication.

You will need a PhD in a biological science, ideally with 2 - 3 years' post-doctoral experience and a proven research record. Practical experience of classical

virology and molecular biological techniques is a prerequisite and previous experience in hepatitis viruses and/or hepatic cell systems would be an advantage. One of your goals will be to establish your group rapidly as a major contributor to hepatitis virus research. Ref: VT/VIR/21.

## MOLECULAR VIROLOGIST

A 3 year post-doctoral vacancy exists for an experienced molecular virologist to work in the newly-formed Virus Pathology research group.

Our interest is in how HIV establishes and maintains chronic infection in the infected individual, and you will be expected to contribute to the development of ideas in this area.

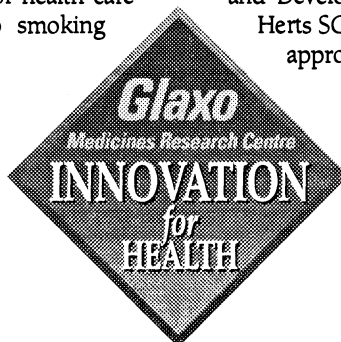
Educated to PhD level you will ideally have 2 - 3

years' post-doctoral experience and an excellent understanding of virology through working with one or more virus/cell systems (HIV experience is desirable but not essential).

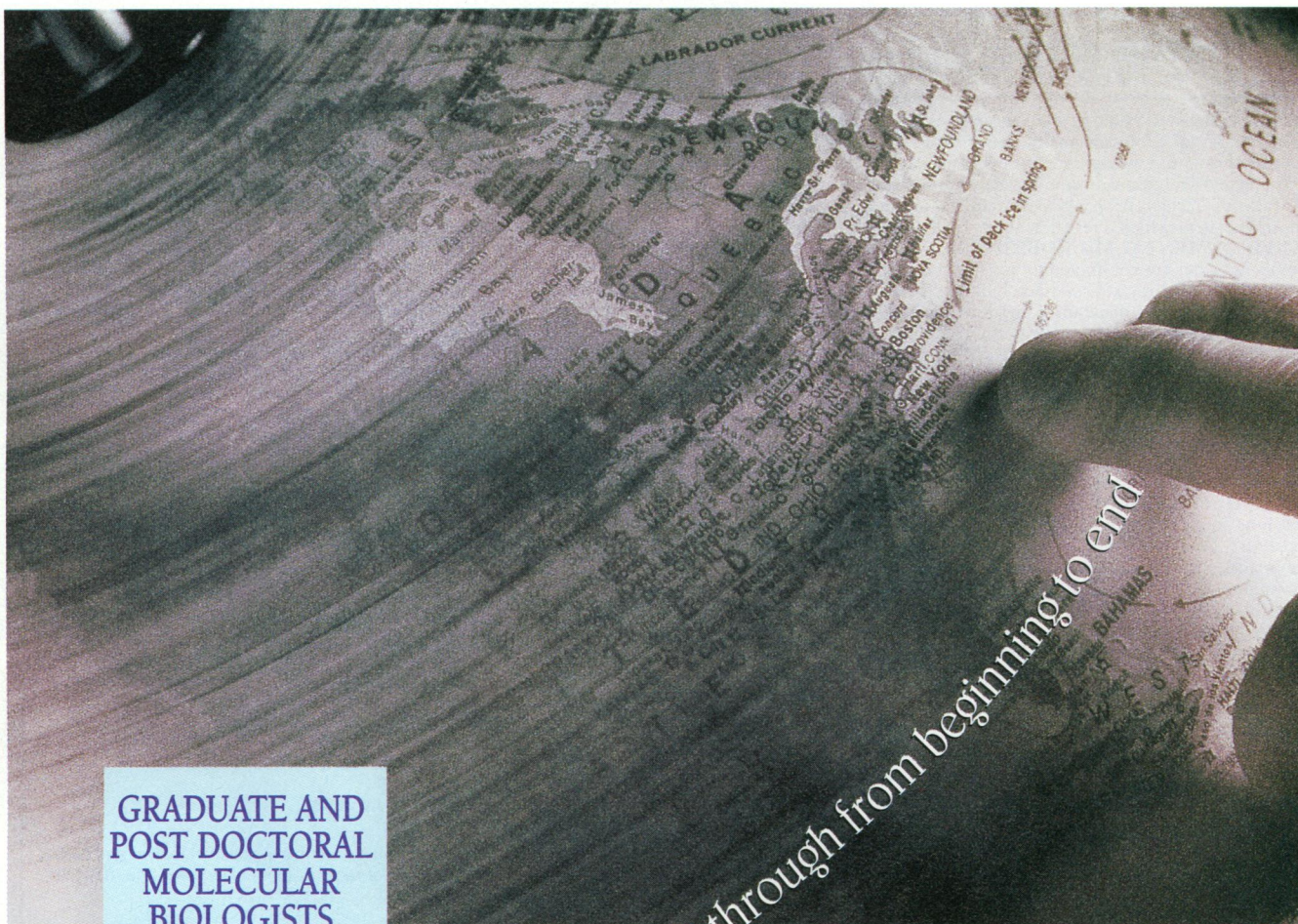
Since this is a scientific research position there will be every opportunity to collaborate with outside groups and to publish. Ref: VT/VIR/22.

