#### **Products & Materials**

## HPLC Peptide Standards

HPLC Peptide Standards are designed to monitor the reproducibility and reliability of high-performance liquid chromatography equipment. The standards are also useful for monitoring peptide separation. The standards consist of a mixture of five decapeptides of varying hydrophobicity. The standards are dissolved in water and each vial contains approximately 100 injections. They can also be used as internal standards to determine the relative hydrophobicity of peptides of interest or to determine optimal gradients for specific purifications. Multiple Peptide Systems. Circle 529.

## **Monoclonal Antibodies**

A monoclonal antibody (MAb) to Mouse Type 3 complement receptor (CD11b) is available. Serotec. Circle 530.

MAbs to annexins I, II, IV, and VI;  $p34^{cdc2}$  kinase; ezrin; paxillin; PLC $\gamma$ ; epidermal growth factor receptor; MAP2 kinase; and phosphotyrosine (PY54) form the backbone of a complete kinase research range. Affiniti Research Products. Circle 531.

MAbs are available specific for the murine vitronectin receptor, transferrin receptor, ICAM-1(CD54), macrophage, CD43, and CD45R (A-Exon dependent, B-Exon dependent, Carbohydrate moiety). MAbs specific for V $\beta$ 2, V $\beta$ 10, V $\beta$ 14, and V $\alpha$ 2 have also been added to the mouse T cell receptor product line. PharMingen. Circle 532.

A new line of MAbs to cell cycle regulatory elements includes p34<sup>cdc2</sup> (PSTAIR region), MAP2 kinase, EGF receptor, and GAP protein. PharMingen. Circle 533.

# Capillary Electrophoresis System

Prime Vision is a modular capillary electrophoresis system. The system offers a choice of three detectors: a single-wavelength detector, a dual-wavelength detector, and a multiwavelength detector with high-speed scanning. It includes a highpower reversible voltage supply regulated from 0 to 30 KV with a 0 to 400  $\mu$ amp current, a manual sampler with two kinds of injection (electrokinetic and hydrodynamic), and a temperature stabilizing system. Europhor. Circle 534.

## Chromatography Macintosh Software

PEAKS is a new software program for users of MacLab data acquisition systems that permits the acquisition, display, and analysis of chromtographic data. Mousedriven menus provide full control over all commonly used features. PEAKS offers automatic peak detection with user modifiable detection parameters, automatic or manual baseline fitting, user-defined injection times, data smoothing, peak editing, and the automatic generation of peak lists including peak statistics. World Precision Instruments. Circle 535.

# Statistical Software

A new version has been released of DE-SIGN-EASE software for design of experiments. The software includes two-level factorial, fractional factorial, and Plackett-Burman designs. New features include the ability to design experiments with up to 15 variables, to include variables that are continuous or categorical, and to perform onevariable designs with multiple levels. Stat-Ease. Circle 536.

## Gels for Submarine DNA Electrophoresis

Poly(NAT) Gels are ready-to-use, synthetic gels for submarine electrophoresis of DNA fragments They are made of the monomer NAT (N-acryloyl-Tris) and a cross-linker. The gels are precast on a plastic support, thereby eliminating the need to handle toxic solutions. The gels come in three different concentrations, each optimized for a specific size range from 30 to 6000 bp. ELCHROM AG. Circle 537.

## Automated DNA Synthesizer

SYNOSTAT D is an automated instrument capable of synthesizing up to three oligonucleotides simultaneously. Reagent flow and filling of synthesis columns are



monitored with on-line sensors. The synthesis scale ranges from 0.05 to 15  $\mu$ mole. Economical use of expensive nucleotides is achieved through a metering syringe in combination with a patented, zero-dead-volume valve block. Eppendorf North America. Circle 538.

## Literature

1991 Chromatography Supplies Catalog contains 224 pages of information on chromatographic columns, sample preparation products, syringes, paper, chemical standards, and accessories. Varian Analytical Instruments. Circle 539.

*Biotext* is a free newsletter. A recent issue describes high-performance liquid chromatography columns developed for analyzing acids and bases, capillary electrophoresis columns, and other columns. Supelco. Circle 540.

Programmable Slide Stainers HMS Series is a six-page brochure that describes several models of automated slide stainers. Carl Zeiss. Circle 541.

PYRAMID Chromatography Manager is a free demonstration disk of this userconfigurable data acquisition and analysis system. An IBM PC-AT with at least 4 megabytes of hard disk memory is required to run the demonstration. Axxiom Chromatography. Circle 542.

UV Data Manager Software is a brochure that describes a comprehensive spectroscopy software package. Perkin-Elmer. Circle 543.

Tekmar 91/92 is a catalog that features labware, temperature recyclers, a hybridization incubator, and mass flow controllers. Tekmar. Circle 544.

PeakPro Chromatography Data System is a brochure on a VAX-based system with analog-to-digital conversion, data buffering, optimized peak detection, and validation tools. Beckman Instruments. Circle 545.

#### Correction

The company name Stratagene was spelled incorrectly under the product heading "Still Video Gel Documenter" in the 23 August issue (page 921).

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.

# 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. Advertisements 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. Deadline for applications stated in ad must be at least 2 weeks after date of publication. Include billing information, and desired publication date.

 Mail or FAX materials to: Science Classified Advertising 1333 H Street, N.W., Room 940 Washington, DC 20005 Telephone: 202-326-6555 FAX: 202-682-0816

- Rates: Ads are \$41 per line; \$410 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. If you would like *Science* to give estimated cost, indicate on letter.
- Ads from Outside the U.S.: Prepayment made in U.S. dollars by checks drawn on U.S. banks is required.
- Credit Cards: Science accepts 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 information about fractional display ads (all ads ½ page and larger) and all Marketplace listings, contact: Scherago Associates 1515 Broadway New York, NY 10036 Telephone: 212-730-1050 FAX: 212-382-3725

**CONDITIONS:** Personnel advertising is accepted only with the understanding that the advertisers do not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap or sexual preference. The AAAS encourages employers to actively recruit and employ underrepresented minority groups. *Science* reserves the right, at its discretion, to decline to publish advertisements submitted to it.

6 SEPTEMBER 1991

#### **POSITIONS OPEN**

#### INTEGRATIVE NEUROSCIENCE ASSISTANT PROFESSOR

The University of California, San Francisco, seeks applications for one or two tenure-track faculty positions in the newly formed W. M. Keck Foundation Center for Integrative Neuroscience and the interdepartmental Neuroscience Graduate Program. Departmental appointments for this position will be in the Department of Physiology and/or the Department of Psychiatry. The successful applicant will develop an independent research program involving some aspect of integrative neuroscience and will participate in graduate and professional teaching. The research may use any combination of approaches including the traditional techniques of systems neuroscience and new approaches employing biological or computational methods. Applications should include curriculum vitae, a statement of research interests, reprints of selected publications, and the names and addresses of three individuals who have been asked to submit letters of recommendation. Women and minorities *are encouraged to apply*. Materials should be sent to: Chairman, Integrative Neuroscience Search Committee, Department of Physiology, Box 0444, University of California, San Francisco, CA 94143–0444. University of California, San Francisco, is an Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR SECTION OF GENETICS DUKE UNIVERSITY MEDICAL CENTER

The Section of Genetics at Duke University Medical Center invites applications for tenure-track, junior level faculty positions. Individuals utilizing genetic approaches to address problems in most any important area of biology will be considered. The Section of Genetics is a newly created academic unit that offers a cohesive and interactive research environment as well as an extremely attractive and generous package of research support. Applicants should forward curriculum vitae, a statement of research plans, and the names of three references to: Dr. Joseph R. Nevins, Section of Genetics, Duke University Medical Center, P.O. Box 3054, Durham, NC 27710. Duke University is an Equal Opportunity/ Affirmative Action Employer.

VISITING ASSISTANT PROFESSOR in biochemistry or bio-organic chemistry, with a contract running from February or September 1992 through May 1993. The position may eventually be converted to tenure track. ACS-approved department in an undergraduate university of 1700 students. Ph.D. in biochemistry or organic chemistry required. The successful candidate will be expected to teach biochemistry, and share in the teaching of organic chemistry, nonmajors courses, laboratory sections and supervise undergraduate research. Send application, curriculum vitae, including undergraduate and graduate transcripts, and have three letters of recommendation sent to: Dr. Timothy R. Rettich, Head, Department of Chemistry, Illinois Wesleyan University (IWU), Bloomington, IL 61702. Applications considered beginning 3 weeks after first publication of this ad. *IWU is an Equal Opportunity Employer and applications from women and minorities are* strongly encouraged.

#### ASSISTANT PROFESSOR CELL BIOLOGY

The Department of Zoology at the University of Texas at Austin invites applications for a tenure-track faculty position (assistant professor). Candidates should be actively engaged in research on fundamental problems of cell biology. Areas of interest include cell growth, development and differentiation, receptors and growth factors, the cytoskeleton, cell-cell interactions, and signal transduction. However, all areas of cell biology will be considered.

Submit curriculum vitae, names of three to five persons who can provide letters of recommendation, and a brief description of research interests to:

The Chairman Cell Biology Search Committee Department of Zoology The University of Texas at Austin Austin, TX 78712

Applications should be submitted by 15 October 1991.

The University of Texas at Austin is an Affirmative Action/Equal Opportunity Employer.

#### **POSITIONS OPEN**

HARVARD UNIVERSITY ASSISTANT PROFESSOR CELLULAR AND DEVELOPMENTAL BIOLOGY (CDB)

The Department of Cellular and Developmental Biology intends to make an assistant professor appointment (entry level) effective September 1993. Our department covers a broad range of topics in cellular biology, developmental biology, and molecular genetics. We are seeking outstanding candidates in any of these fields. We strongly encourage applications from women and minority groups. Applications should include curriculum vitae, reprints of publications, and a statement of present and future research plans. Complete applications and three letters of recommendation solicited by the applicant should be received no later than 15 October 1991 by: CDB Search Committee, Cellular and Developmental Biology, Harvard University, 16 Divinity Avenue, Cambridge, MA 02138; telephone: 617-495-2327. Harvard University is an Affirmative Action/Equal Opportunity Employer.

#### FACULTY POSITION

The Department of Surgery, Wayne State University, School of Medicine, invites applications for a Research Faculty position as ASSISTANT PROFESSOR with a joint appointment in an appropriate basic science department of the School of Medicine. Applicants must hold Ph.D. or equivalent degree and have at least 2 years of postdoctoral research training. Preference will be given to candidates with established background in molecular biology and interest in intracellular pH regulation. The position involves supervision of research related to mechanisms of intracellular pH. Submit curriculum vitae, description of research interest and names of three references to: David Fromm, M.D., Chairman, Depart ment of Surgery, 6C University Health Center, 4201 St. Antoine, Detroit, MI 48201.

ASSISTANT PROFESSOR to conduct biotechnology research in the area of molecular biology of cancerrelated genes, particularly the retinoblastoma gene; develop research program to compete for extramural funding; supervise graduate students and postdoctoral fellows in the conduct of experiments, analysis and writing. M.D. or Ph.D. in molecular biology plus 2 years of experience as molecular geneticist, evidence of refereed publications in the area of molecular genetics; DNA cloning, recombinant DNA and sequencing. Also requires 2 years of experience as molecular geneticist. Salary: \$46,688 per year. Send résumés to: Bernie Childerston, Nebraska Department of Labor, Box 94600, Lincoln, NE 68509. Refer to Job Order # 520-264.

BIOCHEMIST. Tenure-track position at the AS-SISTANT PROFESSOR level, in ACS certified program beginning 1 September 1992. A broad background in chemistry with a Ph.D. in biochemistry is required. Develop new laboratory courses in biochemistry and also teach introductory chemistry courses. Research with undergraduates expected. Special consideration will be given to candidates with research interests in protein chemistry; protein nucleic acid interactions; membrane receptor/regulatory mechanisms. Periodic participation in interdisciplinary general education program required. Send résumé, undergraduate and graduate transcripts, and three letters of recommendation by 25 October 1991 to: Dr. David D. Grove, Search Committee, Chemistry Department, Eckerd College, P.O. Box 12560, St. Petersburg, FL 33733. Eckerd College is an Equal Opportunity Employer.

#### FACULTY POSITION IN EUKARYOTIC MOLECULAR BIOLOGY

The Department of Biochemistry, University of Rochester Medical Center, is seeking applications for the position of ASSISTANT PROFESSOR. Applicants should be prepared to conduct active independent research, using molecular techniques to study cellular mechanisms and human disease. Considerable prior research experience is required. The university provides wide opportunities for collaboration with investigators in clinical and basic science departments, and in the Cancer Center. This university is an Equal Opportunity Employer. Send curriculum vitae and letters of recommendation to: Dr. Fred Sherman, Chairman, Department of Biochemistry, University of Rochester, 601 Ellmwood Avenue, Rochester, NY 14642.

PERSONNEL PLACEMENT 1155

#### ASSISTANT IN BIOLOGY

Assistant in biology position (ASSISTANT PRO-FESSOR level) available in Renal Laboratory of teaching hospital affiliated with leading medical school. Duries include: Performing biophysical research on the molecular basis of ion transport regulation as it applies to several human genetic disorders which include, but are not restricted to, essential hypertension and cystic fibrological research which heavily involves the patch-clamp technique to the study of ion channel regulation and function in cells of kidney and airway origins. Correlate these studies with those of compartmental and impedance analysis as well as microfluorescence and videoimaging techniques. Special emphasis on the application of these techniques to the study of fine physical basis of electric field-mediated control of ionic transport into cells and their possible role in the control of cellular function. Advising and teaching medical and postdoctoral students biophysical research.

Applicants must have a doctoral level degree in biophysics with a minimum of at least 3 years of postdoctoral experience in biophysical research. Expertise in cell culture technique and electronics required. Extensive knowledge of electrical studies in biological systems required (short circuit current, impedance analysis and the patch-clamp technique). Prior use of radioisotopes in biology preferred. Working knowledge of computing technology, digital equipment and analog electronics required. Salary: \$48,000 per annum. Send two résumés to: Department of Employment

Send two résumés to: Department of Employment and Training, Special Programs, 19 Staniford Street, Boston, MA 02114 and refer to job reference # 1771.

#### DEVELOPMENTAL BIOLOGIST

We are seeking an outstanding individual for a tenuretrack faculty position in developmental biology. The appointment will be made at the ASSISTANT PRO-FESSOR level, to start fall semester, 1992.

The successful candidate will be expected to initiate and maintain a vigorous research program utilizing modern molecular technology addressing a significant problem in animal and/or plant developmental biology. Teaching at both the undergraduate and graduate levels will also be required.

We offer a competitive salary, seed money, modern research space, outstanding animal care facilities, and ready access to major equipment such as TEM, SEM, and a staffed Biocore facility housing macromolecular synthesizers, sequenators, a FACS and provisions for molecular modeling. Submit curriculum vitae, names of three references and a statement of research interests by 15 October 1991 to: Dr. Kenyon S. Tweedell, Department of Biological Sciences, University of Notre Dame, Notre Dame, IN 46556. Notre Dame is an Affirmative Action/Equal Opportunity Employer encouraging women and minorities to apply.

ECOLOGIST. The Department of Ecology and Evolution at the University of Chicago seeks to hire an ecologist with interests in evolutionary biology working on plant, animal or microbial species for a faculty position at the ASSISTANT PROFESSOR level. To apply please send curriculum vitae, reprints, and a statement of research interests and have three letters of recommendation sent by 15 November 1991 to: Chair, Ecology Search Committee, Department of Ecology and Evolution, The University of Chicago, 940 East 57th Street, Chicago, IL 60637. Affirmative Action/Equal Opportunity Employer.

#### ASSISTANT PROFESSOR OF CHEMICAL ENGINEERING MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Applicants are invited for a junior-level, tenure-track faculty position in the Department of Chemical Engineering at the Massachusetts Institute of Technology (MIT). Applicants should have a Ph.D. in chemical engineering or a closely related field, should have demonstrated excellence in research, and should have a strong interest in teaching graduate and undergraduate chemical engineering. Send résumé including the names of at least three references, graduate transcripts and a description of research interests to: Dr. Robert A. Brown, Head, Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, MA 02139. Material should be received by 15 January 1992. *MIT is an Equal Opportunity, Affirmative Action Employer*.

#### **POSITIONS OPEN**

#### ASSISTANT PROFESSOR DEPARTMENT OF IMMUNOLOGY

The Department of Immunology at the University of Toronto invites applications for an Assistant Professor tenure-track position, to begin as early as January 1992. This position requires the ability to establish an independent, competitive research program in molecular or cellular immunology and to undertake a light teaching load. Send résumé, including current and long-term research objectives and the names/addresses of three referes to: Dr. M. J. Shulman, Acting Chair, Department of Immunology, Medical Sciences Building, University of Toronto, Toronto, Ontario, Canada M5S 1A8. Applications must be received by 15 October 1991. The University of Toronto is an Equal Opportunity Employer.

MICROBIOLOGIST. Washington State University (WSU)-TriCities and the Environmental Sciences Research Center at Pacific Northwest Laboratory (PNL) invite applications for a tenure-track ASSISTANT PROFESSOR position in the area of environmental microbiology. The successful candidate is expected to interact with an active group at PNL investigating degradation and stabilization of pollutants. Preference will be given to candidates with expertise in microbial physiology, genetics, or biochemistry related to metabolism or growth of microorganisms. Candidates are expected to develop a strong research program using funds provided for the position and by seeking extramural support. Responsibilities include teaching at the graduate and undergraduate levels at WSU-TriCities and advising graduate students. The individual must have a Ph.D. and a record of accomplishment. Postdoctoral experience is desirable. A letter of application, curriculum vitae, and three letters of reference should be sent to: Dr. Michael Kahn, Environmental Microbiologist Search, Department of Microbiology, Washington State University, Pullman, WA 99164–4340. Applications will be accepted until 1 October 1991 or until the position is filled. *WSU is an Equal Opportunity/Affirmative Action Educator and Employer. Protected group members are encour-*

#### SUNY HEALTH SCIENCE CENTER SYRACUSE FACULTY POSITION IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

We invite applications for a tenure-track position. While we expect to make the appointment at the AS-SISTANT PROFESSOR level, candidates at higher levels also will be considered. Outstanding candidates in all areas of biochemistry and molecular biology are encouraged to apply. Applicants must have a Ph.D. or equivalent degree in biochemistry or related field, postdoctoral experience, demonstrated research productivity and a commitment to excellence, in teaching medical and graduate students. Send letter of application (with curriculum vitae and summary of research plans) and have three letters of reference forwarded to: Dr. Harvey S. Penefsky, Chair, Search Committee, Department of Biochemistry and Molecular Biology, State University of New York Health Science Center at Syracuse, 750 East Adams Street, Syracuse, NY 13210. Review of applications will begin 6 December 1991 and continue until the position is filled.

An Affirmative Action/Equal Employment Opportunity Employer.

#### UNIVERSITY OF PENNSYLVANIA DEPARTMENT OF CHEMISTRY

As part of a continuing development program, the Department of Chemistry at the University of Pennsylvania expects to make two appointments in physical chemistry. One appointment will be at the ASSISTANT **PROFESSOR** (tenure probationary) level with an area of research interest in experimental physical or biophysical chemistry. The second will be a senior appointment (tenured) with an area of research interest in theoretical physical chemistry. Applicants for assistant professor should send curriculum vitae, list of publications, and a description of research to: Amos B. Smith III, Chairman, Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19104–6323, by 15 October 1991. Applicants for assistant professor should also arrange three letters of reference to be sent to the same address. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

ASSISTANT PROFESSOR. Join Behavioral Genetics Program in Department of Psychiatry. Aid expanding research program in genetics of affective disorders and developing independent research in related area. Ph.D. in related field with 2 to 5 years of postdoctoral experience. Expertise in standard psychiatric assessment, differential diagnosis, and some methodological aspect of behavioral genetics or genetic epidemiology required. Send curriculum vitae, three published papers and three letters of reference to: R. Arlen Price, Ph.D., Director, Behavioral Genetics Program, Department of Psychiatry, University of Pennsylvania, 422 Curie Boulevard, CRB-145B, Philadelphia, PA 19104–6141. Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR MOLECULAR BIOLOGY OF VISION JOHNS HOPKINS MEDICAL SCHOOL

The Department of Ophthalmology (Wilmer Institute) of The Johns Hopkins Medical school invites applications for two tenure-track assistant professor positions in the new unit devoted to molecular biology and molecular genetics of vision. Although individuals with past experience using molecular approaches to study the visual system are preferred, molecular biologists with interest in moving into eye research are also encouraged to apply.