In return you will receive a competitive salary and a wide range of benefits including generous relocation assistance where appropriate. As a major health care company, we are committed to a no smoking environment.

Please write, enclosing your CV to: The Assistant Human Resources Adviser (Research), Glaxo Research and Development, Gunnels Wood Road, Stevenage, Herts SG1 2NY, United Kingdom. Please quote the appropriate reference.







GRADUATE AND  
POST DOCTORAL  
MOLECULAR  
BIOLOGISTS  
(2 year contracts)

YEAST GENETICS

ENGLAND

*When we start a project, we see it through from beginning to end*

At Glaxo we are interested in bringing the best of academic research to the critical pharmaceutical needs of our times. And if that means gathering together a team from the four corners of the globe - then that's exactly what we'll do. That's because we firmly believe that bright and developing scientists will provide the creative energy necessary to solve important biological puzzles. If you fall into this class we have an exceptional opportunity for you.

Glaxo is initiating a new program to study the linking of mammalian 7 transmembrane receptors to yeast signalling pathways.



Led by a yeast academic scientist, the team will be made up of talented individuals with a commitment to both solving the practical problem and understanding the basic mechanisms. The work will require imagination and enthusiasm from all team members.

Glaxo provides state-of-the-art facilities for the work beginning at Greenford, West London and continuing at our brand new purpose-built research campus at Stevenage, Hertfordshire, some 30 miles north of London.

If you are a recent doctorate specialising in yeast research or science graduate with a similar interest and a desire to participate in this important work, write to Kate

Lawrey, Glaxo Research and Development Limited, Gunnels Wood Road, Stevenage, Herts SG1 2NY, United Kingdom. Fax: (+44) 438 763055.



## PHYSIOLOGY - MICROBIOLOGY OHIO UNIVERSITY

The Department of Biological Sciences is seeking to fill **four tenure track Assistant Professor positions** beginning September, 1995. The Department is expanding and successful candidates are expected to complement a large and diverse department which presently consists of 47 full-time faculty. All positions require a Ph.D. in Biology or related discipline, demonstrated research ability, and postdoctoral experience.

**ENVIRONMENTAL MICROBIOLOGIST.** Areas of research interest include, but are not limited to, microbial ecology, bioremediation, microbial physiology and soil microbiology. The successful candidate will be expected to maintain a vigorous externally funded research program and participate in graduate and undergraduate teaching.

**COMPARATIVE PHYSIOLOGIST.** Two positions are available for applicants with research interests in adaptational or ecological physiology or biochemistry. Teaching duties will fall in the area of human or animal physiology, biochemistry and/or introductory biology. Candidates are expected to complement present research programs, bridge gaps between field and laboratory research and develop a strong externally funded research program.

**ANIMAL PHYSIOLOGIST.** This position requires a significant teaching commitment in our expanding undergraduate physiology curriculum. Responsibilities will include participation in lectures and laboratories in Physiological Principles, Human Physiology, and Cell Physiology courses and supervision, coordination and development of physiology teaching laboratories. Although the position will be heavily devoted to teaching, the successful candidate will also be expected to establish a research program within the general field of physiology which may be pedagogical or other scholarly research rather than bench research.

Minimum salary for all positions is \$34,000 for 9 months plus a comprehensive benefits package. Applicants should send a curriculum vitae, statement of research and teaching interests and should arrange for three letters of recommendation to be sent to: Jean Witkowski, Biological Sciences, Ohio University, Athens, OH 45701. The application deadline for all positions is January 15, 1995. OHIO UNIVERSITY IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER AND WOMEN AND MINORITY CANDIDATES ARE ENCOURAGED TO APPLY

## Two Marine Science Faculty Positions

The Alabama Marine Environmental Sciences Consortium (MESC) announces the availability of two marine scientist faculty positions beginning in October, 1995 to complement a growing program in estuarine/shelf ecology and oceanography. We are seeking candidates at the Assistant Professor level who can collaborate with a diverse faculty. Salaries are for 10 months and the starting date is negotiable.

**Zooplankton Ecology:** We are seeking an individual who focuses on trophic transfer and/or process-oriented research in zooplankton ecology, at either the micro- or macro-zooplankton level. Especially desirable is the ability to interact with existing faculty with interests in sediment and water-column biogeochemical cycling, phytoplankton ecology and larval fish trophic dynamics. Applications must be postmarked by January 20, 1995.

**Hydrodynamics/Biomechanics:** We are seeking a person who applies the principles of fluid dynamics to the interactions between organisms and their physical environment. Areas of interest might include, but are not limited to, the effects of flow on suspension-feeding, fertilization, larval transport and settlement, or the influence of boundary layers on exchange of materials between organisms, sediments and the water column. A strong background in mathematical modeling is desirable. Applications must be postmarked by February 21, 1995.

The MESC is an independent institution of higher education in Alabama, with 22 member schools from around the state and is housed at the Dauphin Island Sea Lab. Successful applicants are expected to develop a vigorous research program and must have demonstrated a potential to attract extramural funding. Teaching responsibilities normally include 12 quarter hours per year. Graduate student advisement is strongly encouraged and may be facilitated by joint appointment at a MESC member university.

Applications including vitae and a statement of research and teaching interests, along with names and addresses of three references, should be sent to:

**Faculty Search Committee  
Marine Environmental Sciences Consortium  
P.O. Box 369-370  
Dauphin Island, AL 36528  
(205) 861-2141**

The MESC is an equal opportunity/affirmative action employer and does not discriminate on the basis of race, religion, color, sex, age, national origin or physical ability.

The **Centers for Disease Control and Prevention (CDC)** announces the Position of Chief, Behavioral and Prevention Research Branch, Division of STD/HIV Prevention (DSTD/HIVP), which has the primary responsibility to plan, direct, evaluate and coordinate the activities of CDC's largest behavioral research branch and to determine the focus of CDC's behavioral and prevention research activities for sexually transmitted diseases, including human immunodeficiency virus (STD/HIV)

### Qualifications

A Ph.D. in behavioral science (psychology, sociology, anthropology), or M.D., with internship and postdoctoral training in epidemiology is preferred.

### Major Duties/Responsibilities

The individual selected for this position will: Establish missions, goals, performance standards, and priorities of the Branch; Provide expert leadership in behavioral and social science issues as they affect STD/HIV occurrence and transmission; Provide expert competence in response to public health officials, scientists and administrators on behavioral and community level research proposals or consultation relative to STD/HIV prevention; Oversee the design, implementation, and evaluation of model community level intervention programs for the prevention of STD/HIV; Oversee the preparation, organization and submission of scientific manuscripts to assure high publication rates in major peer reviewed scientific journals; and supervise a branch staff of 28.

**Salary: \$69,180 - \$89,931**

For further information, contact Dr. Martin Fishbein, DSTD/HIVP, (404) 639-8300. CVs may be sent to Judy Young, Human Resource Management Office, 1600 Clifton Road, Mailstop D45, Atlanta, Georgia 30333. This announcement will close 12/31/94.

## HEAD, DEPARTMENT OF ANATOMY THE UNIVERSITY OF IOWA

The Department Head as the executive director of the Department of Anatomy shall be responsible for the teaching, research and service operations of the Department. The individual must demonstrate leadership in educational programs by guiding assignments of faculty, research programs, and mentoring of new faculty and support of same, perform service obligations on committees of the College of Medicine and the University. Department Head is expected to manage department resources, including fiscal, facilities, as well as direct short term and long term strategic planning.

The University of Iowa College of Medicine is among the top ten public medical schools in National Institutes of Health funding and is part of a major research university.

Candidates should possess a Ph.D. or M.D. degree, or equivalent, have a distinguished record of teaching, research, and service. Academic rank in the College of Medicine at the University of Iowa will be commensurate with education and experience. The successful candidate must have a demonstrated capacity to foster an environment in which excellent teaching and scholarship can flourish.