Interested applicants should send curriculum vitae, statement of research interests, and three letters of recommendation to: Dr. Ruben Adler, Chairman of Search Committee, The Johns Hopkins University School of Medicine, The Wilmer Institute, Maumenee 519, 600 North Wolfe Street, Baltimore, MD 21205.

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

#### POPULATION GENETICIST/EVOLUTIONIST

Applications are invited for a tenure-track faculty position at the ASSISTANT PROFESSOR level in population genetics/evolution in the Department of Biological Sciences, University of Notre Dame, beginning fall semester, 1992. The successful candidate is expected to maintain an experimental research program using modern molecular techniques to address problems in evolutionary biology. The expertise and interests of the candidate should interface with research groups in the areas of ecology, molecular biology and vector biology. Teaching responsibilities will be limited to one course per semester and will likely include advanced courses in evolution and population genetics.

evolution and population genetics. We offer competitive salary, seed money, and access to DNA and protein synthesizers and sequenators, computer-based molecular modeling, animal care facilities, electron microscopes, PCR analysis, and other research equipment. Submit curriculum vitae, names of three references and a statement of research interests by 15 October 1991 to: Dr. Morton S. Fuchs, Chairman, Department of Biological Sciences, University of Notre Dame, Notre Dame, IN 46556. Notre Dame is an Affirmative Action/Equal Opportunity Employer.

#### PLANT MOLECULAR CYTOGENETICIST

Seek ASSISTANT PROFESSOR, tenure-leading, 80% research/20% teaching, to work closely with biotechnology center colleagues and cooperatively in team efforts to enhance plant germplasm and the understanding of plant genetics. Expected to develop strong research program in an area of modern cytogenetics, such as chromatin structure, nuclear architecture, mechanisms of genetic recombination, interspecific hybridization and embryo rescue. Teach graduate level course in modern and traditional plant cytogenetics. Expected to collaborate with other plant breeders, geneticists and molecular biologists and to publish research results in peet-reviewed journals as well as to actively seek grant funding in support of the research project. Requires Ph.D. in agronomy or allied discipline, with training in plant genetics or cytogenetics. Experience in the application of both classical and molecular techniques to cytogenetic analyses also required. Send résumé, transcripts, and names and addresses of three references by 15 October 1991 to:

Dr. Robert C. Shearman, Head Department of Agronomy University of Nebraska-Lincoln Lincoln, NE 68583-0915 Affirmative Action/Equal Opportunity Employer.

# **Research Scientists**

# The Science of Success.

As a highly recognized division of a \$3-billion health care company, we've maintained our leadership role by employing the top minds in the field. Our Scientists are extending the limits of medical knowledge in their search for human and veterinary pharmaceuticals that provide significant therapeutic advantages for a wide range of diseases. If you're a broadly experienced scientist who shares our goals and vision, there's a challenge awaiting you at our Bloomfield, NJ research facility.

# **BIOTECHNOLOGY**

## Molecular Biology

### Assistant Scientist, 91-32

To qualify, you must have a B.S. degree with 0-3 years' experience or M. S. in Molecular Biology, Biochemistry or Immunology. Training in genetic engineering techniques is essential. Cell culture experience is preferred. Responsible for all phases of mammalian expression, including tissue culture, eukaryotic cell transformation, expression rector construction and cell characterization.

#### **Biochemistry**

#### Assistant Scientist, 91-26

To qualify, you must have a B.S. degree with 0-3 years' experience or a M.S. degree in Biochemistry. Experience in protein and peptide chemistry with recombinant protein purification and characterization; peptide synthesis; purification and characterization; preparation and analysis of antisera and monoclonal antibodies.

#### Assays

#### Associate Scientist, 91-29

To qualify, you must have a B.S. degree in Biological Sciences or Biochemistry. Experience with aseptic techniques, biological assays and cell culture are desirable. Ability to calculate dilution, maintain accurate records and work with computers.

#### Immunology

#### Associate Scientist, 91-35

To qualify, you must have a B.S. degree with 4+ years' experience or M.S. with 2+ years' experience. Will evaluate and implement new techniques to investigate molecular mechanisms of gene regulation. Experience in recombinant DNA and cell culture techniques, northern blotting, cDNA and genomic cloning, transfection of mammalian cells, maintenance of tissue culture lines, PCR, nucleic acid sequencing and sequence analysis software.

#### Cell Biology Associate Scientist, 91-36

Ideal candidate will have a B.S. degree with 4-7 years' experience or a M.S. degree with 2-4 years' experience. Will study cytokine biology both *in vivo* and *in vitro*. Experience with tissue culture, ELISA-based assays and bioassays as well as basic biochemistry techniques such as affinity chromatography and SDS-PAGE.

# VIROLOGY

# Antiviral Chemotherapy

# Assistant Scientist, 91-37

Must have a B.S. degree, 0-2 years' experience in virology, tissue culture, and/or molecular biology. Duties include establishment of antiviral tests in tissues using molecular biology and genetic engineering, production of virus and cell cultures; running antiviral assays and screens.

# PHARMACOLOGY

#### Associate Scientist, 91-28

To qualify, you must have a B.S. degree in Biology, Chemistry or Pharmacy with 4 years' experience or a M.S. degree with 2 years' experience. As a member of our pharmacology team, you will be responsible for investigation of the effects of test drugs on cardiorenal function.

# **MICROBIAL RESEARCH**

#### Associate Scientist, 91-38

To qualify, you must have a B.S. degree with 2-4 years' experience or a M.S. degree with 0-2 years' experience. Will be involved with the *in vivo* evaluation of novel compounds in the tumor biology program. Responsibilities include tissue culture, good laboratory and ACU practices, record-keeping and calculations.

We offer a very attractive salary and benefits package, and an environment encouraging your personal and professional development. For immediate consideration, please forward your resume, indicating position of interest, to: Mr. G. Czuba, Schering-Plough Research, 60 Orange Street, Bloomfield, NJ 07003. We are an equal opportunity employer.

Schering-Plough

# CHAIRPERSON

The Department of Microbiology of the Sophie Davis School of Biomedical Education of The City University of New York Medical School is accepting applications and nominations for Chairperson. The successful candidate should have a Ph.D. or M.D. degree, or both, and a distinguished record of achievement in research and demonstrated administrative experience. The applicant is expected to maintain a vigorous research program. Ability for leadership and a commitment to excellence in medical and graduate education are essential. The five member Department has strong and diverse research interests and interacts actively with other University Departments. A priority of our program is the delivery of a high quality of teaching to our medical and allied health professional students.

The School has special commitments to increasing the number of physicians from presently underrepresented minority groups, to emphasizing the role of primary care, and to training for community-based service to underserved urban areas of New York City. Applications and nominations will be reviewed by the Search Committee after October 1, 1991, and will continue until the position is filled. A curriculum vitae, a supporting letter of intent and the names of four references should be sent to: Stanley Kalsner, Ph.D., Chair, Microbiology Search Committee, Department of Physiology, Sophie Davis School of Biomedical Education/CUNY Medical School.



# DIRECTOR Contract Administration Merck Sharp & Dohme Research Laboratories

Merck Sharp & Dohme Research Laboratories in Rahway, NJ invites applications for the position of Director, Contract Administration. This position will have functional responsibility for individual clinical and basic research agreements between the laboratories and outside organizations, e.g., universities, non-profits, and contract research organizations. Primary functions are establishing standards, developing and maintaining appropriate data bases, concluding agreements, and monitoring/reviewing progress of same. Requires an understanding of and an ability to coordinate the programmatic, legal, and financial aspects of contract negotiation.

Applicants should have a graduate degree in an appropriate business/scientific discipline with course work relevant to the position requirements. A minimum of 5 years experience in either industrial, academic or health care related scientific/administrative functions dealing with a variety of two party agreements. User knowledge of computers and data base systems also required.

Interested candidates should submit their resume to Susan Jenkins, Merck & Co., Inc., P.O. Box 2000, Rahway, New Jersey 07065.

EEO/AA/VH Employer

Merck & Co., Inc.



# Vice President-Research and Development Worldwide

SPI Pharmaceuticals, Inc., a rapidly growing \$400 million subsidiary of ICN Pharmaceuticals, Inc., is seeking a Worldwide Vice President of Research and Development. The position reports to the President of SPI Pharmaceuticals, Inc., and is based in Southern California.

#### Candidate must have:

- Ph. D. and M.D. degrees
- 15 years pharmaceutical industry experience with
- demonstrated successful results in drug registrations • Several years managing/administrating a significant
- research and development effort- including clinical trials • Extensive worldwide/international experience with multi-
- lingual skills • Experience recruiting, training and motivating a research
- Experience recruiting, training and motivating a research and development staff

We project a substantial R&D budget and a large staff of professionals worldwide by 1995.

ICN's compensation package includes extensive medical benefits, 401K Plan, very attractive base salary, management bonus and stock options.

Please submit your resume to:



Vice President of Human Resources ICN PHARMACEUTICALS, INC. 3300 Hyland Avenue Costa Mesa, California 92626 Fax (714) 641-7216 EO/AA Employer M/F/H

#### SENIOR SCIENTIFIC APPOINTMENTS LONDON

DEPUTY DIRECTOR: SCIENCE AND KEEPER OF ZOOLOGY We are seeking to appoint two dynamic leaders of international scientific reputation and high level management skills to provide scientific leadership in this world famous museum.

Internationally renowned for its collections and associated research, The Natural History Museum's aim is to be relevant and accessible without compromising standards of excellence. Through its science, the Museum aims to demonstrate unequivocally that taxonomy has a major contribution to make to scientific research and to issues of contemporary human concern. Through its exhibitions and education services, it aims to increase the public's enjoyment and understanding of the variety of our natural world.

#### DEPUTY DIRECTOR: SCIENCE

The Deputy Director. Science will be accountable to the Director and will be responsible for providing scientific leadership to the Museum by personal example and by managing and directing the staff of the scientific departments and library services. The postholder will also be responsible for maintaining the Museum's science at an internationally recognized level of excellence; for increasing its impact upon the outside world, and for making efficient and effective use of the Museum's resources with respect to science

The postholder will be assisted by the Keepers of the five science departments in the formulation and implementation of the Museum's science policy and corporate objectives. The appointment will be for a fixed term of 5 years from the end of July 1992, with the option of renewal for a further term. The salary for this post will be at the top end of the range  $\pm 37,928 - \pm 49,671$  (inclusive of London Weighting) depending on experience. The appointment is pensionable.

#### KEEPER OF ZOOLOGY

The Keeper of Zoology will be responsible for managing the staff, the collections and the research of the Department and will be accountable to the Deputy Director Science

The Department is the largest of the five science departments within the Museum The collections cover the entire range of animal groups and are particulary rich in types and material of historical importance The appointment will be from 1 May 1992 and the length of contract will be open to negotiation Starting salary is in the range f37,928 – f42,870 (inclusive of London Weighting) with further increments depending on performance up to f49,671 The appointment is pensionable.



For further details and an application form (to be returned by 4 October 1991), please contact. The Personnel Officer The Natural History Museum, Cromwell Road, London SW7 5BD Telephone 071 938 9287 (an answering service operates outside office hours)

The Natural History Museum is an equal opportunity employer



# UNIVERSITY OF DUBLIN TRINITY COLLEGE

# **Chair of Microbiology (1975)**

Applications are invited for appointment to the Chair of Microbiology (1975) in the Faculty of Science. The Department has established excellence in research on microbial pathogenesis and infection and immunity, with marked strengths in microbial and molecular genetics, bacterial membranes and cell surfaces and molecular virology. Other research areas include fungal and bacterial carbohydrases, bacteriophages, applied and environmental microbiology, and immunology. The Department has attracted significant grants for research from national, European Community and international bodies. There is a significant association in research with the Unit of Clinical Microbiology, Faculty of Health Sciences.

The Department of Microbiology's main teaching contribution is to its Honors course leading to a B.A. (Moderatorship) in Science. It also has major teaching commitments, in which the Unit of Clinical Microbiology participates, to the Schools of Medicine and Dental Science in the Faculty of Health Sciences and to the School of Pharmacy in the Faculty of Science.

Applicants, scientifically or medically qualified, will be expected to provide academic leadership and to have a distinguished reputation and established research record in one of the constituent disciplines of the subject.

Further particulars of the appointment, including details of salary and other benefits, may be obtained from the College Secretary, West Theatre, Trinity College, Dublin 2, Ireland (Tel: 01 7021123. Fax 01 722853) to whom formal applications may be sent, before *11th October*, *1991*).

Trinity College is an Equal Opportunities Employer

## TECHNICAL SALES REPRESENTATIVE #040

Stratagene, an innovative supplier of molecular biology research products, is in search of qualified and experienced technical sales representative. Position available immediately in the New York area. Candidate should have strong practical experience in molecular biology or related field. Prior sales experience is beneficial. Sales representative will attend an extensive 1 month training program at our beautiful training location in La Jolla, California. Stratagene offers a competitive salary and incentive program.

## STAFF SCIENTIST - (Cell Biologist) #053

An opportunity exists for a scientist experienced in signal transduction, protein kinases and phosphatases, to develop innovative products for the research market. Candidate should have significant experience with technology involved in the study of receptor/second messenger interactions. A doctoral degree and at least 4 yrs. of postdoctoral experience.

#### POSTDOCTORAL POSITIONS MOLECULAR BIOLOGY/GENE EXPRESSION #057

Stratagene is looking for exceptional postdoctral candidates with the potential to innovate systems for gene cloning, mapping, sequencing, and prokaryotic and eukaryotic expression. Successful postdoctoral research programs may lead to full Staff Scientist positions at Stratagene. Salary \$28K - \$32K.

Stratagene offers excellent company benefits including a 401(K) Plan, and a competitive salary. All qualified candidates forward resume of qualifications to:



Attn: Human Resources 11099 N. Torrey Pines Rd. La Jolla, CA 92037

Stratagene is an Equal Opportunity/Affirmative Action Employer.

THE UNIVERSITY OF MARYLAND GRADUATE SCHOOL, BALTIMORE

#### VICE PRESIDENT FOR RESEARCH AND DEAN OF THE GRADUATE SCHOOL

The University of Maryland is seeking applicants for the position of Vice President for Research and Dean of the Graduate School for the University of Maryland Graduate School, Baltimore (UMGSB). The UMGSB serves two campuses: the University of Maryland at Baltimore (UMAB), a professional campus encompassing Schools of Medicine, Nursing, Dentistry, Pharmacy, Social Work, and Law, and the University of Maryland Baltimore County (UMBC), comprised of Schools of Arts and Sciences and Engineering. The Vice President/Dean will report to the presidents of both campuses.

The Vice President/Dean must oversee and enhance the educational mission of the graduate school as well as nurture the development of graduate programs which span a wide range of disciplines. Currently the UMGSB has 87 graduate programs with 2700 students. Development of strong interdisciplinary programs is a high priority. The Office of the Vice President/Dean also is responsible for the research enterprise of the two campuses including management of the Office of Technology Development, the Offices of Sponsored Programs Administration, and the Designated Research Initiative Fund, an intramural research tund. In this context, the Vice President/Dean must be a catalyst for the development and implementation of new research programs. The Vice President/Dean will also serve as an ombudsman for the research and graduate studies concerns of the faculty of two campuses at all levels, including liaison with the business community, with government and civic leaders of the gracet Batimore area and the State of Maryland, and with public and private agencies at the national level.

The successful candidate will have a Ph.D., or equivalent, and strong academic credentials along with a history of solid external funding and productivity in a research area, preferably in the life sciences or a related field. Furthermore, the successful candidate will have an active interest in and commitment to the arts, humanities and social and behavioral sciences as integral components of a university education. Candidates should possess demonstrated administrative skills including the ability to organize, to delegate authority, and to interact effectively with faculty, students, administrators and business, government and civic leaders. Creative vision is essential with respect to the development of graduate programs, research, and technology transfer. The successful candidate must also be committed to diversity and to increased participation of underrepresented populations in graduate education and research.

Nominations or applications, accompanied by curriculum vitae and a list of 3 referees, should be forwarded to Dr. Ron Yasbin and Dr. Marilyn Speedie, Co-chairs of the Search Committee, c/o Department of Biological Sciences, University of Maryland Battimore County, Battimore, MD 21228. Review of applications will begin October 15, 1991. Those arriving after that date may be considered if received while the review of applicants is proceeding.

The University of Maryland is an Affirmative Action/Equal Opportunity Employer. Applications from minorities, women, and disabled persons are particularly encouraged.

# 



A member of the Main Line Health family of hospitals.

The Lankenau Medical Research Center, currently undergoing a significant expansion in its research activities and facilities, is seeking new staff members for research in basic molecular and cellular biology of disease. Preference will be given to applicants having research programs in signal transduction pathways and molecular genetics.

Successful candidates will be expected to maintain a vigorous, independent research program supported by extramural funds. Opportunities exist to collaborate with current research programs including DNA repair mechanisms, chemical carcinogenesis oncogene expression in transgenic mice, membrane transport, opithelial cell biology, cell differentiation, and cellular adhesion mechanisms. Start-up funds will



be provided. Salaries and fringe benefits are competitive with regional institutions and rank will depend on prior experience and accomplishments.

The Lankenau Medical Research Center is a growing, independent, non-profit research institution affiliated with The Lankenau Hospital in suburban Philadelphia. The Center has academic ties to a number of the university-based medical centers in Philadelphia.

Please send curriculum vitae, a statement of research interests and three letters of reference to: Charles L. Skutches, Ph.D., Director, Scientific Administration, The Lankenau Medical Research Center, 100 Lancaster Ave. west of City Line, Wynnewood, PA 19096. An Equal Opportunity Employer.

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

IN EUKARYOTIC MOLECULAR GENETICS

Applications and nominations are invited for positions at the **ASSISTANT PROFESSOR** or higher level. Candidates with outstanding academic achievements who will develop vigorous research programs in eukaryotic molecular genetics are sought. Candidates should send curriculum vitae, a research plan and request three letters of recommendation be sent

Candidates should send curriculum vitae, a research plan, and request three letters of recommendation be sent to: Dr. Raju Kucherlapati, Department of Molecular Genetics, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. Equal Opportunity Employer.

#### ASSISTANT PROFESSOR MOLECULAR GENETICS

Gettysburg College, a highly-selective liberal arts college near the Baltimore/Washington area, announces a tenure-track position in the Department of Biology beginning fall 1992. The successful candidate will develop a course in molecular genetics, participate in other departmental courses, and establish a vigorous research program involving undergraduate students. Candidates must have an earned doctorate and a deep commitment to undergraduate teaching. Postdoctoral research experience is desirable. This position, in concert with another position in the Department of Chemistry, will initiate an interdepartmental Biochemistry Program supported by a grant from the Howard Hughes Medical Institute. Summer stipends for faculty and students and a generous equipment budget are included. Gettysburg College is an Affirmative Action/Equal Opportunity Employer; women and minorities are encouraged to apply. Submit curriculum vitae, a statement of teaching and research goals, and the names of three references to: Dr. Ralph A. Sorensen, Chair, Biology Department, Gettysburg College, Gettysburg, PA 17325. Applications received prior to 15 October 1991 will receive fullest consideration.