The Search Committee seeks candidates who have a record of innovative and effective administrative leadership, previously demonstrated advocacy skills; record of excellent interpersonal skills, expect and enjoy interaction with student, staff and faculty. The candidate should have a commitment to increasing diversity among students, staff, and faculty.

The Search Committee will accept nominations and applications until the position is filled. Submissions should include a letter of application, curriculum vitae and the names, address, and telephone numbers of three or more references. Please send nominations or applications to:

**Michael A. Apicella, M.D.  
Chair  
Search Committee for the  
Head of Anatomy  
University of Iowa College of Medicine  
Office of the Dean  
200 CMAB  
Iowa City, IA 52242**

The University of Iowa is an equal opportunity and affirmative action employer. Women and minorities are strongly encouraged to apply.

## University of Arkansas at Little Rock TWO BIOLOGY POSITIONS

The Department of Biology at the University of Arkansas at Little Rock invites applications for two positions available August, 1995. UALR is a metropolitan institution with a current enrollment of approximately 12,000 students. The Department of Biology consists of 19 full-time faculty members and over 300 majors in its various degree programs. The department is in the College of Sciences and Engineering Technology and offers B.S. degrees in Biology with two concentrations (General Biology and Fisheries and Wildlife Management), Environmental Health Science (four options) and Health Education (two options).

A tenure-track Assistant Professor with expertise in molecular biology is sought. The applicant's research may be in any biological discipline. The successful applicant will be expected to teach a senior level course in molecular biology and a service course at the freshman or sophomore level. The faculty member will also be expected to develop a vigorous research program involving undergraduate students. A Ph.D. is required; post-doctoral experience and the ability to procure external funding are preferred.

A full-time Biology Instructor is also sought. The successful applicant will have a minimum of a Master's Degree in Biology or equivalent and a strong commitment to excellence in teaching. Qualified applicants from all areas of biology are welcome; however, the primary teaching responsibilities of the position will be in General Biology, Anatomy and Physiology, and possibly Microbiology. This position is a non-tenure-track full-time continuing position.

Letters of application should include a curriculum vitae, statements of teaching philosophy and scholarly interests, undergraduate and graduate transcripts, and at least four letters of reference. Review of applications will begin January 16, 1995 and will continue until the position is filled. Applications should be addressed to Dr. Thomas Lynch, Chairperson Molecular Biology Search Committee, or Dr. Robert Watson, Chairperson Biology Instructor Search Committee, Department of Biology.

University of Arkansas at Little Rock is an Equal Opportunity/Affirmative Action employer and actively seeks the candidacy of minorities, women, Vietnam era veterans, and persons with disabilities. Under Arkansas law, all applications are subject to disclosure.



**OKANAGAN**  
UNIVERSITY COLLEGE



## FRESHWATER SCIENCE COLLEGE PROFESSOR

**Kelowna, British Columbia, Canada**

A dynamic leader is required to direct the Bachelor of Science program in Freshwater Science which was introduced in September 1994. This program is offered in cooperation with the University of B.C. and emphasizes an integrated approach to Biological, Chemical, Geographical, Geological and Management aspects of freshwater studies. Minimum qualifications include a Ph.D. in a related discipline, a commitment to teaching, a strong publication record, and a solid background in freshwater resource issues. The successful applicant will provide leadership to the Freshwater Science program and be responsible for teaching two senior level courses which integrate the subject. Teaching assignments in the candidate's traditional discipline may also occur. The successful candidate will develop a research program involving Freshwater Science students and work collaboratively with the Okanagan Institute for Freshwater Studies. This is a continuing appointment effective August 1, 1995. Inquiries should be directed to **Dr. Muggeridge, Dean, Division of Mathematics and Science: telephone (604) 470-6025**. Salary and working conditions are governed by the Okanagan University College Faculty Association Collective Agreement. Salary is \$42,591 to \$61,201 per annum dependent upon qualifications and experience. In accordance with Canada Employment and Immigration requirements, priority will be given to Canadian citizens and Landed Immigrants (permanent residents) of Canada. Please submit a curriculum vitae and names of three referees by **February 15, 1995 (quoting Competition #88FAC94) to: Personnel Services, Okanagan University College, 1000 K.L.O. Road, Kelowna, B.C. V1Y 4X8 Canada.**

## POSTDOCTORAL OPPORTUNITIES

The Bioscience and Biotechnology group in the Chemical Science and Technology division is seeking postdoctoral candidates in the area of structural biology with neutron and x-ray scattering applications aimed at understanding function of biomolecular complexes. We offer state of the art facilities for small-angle x-ray and neutron scattering, as well as an array of complementary spectroscopic capabilities including NMR, EPR, FTIR, optical, laser and time-resolved spectroscopies. We also have substantial synthetic capabilities including isotope labeling. Our group supports a diverse set of applications with this expertise base including: biomolecular structure and dynamics, biomimetic materials development, and biomedical technologies. A PhD completed within the last 3 years or soon to be completed required. Annual starting salaries range from \$41,250 to \$44,570, plus a generous and comprehensive benefit package. For consideration: submit **TWO COPIES** of a curriculum vitae and publication list to Postdoc Programs **94070-PD**, MS P290, Los Alamos, NM 87545. Affirmative Action/Equal Opportunity Employer. Individuals with disabilities needing reasonable accommodation should call (505) 667-8622. A Teletype Device for the Deaf (TDD) is available by calling (505) 665-5357. Los Alamos National Laboratory is operated by the University of California for the US Department of Energy.

**Los Alamos**  
NATIONAL LABORATORY

## ASSISTANT PROFESSOR

**Molecular Oncology  
Columbia University**

The Department of Otolaryngology - Head and Neck Surgery has a tenure-track opening appointment at the level of Assistant Professor to develop a research program in molecular oncology. The position will be a joint appointment with the Division of Oncology, Department of Pathology, where several groups are active in molecular oncology research. All applicants with experience in research on the pathogenesis of human cancer will be considered. Particular attention will be given to those candidates interested in developing a program on head and neck tumors and in benefiting from the strength of the Otolaryngology and Pathology Departments in the diagnosis and clinical management of these neoplasms. New fully equipped laboratory space and generous start-up funds are available.

Applicants should hold the degree of Ph.D., M.D./Ph.D., or M.D., and should have sufficient experience to develop a successful independent research program. Applications should include a curriculum vitae, bibliography, and a brief statement of research programs. Columbia University is an Equal Opportunity/Affirmative Action Employer. Send applications and three letters of recommendation to:

**Lanny Garth Close, M.D., Chairman**  
Department of Otolaryngology  
Head & Neck Surgery  
Columbia University  
College of Physicians & Surgeons  
630 West 168th Street  
New York, N.Y. 10032



**CALIFORNIA INSTITUTE  
OF TECHNOLOGY**

### FACULTY POSITION IN ENVIRONMENTAL ENGINEERING SCIENCE

The Environmental Engineering Science program at Caltech is continuing a search for a tenure-track faculty appointment in Environmental Engineering Science. An initial assistant professor appointment is normally for four years and is contingent upon completion of Ph.D. Exceptionally well qualified applicants may also be considered at the associate or full professor level. EES is an interdisciplinary graduate program bringing together engineers and scientists working on novel approaches to environmental problems, primarily concerned with air and water. We are interested in applicants in the areas of environmental chemistry, environmental microbiology and biochemistry, atmospheric chemistry and physics, and environmental fluid mechanics. Any candidate must have a strong interest in environmental applications, research accomplishment in one or more of the relevant areas, evidence of ideas for a highly-productive and innovative research program, and a strong commitment to teaching. Applicants should send a curriculum vitae and list of publications with refereed articles clearly marked, the names of at least three references, and a statement of research and teaching objectives to: Professor J. J. Morgan, EES Committee Chairman, Environmental Engineering Science, Keck Laboratories 138-78, California Institute of Technology, Pasadena, CA 91125. Caltech is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans, and disabled persons are encouraged to apply.

## LABORATORY AUTOMATION

Pioneer Hi-Bred International Inc., the world's largest developer, producer, and marketer of agricultural seeds, has an immediate opening for an Automation Manager in the Information Management Division, Automation Group. Pioneer is an equal opportunity employer providing a competitive salary, excellent benefits and facilities, plus a cooperative work environment.

The successful applicant will be part of a lab automation team responsible for the development of automation projects to support biotechnology lab research activities. Automation projects may range from computer-assisted data acquisition, instrument interfacing, image analysis, and software evaluation, to the design, development and implementation of robotic systems. The manager will set the overall direction for the lab automation effort, initiate projects, and cooperate with lab scientists to apply automation technologies to enhance laboratory research. Requires Ph.D. in biology, biosystems engineering or closely allied biological/agricultural science with experience in instrumentation, automation, and computer technology in a lab research environment.