TWO ASSISTANT PROFESSORS OF ENTO-MOLOGY, BEHAVIOR, GENETICS. Tenure-track (12-month appointments) Both: research 80%, teaching 20%. Behavior: Behavior of insects or related arthropods. Teach insect behavior and an advanced course in the candidate's area of specialty. Genetics: Genetic basis of insect adaptations. Teach graduate courses in insect genetics. Detailed position announcements available upon request. Required: Ph.D. in entomology or related biological science. Deadline: 16 December 1991. Send inquiries or letters of application, résumé, transcripts, and names, addresses, and telephone numbers of three references to: Dr. C. Michael Smith, Head, Department of Entomology, 123 Waters Hall, Kansas State University, Manhattan, KS 66506-4004. Telephone: 913-532-6154. FAX: 913-532-6232. Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

ASSISTANT PROFESSOR, DEPARTMENT OF MEDICINE, SECTION OF NEPHROLOGY. Training in molecular biology of renal-specific protein. Must have Ph.D. and experience in techniques of molecular biology. Applicant should be capable of developing a funded research program. Direct inquiries with curriculum vitae to: Dr. Fredric L. Coe, Director, Nephrol ogy, The University of Chicago, 5841 South Maryland Avenue, Box 28, Chicago, IL 60637. An Affirmative Action/Equal Opportunity Employer.

FACULTY POSITIONS IN VISION RE-SEARCH. The Department of Ophthalmology at the University of Alabama at Birmingham (UAB) School of Medicine invites applications for two faculty positions at the ASSISTANT PROFESSOR level: (1) cell or molecular biology of the retina, particularly as related to macular degeneration, and (2) neurobiology of the retina. Successful candidates are expected to conduct productive independent research programs. Laboratory space, start-up funds, and the facilities of UAB's interdepartmental Vision Science Research Center are available. Send curriculum vitae, statement of research interests, and three letters of reference by 1 November 1991 to: Dr. Harold W. Skalka, Chairman, Department of Ophthalmology, School of Medicine/Eye Foundation Hospital, University of Alabama at Birmingham, UAB Station, Birmingham, AL 35294. UAB is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT/ASSOCIATE PROFESSOR-IM-MUNOLOGY. The Department of Veterinary and Microbiological Sciences at North Dakota State University invites applications for a tenure-track faculty position in immunology at the assistant or associate professor level. The successful candidate will be expected to teach an undergraduate immunology course, develop a graduare level immunology course, supervise graduate stu-dents, and establish an active independent research pro-gram using contemporary immunological approaches. Candidates must have a Ph.D. degree in immunology, microbiology or related field, postdoctoral research expe-rience, and evidence of research accomplishments. Teaching experience, research in an animal health-related area, and evidence of grantsmanship ability are preferred. Review of applications will begin 1 November 1991 and will continue until position is filled. Send curriculum vitae, summary of research interests, and the names, addresses, and telephone numbers of three references to: Eugene S. Berry, Ph.D., Chair, Search Committee, Department of Veterinary and Microbiological Scisences, North Dakota State University, Fargo, ND 58105. North Dakota State University is an Equal Opportunity Institution.

#### ASSISTANT PROFESSOR IN MOLECULAR MICROBIOLOGY

As part of a major expansion in molecular and cellular biology the University of Arkansas at Fayetteville (UAF) is accepting applications for tenure-track faculty posi-tions within the Department of Biological Sciences. These positions will complement and enhance existing Ph.D., M.S. and B.S./B.A. curricula in microbiology. botany, genetics, ecology, and wildlife biology. Candi-dates will be expected to contribute substantively to organization of the molecular biology program and establish nationally competitive research programs; op-portunities exist for collaboration with other strong research programs in biochemistry, plant and animal research programs in biochemistry, plant and animal sciences. Requires at least 2 years of postdoctoral expe-rience with advanced molecular genetic techniques in microorganisms and demonstrated teaching abilities. New facilities and competitive financial support. Appli-New facilities and competitive financial support. Appli-cants should submit curriculum vitae, statement on re-search and teaching goals, and the names and addresses of three references to: Dr. Arnold Kaplan, Chair, Department of Biological Sciences, 632 SCEN, Uni-versity of Arkansas, Fayetteville, AR 72701. Inter-views will begin 1 October 1991 and will continue until filled. The University of Arkansas is an Equal Opportunity/ Affirmative Action Institution. All applicants are subject to public disclosure under the Arkansas Freedom of Information Act. Persons bired must have proof of lead authority to work Act. Persons hired must have proof of legal authority to work in the United States.

WILDLIFE/NATURAL RESOURCES SYS-TEMS ECOLOGIST. ASSISTANT PROFESSOR. Ph.d. in wildlife science/ecology or related field, with emphasis and expertise in systems modeling. Experience in obtaining external funding, publishing research re-sults, and working with public and private sector. Ten-ure-track, 12-month position. Initial appointment at 70% research, 30% teaching. Send letter of application, résumé, list of publications, curriculum vitae, unofficial transcripts, and name, address, and telephone number of three references to: Dr. V. W. Howard, Jr., Professor, Box 30003, Department 4901, New Mexico State University (NMSU), Las Cruces, NM 88003-0003; telephone: 505-646-1217 by 1 October 1991. NMSU is an Equal Employment Opportunity/Affirmative Action Employer.

MICROBIAL ECOLOGIST. The Department of Microbiology at Oklahoma State University extends its search for an ASSISTANT or ASSOCIATE PROFES-SOR with a research program using molecular tech-niques to study natural microbial ecosystems. Specific areas include responses to environmental stress, moleculer approaches to the study of community structure and evolution, and trophic interactions in food and elemental cycles. Applicants should send curriculum vitae, a decycles. Applicants should send curriculum vitae, a de-scription of research program, relevant pre-/reprints, and the names, addresses, and telephone numbers of three references to: Dr. H. James Harmon; Chair, Search Committee; Department of Microbiology; Oklahoma State University; Stillwater, OK 74078. Applications will be reviewed beginning 22 September 1991 until the position is filled. An Affirmative Action/Equal Opportunity Employer.

6 SEPTEMBER 1991



## THE UNIVERSITY OF IOWA Dean, College of Medicine

The University of Iowa seeks candidates for the position of Dean of the College of Medicine. The Dean of the College of Medicine is spokesperson for the faculty of the College, and represents the College in interactions with practitioners throughout the state. Responsibilities of the Dean include faculty recruitment and appointments; educational, clinical and research programs; admission and placement of students; student affairs; fiscal planning and management; short term and strategic planning; space and equipment utilization; and other activities that affect education, research, and professional service within the College

The 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. The College is affiliated both with an adjacent, comprehensive Department of Veterans Affairs Medical Center and with The University of Iowa Hospitals and Clinics, the largest university-owned teaching hospital in the United States

The Dean should possess an M.D., Ph.D., or both, have a distinguished record of teaching, research, and service in a medically related field and qualify for senior academic rank in the College of Medicine. The successful candidate must have a demonstrated capacity to foster an environment in which excellent teaching and scholarship can flourish, as well as an appreciation for the importance of developing and promoting clinical programs in a state which relies heavily on rural primary care physicians

The Search Committee seeks candidates who have a record of innovative and effective administrative leadership; possess strong advocacy skills; expect and enjoy interaction with students; and who have a commitment to increasing diversity among students, staff, and faculty. A demonstrated knowledge of fiscal management within the complex, changing health care field is essential. A record of productive interaction with representatives of business and industry, community and state leaders, legislators, and officials at all governmental levels is highly desirable.

The Search Committee will accept nominations and applications until the position is filled. The Committee is particularly interested in identifying minority and women candidates. Applications should include a curriculum vitae and the names, addresses, and telephone numbers of five references. Please send nominations or applications to

> David J. Skorton. M.D. Professor of Medicine Chair, Search Committee for the Dean of the College of Medicine 431 Eckstein Medical Research Building The University of Iowa Iowa City, IA 52242

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#### Senior Research Scientist Analytical Biochemistry/Immunochemistry

The Division of Pharmacokinetics and Drug Metabolism has an opportunity for a scientist to develop immunoassays for new or established drugs for application to support preclinical or clinical studies

Candidates must have a Ph.D. in immunochemistry, organic or analytical chemistry, biochemistry, or pharmacology, plus one year of experience in immunoassay development and application, **OR** a Master's degree in one of the above disciplines plus four years of experience in immunoassay development and application, OR a Bachelor's degree in a chemical or biological science plus six years of experience in immunoassay development and application. Other factors to be considered in selection include a Ph.D. degree and experience in computerized data handling.

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. Please send your resume, indicating position number in your cover letter, by October 7, 1991, to: Burroughs Wellcome Co., Recruiting and Staffing, Pos. #63025-4, 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] 248-8347.



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#### FACULTY POSITION DEPARTMENT OF NEUROBIOLOGY AND BEHAVIOR STATE UNIVERSITY OF NEW YORK (SUNY) AT STONY BROOK

The Department of Neurobiology and Behavior of SUNY at Stony Brook is seeking a candidate for a tenure-track, state-funded position in neurobiology, beginning with the 1992/1993 academic year. This position, which is a 12-month appointment in the medical school, is available at the rank of either ASSISTANT **PROFESSOR OR ASSOCIATE PROFESSOR** with tenure, depending on the successful applicant's qualifications. The department, which currently consists of 18 members, is slated to grow to at least 22 full-time faculty within the next 5 years.

within the next 5 years. All applicants should have a minimum of 2 years of postdoctoral experience. Candidates will be expected to develop a vigorous, independent research program in any area of neurobiology. Ample space and start-up funds will be provided.

The applicant will be expected to teach neuroanatomy to first-year medical students and to participate in occasional graduate level courses. Applicants should submit curriculum vitae, statement of research interests, any information relevant to the applicant's ability to teach medical neuroanatomy, and the names and addresses of at least three references to: S. M. Sherman, Neurobiology Search Committee, Department of Neurobiology and Behavior, State University of New York, Stony Brook, NY 11794–5230. The closing date for application is 30 October 1991.

SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer.

Brown University seeks an ASSISTANT PROFES-SOR OF PSYCHOLOGY with specialization in human sensory or perceptual processes, human memory, or human motor processes. This is a tenure-track appointment that begins 1 July 1992, for an initial term of 3 years. Responsibilities include teaching at the undergraduate and graduate levels, directing undergraduate and graduate research, and conducting a strong experimental research program. Applicants for this position should have excellent quantitative skills and should be prepared to teach quantitative courses at the graduate level. Applications should include curriculum vitae, reprints and preprints of scholarly publications, and a statement of research and teaching interests. The applicant should arrange to have at least three letters of recommendation sent directly to the Search Committee, Send all materials by 1 January 1992 to: Search Committee, Department of Psychology, Brown University, Providence, RI 02912. Brown University is an Equal Opportunity/Affirmative Action Employer. Applications from minority persons and women are strongly encouraged.

#### COGNITIVE PSYCHOLOGIST CORNELL UNIVERSITY

The Department of Psychology at Cornell University is considering candidates for a tenure-track ASSIST-ANT PROFESSORSHIP in any area of cognition. Areas of specialization include but are not limited to: memory, attention, language and speech processing, concepts, knowledge representation, reasoning and problem solving, mathematical psychology, motor control and action. The position will begin in August 1991. Review of applications will begin 15 November 1991. Interested applicants should submit curriculum vitae, reprints or preprints of completed research, and letters of recommendation sent directly from three referees to:

Secretary, Cognitive Psychology Search Committee Department of Psychology Uris Hall

Cornell University Ithaca, NY 14853-7601

Cornell University is an Equal Opportunity/Affirmative Action Employer.

Microbiology/genetics. VISITING ASSISTANT PROFESSOR. January to June 1992. Winter and spring terms. Ph.D. or M.S. plus. To teach microbiology to majors, microbiology to nurses, genetics (mix of molecular and Mendellan) and general biology. Successful United Methodist Church-related college in progressive area. Mild winter, incredible spring. Before 11 October 1991 write for information: Dr. Frank A. James, LaGrange College, 601 Broad Street, La-Grange, GA 30240. Equal Opportunity Employer. FACULTY POSITION. ASSISTANT/ASSOCI-ATE PROFESSOR level, in the Hematology Section at Boston University Medical Center. We are seeking an M.D. or M.D./Ph.D. who is utilizing molecular approaches to address basic issues in cell differentiation, immunology, hemostasis, oncogenesis, cytokines or gene regulation. Primary responsibility will be to maintain an active research program, with minimal clinical and teaching duties. Send curriculum vitae to: Thomas L. Rothstein, M.D., Ph.D., Room E-501, University Hospital, 75 East Newton Street, Boston, MA 02118. Telephone: 617-638-7002, FAX: 617-638-7065.

#### YALE UNIVERSITY SCHOOL OF MEDICINE CLINICAL MICROBIOLOGIST

The Department of Laboratory Medicine at Yale University School of Medicine has an opening at the rank of ASSISTANT/ASSOCIATE PROFESSOR with clinical responsibilities as Assistant Director of the Clinical Microbiology Laboratory at Yale–New Haven Hospital. The successful candidate will be expected to establish a research program, participate in the direction of the Clinical Microbiology Laboratory, and teach residents and medical students. We prefer applicants who are Board-certified or Board-eligible in clinical pathology and/or medical microbiology. Candidates must have M.D./Ph.D., M.D., or Ph.D. degree. Send curriculum vitae and addresses of three references to: Stephen Edberg, Ph.D., Chair, Search Committee, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510 before 31 October 1991. Yale is an Equal Opportunity/Affirmative Action Employer. Women and minority applicants are encouraged to apply.

#### TENURE-TRACK JOINT APPOINTMENT WOMEN'S STUDIES/BIOLOGICAL SCIENCES

The Women's Studies Program, University of Georgia, invites applications for a tenure-track position at the ASSISTANT PROFESSOR level to be jointly appointed between women's studies and an appropriate field. Speciality field must be biologically related and must include women or gender-related topics. Research interests such as animal behavior, anthropology (biological, nutritional, and medical), biochemistry, nutrition, psychology, and zoology are appropriate. Ph.D. degree, promise in research and teaching, and a strong commitment to the development of women's studies are required. Send curriculum vitae, statement of research interests, evidence of women's studies commitment, and names of three referees by 15 November 1991 to: Search Committee, Women's Studies Program, University of Georgia, 230F Main Library, Athens, GA 30602. The University of Georgia is an Equal Opportunity/Affirmative Action Institution.

#### VERTEBRATE PHYSIOLOGIST

ASSISTANT PROFESSOR. Tenure-track, 9-month appointment: 50% teaching, 50% research. Teaching requirements include a mammalian physiology course each year and an upper division course in the candidate's specialty as part of the teaching assignment. The candidate will be expected to develop a strong research program in an area of vertebrate physiology which complements, one research emphasis of the Biology Department (ecology and/or molecular biology). Ph.D. required. To apply, send complete curriculum vitae including publication list, reprints, a summary of teaching and research experience, and have three letters of recommendation sent to: Dr. James A. Gessaman, Department of Biology, Utah State University (USU), Logan, UT 84322–5305. Telephone: 801-750-2485. FAX: 801-750-1575. Review of applications will begin on 7 October 1991 and will continue until a suitable candidate is found.

USU is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR IN RHEUMATOL-OGY. The Yale Section of Rheumatology is seeking an individual with a Ph.D or equivalent, to conduct basic research in immunological aspects of autoimmune diseases, as well as supervise a diagnostic ANA and Lyme disease laboratory. Send curriculum vitae and three letters of reference to: Joe Craft, M.D., Department of Internal Medicine, Yale University, P.O. Box 3333, New Haven, CT 06510, by 31 October 1991. Yale is an Affirmative Action/Equal Opportunity Employer.

#### **POSITIONS OPEN**

#### ASSISTANT/ASSOCIATE PROFESSOR

The Department of Environmental Health Sciences of the Johns Hopkins University School of Hygiene and Public Health seeks a faculty member with engineering academic background/experience and major research interests in the generation and characterization of disperse solid/liquid and gas mixtures. The successful applicant will have the opportunity of collaborating with a team of physicians, physiologists, radiation physicists, and toxicologists on human and animal inhalation studies. The design of experiments/facilities, consultation regarding facilities operation and interpretation of experimental results are major needs of the team. The position is in the Division of Environmental Health Engineering, a division of eight faculty and 25 graduate students. Teaching responsibilities relate to industrial hygiene and air pollution topics. The department includes a National Institute for Occupational Safety and Health Educational Resource Center. There is a vigorous climate for interdisciplinary research. Send curriculum vitae to:

#### Dr. Morton Corn Department of Environmental Health Sciences School of Hygiene and Public Health Johns Hopkins University 615 North Wolfe Street, Room 6010 Baltimore, MD 21205

#### ASSISTANT/ASSOCIATE PROFESSOR

The Department of Cellular and Structural Biology at the University of Texas Health Science Center at San Antonio has an immediate opening for a tenure-track position. We are seeking an individual to work with an established group in human genome research. The successful candidate will be expected to develop an independent research program. Areas of interest include informatics and population genetics, but physical mapping and cDNA approaches to genome research are also desirable. The search will not be limited to these areas; qualified applicants with other research interests are encouraged to reply. Send curriculum vitae, letters of recommendation, and a description of your research by 15 October 1991 to:

Dr. Barbara H. Bowman Chair, Department of Cellular and Structural Biology University of Texas Health Science Center 7703 Floyd Curl Drive San Antonio, TX 78284–7762

An Equal Opportunity/Affirmative Action Employer PENNSYLVANIA STATE UNIVERSITY

#### FACULTY POSITIONS MOLECULAR EVOLUTION

The Department of Biology, Pennsylvania State University, invites applicants for two tenure-track faculty positions at the ASSISTANT or ASSOCIATE PRO-FESSOR level. We are seeking a developmental geneticist with research interests in the evolution of gene expression, morphogenesis, and/or multigene families and a molecular phylogeneticist with emphasis on the evolution of major taxonomic groups (phyla, classes, orders, and families) in eukaryotes. Significant research accomplishments and evidence of outstanding potential to develop a strong, independent research program will be key considerations. Applicant evaluation begins 1 December 1991 and will continue until the positions are filled. Send curriculum vitae, statement of research interests, and three letters of reference to:

#### Dr. Masatoshi Nei Department of Biology and Institute of Molecular Evolutionary Genetics 208 Mueller Laboratory, Box A Pennsylvania State University University Park, PA 16802

An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

ASSOCIATE RESEARCH PROFESSOR. Experienced M.D./scientist with graduate training to teach graduate-level course and to conduct research in molecular mechanisms of cytoskeletal injury and toxicity by paraquat and other herbicides/toxicants. Candidates must have medical specialty training in lung pathology and postdoctoral research experience in immunology and cell biology. Send curriculum vitae and names of three references to: Dr. P. H. Black, Department of Microbiology, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118.

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# SANDOZ RESEARCH INSTITUTE Assistant Director Human Resources Research and Development

## Help launch many rewarding careers -- starting with your own.

Sandoz Pharmaceuticals Corporation, a leader in the research, development, manufacture and sale of ethical and over-the-counter pharmaceuticals, is undertaking a major expansion of its R&D Division. This creates an immediate need for a scientist with recruitment experience to organize an effective recruitment program and to assist in identifying and interviewing outstanding Ph.D.'s and M.D.'s. The position involves high level interaction with scientists, academic institutions and departments, search firms and job fairs to identify appropriate candidates.

In order to qualify, you should possess an M.D. or a Ph.D. in a Life Science, Chemistry or Pharmaceutical discipline. Experience in the recruitment of scientists is essential. Experience in a pharmaceutical industry as a manager is definitely a plus. Excellent communication, interpersonal and organizational skills are necessary as well as the ability to exercise sound and independent judgement. Moderate travel will be required.

Positions at Sandoz offer personal satisfaction, professional opportunity/challenge, competitive salaries and an excellent benefits package. Our campus-like facilities are conveniently located in northern New Jersey. For prompt, confidential consideration, please respond to position #1734RS by forwarding your resume and salary requirements, to:

#### Dr. Robert N. Saunders Director, Human Resources SANDOZ RESEARCH INSTITUTE SANDOZ PHARMACEUTICALS CORP Route # 10 Fast Hanover, New Jersey 07936

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# Clinical Research Fellowships ImmunologyAnd Endocrinology.

The clinical research program of the National Cancer Institute's Metabolism Branch is seeking candidates for six Clinical Associate Fellowship positions beginning in July 1992. Our work is directed toward defining the factors involved in the control of the human immune response, the development of innovative treatments involving immunotherapy and gene therapy, and studying normal growth factors, especially the interleukins and insulin-like growth factors that play a role in the hormonal control of normal and malignant growth.

As a research Fellow, you'll have unparalleled academic opportunities. You'll bridge the gap between basic sciences and clinical care. You'll perform state-of-the-art *basic research* in molecular and cellular immunology and biology, as well as *clinical research* involving studies of patients and direct applications of the basic research to new treatment modalities.

Metabolism Branch Fellows carry a low clinical load throughout the full two to three years of your fellowship, allowing more time in the lab from the beginning. You'll work side by side with some of the most cited physicians and scientists in the world in the Clinical Center of the NIH, the only hospital of its kind devoted solely to biomedical research—home to half the research beds in the country.

1992 Fellowship opportunities include:

- Dr. Jay A. Berzofsky-Mechanisms of Antigen-Presentation and T Lymphocyte Recogniton: Applications to Vaccine Design.
- Dr. R. Michael Blaese Somatic Gene Therapy for Human Genetic Diseases, Cancer and AIDS.
- Dr. David L. Nelson Normal and Abnormal Human Immune Responses Including Molecular Genetics of Immunodeficiency Diseases.
- deficiency Diseases. Dr. Louis M. Staudt - Molecular Analysis of Transacting Factors That Mediate Gene Expression.
- Dr. Thomas A. Waldmann The Multichain IL-2 Receptor. Molecular Characterization and Use As A Target For Immunotherapy.
- Dr. Peter Nissley-Insulin-like Growth Factor (IGF-1 and IGF-II) Receptors.

There is an opportunity for clinical training in the Interinstitute Training Program in Endocrinology that fulfills the requirements for sub-specialty board certification.

Please send your curriculum vitae and a list of three references to Faye Hodiak at the Metabolism Branch of the National Cancer Institute, or telephone 301-496-6653.



# National Cancer Institute

National Institutes of Health, 9000 Rockville Pike, Building 10, Room 4N115, Bethesda, MD 20892 • 301-496-6653 • FAX 301-496-9956 Equal Opportunity Employer

#### FACULTY POSITIONS BACTERIAL MOLECULAR GENETICS MOLECULAR VIROLOGY

The Department of Microbiology and Immunology, Bowman Gray School of Medicine of Wake Forest University, invites applications for tenure-track faculty positions at the ASSISTANT OR ASSOCIATE PRO-FESSOR level. Applicants should possess a Ph.D. or M.D. degree and have at least 2 years of postdoctoral training in bacterial molecular genetics or virology. The successful applicants will be expected to develop strong independent research programs and participate in the teaching of graduate and medical students. The department has an NIH-funded training grant to support predoctoral and postdoctoral training in molecular immunology and pathogenesis. Outstanding research facilities are available within the department and through interdepartmental programs such as the Molecular Genetics Program and the NIH-funded Comprehensive Cancer Center of Wake Forest University. Applicants should send curriculum vitae, a statement of research interests and goals, and the names of three references to: Dr. Steven B. Mizel, Department of Microbiology and Immunology, Bowman Gray School of Medicine, Medical Center Boulevard, Winston-Salem, NC 27157–1064. Wake Forest University is an Equal Opportunity/Affirmative Action Employer.

University of Wisconsin-Madison. The Department of Psychiatry is seeking an experienced Psychiatrist at the **ASSISTANT OR ASSOCIATE PROFESSOR** level for a tenure-track, academically oriented position in the area of Schizophrenia. Responsibilities include developing an independent research program involving either basic or clinical research, and teaching the most recent concepts related to the etiology, pathophysiology and treatment of schizophrenia and other psychotic illnesses to residents and medical students. Candidate will be expected to obtain outside grant support for his/her research. Send curriculum vitae and cover letter to: Dr. Ned Kalin, Chairman, Department of Psychiatry, D6/250B, University of Wisconsin Medical School, 600 Highland Avenue, Madison, WI 53792. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

ASSOCIATE/FULL RESEARCH PROFESSOR OF SURGERY. The University of South Florida (USF) Department of Surgery is seeking a Director for its Division of Surgical Research. Candidates for this position must have a doctoral degree in the medical and/or biological sciences as well as experience in grant and research administration. Preference will be given to individuals who have a documented interest in teaching. Send curriculum vitae to: Peter J. Fabri, M.D., USF Department of Surgery, 12901 North Bruce B. Downs Boulevard, Tampa, FL 33612. The University of South Florida is an Equal Opportunity Employer.



Our issue of **27 September 1991** will be distributed to scientists attending the International Biotechnology Exposition in San Francisco, CA, 6 to 8 October 1991, and the International Genetics Meeting in Washington, D.C., 6 to 11 October 1991. Deadline for submission of line classified ads: **12 September 1991** 

> SCIENCE Classified Advertising Telephone: 202-326-6555 FAX: 202-682-0816

#### **POSITIONS OPEN**

ASSISTANT OR ASSOCIATE PROFESSOR. The Department of Pathology, Brigham and Women's Hospital and Harvard Medical School invites applications for a tenure-track position to join an expanding departmental division concentrating on cancer biology. The department offers excellent facilities, trainees, and experimental materials through its own programs and affiliations with the Dana-Farber Cancer Institute, Children's Hospital, and the Harvard Medical School. Applicants should have postdoctoral training, preferably of a molecular nature, in a field relevant to cancer. Some teaching and/or clinical supervision will be involved, depending on the applicant's background and expertise. Send curriculum vitae and the names of three references to: Drs. Ramzi S. Cotran or Jeffrey Sklar, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. Applications from minority and women candidates are encouraged.

#### CLINICIAN/INVESTIGATOR/EDUCATOR PSYCHIATRISTS OKLAHOMA UNIVERSITY MEDICAL CENTER

Access to state-of-art SPECT/MRS/MRI and psychophysiology laboratory, molecular medicine center, specialty clinics, start-up funds, statistician. Psychopharmacology (child, geriatric, and alcohol/drug) needed. **ASSISTANT TO FULL PROFESSOR**. Must obtain medical licensure, be ABPN eligible. Send curriculum vitae, statement of clinical/research interests, reprints, names of three references to: Joseph Westermeyer, M.D., Ph.D., P.O. Box 26901, Oklahoma City, OK 73190. Oklahoma University is an Affirmative Action/ Equal Opportunity Employer.

PROFESSOR OF MICROBIOLOGY. To conduct biomedical research in area of molecular immunology and molecular genetics, principally in the area of cancerrelated genes relevant to health; participate in departmental grand rounds, research conferences and seminars, weekly faculty meetings; supervise graduate students and postdoctoral research associates. M.D. or Ph.D. in molecular biology plus evidence of refereed publications and prior extramural funded research in molecular genetics; experience in molecular biological cloning and sequencing techniques. Also requires 4 years of experience as principal researcher in molecular biology. Salary: \$67,438 per year. Send résumés to: Bernie Childerston, Nebraska Department of Labor, Box 94600, Lincoln, NE 68509. Job Order # 520-265.

#### CHIEF, DIVISION OF ONCOLOGY DEPARTMENT OF MEDICINE

Stanford University School of Medicine is searching for a Chief of Oncology in the Department of Medicine at the level of **PROFESSOR** to coordinate clinical, educational, and research programs at Stanford University and affiliated hospitals. Applicants must have active funded research programs, experience with modern management of cancer patients in the context of an ambulatory setting and in the hospital, and a commitment to teaching at all levels. Applicants must also possess ABIM certification in internal medicine and oncology or, in exceptional cases, hematology. Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates. Send curriculum vitae and the names of three potential referees to: Edward D. Harris, Jr., M.D., Chairman, Department of Medicine, Stanford University School of Medicine, Room S102, Stanford, CA 94305–5109.

#### **GEOLOGY CHAIRPERSON**

The University of Texas at Arlington, approximately 24,000 students, seeks applications and nominations for the position of chairperson of the Department of Geology. Applicants should have demonstrated leadership ability and a proven record of research, funding, and teaching skills. The position is available 1 September 1992; salary will be competitive. Interested candidates should send curriculum vitae, statements of administrative accomplishments and philosophy, and the names, addresses and telephone numbers of four references to: Dr. Edmund D. Brodie, Jr., Box 19498, University of Texas at Arlington, Arlington, TX 76019–0498. Applications will be reviewed starting 1 November 1991.

An Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

#### **BIOLOGY DEPARTMENT CHAIR**

Roanoke College, a libera arts college affiliated with the Lutheran Church, seeks an experienced person to head a Department of Biology of six full-time faculty. Teach general biology, invertebrate biology, animal physiology. Strong leadership skills. **PROFESSOR/AS-SOCIATE PROFESSOR** rank. Salary competitive. Excellent teaching emphasized; active scholarship supported. Send letter of application, curriculum vitae, transcripts, and names of three references by 1 December 1991 to: Biology Search, Dean Gerald Gibson, **Roanoke College, Salem, VA 24153. Telephone:** 703-375-2204. An Affirmative Action/Equal Opportunity Employer.

#### THE UNIVERSITY OF QUEENSLAND PRINCE CHARLES HOSPITAL FOUNDATION CHAIR OF CARDIAC SURGERY

(Established by the Prince Charles Hospital and the Prince Charles Hospital Foundation with The University of Queensland.)

Applications are invited for the Foundation appointment to the Prince Charles Hospital Foundation Chair of Cardiac Surgery to be based at the Prince Charles Hospital, Chermside, Brisbane, Queensland, Australia. The applicant should have basic and specialist qualifi-

The applicant should have basic and specialist qualincations registrable in Queensland. He/She must have an established international reputation as a cardiac surgeon. A special interest and experience in cardiac transplantation are desirable. The applicant must have a significant research record evidenced by publication and success in obtaining competitive grants. The successful applicant will be expected to establish a

The successful applicant will be expected to establish a University Academic Cardiothoracic Surgical Unit, as a Division of the Department of Surgery. The appointment is initially for 5 years under the usual conditions of service.

Salary: \$72,000 per annum plus \$20,500 State loading and \$12,058 Clinical loading. Further information may be obtained from: Professor D. J. Effeney, Head, Department of surgery on ISD-+617 240 5305 or 07 240 5305, or the Medical Superintendent, Prince Charles Hospital, on ISD-+617 350 8224 or 07 350 8224.

Applications and curriculum vitae should be sent to: Director, Personnel Services, The University of Queensland, Old 4072, Australia.

Closing: 16 September 1991.

Reference Number: 37091

Equal Opportunity in Employment is University policy.

#### EXECUTIVE VICE PRESIDENT FOR MAIN CAMPUS ACADEMIC AFFAIRS

Georgetown University invites nominations and applications from men and women for the position of Executive Vice President for Main Campus Academic Affairs. Position available 1 July 1992.

This university in the nation's capital is a private, Catholic institution associated with the Jesuits since its founding. It has an enrollment of 11,500. It offers degrees in the usual undergraduate areas, and graduate and professional programs in the arts and sciences, business, law, foreign service, languages and linguistics, nursing, and medicine. The Executive Vice President for Main Campus Aca-

The Executive Vice President for Main Campus Academic Affairs is the chief academic officer of the main campus and has administrative authority over all its academic activities. This officer reports directly to the President and is the chief budget officer for those university officials who report to the Executive Vice President's office. The Executive Vice President for Main Campus Academic Affairs shares with the Executive Vice Presidents of the Medical and Law campuses the responsibility for the overall implementation of the university's educational philosophy.

Candidates should have an earned doctorate, teaching experience, evidence of scholarly activities, and should have demonstrated successful administrative experience appropriate to the complexity of the position. They should be prepared to support the educational philosophy and the commitment of the university as a Jesuit institution.

Letters of interest or nominations must be received by 31 October 1991 and should be sent to: Chair of the Search Committee, c/o Virginia M. Keeler, Secretary of the University, Georgetown University, Washington, DC 20057.

## SCIENTIFIC COMPUTING LABORATORY AUTOMATION

Pioneer Hi-Bred International, Inc., a Fortune 500 company and the world's largest developer, producer, and marketer of agricultural seeds, has immediate openings in the Plant Breeding Division Data Management Group in the area of computational science and laboratory automation. Pioneer is an equal opportunity employer providing a competitive salary, excellent benefits and facilities, plus a cooperative work environment.

SCIENTIFIC COMPUTING — This individual will work closely with research scientists to identify, analyze and develop proposals and prototypes of information systems to meet the scientific computing and information needs of Plant Breeding research. This would include identification of research areas where information technology would have a significant impact on database uses and decision making support systems, identification and evaluation of computing options for research scientists and IT personnel, and applications of computing technology to strategic areas. The position requires an advanced degree in a biological science with experience or course work in biomathematics or computing desirable. Experience with identification and evaluation of computational technologies and in working with end users in developing applications of computing technology desirable.

LABORATORY AUTOMATION — Two challenging positions are open in the lab automation group responsible for the development of projects to support lab research in biotechnology and plant breeding. Individuals will be involved in all aspects of automation projects which may range from computer-assisted data acquisition, instrument interfacing, image analysis, and software evaluation, to the design, development and implementation of robotic systems. Positions require M.S. or B.S. degrees in biological systems engineering or agricultural biological/sciences with heavy emphasis in engineering, electronics, and computer technology. Experience with instrumentation, automation, computer hardware and software in a laboratory or research environment desired.

Send resume to:



PIONEER HI-BRED INTERNATIONAL, INC. Plant Breeding Division Department of Data Management Attn: Twila Carzoli 7250 N.W. 62nd Avenue • P.O. Box 1004 Johnston, Iowa 50131

# CENTRE OF PHYSIOLOGY AND PATHOPHYSIOLOGY

UNIVERSITY OF GOETTINGEN

The Department of Neuro- und Sensory Physiology is recruiting an experienced Ph.D.

# NEUROPHYSIOLOGIST

(FACULTY POSITION)

to perform research on a project:

"Mechanisms of cellular interaction in neuronal networks"

using modern electrophysiological techniques (patch clamp, whole cell voltage clamp).

Application including curriculum vitae, statement of professional goals and names of three references should be received by 30 September 1991.

Dr. D. W. Richter, II, Physiologisches Institut, Humboldtallee 23, 34 Goettingen, FRG Tel. 49 - 551 - 395911, Fax: 49 - 551 - 395923

# POST DOCTORAL FELLOW Atherosclerosis Research

Join Wyeth-Ayerst Laboratories, a major division of Fortune 100 American Home Products Corporation. Now is your opportunity to become an integral part of our fast-paced, innovative team at our research facility in Princeton, NJ.

Our recently expanded Post Doctoral Program has an immediate opening in the Atherosclerosis Research Group to study the basic molecular biology and cellular processes involved in the regulation of lipoprotein and apoprotein production. This position will be an integral part of a multidisciplinary team whose goal is to develop novel therapeutic approaches for the treatment of atherosclerosis through lipid regulation and/or direct effects at the vessel wall. The Post Doctoral Fellow will conduct independent research and will be encouraged to publish in scientific journals, attend and present work at scientific meetings and maintain close ties with the academic community.

The ideal candidate will possess a Ph.D. in molecular biology, biochemistry or a related field with cell culture experience and a background in atherosclerosis research. Experience in lipoprotein metabolism and methodology, and/or familiarity with transcriptional regulatory elements are desirable.

We offer an excellent compensation and benefits package. Our research laboratory is just minutes away from Princeton University and convenient to many other cultural, educational and leisure activities. Forward resume and salary requirements to: Wyeth-Ayerst Research, Personnel Manager, Position #360, CN 8000, Princeton, NJ 08543-8000. An Equal Opportunity Employer, M/F/H/V responses encouraged. Principals only.



# **BIOTECHNOLOGY START-UP**

At BioTransplant, our mission is to discover, develop, manufacture and market products and services for patients who require organ transplants. Our technology, which will minimize systemic immunosuppression and associated toxicities, will be applied to vascularized organ allografts and xenografts.

As a newly founded, well-funded biotechnology firm with a strong scientific and management background, and a distinguished scientific advisory board, we know how critical scientific leadership and experience are to success.

#### DIRECTOR OF MOLECULAR BIOLOGY DIRECTOR OF CELLULAR IMMUNOLOGY

These two key contributors will join our Director of Monoclonal Antibodies to develop and manage our integrated and focused research efforts. These positions require:

- Ph.D. in Molecular Biology or Immunology, with expertise in recombinant, transgenic and ES technologies, or in animal allocation and become parameterized and the parameterized because
- allograft and bone marrow manipulation technologies. • 5+ years' industrial supervisory experience. Please respond to Dept. DIR81891.

#### SENIOR SCIENTISTS

You should have a Ph.D., with 2+ years' industrial experience in immunology, molecular biology, transgenic and ES techniques, or hybridoma development. Please respond to Dept. SS81891.

Early this fall we'll be moving to a newly constructed facility in the Charlestown Naval Yard. In addition to a stimulating professional environment, we offer a competitive compensation and benefits package. Please send your resume, indicating the appropriate department, to: Human Resources, BioTransplant, Inc., 840 Memorial Drive, Cambridge, MA 02139. We are an equal opportunity employer.

BIOTRANSPLANT

INCORPORATED



With an exceedingly diverse research and technology base, GEO-CENTERS INC. is meeting the future head on. We're making exceptional advances in fields such as immunology, molecular biology, and physiology. As a leader in medical technology, as well as one of Inc.'s 500 fastest growing companies in America, flexibility is the key to our success. Market demand, financial stability and technological strenath --- we've aot every angle covered for continued growth and outstanding technical achievement

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## **PRODUCT DEVELOPMENT MANAGER** (Washington, D.C.) - CODE 2217

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The primary responsibilities for this position will focus upon the development of novel immunodiagnostic products. Candidates for this position must possess a Ph.D. in Immunology or a related field, with a minimum of 10 years of demonstrated expertise in the development of ELISA-based immunodiagnostic tests. Candidates will possess commensurate technical, personnel, and financial management skills Candidates possessing prior manufacturing background will be given preference. Applicants should also be familiar with FDA regulations and approval processes. Prior experience in Government-funded research for NIH, DoD, FDA, USDA, etc., will be considered a definite plus...

## TOXICOLOGIST/PHARMACOKINETICIST (Dayton, OH) - CODE 2218

A post-Doctoral level candidate is sought to assist in the develop-ment of Physiologically-Based Pharmacokinetic (PBPK) modeling capabilities. Candidates should possess a minimum of a recent Ph.D. in Toxicology or Pharmacology, with previous experience in PBPK techniques. Candidates should also possess demonstrated laboratory skills in evaluations of the distribution and metabolism of toxic materials.

## MOLECULAR BIOLOGIST (Chicago, IL) - CODE 2219

A recent Doctoral level candidate is sought for our research activities associated with the development of novel immunodiagnostic tests for various oral pathogens. Candidates should possess a minimum of a recent Ph.D. in Immunology or Molecular Biology, with extensive experience in the development of immunodiagnostic testing, as well as recombinant DNA techniques. Prior experience in anaerobic systems will be considered a definite plus.

### CELL BIOLOGIST/IMMUNOLOGIST (Washington, D.C.) - CODE 2220

A post-Doctoral level candidate is sought to evaluate novel biomaterials during angiogenic events of wound repair. Applicants should possess a Ph.D. in Cell Biology or Immunology, and have prior experience with cytokines in both in-vitro and in-vivo methods. The candidate should also possess expertise in the isolated and culture of endothelial cells, as well as knowledge of slow release systems.

## **RESEARCH SUPPORT STAFF** (Various Locations) - CODE 2221

Tomorrow's Technologies, Today's Application.

GEO-CENTERS INC. is seeking support staff members at the BS/MS levels for our research activities nationwide. Applicants for these positions will have degrees in Molecular Biology, Immunology, or related fields, and will have a minimum two years of post-graduate laboratory experience

These positions are in support of our Biomedical R&D Division; applications will be evaluated on their educational background as well as demonstrated practical experience. Senior level positions require a solid publication record. U.S. citizenship or Green Card required. Applicants selected for certain positions will be subject to a security investigation and must meet eligibility requirements for access to classified information.