Send resume to:  
Pioneer Hi-Bred International, Inc.  
Life Cycle Information Management  
Attn: Georgia Roorda  
7300 NW. 62 Ave.  
P.O. Box 1004  
Johnston, IA 50131  
email: roordaga@phibred.com



**PIONEER.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION

Available immediately for Ph.D. or M.S. for studies on immunoglobulin genes. Experience in molecular biology techniques is required, background in immunology is desirable. Please send curriculum vitae and letters of reference to: Jan Cerny, M.D., Ph.D., Department of Microbiology and Immunology, University of Maryland School of Medicine, 655 West Baltimore Street, BRB 13-013, Baltimore, MD 21201.

**POSTDOCTORAL POSITION** to study the signal transduction of Fc receptors. Projects include molecular approaches to study cell motility and tyrosine kinases. Experience in recombinant DNA and protein purification strongly preferred. Send curriculum vitae and three letters of reference to: Dr. Steven Greenberg, Columbia University, P&S 9-503, 630 West 168th Street, New York, NY 10032. FAX: 212-305-5775; Email: Greenberg@cuccfa.ccc.columbia.edu. An Affirmative Action/Equal Opportunity Employer.

### ASSISTANT EDITOR nature Structural Biology

*nature Structural Biology*, a monthly journal of structural biology research, has an opening for an ASSISTANT EDITOR, to work full-time in Washington, DC. Applicants should be familiar with the parent journal *Nature*, be broadly knowledgeable about all aspects of structural biology and, ideally, have prior editorial experience. Sound scientific judgment and an exceptional ability to write clearly are essential. Although applicants with postdoctoral experience are particularly welcome, those with a Ph.D. who are interested in a career change, are also encouraged to apply. No telephone inquiries please. Applicants should submit a résumé, a sample News and Views article (of ~1000 words) with a structural biology theme and a letter explaining their qualifications to:

Editor  
nature Structural Biology  
1234 National Press Building  
529 14th Street, NW  
Washington, DC 20045

*nature Structural Biology* is an Equal Opportunity/Affirmative Action Employer.

### DIAGNOSTICS COAGULATION R&D

Ph.D. scientists to develop *in vitro* diagnostic reagents in clinical chemistry and vascular biology. Experience in enzymology, protein purification techniques and/or lipid chemistry is necessary (for additional details, Email: douglasm@sial.com). We offer a competitive salary and full benefits package. For confidential consideration, mail or FAX curriculum vitae:

Beverly Basler  
Sigma Diagnostics  
545 South Ewing  
St. Louis, MO 63103  
FAX: 314-531-2586

We are an Equal Opportunity Employer

## ANNOUNCEMENT

**REQUEST FOR PROPOSALS** to design a statistically efficient and unbiased scheme for sampling the population of juvenile coho salmon inhabiting streams on the northern California coast. Proposals are due by January 6, 1995. Descriptions of the problem and the proposal format can be requested from the Farm, Fish, and Forestry Coalition at (FAX) 916-444-0170 or cfa@holonet.net.

## COMPUTER MARKETPLACE

**CyberDope™**

"Ten million times better than random  
combinatorial mutagenesis" *Bio/Tech*. 11:1548

!!! {K,N,R,S,T} = A(ACG)(CG) ≠ NNN !!!

**KAÏROS® Scientific Inc.**

FAX: 408-362-1200 E-Mail: cyberdope@aol.com

Circle No. 11 on Readers' Service Card

## MARKETPLACE

**CUSTOM DNA SYNTHESIS**

**PURE & SIMPLE**

**\$2<sup>19</sup>**  
as low as per base plus set up

- Price
- + Superb Technical Support
- + Impeccable Quality
- + World's Fastest Service

**MIDLAND**

THE UNDISPUTED #1  
CUSTOM DNA SYNTHESIS SERVICE

**THE MIDLAND CERTIFIED REAGENT COMPANY**  
3112-A West Cuthbert Avenue  
Midland, Texas 79701  
Phone 1-800-247-8766 FAX 915-694-2387

Circle No. 2 on Readers' Service Card

**\$195 CUSTOM PEPTIDES**

• Mass Spec. • 15-30 mg.  
• 8-20 residues.

**Special Offer thru December 1994**



**CHIRON**  
MIMOTOPES  
PEPTIDE SYSTEMS

North America:  
Tel: 1-800-338-4965  
Fax: 1-800-654-5592

CM 0893

Circle No. 16 on Readers' Service Card

**KEYSTONE**  
Laboratories, Inc.

The Complete  
Oligonucleotide  
Company

**Oligonucleotides: \$2.30/base**  
Volume orders of 200 bases or more.

**No set-up fee. Shipped in 24hrs.**

Tel. 1-800-788-4DNA • Fax 1-800-786-4DNA

Circle No. 4 on Readers' Service Card

**GUARANTEED  
PEPTIDES**

**\$18.** No setup chg.  
25± mmole  
8-20 residues  
5 working days

per residue  
resin peptide  
\$200/peptide min.

Trifunctional amino acids  
slightly higher; cleavage, purification and analysis extra.

**Advanced ChemTech**

Fax(502) 968-1000 • 1-800-456-1403

Circle No. 20 on Readers' Service Card

## MARKETPLACE

World leader in Synthetic DNA and Peptides

**DNA**

• NO SETUP charge • NO minimum order

**\$1<sup>99</sup>**  
base

• Column Purified  
• >5.0 OD's (~200 µg)  
• Gel Picture Q. C.  
• Synthesis Report

**PEPTIDES**

**! FREE MASS SPEC !**

• NO SETUP charge • Free HPLC Tracing

**\$20<sup>00\*</sup>**  
/res.

• 15-40 mgs  
• 8-20 residues  
• Shipped in 5 days

! Antipeptide Antibodies production services, & more !

Since 1984, serving you with quality products

**BIO-SYNTHESIS**

1-800-227-0627 Fax: 214-420-0442

Circle No. 12 on Readers' Service Card

**HUMAN ENDOTHELIAL CELLS**  
VENOUS, ARTERIAL, and  
MICROVASCULAR SYSTEMS

True pools of >50 donors, frozen @ <6 CPD *in vitro*,  
>500,000 cells, complete CS growth medium system  
characterized and tested for cytokine-stimulated leuko-  
cyte adherence, negative for HIV-1 DNA by PCR

**800-697-1211**

**cell systems**

Circle No. 19 on Readers' Service Card

**PEPTIDES**  
(worldwide service)

**\$20/RES.** (Discount for 1st order)

No setup charge, free HPLC/A.A. analysis

**PEPTIDE ANTIBODY: \$250/RABBIT**  
UNBEATABLE: NO CHARGE IF NO ANTIBODY PRODUCTION

**PEPTIDE LIBRARY: FROM \$150/LIBRARY**  
TANA LAB., LC, 1-800-400-0070(Tel)  
1-713-663-7163(Fax)

Circle No. 29 on Readers' Service Card

**ONLY DNA**

No frills, Just good DNA at very low prices

**\$1.60 per base**

• No set-up fee • 48 hour turnaround  
• 50 nanomole synthesis

1-800-359-5794 email onlydna@wln.com

Circle No. 15 on Readers' Service Card

**Express Peptides**

**15 mg in 5 days**  
**\$25 per residue**

**Research Genetics, Inc.**

**1-800-533-4363**

Circle No. 3 on Readers' Service Card

NEW ENGLAND BIOLABS

# Molecular Biology

## Summer Workshops

---

### WHEN:

Session I: June 4-June 17, 1995  
Session II: July 2-July 15, 1995  
Session III: July 23-August 5, 1995

### WHERE:

Clark Science Center  
Smith College  
Northampton, MA

### FACULTY:

**Dr. Steven A. Williams**  
Dept. of Biological Sciences, Smith College,  
and Molecular and Cellular Biology,  
University of Massachusetts

**Dr. John R. McCarrey**  
Dept. of Genetics, Southwest  
Foundation for Biomedical Research

**Dr. Barton Slatko**  
New England Biolabs, Inc.  
DNA Sequencing Group

**Dr. Janet B. Williams**  
New England Biolabs, Inc.

### TO APPLY:

For this workshop, please submit a recent C.V.  
and a one page statement of motivation to:

**Dr. Steven A. Williams**  
Clark Science Center  
Smith College  
Northampton, MA 01063

*We are pleased to announce the tenth annual New England Biolabs Molecular Biology Summer Workshops held at Clark Science Center, Smith College, Northampton, MA.*

**INTENSIVE BENCH EXPERIENCE:** This intensive, two-week course emphasizes hands-on molecular biology laboratory work. About eight hours each day will be spent working at the bench. All of the work is hands-on; there are no demonstrations.