With offices nationwide, we're in a position to offer you a highly competitive salary, wide range of benefits, and extensive professional development opportunities. Please send your resume and salary requirements to: GEO-CENTERS, INC., 10903 Indian Head Highway, Fort Washington, MD 20744, Attn: Deborah Hall-Greene/Code . GEO-CENTERS. INC. is an Equal Opportunity/Affirmative Action Employer. Principals only.

#### **POSITIONS OPEN**

DEAN OF THE COLLEGE OF AGRICULTUR-AL AND LIFE SCIENCES AND DIRECTOR OF THE EXPERIMENT STATION. The University of Wisconsin-Madison, one of the largest land-grant universities in the United States, is renewing its search for a Dean of the College of Agricultural and Life Sciences. The College of Agricultural and Life Sciences, including its School of Natural Resources and several basic science departments, offers undergraduate and graduate instruction in a wide range of specialties keyed to research, business, industry, communications, education, conservation and natural resources, production, and technical assistance in national and international programs. The college enrolls approximately 1200 graduate students and 2400 undergraduate students.

Most of the basic sciences for biology are in this college; therefore, the search is for a dean with major responsibilities for the biological sciences as well as

agriculture. The dean supervises a faculty and professional staff of approximately 1200 and a budget of approximately \$90 million. The dean serves as Director of the Wisconsin Agricultural Experiment Station and its the chief academic and executive officer of the college with responsibility for staffing, budget, curriculum, student academic affairs and space. The Dean also is responsible for coordinating Cooperation Extension Service programs within the college, but shares administrative and budget-ary control with UW-Extension.

Major qualifications for the position include: a proven record of administrative skills and successful leadership in higher education; a thorough understanding of agriculture, biological sciences, and economic development issues; academic achievements as a scholar and teacher that meet the standards for a tenured appointment at the rank of full professor in the University of Wisconsin-Madison faculty; a commitment to maintain and improve quality programs in undergraduate and graduate instruction, research, extension, and public service. The successful candidate is expected to represent the college before a wide range of groups including client organizations, alumni, legislators, foundations, and the business community.

The position will be filled when a suitable candidate has been identified. All applications and nominations received by 15 October 1991 will be considered. Later applications and nominations may also be considered. Applicants should include a current résumé and a cover letter that addresses how their strengths match the qualifications for the position and what they see as the challenges and opportunities for the position. Submit nominations or applications to: **Professor Neal L. First**, Chair, Search and Screen Committee, UW-Madison, 134 Bascom Hall, 500 Lincoln Drive, Madison, WI 53706. Telephone: 608-262-3956.

The University of Wisconsin is an Equal Oppor

#### SCIENTIFIC DIRECTOR AND CHIEF EXECUTIVE OFFICER MONTANA

The Deaconess Research Institute in Billings, Montana, is now accepting applications for a Scientific Direc-tor and Chief Executive Officer.

Qualified candidates will have demonstrated ability to obtain external research support and develop/expand research program(s). While no disciplinary structure has been set for the Institute, applicants should have a demonstrated interest in aging-related research. In addi-tion to research, other duties will include recruitment of up to ten additional research scientists who can attract and maintain external funding. This is also a key position regarding the Institute's fund raising efforts. Billings is Montana's largest city with an incredible array of recre-ational opportunities in every direction. Yellowstone Park is just 2 hours away by car. Hunting, fishing, boating, camping, hiking, skiing and sightseeing are just minutes from your doorstep!

For application and information call 1-800-325-1774. Send résumés describing research and program development experience to: Employment Coordina-tor-M, P.O. Box 37000, Billings, MT 59107. Equal Opportunity Employer.



#### ECOLOGIST PROGRAM DIRECTOR

The National Research Initiative Competitive Grants Program of the U.S. Department of Agriculture (USDA) seeks a qualified scientist to serve as program director for grants administration in the area of water quality [encompassing soil chemistry and biophysics; rhizosphere biology (soil, plant and microbial interactions); plant/ water contaminant interactions; and wetland, riparian or forest ecology]. Candidates must have a B.S. or higher degree with major study in biology or a related field of science underlying ecological research. In addition the candidate must have a Ph.D. or equivalent experience in soil chemistry, soil physics, microbiology, ecology, plant physiology or a related discipline of biological, chemical, physical or earth science.

Closing date is 23 September 1991. For information on this position contact Dr. Anne Datko, National Research Initiative Competitive Grants Program, CSRS/USDA, Room 323 Aerospace Building, Washington, DC 20250-2200. Telephone: 202-401-4871. For information on application procedures/forms, contact Ms. Kathy Asmussen, personal staff specialist, telephone: 202-475-4811. USDA is an Equal Opportunity Employer.

#### **RESEARCH DIRECTOR**

A leading university arboretum invites applications for a research director in floristic botany to develop and manage a new program of botanical inventory of tropical Southeast Asian Malesian flora. Responsibilities will include: day to day management of university arboretum collaborations with Asian botanical institutions for mounting inventory expeditions; organization of field collecting expeditions in Indonesia; administrative coordination with the Indonesian government and cooperating conservation organizations; budgetary management of research grant expenditures; supervision of field work; management of data acquisition, electronic storage and retrieval; publication of original research.

Management of uata acquisition, electronic storage and retrieval; publication of original research. Qualifications will include: Ph.D. in plant systematics with a minimum of 3 years of postdoctoral research experience in floristic botany. Applicant must have proven leadership and managerial skills as evidenced by successful experience in conducting plant collecting expeditions; knowledge of botanical computer databases; and knowledge of the Malesian flora. Proven publication record desirable. Salary: \$36,000 per annum. Interested applicants should send two résumés, including

Interested applicants should send two résumés, including names of three references to: Department of Employment and Training, Special Programs, 19 Staniford Street, Boston, MA 02114 and refer to Job Order #1800.

#### CENTER FOR ENGINEERING PLANTS FOR RESISTANCE AGAINST PATHOGENS (CEPRAP) RESEARCH GROUP MANAGER

CEPRAP, an NSF Science and Technology Center at the University of California, Davis, seeks a Ph.D. scientist to participate in research in the cellular pathogens group focused on the genes and molecules involved in plant-pathogen recognition, primarily in tomato. The appointee will also manage the cellular pathogens laboratory at the CEPRAP facility. Applicants must have at least 2 years of postdoctoral experience, and preferably expertise in (1) microbiology or plant pathology, (2) protein chemistry or natural products chemistry, and (3) preparation and use of antibodies. Some experience with recombinant DNA techniques and laboratory management will be desirable. Appointment will be as an Assistant Research Biochemist, 11 months, 80% time. Option for 20% time on independent research in plantmicrobe interactions, contingent on outside funding. Starting date: 1 January 1992 or as soon as possible thereafter. Send curriculum vitae, transcripts, list of publications, statement of research interests, and names and addresses of three referees by 8 November 1991 to: Dr. Brett Tyler, Cellular Pathogens Group, CE-PRAP, University of California, Davis, CA 95616. The University of California is an Affirmative Action/Equal Opportunity Employer.

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Roche Vitamins and Fine Chemicals, a division of Hoffmann-La Roche Inc., makes important contributions to human and animal health with an array of products and services that enhance nutrition and prevent and treat disease. In addition, we are the world's largest manufacturer of bulk vitamins.

We are seeking a Scientist to participate in animal science research projects. Specific involvements will include conducting research in protein and peptide purification; developing enzyme assays; and discovering cell physiology and mechanism of drug action. To qualify, you must have a BS/MS in Biochemistry, augmented by 4-5 years of experience with HPLC and electrophoresis. Familiarity with hormone assays would be helpful.

We offer a salary commensurate with your experience and education, a generous bonus, a comprehensive benefits package and a state-of-theart environment conducive to professional development. For confidential consideration, please send your resume, indicating salary history and requirements (those without this information will not be acknowledged), to: Mrs. Frances Newman, Staffing and Employee Services, Department FN131SD, Hoffmann-La Roche Inc., Nutley, New Jersey 07110. We are an equal opportunity employer.

# **Roche Vitamins and Fine Chemicals**



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# Geisinger Clinic Postdoctoral Fellow/ Associate Scientists

Positions will be available in December, 1991 to join a laboratory studying the mechanism of transcription and the regulation of gene expression, with specific focus on the mammalian ribosomal RNA genes. The positions require a Ph.D. with experience in protein chemistry and/or molecular biology. Candidates for the position of associate scientist should have at least 2 years of relevant postdoctoral training. Experience in tissue culture methodologies would also be desirable.

The Research Center is housed in a modern, completely equipped facility, within convenient driving distance of New York City, Philadelphia, and Washington, D.C., and several major universities, yet it still offers the benefits of a small town environment. Interested candidates should send copies of their curriculum vitae and the names of three references to: Dr. Lawrence Rothblum, Weis Center for Research, Geisinger Clinic, Danville, PA 17822-2618. Equal Opportunity Employer M/F/H/V.

# Geisinger



#### DANISH CANCER SOCIETY TENURE POSITION AS HEAD OF DEPARTMENT AT THE FIBIGER INSTITUTE

The Fibiger Institute, which is the main center in Denmark for experimental cancer research, is seeking a Head of Department to start in the spring of 1992. The selected candidate is expected to start a new strong research program within basic experimental cancer research, interacting closely with other programs at the institute.

The ongoing research at the institute includes: growth regulation in human breast cancer; prognostic factors in primary human breast cancer; mechanism of induction of lung tumors; identification of functional structures in the RAF oncogene; tumor specificity of the immune response; molecular biology of human T cell receptors; clinical studies on immunotherapy of cancer.

RAF oncogene; tumor specificity of the immune response; molecular biology of human T cell receptors; clinical studies on immunotherapy of cancer. The institute, which occupies a total of 3500 square meters of laboratory space, is well equipped for research within the fields of molecular and cellular biology and has central facilities for animals and tissue culture media preparation. The development of the overall structure and management of the institute will be part of the negotiations with the selected candidate. Resources will be made available for establishment of the group. The position is not combined with any formal teaching obligations, but the institute maintains close ties with the University of Copenhagen and it is possible to enlist preor postgraduate students. The institute has also close contacts with clinical and epidemiological departments in the Copenhagen area. Further details may be obtained from Professor Julio E. Celis, Chairman of the Search Committee, at telephone: + 45 86 12 93 99 or FAX: + 45 86 13 11 60.

Salary and benefits (pension scheme) are commensurate with a full university professorship in Denmark. Applications (five copies) including full curriculum vitae, a list of publications and a short research proposal covering an initial period of at least 3 years (also outlining requirements for space, staff and laboratory equipment) and quoting "Head of Department"/Fibiger Institute should be sent by 1 January 1992 to:

The Search Committee The Danish Cancer Society Rosenvangets Hovedvej 35 2100 København Ø Denmark

#### LA TROBE UNIVERSITY AUSTRALIA SCHOOL OF BIOLOGICAL SCIENCES LECTURER IN GENETICS AND HUMAN VARIATION (LEVEL B ACADEMIC)

Tenurable, commencing 1 July 1992. Applications are invited from persons with high academic qualifications in human molecular genetics. The appointee will be expected to teach undergraduate and graduate students, and to develop a strong research program within this dynamic and well-equipped department.

For further information about the position, contact: Professor R. H. Crozier, telephone: 613-479-2255, FAX: 613-479-1188. For a duty statement please call: 613-479-1368. Closing date: 30 November 1991. Reference No.: ACAB0/098. Salary range: \$A38,500 to \$A46,000. Salary level will be dependent upon qualifications and experience.

Applications (marked confidential), including reference number, names and addresses of three referees and curriculum vitae should be forwarded to: **Personnel, La Trobe University, Bundoora, Victoria, Australia, 3083.** 

La Trobe is an Equal Opportunity Employer and provides a smoke-free work environment.

CELL BIOLOGY FACULTY POSITIONS. The Department of Cell Biology and Anatomy invites applications from individuals with strong research programs in molecular aspects of cellular or developmental biology. Faculty rank will be determined by experience. Teaching will be in medical or graduate cell biology, histology or genetics. Submit applications with curriculum vitae, summary of research interests and names of references to: Cell Biology Search, Department of Cell Biology and Anatomy, Johns Hopkins Medical School, 725 North Wolfe Street, Baltimore, MD 21205. Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer. The Retrovirus Diseases Branch-Centers for Disease Control (CDC), Atlanta, Georgia invites applications for the position of MEDICAL OFFICER. Position is responsible for studying the epidemiology of non-HIV retroviruses, including designing and conducting studies of the seroprevalence, transmission, and risk factors for the development of ATL or HAM/TSE, and for implementing surveillance systems for ATL. Knowledge/expertise in molecular epidemiology is required. Applicant must hold an M.D. degree, have epidemiologic training with 4 years of experience in outbreak investigation and design and execution of epidemiologic studies related to retroviruses, and residency in internal medicine with specialty training in infectious disease. Two years of bench experience in molecular biology and Board certification in internal medicine is preferred. Salary is \$61,141 to \$76,864. Submit curriculum vitae and names of three references to: Ms. Janey Oddy, Centers for Disease Control, Personnel Management Office, Building 1, Room 1058, 1600 Clifton Road, NE, Atlanta, GA 30333. CDC is an Equal Opportunity Employer and provides a smoke-free environment. Applications must be received by 30 September 1991.

#### FULL-TIME FACULTY POSITION HARVARD MEDICAL SCHOOL BETH ISRAEL HOSPITAL

Positions available for faculty members at various levels to join the new Molecular Medicine Unit at the Beth Israel Hospital and Harvard Medical School. Applications are invited from scientists having an M.D. and/or Ph.D. degree and postdoctoral experience in molecular biology. New faculty members will be expected to develop independent basic science research programs particularly in the areas of cell growth and differentiation, growth control, and oncogenes. The selected candidates will have the opportunity to work in new laboratories with state-of-the-art equipment designed for molecular and cellular biological research. Start-up funds and extensive long-term support is available for salaries, technical help, and supplies. The faculty members selected will be expected to spend approximately 90% of their time pursuing research activities. Clinical and/or teaching commitments are not required but can be arranged. Applicants should have sufficient recognition in their field in the form of publications to merit joint faculty appointments at Harvard Medical School. Please send curriculum vitae, a brief statement of research interests, reprints of significant recent work, and the names of three references to: Benjamin G. Neel, M.D., Molecular Medicine Unit, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215. Beth Israel Hospital is a

#### THREE TENURE-TRACK POSITIONS THE UNIVERSITY OF CHICAGO

The University of Chicago is forming a group to study the cell cycle. Three tenure-track positions will be committed to individuals using yeast genetics to study the problems of cell cycle regulation and maintenance of genomic stability. These individuals must be willing to interact with ongoing mammalian oncologic research. Although applicants are expected to obtain grant support, continuous salary and operating funds are available. Joint appointments will be encouraged in basic science and clinical departments.

The University of Chicago is an Equal Opportunity Employer. Please contact:

Dr. R. Weichselbaum The University of Chicago 5841 South Maryland Avenue, Box 442 Chicago, IL 60637 FAX: 312-702-0610

FACULTY POSITIONS: BIOCHEMISTRY AND MOLECULAR BIOLOGY. The Department of Biochemistry and Molecular Biology is'seeking applicants for tenure-track faculty positions, preferably at the Associate or full Professor level. Outstanding individuals with active, funded research programs and teaching experience are being sought. Applicant should send curriculum vitae, list of publications, description of research and names of three references to: Chairman, Search Committee, Department of Biochemistry and Molecular Biology, Texas College of Osteopathic Medicine (TCOM), 3500 Camp Bowie Boulevard, Fort Worth, TX 76107–2690. TCOM is an Affirmative Action/Equal Opportunity Employer.

#### **POSITIONS OPEN**

#### **IMMUNOPARASITOLOGIST**

The Department of Biological Sciences, University of Notre Dame, invites applications for a **TENURE-TRACK POSITION** in immunoparasitology for appointment fall semester 1992. Research areas of interest are immune responses to parasitic helminths or protozoa. We seek an outstanding individual who will initiate and maintain a vigorous research program. Responsibilities include the direction of graduate students and teaching two courses per year, one a basic immunology course and the other in an area of the candidate's expertise. We offer seed money, modern research space, a competitive salary, outstanding animal care facilities, and macromolecular synthesizers, sequenators. NMR, FACS, etc. An NIHfunded Parasitology-Vector Biology Training Grant Program offers pre- and postdoctoral support. Submit curriculum vitae, three representative publications, names of three references and a statement of teaching and research interests to: Dr. Howard J. Saz, Department of Biological Sciences, University of Notre Dame, Notre Dame, IN 46556. Notre Dame is an Affirmative Action/ Equal Opportunity Employer.

FACULTY OPENINGS. The Evergreen State College. Evergreen seeks broadly trained faculty interested in teaching in a public, liberal arts institution emphasizing interdisciplinary study and team-teaching throughout the undergraduate curriculum and three graduate programs: (i) ENVIRONMENTAL HEALTH. To teach both in MES and undergraduate curriculum. Requires background in public health, occupational health and safety, toxicology, epidemiology, or related field. Knowledge and experience with the public policy issues surrounding environmental health required. Must be interested in developing curriculum connecting human health and environmental issues. Ability to teach statistics and research methods strongly preferred. (ii) GBOGRAPHY. To teach both in MES and undergraduate curriculum. Required training and expertise in resource, cultural, physical or economic geography, or closely related field. Knowledge and experience of Latin American environmental issues strongly desired. Experience with teaching statistics and research methods preferred. (iii) PHYS-ICS. Seek those with experience and interest in teaching physics in an interdisciplinary context, including its with background in experimental physics or energy studies preferred. Ph.D. in physics or energy studies preferred. Ph.D. in physics required. Positions are continuing, with salary and length in initial contract determined by experience. To apply, send résumé and one- or two-page statement describing your qualifications for the position to: Faculty Hiring Coordinator, The Evergreen State College, Olympia, WA 98505.

#### FACULTY POSITION MICROBIAL PATHOGENESIS UNIVERSITY OF CALIFORNIA LOS ANGELES (UCLA)

The Department of Microbiology and Immunology, UCLA School of Medicine, invites applications and nominations for a tenure-track faculty position. We seek an outstanding candidate who will study bacterial or fungal pathogenesis using contemporary molecular, genetic, and/or immunological approaches. The areas of interest include, but are not limited to investigation of virulence factors, host invasiveness, host response, molecular and genetic analysis of pathogenic organisms. The applicant should have a Ph.D., M.D. (or equivalent degree), postdoctoral experience, with a strong record of research accomplishments, and a demonstrable potential for developing an independent research program. Although candidates at the assistant professor level will be preferred, we will consider candidates for tenured position. The department is committed to excellence in microbial pathogenesis. Interested applicants should send curriculum vitae, summary of current and future research programs, copies of two recent publications and names and addresses of three or more references by 1 December 1991 to: Dr. Debi Nayak, Chair, Microbiology Faculty Search Committee, Department of Microbiology and Immunology, UCLA School of Medicine, 43-239 CHS, Los Angeles, CA 90024–1747. Women and minority candidates are encouraged to apply. UCLA is an Affirmative Action/Equal Opportunity Employer.

SCIENCE, VOL. 253



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# RESEARCH SCIENTISTS Cystic Fibrosis

Our Cystic Fibrosis program aims to use either protein replacement or gene replacement therapy to develop new therapeutic products to treat this inherited disease. At present, both approaches are being actively pursued and Genzyme researchers have already made major contributions to Cystic Fibrosis research in this area. (Nature 347 358-363 1990, Nature 347 382-386 1990, Cell 63 827-834, Science 251 679-682 1991, Science 253 202-205 1991, Science 253 205-207 1991, Molecular Cell Biology 11 3886-3893 1991)

We are seeking Ph.D. level scientists with 2-5 year's post doctoral experience and a proven track record of successful research for the following areas:

# **Protein Biochemistry**

Be responsible for membrane protein purification and characterization targeted to CFTR delivery to airways in animal models using liposome formulations. Experience in purification of membrane proteins and in the reconstruction of membrane transporters or channels into lipid bilayers and subsequent fusion into target cell membranes necessary. (Code PB)

# **Cell Physiology**

Focus on small animal pulmonary physiology and pharmacology to develop small animal models to deliver the CFTR protein and CFTR DNA to airway tissue using liposome, viruses or virosome aerosols. Experience with pulmonary cell biology and/or physiology is necessary; airway drug delivery, pharmacokinetics, and liposome surfacants and/or respiratory viruses experience is desirable. (Code CP)

Genzyme rewards success with an excellent compensation and benefits package, including 3 weeks paid vacation, a 401(k) plan with a company match, extensive insurance benefits and state-of-the-art facilities.

Please forward your resume, indicating Job Code, to: Jill Smith, Dept. S96, Genzyme Corporation, One Mountain Road, Framingham, MA 01701. An equal opportunity employer

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### CENTER FOR GLOBAL CHANGE AND ARCTIC SYSTEM RESEARCH

#### UNIVERSITY OF ALASKA FAIRBANKS

Applications are invited from candidates for the position of Associate Director of the Center for Global Change and Arctic System Research at the University of Alaska Fairbanks. The Center, established in 1990, provides a campuswide framework for developing, coordinating, and implementing interdisciplinary research initiatives to address the role of the Artic in the Earth system. There are presently about 300 faculty members interested in global change research on campus, and more than 50 of them receive over \$6 million in competitively-funded research support for global change studies.

The position is responsible to the Director of the Center, and the successful candidate is expected to operate on his/her initiative for the overall program and admininstrative activities of the Center. These activities include formulating, refining, and articulating the character of the Center; securing planning and operating funds through proposals; and generally defining and implementing the programs, image, and direction of the Center.

Qualifications for the position include a graduate degree or equivalent in a field of science or engineering revelant to global change research. Alternatively, a degree in business mangement and five years of progressively responsible science admininstrative experience, including a knowledge of science funding sources and agencies, and contract negotiations. Familiarity with global change scientific program plans is critical. The salary range begins at \$45,864.00; actual salary will depend on experience.

Requests for further information about the Center or the position can be obtained from the address below. Applications should be sent by November 1, 1991 to:

Dr. Gunter Weller, Director Center for Global Change and Arctic System Reseach 208 O'Neill Building University of Alaska Fairbanks Fairbanks, AK 99775

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# Sr. Research Scientist - Ph.D. Molecular Biology

Recent PhD to join and complement molecular biology group conducting research in the design and construction of novel antibodies for imaging and treatment of cancers. Experience in optimizing prokaryotic/eukaryotic expression systems is required. Direct experience in the areas of cloning, PCR, site-directed mutagenesis, nucleic acid sequencing and computers is preferred. You will have an opportunity to make a significant contribution to the Company's future.

CYTOGEN Corporation is an established biopharmaceutical company with a strong commitment to research and development. Our emphasis is on the commercialization of products for the improved diagnosis and treatment of cancer and cardiovascular disease. We are located in the Research Corridor of Princeton and Rutgers Universities, in an attractive suburban area 45 minutes from New York and Philadelphia. We offer competitive salaries and benefits. Please send resume to: Employment Manager, CYTOGEN Corporation, 600 College Road East, CN5308, Princeton, New Jersey 08540-5308. Equal opportunity

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employer.

FACULTY POSITION. Department of Microbiology and Immunology, the University of California, San Francisco, School of Medicine, is seeking an outstanding candidate to fill a tenure-track or tenure position. In addition to departmental affiliation the position includes membership in the Program in Biological Sciences, the excellent campus-wide graduate program. The search will consider candidates with demonstrated creativity and productivity in one of the following two areas: (1) molecular mechanisms of basic processes in prokaryotes or (2) molecular mechanisms of bacterial pathogenesis. Rank will be commensurate with level of experience. Interested candidates should send curriculum vitae and a statement of future research plans, and have three letters of recommendation sent by 1 December 1991 to: Microbiology. Search Committee, c/o Mary Jo Kelley, Department of Microbiology and Immunology, Box 0502, University of California, San Francisco (UCSF), San Francisco, CA 94143. UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

**POSTDOCTORAL POSITIONS.** Positions available immediately to study isoprenoid metabolism and transport in rat liver and frog retina. Research involves isolating and cloning genes responsible for isoprenoid biosynthesis and characterization of proteins involved in intracellular transport of isoprenoid compounds. Send résumé and three letters of reference to: **R. Kennedy Keller, Ph.D., Department of Biochemistry and Molecular Biology, University of South Florida College of Medicine, Tampa, FL 33612–4799. Phone and FAX: 813-974-5167.** 

POSTDOCTORAL POSITION. Available immediately. Studies will involve the regulation of phagocytic cells by small GTP binding proteins (NADPH oxidase, differentiation, etc.). Background in molecular biology, protein purification/biochemistry preferred. Send curriculum vitae and names of three references to: Dr. Gary M. Bokoch, Department of Immunology, The Scripps Research Institute, 10666 North Torrey Pines Road, La Jolla, CA 92037. Telephone: 619-554-8217.

#### TWO POSTDOCTORAL POSITIONS

Available immediately to participate in two NIHfunded projects on alterations of host defense induced by thermal injury. These projects will (i) extend studies [*J. Immunol.* **143**, 2609 (1989)] to determine subcellular mechanisms responsible for neutrophil dysfunction (Dr. Ann Bjornson) and (ii) characterize alterations of cytokine production and other functional responses of macrophages (Dr. Scott Somers). Our program offers the opportunity to apply fundamental knowledge in phagocyte biology to an area of clinical importance. Compensation includes stipend of \$28,000 to \$32,000 (dependent on experience) and fringe benefits. Send curriculum vitae, summary of research experience and names of three references to: Drs. Bjornson or Somers, c/o: Division of Immunology, James N. Gamble Institute of Medical Research, 2141 Auburn Avenue, Cincinnati, OH 45219. An Equal Opportanity Employer.

POSTDOCTORAL POSITION IN MOLECU-LAR PARASITOLOGY. NIH-funded fellowship, restricted to American citizens or permanent residents, available for a molecular biologist to study the genomic organization, expression and products of stage-specific malaria genes required for mosquito transmission. Send curriculum vitae and letters of recommendation to: Dr. Ruth S. Nussenzweig, Department of Medical and Molecular Parasitology, New York University Medical School, 341 East 25th Street, New York, NY 10010. FAX: 212-263-8116.

POSTDOCTORAL POSITION available immediately to study cellular regulation by homologous oncoproteins. These studies will employ novel biochemical and molecular genetic strategies to understand signal transduction involved in transcriptional regulation, and the molecular mechanisms of cellular transformation. Candidates must have experience in molecular biology. Please send curriculum vitae, name of three references, and telephone numbers to: Robert Chiu, Ph.D.; Department of Surgery-Oncology, School of Medicine, University of California Los Angeles (UCLA), 9-267 Factor Building Los Angeles, CA 90024–1782. UCLA is an Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

**POSTDOCTORAL POSITION**. Available immediately for molecular biologist/molecular geneticist to work on a multidisciplinary campus-wide project to map and sequence the genome of *Plasmodium falciparum*, the malaria parasite. This individual will be involved in cloning and physical mapping of individual *P. falciparum* genes and chromosomes. Experience in molecular biology required, PFGE mapping desirable. Send curriculum vitae and three references to: Dr. Sheldon Schuster, Director, Interdisciplinary Center for Biotechnology Research, 1301 Fifield Hall, University of Florida, Gainesville, FL 32611.

**POSTDOCTORAL POSITION**. Available immediately within the NMR Scientific Research Group. Will assist in the scientific validation of structure elucidation of biomacromolecules by NMR using BIOSYM's NMR structure determination software tools. Previous experience in this area highly desirable. This position focuses on assessing the potential benefits and limitations of various algorithms: distance geometry (DGII), dynamical simulated annealing, restrained molecular dynamics and minimization, and the iterative relaxation matrix approach as applied to peptides, proteins and nucleic acids. Send curriculum vitae and three letters of reference to: **BIOSYM Technologies, Inc., Human Resources– NMR, 10065 Barnes Canyon Road, San Diego, CA 92121.** Equal Opportunity Employer.

POSTDOCTORAL POSITION IN DROSOPHILA GENETICS. To study P element transposition and its accompanying DNA gap repair. Please see article by Gloor et al. in Science (this issue) for more details. Send résumé and references to: Dr. William R. Engels, University of Wisconsin, Genetics Department, Madison, WI 53706, or E-mail to: WREngels @vms.macc.wisc.edu. An Equal Opportunity/ Affirmative Action Employer.

#### AQUATIC TOXICOLOGY POSIDOCTORAL POSITION LÁWRENCE BERKELEY LABORATORY (LBL) BERKELEY, CALIFORNIA

LBL offers an exceptional opportunity for an investigator to participate in a coordinated and multidisciplinary ecotoxicology program on San Francisco Bay. Our project will focus on evaluation of genotoxic effects and on chronic toxic effects in wetland ecosystems. Collaboration is possible with investigators studying sediment toxicity and wetland ecotoxicology. This is a 12- to 18-month position available for a recent Ph.D. in aquatic toxicology or a related field. The appointment may start anytime between November 1991 to January 1992.

For further information please contact: Dr. Susan Anderson at 415-486-4654. Salary range is \$2800 to \$3035 per month with, comprehensive benefits. Apply to: LBL, Employment Office, reference job #B/6394, #1 Cyclotron Road, Mailstop 90/1042, Berkeley, CA 94720. Equal Opportunity Employer, M/F/H/V.

**POSTDOCTORAL POSITION.** Immediately available for an **IMMUNOCHEMIST** to contribute toward development of a blood-stage malaria characterization (immunoblotting, immunoprecipitation, etc.) is essential. Experience with immunotoxins or chemical modification of antibodies is desirable. Salary is competitive and commensurate with experience. Send curriculum vitae, a statement of research interests and the names and addresses of three references to: Theodore F. Taraschi, Ph.D., Thomas Jefferson University, Department of Pathology and Cell Biology, 1020 Locust Street, Philadelphia, PA 19107. We are committed to a smoke-free environment. Equal Opportunity Employer.

TWO POSTDOCTORAL POSITIONS. Available on or after January 1992 to study the molecular genetics of cataracts. First project involves the use of positional cloning to isolate a cataract gene. The second involves cloning a cataract gene based on available protein sequence. Please send curriculum vitae and names of references to: Dr. Dwight Stambolian, University Of Pennsylvania, School of Medicine, Department of Ophthalmology and Human Genetics, 475 Clinical Research Building, 422 Curie Boulevard, Philadelphia, PA 19104.

#### **POSITIONS OPEN**

POSTDOCTORAL POSITION. Available to investigate the intracellular targeting of mutant and native proteins to the endoplasmic reticulum. Ph.D. and knowledge of molecular biology and protein biochemistry essential. Send curriculum vitae and three letters of reference to: L. Waskell, M.D., Ph.D., University of California, San Francisco, VA Medical Center, Department of Anesthesia, 4150 Clement Street, San Francisco, CA 94121. Equal Opportunity/Affirmative Action Employer. Fax: 415-750-6946.

POSTDOCTORAL POSITION IN MOLECU-LAR BIOLOGY. Available 1 January 1992 to assume primary responsibility for the purification and characterization of the gene(s) that code(s) for a plant-specific trypsin inhibitor. Experience in molecular biology is desirable. Send curriculum vitae and names of three references to: Dr. Roxanne M. Broadway, Department of Entomology, New York State Agricultural Experiment Station, Cornell University, Geneva, NY 14456.

#### POSTDOCTORAL POSITION MICROBIAL ECOLOGY

Two openings to study ecological and evolutionary processes in microbial populations. Possible topics include adaptation to variable to stressful environments; population dynamics and coevolution of interacting genomes; and molecular bases of genetic adaptation. Evolutionary ecology: Ideally, one appointee will have a strong background in ecology and evolutionary biology; prior training in microbiology not required. Molecular genetics: Ideally, one appointee will have a strong background in microbiology and molecular genetics. Starting dates flexible. Send curriculum vitae, reprints, and list of three references by 15 October 1991 to: Dr. Richard Lenski, Center for Microbial Ecology, Plant and Soil Science Building, Michigan State University (MSU), East Lansing, MI 48824–1325.

MSU is an Equal Opportunity Employer.

**POSTDOCTORAL POSITION.** For research scientist with recent Ph.D. to study the expression of human proteins in transgenic animals. Knowledge of molecular biology required; experience in protein purification or transgenic animals helpful. We offer a highly stimulating research environment and a competitive salary with medical, life, dental, etc. benefits. Submit résumé with curriculum vitae, copies of any publications and three references with phone numbers to: Jerry Roberts, Personnel Manager, American Red Cross, Jerome H. Holland Laboratory for the Biomedical Sciences, 15601 Crabbs Branch Way, Rockville, MD 20855. Equal Opportunity Employer, F/M/H/V.

**POSTDOCTORAL POSITIONS.** Positions available immediately to study isoprenoid metabolism and transport in rat liver and frog retina. Research involves isolating and cloning genes responsible for isoprenoid biosynthesis and characterization of proteins involved in intracellular transport of isoprenoid compounds. Send résumé and three letters of reference to: **R. Kennedy** Keller, Ph.D., Department of Biochemistry and Molecular Biology, University of South Florida College of Medicine, Tampa, FL 33612–4799. Telephone and FAX: 813-974-5167.

**POSTDOCTORAL FELLOWSHIP** in Israel, Tel Aviv University, School of Medicine, Department of Pharmacology and Physiology. To participate in ongoing studies of the biophysics and modulations of the voltagedependent ion channels Na and Ca, combining electrophysiological, biochemical, and molecular biology techniques. Background in electrophysiology is desirable. Send curriculum vitae and names of three references with telephone/FAX numbers to: Dr. Nathan Dascal, P.O. Box 39048, Ramat-Aviv, 69978, Israel

**POSTDOCTORAL FELLOWSHIPS.** Available immediately to study one of body's chief means of host resistance, how antibodies trigger Fc receptor clustering and resultant biological responses. Focus is on receptor structure and signal generation. Approaches include molecular biology, biochemistry, cell biology, and immunology. Send curriculum vitae and names of three references to: Dr. Clark Anderson, The Ohio State University **College of Medicine**, 2054 Davis Research Center, **480** West Ninth Avenue, Columbus, OH 43210. *Equal Opportunity/Affirmative Action Employer.* 



#### FACULTY POSITIONS IN The Department of Biological Sciences, **Rutgers University at New Brunswick/Piscataway**

Applications are solicited for three tenure-track faculty positions at the level of assistant professor; however a qualified candidate may be considered for a more senior position. The successful individual will be expected to sustain a vigorous research program and to participate in graduate and undergraduate teaching. To complement existing strengths, scientists with an excellent track record in one of the general areas described below are sought:

MAMMALIAN CELLULAR AND/OR DEVELOPMENTAL BI-OLOGY, preferably with an interest in the regulation of gene expression or in molecular systems physiology in vivo-e.g. transgenic mice.

MOLECULAR IMMUNOLOGY, possibly at the genetic or developmental level in a mouse or human system.

MICROBIOLOGY, with a focus on a prokaryotic system and a molecular and/or medical orientation.

The positions are highly competitive and flexible with regard to start date. Interested persons should submit a curriculum vitae. a letter detailing the position that interests them and their proposed research program, and the names (with address and phone number) of four references to: Dr. David Denhardt, Nelson Biological Laboratories, Rutgers University, PO Box 1059, Piscataway, NJ 08855.

Rutgers is an equal opportunity/affirmative action employer.

# AQUATIC ECOLOGISTS

Ebasco Environmental, a rapidly growing environ-mental consulting firm which is a division of EBASCO Services Incorporated, currently has outstanding pro-fessional opportunities available for Senior and Staff level Aquatic Ecologists.

The successful candidates should have a technical background in aquatic ecology, marine or freshwater fisheries, population dynamics and/or limnology. Hydro relicensing, IFIM, HEP and related experience desirable, as well as computer skills and knowledge of statistics. Staff positions require 0-3 years' experience: senior positions require a minimum of 5 years experience. MS or Ph.D preferred. Additionally, can-didates must possess good written and oral communi-cation skills.

THESE POSITIONS AND OTHERS ARE AVAIALBLE AT OUR LYNDHURST, NJ DIVISION HEADQUAR-TERS, AS WELL AS MANY OF OUR OTHER OFFICES THROUGHOUT THE COUNTRY.

We offer excellent growth opportunities and potential for career advancement, as well as competitive salaries and a comprehensive benefits package. Please send resume, including salary requirements and area of geographic preference, to: Christine M. Sullivan, EBASCO SERVICES INCORPORATED, 160 Chubb Avenue, Lyndhurst, NJ 07071. An equal opportunity employer m/f/h/v.



#### **BOSTON UNIVERSITY CHAIRMAN**

#### Department of **Aerospace and Mechanical** Engineering

Boston University's College of Engineering invites applications and nominations for the position of Chairman, Department of Aerospace and Mechanical Engineering. This position is to be filled by a distinguished engineer/scientist with a proven research record who will lead the Department in its continuing growth.

The Department currently has 15 full-time faculty, 57 graduate students (at both the doctoral and master's level), and 472 undergraduates. The University has made major investments in new facilities for engineering and science over the last five years, and has recently made significant commitments to the further growth of the College in conjunction with the appointment of a new Dean. The Chairman will be expected to provide leadership in the continuing development of teaching and research, araduate to strengthen ties with government and industry, and to provide vision in directing the Department's growth in areas that will be important in the next century.

A letter of interest or nomination, a curriculum vitae, and the names of at least three references should be sent to Professor John Baillieul, Chairman, Aerospace-Mechanical Engineering Search Committee, Boston University, 110 Cummington Street, Boston, MA 02215.

Boston University is an equal opportunity, affirmative action employer.

National Heart, Lung and Blood Institute National Institutes of Health • Public Health Service Department of Health and Human Services

#### SUPERVISORY VETERINARY MEDICAL OFFICER **5 RESEARCH COURT GENE THERAPY PROGRAM**

The Division of Intramural Research, NHLBI, is seeking applicants for the position of Attending Veterinarian of the 5 Research Court Gene Therapy Program. The 5 Research Court Program, located in a new off-site facility, is a multi-laboratory program focusing on research on gene expression, transfer, and therapy in primates, rabbits and rodents. The successful applicant will be an integral participant in the research program with primary responsibility for all aspects of Animal Care and Use activities. This includes working with the individual investigators of each participating research laboratory to assure that of each participating research laboratory to assure that scheduling of resources corresponds to research program priorities.

This is a Civil Service career-conditional appointment with a salary range of \$44,348 to \$61,141 per annum, depending upon qualifications. Applicants may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service. Minimum qualification requirements are Doctor of Veterinary Medicine or equivalent from an accredited AVMA School of Veterinary Medicine with the period eligibility in loboratory animal.

Veterinary Medicine, board eligibility in laboratory animal

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H. Byran Brewer, M.D., Chief, Molecular Disease Branch, National Heart, Lung and Blood Institute, National Institutes of Health, Building 10, Room 7N117, 9000 Rockville Pike, Bethesda, Maryland 20892.

NIH is an Equal Opportunity Employer

#### **DEPARTMENT HEAD OF BIOCHEMISTRY** AND BIOPHYSICS **TEXAS A&M UNIVERSITY**

Applications and nominations are invited for the position of Head of the Department of Biochemistry and Biophysics at Texas A&M University. The Department of Biochemistry and Biophysics, with a faculty of 25, is in the College of Agriculture and Life Sciences, of-fers B.S., M.S. and Ph.D. degrees in Biochemistry and Genetics, and is a unit of the Texas Agricultural Experiment Station. The Department occupies a new 90,000 sq. ft. research and teaching building and will be a key component of the new Institute of Biosciences and Technology.

Candidates for the position must have a Ph.D. or equivalent degree, a record of research excellence in Biochemistry and/or Molecular Biology, demonstrated leadership in scholastic activities and a strong commitment to excellence in academic and research programs. The successful candidate will have a major influence in filling several vacant faculty positions, including one endowed Chair

The position is expected to be filled by September 1, 1992. Nominations and applications should include resumes and names and telephone numbers of at least three references. Review of applications will begin on October 1, 1991; however applications will be accepted until a suitable candidate is identified. These materials should be submitted to: Dr. Robert D. Wells, Department Head Search Committee, Department of Biochemistry and Bio-physics, Texas A&M University, College Station, Texas 77843–2128.