**EXPERIMENTS WILL INCLUDE:** Construction and screening of genomic and cDNA libraries, PCR, RNA-PCR, purification of DNA, restriction enzyme digestion, gel electrophoresis, construction of recombinant DNA molecules, cloning in plasmid and phage vectors, cloning strategies, bacterial transformation, Southern and Northern transfer and hybridization, radioactive and non-radioactive labeling of DNA, and DNA sequencing. All of these techniques are woven into a cohesive research project carried out by each participant during the two-week session. Lectures and discussion sessions (at least three hours each day) will deal with all of the above topics and the application of these methods in molecular biology research.

**INTENDED FOR BEGINNERS IN MOLECULAR BIOLOGY:** No previous experience in molecular biology is required or expected. Forty participants per session will be selected from a variety of disciplines and academic backgrounds. Last year's participants included principal investigators, directors of programs, postdoctoral fellows, graduate students, and research assistants. Their fields of research included medicine, biochemistry, ecology, immunology, microbiology, pharmacology, plant biology and others. They came from large universities, small colleges, medical schools, hospitals, industry, and private foundations.

**FEE:** \$2900 per participant includes lab manual, use of all equipment and supplies, and room and board (all rooms are singles). Fee includes the use of the libraries and all campus athletic facilities including indoor and outdoor tennis courts, pool, weight room, track, etc.

---

**APPLICATIONS MUST BE RECEIVED BY March 1, 1995.** Notification of acceptance, wait-list, or rejection will be mailed by March 7, 1995. Payment in full will be due by April 15, 1995. Your application should include a C.V. and a one page statement explaining your motivation for taking the course. Please specify the session to which you are applying (I, II, III) and indicate if you wish to be considered for one of the other sessions as a second choice. Women and minorities are especially encouraged to apply. **For additional information, please contact Dr. Steven A. Williams at (413) 584-3643.**

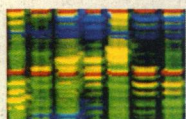






Discovery begins with a multitude of colors.

**ABI  
PRISM**



*The power of multi-color analysis—only with ABI PRISM Systems.*

Only ABI PRISM genetic analysis products bring you the power of multi-color analysis. Because with our line of ABI PRISM instruments, reagents, and software, multicolor labeling is part of DNA analysis from start to finish. So you harness the power of automation to generate more data and turn it into meaningful results.

ABI PRISM systems determine the color as well as the position and intensity of a gel band. This additional color information enables ABI PRISM systems

to separate a complex molecular mixture—*run in a single lane*—into a spectrum of molecular species.

With multicolor labeling, all four DNA sequencing reactions run in one lane. Likewise, controls and PCR products run in the same lane. Electrophoresis variables can't interfere, so results are reproducible, gel to gel.

Our integrated systems streamline your genetic research. Start with convenient ABI PRISM reagent kits for DNA sequencing and PCR product analysis. Continue with electrophoresis on the proven ABI PRISM 373 DNA Sequencer—the heart of the system. And finish with ABI PRISM software, which converts raw data into definitive answers. ABI PRISM genetic analysis systems are unmatched

in throughput, accuracy, and convenience. And they're backed by our commitment to advancing your research. As part of Perkin-Elmer, the Applied Biosystems Division offers the most comprehensive range of products, services and support for DNA analysis.

Begin your next discoveries with the power of multicolor analysis. Call your local Perkin-Elmer representative today.

**PERKIN ELMER**

**U.S.** Foster City, U.S. Tel: 800-345-5224 Fax: 415-572-2743

**Europe** Langen Germany Tel: 49-6103-708-0 Fax: 49-6103-708-210

**Canada** Mississauga, Canada Tel: 905-821-8183 Fax: 905-821-8246

**Japan** Tokyo, Japan Tel: 81-473-80-8500 Fax: 81-473-80-8505

**Latin America** Mexico City, Mexico Tel: 52-5-651-7077 Fax: 52-5-593-6223

**Australia** Melbourne, Australia Tel: 61-3-212-8585 Fax: 61-3-212-8502

ABI PRISM is a trademark and Perkin-Elmer is a registered trademark of The Perkin-Elmer Corporation.