The Texas A&M University System is an Affirmative Action/Equal Opportunity Employer.



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We can now offer you a unique opportunity to participate in all aspects of in vitro characterization of antibacterial and antifungal agents, as well assist in the development of new molecular targets for antimicrobial therapy.

## SR. RESEARCH MICROBIOLOGIST

The selected candidate will supervise primary screening, design and implement novel methods for evaluating promising agents, and develop an independent research program. Research may involve clinical microbiology, fastidious or anaerobic bacteria, mycology, or molecular approaches to chemotherapy.

We require a PhD and 2-6+ years background in clinical or general microbiology. Knowledge of molecular biology, antibiotic evaluation or mechanism of drug action is desirable. Experience with mycobacteria, mycoplasma, fungi, and viruses would also be advantageous.

Abbott provides an excellent salary and benefits package including profit sharing and a stock retirement plan. Our corporate headquarters are located in an attractive suburban area just 30 miles north of Chicago. For consideration, please forward a resume with salary history, to: **Patricia Handy**, Abbott Laboratories, Corporate Placement, **Dept. JC**, One Abbott Park Rd., Abbott Park, IL 60064. Abbott is an Affirmative Action Employer/Smoke-Free Environment.



# PROFESSOR OF CHEMISTRY OCCIDENTAL COLLEGE

Applications and nominations are invited for the Fletcher Jones Endowed Professorship in Chemistry to be established as early as September 1992. The Fletcher Jones Professor will join one of the most exemplary departments of chemistry among nationally recognized liberal arts colleges. Occidental College is a private liberal arts institution located in northeast Los Angeles, whose department of chemistry graduates 15–20 chemistry and biochemistry majors per year. The department of chemistry has eight faculty and ranks first among 149 independent schools for the number of undergraduates involved in summer research. In the last six years the department's graduates have received six NSF Fellowships, numerous honorable mentions and a Rhodes Scholarship.

Although there is a preference for the appointment of a candidate qualified for the rank of full professor, very highly qualified individuals at the associate rank will be considered. Candidates must have an outstanding scholarly record; a distinguished record of teaching, research and extramural funding; a demonstrated commitment to undergraduate research; and evidence of outstanding leadership abilities. Applicants with teaching experience in all subdisciplines of chemistry except organic will be considered with preference to candidates whose research interests complement those of the Department (see Research in Chemistry at Undergraduate Institutions 4th Ed. 1990).

Established scientists should submit a letter of application with appropriate supporting materials to Professor Chris Craney, Fletcher Jones Search Committee Chair, Department of Chemistry, Occidental College, 1600 Campus Road, Los Angeles, CA 90041. Applications and nominations should be sent prior to 1 October 1991 to be considered in the initial applicant pool. Every effort will be made to respect requests of confidentiality. Occidental College is an Affirmative Action/Equal Opportunity Employer and especially invites applications from women and minority candidates.

# Adrenergic Pharmacology Group Leader

Neurogenetic Corporation is a rapidly growing molecularbased drug design company. We are pioneers in the discovery and use of cloned human neuroreceptors and uptake sites in creating new medicines for a wide-range of human illnesses.

The successful candidate will have an in-depth understanding of adrenergic pharmacology and expertise in "in-vitro" response models and receptor binding. A strong research interest in the pathophysiology of adrenergic receptors and their effectors is desirable. Pharmaceutical experience is preferred.



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For consideration, please submit your curriculum vitae and three references to:

Human Resources Manager Neurogenetic Corporation 215 College Road, Paramus, NJ 07652, USA

# Pulmonary Research

The reasons to join Pfizer keep growing.



Pfizer Inc is an international leader in the discovery and development of health care products. Our approach to drug discovery encourages individual creativity as an important element in guiding a team effort toward a therapeutic target. This philosophy results in an environment that is challenging to the individual while enhancing group productivity. Scientific growth and development are stimulated by frequent interactions with prominent scientists in academia and medicine as well as with members of the research community within Pfizer.

The Department of Immunology and Infectious Diseases of the Central Research Division is seeking scientists who are interested in the discovery of novel therapeutics for the treatment of pulmonary diseases. The successful candidate will join a very productive multidisciplinary drug discovery group whose interests encompass pharmacologic manipulation of inflammatory mediators, signal transduction systems and cytokines implicated in asthma. While prior research on problems associated with pulmonary or allergic disease mechanisms is required, formal training in any number of related disciplines is acceptable. Research experience with *in vivo* models of pulmonary disease/dysfunction is particularly sought, though not required.

We offer a stimulating research environment and an excellent opportunity for professional recognition and advancement. In addition, we provide a competitive salary/benefits package and an opportunity to live in an attractive Connecticut shore community. Qualified applicants should submit their resume and references in confidence to: Dr. Jerry K. Larson, Assistant Director, Employee Resources, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, CT 06340. An equal opportunity employer.



# Beckman Discovery<sup>sm</sup> Seminar/ Workshop Series Focuses on Recent Advances in Capillary Electrophoresis

Join guest lecturers distinguished in the field of separation science to learn about recent advances in capillary electrophoresis (CE). The Discovery Seminar/Workshop Series being presented this fall will cover such advanced topics as use of capillary gel electrophoresis, micellar electrokinetic chromatography (MECC), isoelectric focusing and methods for linking CE to mass spectrometry. Separations of oligonucleotides, DNA, restriction fragments, PCR products, proteins, peptides, and pharmaceuticals including chiral compounds will be discussed.

An afternoon workshop will provide an opportunity to learn hands-on about the technique. Ongoing sessions will cover separations of oligonucleotides using gel capillaries, separations by liquid chromatography with peak purity checks by CE, and MECC separations of chiral compounds and other pharmaceuticals.

This series is part of the ongoing Beckman scientific educational program. Following is the fall '91 schedule:

King of Prussia, PA East Rutherford, NJ Cambridge, MA Toronto, Ontario Rosemont, ILL Millbrae, CA La Jolla, CA September 16, 1991 September 19, 1991 September 23, 1991 September 27, 1991 October 15, 1991 October 28, 1991 October 31, 1991

Copies of the proceedings will be available. Local CE workshops can be arranged by calling the number below.

Beckman Instruments, Inc., 2500 Harbor Blvd., Fullerton, CA 92634, 800/742-2345

# BECKMAN

#### **PEW TEACHER-SCHOLAR FELLOWSHIPS**

The University of Chicago and Washington University at St. Louis solicit applications from recent or expected Ph.D. recipients for 2-year teacher-scholar fellowships in biological sciences, biochemistry, chemistry, physics, mathematics and computer science, and geology and earth sciences, funded by The Pew Charitable Trusts. The successful applicants will spend one postdoctoral year of research (1992 to 1993) at either The University of Chicago or Washington University and a second postdoctoral year of research and teaching at one of ten distinguished Midstates Colleges (Beloit, Carleton, Grinnell, Hope, Kalamazoo, Knox, Macalester, Rhodes, and St. Olaf Colleges and Trinity University). The aim of this program is to provide capable scientists and mathematicians with unique opportunities for development as potential faculty members in liberal arts colleges. Candidates must be U.S. *citizens or permanent residents* with a commitment to excellence in teaching and research.

The fellowship includes an annual stipend of \$28,000 plus benefits and a research and travel allowance. We encourage underrepresented minorities and women to apply. The deadline for receipt of completed applications is 15 November 1991. For information, write: Dr. Daniel J. Hornbach, Acting Program Director, Pew Midstates Science and Mathematics Consortium, Macalester College, 1600 Grand Avenue, Saint Paul, MN 55105, or call: 612-696-6548.

#### SCIENCE SCHOLARS FELLOWSHIP PROGRAM 1992–93 AT THE MARY INGRAHAM BUNTING INSTITUTE OF RADCLIFFE COLLEGE

Women scientists who are U.S. citizens or permanent residents of the United States and have held the Ph.D. for 2 years prior to September 1992 are eligible. Stipend of \$30,700 plus research expenses for 1-year residential appointment, 1 September 1992 to 31 August 1993. Applications accepted in astronomy, molecular/cellular biology, biochemistry, chemistry, cognitive and neural sciences, geology, mathematics, computer science, electrical engineering, aerospace/mechanical engineering, materials science, physics, naval architecture and ocean engineering, oceanography, and all fields that relate to the study of oceans. Deadline is 15 October 1991. Must write or call for application. Funded by the Office of Naval Research.

The Mary Ingraham Bunting Institute of Radcliffe College Fellowships Office, 34 Concord Avenue, Cambridge, MA 02138; telephone: 617-495-8212, FAX: 617-495-8136.

#### POSTDOCTORAL FELLOW RESEARCH ASSOCIATE

NIH supported position to study the pharmacology, biochemistry and molecular biology of the angiotensinI receptor. This G protein-coupled receptor is critical to the body's control of blood pressure. The position is for up to 3 years, available immediately. Ph.D. or M.D. required. Some experience in pharmacology/molecular biology or biochemistry desirable. Salary: \$26,000. Send curriculum vitae and references to:

#### Ken Bernstein, M.D. Room 711 WMB Department of Pathology Emory University Atlanta, GA 30322

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Individual to conduct **RESEARCH** in support of a variety of bioreactor processes at the Controlled Ecological Life Support System (CELSS) Breadboard Project. The processes being studied were selected to convert crop residue biomass into food and to recycle elemental resources (carbon and minerals) in a closed system. Position requires an M.S. or recent Ph.D. degree in chemical engineering, environmental engineering, agricultural engineering, or related field. Research experience in topic areas pertaining to design, fabrication/installation, system simulation and process modeling, operation and performance evaluation, and maintenance of bioreactor system simulation and process modeling, analyze data, and communicate through written reports, journal articles, and oral presentations. Submit résumé to: Personnel, The Bionetics Corporation, BIO-1, Kennedy Space Center, FL 32899. Equal Opportunity Employer, *M/F/V/H*. **POSITIONS OPEN** 

POSTDOCTORAL FELLOW, HIV VIROLOGY AND MOLECULAR BIOLOGY. Applications are invited for a postdoctoral position for 2 to 3 years of research in HIV virology and molecular biology. Interests of the laboratory include molecular mechanisms underlying latency of HIV infection and precise mechanisms of action of inhibitors of HIV replication and gene expression. Stimulating research environment, with opportunities for interaction with several laboratories engaged in a joint interdisciplinary program project studying the pathogenesis of AIDS, including structurefunction relationships of retroviral proteins, viral envelope-CD4 interactions, and cellular immunology. Newly completed, state-of-the-art P3 facility dedicated to HIV virology is adjacent to the laboratory. Qualified candidates should possess an M.D. and/or a Ph.D., with a strong background in molecular biology, cell culture, and virology or immunology. A statement of research interests and addresses of three references should be sent to: Israel Lowy, M.D., Ph.D., Department of Medicine, Columbia University College of Physicians and Surgeons, 630 West 168th Street, New York, NY 10032.

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# POSTDOCTORAL/RESEARCH SCIENTIST

Available for at least 3 years (beginning immediately) to study the mechanisms of transcriptional silencing in yeast. One of the model systems involves transcriptional regulation of the highly inducible *GAL* genes of *Saccharomyces cerevisiae* [Finley *et al.*, *Mol. Cell. Biol.* 10, 5663 (1990)]. A three-pronged attack involving genetic, molecular, and biochemical techniques is being utilized in this study. A half-dozen genes involved already have been identified. This project involves cloning and sequencing these newly identified genes, and identifying and characterizing their protein products. Background in microbial genetics, molecular biology, or protein chemistry is desirable. Send curriculum vitae to: Dr. Bob West, Department of Biochemistry and Molecular Biology, SUNY Health Science Center, Syracuse, NY 13210, FAX: 315-464-8750. Curriculum vitae will continue to be accepted until position is filled.

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#### **POSITIONS OPEN**

NIH-SUPPORTED POSTDOCTORAL FEL-LOWSHIPS IN MULTIDISCIPLINARY PRO-GRAM IN MOLECULAR IMMUNOLOGY AND PATHOGENESIS in the Department of Microbiology and Immunology, Bowman Gray School of Medicine of Wake Forest University. Preceptors and areas of interest are as follows: J. Abranson, M.D. (phagocyte-influenza virus interactions); D. Bass, M.D. (neutrophil biochemistry); G. Brewer, Ph.D. (mRNA regulation); E. Heise, Ph.D. (HLA and disease); D. Lyles, Ph.D. (virus assembly and cytotoxic T cell function); C. McCall, M.D. (neutrophil bio chemiss); S. B. Mizel, Ph.D. (cytokines and gene transcription); B. Pollok, Ph.D. (regulation of immunoglobulin synthesis); R. Spolski, Ph.D. (T cell development and gene expression); I. van de Rijn, Ph.D. (streptococcal pathogenesis). Applications from members of underrepresented minority groups are particularly encouraged. Applicants should submit curriculum vitae and the names of three references to: Dr. Steven B. Mizel, Department of Microbiology and Immunology, Bowman Gray School of Medicine, Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157–1064. Wake Forest University is an Afirmative Action/Equal Opportunity Employer.

#### POSTDOCTORAL ASSOCIATE POSITIONS EMORY UNIVERSITY ATLANTA, GEORGIA

Two postdoctoral associate positions are available. In one position the selected candidate will be involved in studies to examine the cellular, biochemical, and molecular aspects of autoimmune mechanisms in human dilated cardiomyopathy. One goal is to map the T- and B-cell epitopes of the putative autoantigens. A second goal is to develop in vitro tissue culture models that mimic this human cardiac disease. In the other position, which requires biochemical and molecular biology expertise, the selected candidate will be involved in studies to determine the mechanisms of human cardiac allograft rejection. One goal of this project is to determine the functional specificity and significance to graft infiltrating cells and to examine at the molecular level the role of cytokines that may influence the outcome of organ allografts. Experience in tissue culture techniques and molecular biology tools are essential. Both projects are funded by NIH R01 grants.

To apply, send curriculum vitae and the names of three references to: A. A. Ansari, Ph.D., Department of Pathology, Emory University School of Medicine, Winship Cancer Center, 1327 Clifton Road, N.E., Atlanta, GA 30322.

Emory University is an Equal Opportunity/Affirmative Action Employer.

#### POSTDOCTORATE RESEARCH ASSOCIATE

An immediate opening for a postdoctorate/research associate in morphologic research to join an active team in the field of cardiovascular/pulmonary research. Experience in immunocytochemistry and electron microscopy preferred. Excellent benefits. Please send résumé to: Deborah Research Institute, Trenton Pine Mill Road, Browns Mills, N.J. 08015–1799. Equal Opportunity Employer, M/F.

#### POSTDOCTORAL SCIENTIST

Immediate openings for postdoctoral positions in the areas of molecular biology, virology, cell biology, immunology and biochemistry. Interferon Sciences, Inc. (ISI) is a leading biopharmaccutical company focusing on the development and manufacturing of biologics for therapeutic use. ISI is located in central New Jersey, 1 hour from Manhattan and 1 1/2 hours from Philadelphia. Please send curriculum vitae and names of three references to: S. Walker, Personnel Manager, Interferon Sciences, Inc., 783 Jersey Avenue, New Brunswick, NJ 08901. Equal Opportunity Employer.

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# SCIENTISTS & RESEARCH ASSTS. DNA Analysis Technology

Molecular Tool, Inc. is a biotechnology company located in Baltimore, Maryland committed to the development and commercialization of highly integrated, DNA-based systems for the analysis of complex genomes and genetic loci. Together with a key industry partner, Molecular Tool is embarking on a significant research and product development program for the near-term implementation of a large-scale DNA analysis system.

Creative, motivated research scientists and research assistants are invited to help build a multi-disciplinary team to shape the future of DNA analysis technology. Candidates with experience in the following areas are especially encouraged to apply:

- Enzymology: Protein and enzyme biochemistry with specific emphasis on nucleic acid enzymology.
- Nucleic Acid Chemistry: Organic chemistry with specific emphasis on oligonucleotide and nucleoside chemistry.
- Genetics: Molecular analysis of complex genomes, gene mapping and quantitative genetics.
- Assay Development: Product development in the area of biochemical or immunological assays.
- Instrumentation Development/Application: Biochemical instrumentation development in areas such as signal detection, automated liquid handling and sample processing, and biological data management.

Situated on a campus of the Johns Hopkins University School of Medicine, Molecular Tool, Inc. offers a stimulating scientific environment, competitive salaries, an incentive program and medical insurance benefits. Interested candidates should send a resume together with the names of three professional references to: Ms. Kim Costa, Molecular Tool, Inc., Alpha Center, Hopkins Bayview Research Campus, 5210 Eastern Ave., Baltimore, MD 21224.

# **MOLECULAR TOOL, INC.**



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# We're Not Leaving Success To Chance.

Vertex is a public company founded in 1989 to develop human therapeutics through the integrated application of structure-based rational drug design. We're using the latest advances in chemistry, biology and physics to design unique molecules based on the structural features of proteins involved in the control of disease processes. Our goal is to become a major pharmaceutical firm by taking advantage of rational drug design in the discovery and development of novel drugs.

Currently we are seeking professionals, ideally from the Metro Boston area, with a minimum of a Bachelor's and/or Master's degree in the appropriate discipline with at least 4 years' post-Bachelor's laboratory experience. If you are a high-energy, forward-thinking innovator and team player in search of an environment where your best ideas will be an integral part of our success story, we would like to speak with you.

# Fermentation Technology/ Molecular Biology

You will be working on the small-scale fermentation (1-10 L) of microorganisms for the production of recombinant proteins in 10-1000 mg quantity for X-ray crystallography, NMR spectroscopy and biochemical analysis. You will be responsible for the day to day operation of our research fermentation facility, which includes fully automated, state-of-the-art equipment including a DCU measurement and control system with computer logging and equipment for cell harvesting. The successful candidate must have one to three years' full-time experience in the fermentation and workup of recombinant organisms on this scale, preferably both bacteria and eukaryotes, and must possess basic skills in molecular biology and protein biochemistry. Substantive independent laboratory experience in gene expression, molecular genetics, gene manipulation and the analysis of recombinant proteins would be a plus.

# **Protein Biochemistry**

You will be joining a highly motivated and organized research team dedicated to purification and biochemical characterization of 10-1000 mg amounts of novel proteins, especially soluble enzymes, as therapeutic drug targets. Experience with modern chromatographic protein isolation methods is essential: HPLC, FPLC and SDS-PAGE chromatography. A knowledge of bacterial and yeast fermentation and cell harvesting is a plus. The successful candidate must have two or more years of full-time experience in the purification of proteins at this scale, preferably from recombinant sources. Strong interpersonal and communication skills are required.

# **Animal Pharmacology**

You will be working with our senior animal pharmacologists to carry out various testing protocols, primarily in rodents, in support of our drug research programs. Studies will include both non-infectious disease models, pharmacokinetic and bioavailability studies, and gross toxicology studies. This position requires two or more years' working in animal pharmacology, preferably with rodents, involving po, id, ip and iv administrations and various biochemical and physical readouts. The successful candidate will also have substantive experience with HPLC determinations of plasma drug levels and be familiar with the drug formulations compatible with animal experiments.

# Protein Biochemistry/Enzymology

You will be assisting in the purification and crystallization on multi-gram scale of a variety of commercially available enzymes for use in a new technology as biocatalysts in a wide variety of possible commercial applications, including therapeutics. Extensive experience with soluble protein isolation is essential, along with experience in the performance of routine enzyme assays using a variety of spectrophotometric and related techniques. The successful candidate will have a proven research and development record exhibiting attention



to detail and the ability to work independently to reach specific goals.

Our salaries and benefits are excellent along with potential for equity and virtually unlimited professional development. Please forward a detailed resume with salary history to: Vertex Pharmaceuticals Incorporated, c/o Recruiting Coordinator, 40 Allston Street, Cambridge, MA 02139-4211. We are an Equal Opportunity Employer.

#### POSTDOCTORAL RESEARCH ASSOCIATE

Position available for recent Ph.D. to study the topography of nonsteroidal anti-inflammatory drug binding sites. Experience in organic synthesis, enzyme kinetics or site directed mutagenesis required. Competitive salary and career advancement possible. Send curriculum vitae and names of three references to: Dr. Trevor M. Penning, Department of Pharmacology, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6084.

**POSTDOCTORAL RESEARCH.** Opportunity: available now. Join a successful research program pursuing molecular mechanisms of cell-specific gene expression and tumorigenesis. Transgenic technologies and in vitro approaches are currently utilized. This position offers an excellent research environment in a most livable city; requires a strong background in molecular biology and commitment to research. Send curriculum vitae and names of three references to: Dr. Terry Van Dyke, University of Pittsburgh, Biological Sciences, 278 Crawford Hall, Pittsburgh, PA 15260. Equal Opportunity Employer.

#### POSTDOCTORAL RESEARCH ASSOCIATE

The Neurobiology Laboratories of the University of Pennsylvania—Children's Hospital of Philadelphia has a position available immediately for a recently trained Ph.D. to join in studies of antineoplastic drug resistance and DNA repair in brain tumors. Candidates should have a background in molecular biology, biochemistry and/or cell biology. Experience in mammalian cell transfection, PCR, or in situ hybridization is desirable. Send curriculum vitae, a brief statement of current or future research interests, and the names of three references to: Peter C. Phillips, M.D., Division of Neurology, Joseph Stokes Jr. Research Institute Room 6224, 34th and Civic Center Boulevard, Philadelphia, PA 19104. Telephone: 215-590-2107; FAX: 590-3709.

University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.

**RESEARCH ASSOCIATE.** For northeastern Ohio clinical and basic research facility to perform theoretic analysis and calculations of spectroscopy and imaging pulse sequences involving classical and quantum theory; designing pulse sequences; designing and fabricating radiowave frequence coil for use in experiments with humans and animals; perform experiments; design experimental methods. M.S. degree in physics and 2 years of experience in above job duties required. Work schedule: Half of the time, the hours are from 8:00 a.m. to 5:00 p.m. Half of the time, the hours are from 10:00 pm. to 6:00 a.m. Must be willing to work weekends. On call 24 hours a day, 7 days a week. Salary: \$28,000 per year. Must have proof of legal authority to work permanently in the United States. Send résumé in duplicate to: G. Maugans, JO #1255749, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

**RESEARCH ASSOCIATE** for university in central Ohio. Conducts animal studies assessing the mechanisms of glomerulonephritis primarily in monkeys; draws blood samples and assays including quantitative precipitin, measurement of complement receptors on red cells using monoclonal antibodies, quantitative urinalysis, preparation of radioactive-labeled proteins, measurement of sucrose density gradients spiked with radioactive material; performs biopsy of tissues in monkeys; performs data handling and analysis, computation using computer-based programs and display of data using computer-based programs and seven immunology and 2 years of experience performing closed needle biopsies on anesthetized monkeys; analyzing the experimental kidney diseases as they develop and assessing the mechanisms of glomerulonephritis in the monkeys; performing immunological assays with radioactive materials, performing data handling and analytical computation using computeer-based programs and techniques; and at least one nephrology course at the graduate level. Forty hours per week, 8:00 a.m. to 5:00 p.m., Monday through Friday; 824,000 per year. *Must have proof of legal authority to work permanently in the United States*. Send résumé in duplicate (no calls) to: J. Davies, JO #1260301, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216. **RESEARCH ASSISTANT.** For northeastern Ohio medical research facility to perform medical research of the underlying pathogenetic molecular mechanisms responsible for the development of high blood pressure and diabetes neuropathy in humans; study molecular basis of the diseases through aseptic surgical excision of nerves and other tissue on rats, tissue subfractionations, radiolabeling, immunoblotting, gel electrophoresis, ultracentrifugation and fluoroscopy; research and review of current medical literature concerning techniques for culturing of Schwann cells. No experience required in above duties, but applicants will qualify with 1 year of experience as an intern (6 months of experience each in surgery and medicine), and an M.D. degree (must have presented (at a medical seminar) or published (in a medical journal) research using animal models to study biochemical changes in hypertension, utilizing lipid extraction techniques). Monday through Friday, 8:30 a.m. to 5:00 p.m., \$18,715 per year. Must have proof of legal authority to work permanently in the United States. Send résumé in duplicate (NO CALLS) to: S. Holton, JO #1255761, Ohio Bureau of Employment Services, P.O. Box

RESEARCH ASSOCIATE. Position available immediately to join an active research group in the study of intracellular Ca regulation and E-C coupling in cardiac myocytes. Should have Ph.D. in Physiology, biophysics, or related field. Experience in either patch/whole cell voltage clamp or intracellular Ca measurements is strongly preferred. Send letter, curriculum vitae and names of references to: Donald M. Bers, Ph.D., Division of Biomedical Sciences, University of California, Riverside (UCR), CA 92521 or FAX: 714-787-5504. UCR is an Equal Opportunity/Affirmative Action Employer.

EPITHELIAL CELL BIOLOGIST with expertise in growth and characterization of human epithelial cells, normal and malignant. The successful candidate will have the opportunity to establish an independent research area, as well as collaborate with multidisciplinary groups working on models of human epithelial cancers, including the newly described MCF-10 breast model. Minimum requirements include a doctoral degree and relevant experience. Applicants should submit curriculum vitae and names of three references to: Dr. Fred Miller, Chairman, Search Committee, Michigan Cancer Foundation, 110 East Warren Avenue, Detroit, MI 48201. The Michigan Cancer Foundation is an Equal Opportunity Employer.

MOLECULAR BIOLOGIST. A position is available immediately for an individual with a Ph.D. in molecular biology or a related discipline in the Alcohol Research Center at the Department of Veterans Affairs Medical Center (VAMC) in Omaha, Nebraska. The successful candidate will supervise the Molecular Biology Core Laboratory and initiate a research program in alcohol-induced cellular toxicity. Postdoctoral training is preferred with experience in recombinant DNA technology, molecular cloning, PCR and gene expression. Excellent salary and benefit program are available. Please send résumé by close of business 1 October 1991, to:

Karen Rowe, Personnel Service (05) Department of Veterans Affairs Medical Center 4101 Woolworth Avenue Omaha, NE 68105 VAMC is an Equal Opportunity Employer.

#### VERTEBRATE ZOOLOGIST (MUSEUM)

The Zoology Section seeks an associate curator with expertise in either fishes or birds at the Milwaukee Public Museum, Milwaukee, Wisconsin. This position calls for demonstrated excellence in collection-based, organismal research employing modern systematics and phylogenetic techniques. Candidates with collection-based research in ecology and behavior will also be considered. Applicants having research interests in the Neartic or Neotropical faunal regions are especially encouraged to apply. The successful candidate will participate in the museum's exhibit and educational activities. Should have demonstrated experience and success with grants. Ph.D., desirable. Position to be filled subject to funding availability. Closes to application 1 November 1991. Request official application from: Milwaukee County Department of Human Resources, Courthouse Room 210, 901 North 9th Street, Milwaukee, WI 53233. Equal Opportunity Employer.

#### **POSITIONS OPEN**

DIVISION OF PARASITIC DISEASES (DPD) MALARIA BRANCH NATIONAL CENTER FOR INFECTIOUS DISEASES (CID) CENTERS FOR DISEASE CONTROL ATLANTA, GEORGIA 30333

A MICROBIOLOGIST position is available in the Malaria Branch, DPD, CID to design, conduct, and supervise research in the field of malaria immunology and biology. Previous experience in excerythrocytic stage of monkey and human malaria parasites is essential. The applicants should also have experience in the design and supervision of vaccine trials in monkeys, including evaluation of potentially useful adjuvants. The incumbent is expected to develop a program to identify excerythrocytic stage-specific antigens of human malaria parasites and to evaluate their vaccine potential. The work will entail in vitro culture of parasites in hepatoma cells and primate hepatocytes. Experience in epidemiological studies in malaria-endemic regions is highly desired. A Ph.D., M.D. or equivalent degree with significant research and supervision experience is highly desirable. The salary range is \$44,348 to \$57,650 based on candidate's qualifications and experience. Interested candidates should send curriculum vitae, list of publications and three letters for reference to: Mr. William V. Nelson, Personnel Management Office, Centers for Disease Control, Atlanta, GA 30333. For additional information contact: Dr. William E. Collins, Malaria Branch, CDC, Atlanta, GA, telephone: 404-488-4046. CDC is an Equal Opportunity Employer and provides a smoke-free environment.



ARS is seeking a permanent full-time research geneticist responsible for breeding and genetics of citrus rootstocks in an ongoing program in Orlando, Florida. Conventional breeding techniques will be used to develop new rootstocks with resistance to diseases, pests, and stresses and with improved horticultural qualities. Incumbent is responsible for coordination of cooperative greenhouse and field screening. Training in plant breeding and genetics is essential and training in plant breeding and genetics is essential and training in plant pathology, plant physiology, and statistics is needed. *Must be a U.S. citizen*. Salary range: \$31,116 to \$48,481 commensurate with qualifications. For information on the research program and position, contact: Dr. C. J. Hearn at 407-897-7339. For information on application procedures/forms, contact: Wayne Moore at 407-897-7310. Applications in response to this advertisement must be marked ARS-D1S-131 and be postmarked by 30 September 1991.

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#### RESEARCH SCIENTIST IN BIOCHEMISTRY/MOLECULAR BIOLOGY

Position available 1 September 1991 for Ph.D. in biochemistry or molecular biology with 2 to 3 years of postgraduate experience in molecular biology. Will be responsible for tailoring gel systems and consummables to present complete separation and characterization systems for molecular biology. Ability to take a leader role in development of molecular biology products essential.

#### RESEARCH SCIENTIST FOR SEPARATION MATERIALS DEVELOPMENT

Position available 1 September 1991 for Ph.D. in biochemistry or chemistry with a strong background in organic chemistry and separations science and 2 to 3 years of postdoctoral experience. Responsible for developing materials and systems for a comprehensive approach to electrophoretic separations. All salaries are commensurate with current experience

All salaries are commensurate with current experience and qualifications. Competitive benefits package offered. Please send cover letter and résumé to:

Sheldon Engelhorn Vice President, Technical Development NOVEX – Novel Experimental Technology 4202 Sorrento Valley Boulevard, Suite B San Diego, CA 92121 or call: 619-452-6634

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# FACULTY POSITION Albert Einstein College of Medicine

The Department of Anatomy and Structural Biology at Albert Einstein College of Medicine is seeking an outstanding scientist working within the broad area of cell biology, using modern methods of biochemistry, biophysics and/or molecular biology. Candidates with special interests in signal transduction, protein trafficking, membrane fusion, the cytoskeleton, cell cycle, and differentiation are particularly encouraged to apply. Applications will be considered for a tenure-track position at the assistant professor level. The successful applicant will be expected to develop a strong, independent research program and to participate in the teaching of cell biology and histology to graduate and medical students. The College has state of the art facilities for confocal and video-enhanced light microscopy, electron microscopy, peptide synthesis and sequencing, DNA synthesis, X-crystallography, NMR and transgenic mice.

Candidates should send a curriculum vitae, brief description of research interests, and names and addresses of three references to Dr. Peter Satir, Chairman, Department of Anatomy and Structural Biology, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, Bronx, NY 10461. Equal Opportunity Employer.

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#### **RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY**

The Department of Biotechnology is seeking applicants for our ongoing program of crop improvement. Pioneer offers competitive salaries, excellent facilities and a highly cooperative research environment. Successful candidates will be expected to interact extensively with ongoing programs in transformation, gene expression, gene isolation or RFLP programs.

PROJECT LEADER, GENE REGULATION (JOB #1361) — This position will be part of a group working to develop novel gene expression systems for use in transgenic plants and will focus primarily on research questions. The successful candidate will have extensive experience in transcriptional gene regulation, especially the functional characterization of cis-promoter and trans-acting factors. A Ph.D. or equivalent work experience in molecular biology or a related field plus at least 2-3 years of relevant postdoctoral experience are required.

Applications received by October 7, 1991 will be assured of consideration. However, applications will be considered until the position is filled.

Pioneer Hi-Bred International, Inc. is an Equal Opportunity/Affirmative Action employer. Please send resume including the name, address and telephone number of three references and indicate "JOB #1361" in your correspondence to:



PIONEER HI-BRED INTERNATIONAL, INC. Plant Breeding Division Department of Biotechnology Research Attn: Jane Blacketer - JOB #1361 P.O. Box 38 Johnston, Iowa 50131

# NUTRITIONAL BIOCHEMIST

## RESEARCH FELLOW - Ph.D.

We are a state-of-the-art cancer research institute, located on the campus of the New York Medical College in lower Westchester.

We have an immediate opportunity for a professional to take part in a multidisciplinary study of breast and prostate cancer growth and metastasis, with emphasis on the roles of fatty acids, eicosanoids and polypeptide growth factors.

This position will provide experience in relevant aspects of tumor cell biology. Pre- or postdoctoral training in the analysis of prostaglandins/leukotrienes is required.

We offer a competitive salary, an excellent benefits package, plus the chance to make a significant contribution to medical research. For confidential consideration, send your *curriculum vitae* to: **Dept. DR, American Health** Foundation, One Dana Road, Valhalla, New York 10595. We are an equal opportunity employer m/f/h/v.

American Health Foundation

# Geisinger Clinic

# ASSOCIATE SCIENTIST POSITION

Position available for Associate Scientist (three years post-doctoral experience) and/or postdoctoral fellow. The successful applicant will be engaged in research on the biochemical and molecular mechanisms by which angiotensin peptides and other hormonal and pharmacological stimuli mediate cardiac muscle cell growth. There will also be the opportunity to engage in research defining the role of a localized intracardiac renin-angiotensin system in mediating cardiac muscle cell growth, with an emphasis on the regulation of the precursor genes for this system.

Competitive salary and fringe benefits are available. Please send CV and three names or letters of reference to: Dr. Kenneth M. Baker, Weis Center for Research, Geisinger Clinic, North Academy Avenue, Danville, PA 17822-2611. Equal opportunity employer M/F/H/V.

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SCIENCE Magazine New Lab Service Department 1515 Broadway New York, NY 10036

#### POPULATION BIOLOGIST

The Department of Biology at Davidson College plans to appoint a population biologist with strong quantitative, computer and teaching skills. The rank of the appointment is open. The successful applicant will teach in an introductory biology course and will develop courses in quantitative biology and in his/her specialty. The appointment is expected to start 1 July 1992. Interested persons should send curriculum vitae, a statement of teaching philosophy, selected reprints and three letters of reference to: Dr. John H. Williamson, Department of Biology, Davidson College, Davidson, NC 28036, by 15 October 1991. Women and minorities are encouraged to apply.

TOXICOLOGIST. The Environmental Protection Agency's regional office in Denver, Colorado, is seeking applications from qualified individuals for the position of toxicologist. The position involves evaluation of human health and/or ecological hazards associated with environmental contamination in the Superfund Program. An individual with a Ph.D. in an appropriate discipline or field of biological, medical, or veterinary sciences or in toxicology and 3 years of specialized experience in or directly related to toxicology is preferred. The position will be filled at the GS 12/13 level; salary range 37,294 to 57,650 per annum depending upon

The position will be filled at the GS 12/13 level; salary range 37,294 to 57,650 per annum depending upon qualifications. Candidate must be a U.S. citizen. An Equal Opportunity Employer. To receive announcement and application form when formally announced, contact Ms. Valerie Taylor, telephone: 303-293-1499, no later than 27 September 1991.

#### **RESEARCH SCIENTIST**

Saint Francis Hospital and Medical center, located in Hartford, Connecticut, is seeking a candidate to join our Department of Research and Heart Institute to work on molecular and cellular biology of vascular cells. Candidates should have completed a doctorate degree and a postdoctorate fellowship with prior molecular and cell biology experience. Candidates will be eligible for an appointment at the University of Connecticut School of Medicine. Interested candidates should send a résumé and references to: Saint Francis Hospital and Medical Center, 114 Woodland Street, Hartford, CT 06105; FAX: 203-548-5415, Equal Opportunity Employer.

#### STAFF SCIENTIST DEVELOPMENTAL BIOLOGY

The La Jolla Cancer Research Foundation invites applications and nominations for a staff scientist position in developmental biology. The applicant should have established a strong, independent, extramurally funded research program and demonstrated his/her research abilities. We are particularly interested in candidates that will successfully interact with existing molecular research in vertebrate development, including development of the nervous system (B. Ranscht and W. Stallcup), oncodevelopmental regulation of testis genes (J. L. Millán), and embryonic gene regulation (R. Oshima). However, applications from individuals working on other promising

areas of developmental biology are also encouraged. Applicants should submit curriculum vitae, a brief statement of current and future research interests and names of three references to:



Developmental Biology Search Committee La Jolla Cancer Research Foundation 10901 North Torrey Pines Road La Jolla, CA 92037

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VACCINE DEVELOPMENT A position is available in a growing and progressive animal health company for a research scientist to develop conventional and recombinant-DNA based vaccines. Applicants with either a master's or Ph.D. degree in microbiology or virology will be considered. Selection criteria will include academic training plus research experience and demonstrated accomplishments in veterinary virology, immunology and/or vaccine development. Current knowledge and experience in recombinant DNA techniques would be beneficial. Please send résumés, and the names of three references to: SyntroVet Incorporated, 9669 Lackman Road, Lenexa, KS 66219. An Equal Opportunity Employer.

#### **ANNOUNCEMENTS**

#### THE CENTER FOR INDOOR AIR RESEARCH POSTDOCTORAL FELLOWSHIP PROGRAM

The Center for Indoor Air Research (CIAR) is accepting applications for the CIAR Postdoctoral Fellowship Program. The purpose of this program is to further develop the scientific productivity of outstanding men and women pursuing careers in indoor air research and to stimulate interest in entering the field of indoor air research among individuals with strong backgrounds in related or allied sciences.

For details and application brochure, write or call: Center for Indoor Air Research Postdoctoral Fellowship Program 1099 Winterson Road, Suite 280 Linthicum, MD 21090 Telephone: 301-684-3777 Deadline for receipt of applications: 31 October 1991.

THE HEISER PROGRAM FOR RESEARCH IN LEPROSY AND TUBERCULOSIS

Support for research on tuberculosis has been added to the Heiser Program. Beginning **POSTDOCTORAL RESEARCH FELLOWSHIPS** available in amounts up to \$25,000 per year, plus other allowances, and **SMALL RESEARCH GRANTS** in amounts up to \$20,000. Applicants should have M.D., Ph.D., or equivalent degree. Applications by 1 February 1992 for information, write: The Heiser Program, 450 East 63rd Street, New York, NY 10021.

#### **FELLOWSHIPS**

A limited number of postdoctoral and predoctoral fellowships are available from Sigma Delta Epsilon-Graduate Women in Science, Inc. Applications from women are particularly encouraged.

Fellowships are for \$1,000 to \$4,000. A total of \$28,000 is available.

Deadline is 1 December 1991.

For additional information and application forms: Sigma Delta Episilon-Graduate Women in Science, Inc.

P.O. Box 4748 Ithaca, NY 14852

#### TRAVEL AWARDS

Eli Lily Travel Awards for women graduate students presenting at national meetings are available through Sigma Delta Epsilon-Graduate Women in Science, Inc. For information write:

> Dr. Barbara Jur 31699 Forest Lane Warren, MI 48093

#### MEETINGS

CHICAGO NEUROSURGICAL CENTER SYMPOSIUM '91 November 8 to 9, 1991, Four Season's Hotel, Chicago, Illinois. Neuro-Oncology: Diagnostic and Therapeutic Strategies; Keynote Speaker: C. Everett Koop, M.D., former Surgeon General of the United States. Faculty: Physicians and researchers from the country's leading universities, medical centers, and research institutes. Who should attend: neurosurgeons, neurologists, faculty or residents interested in neurooncology research. Fee: \$125. For more information, call: 312-883-8585.



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HOWARD HUGHES MEDICAL INSTITUTE

# FELLOWSHIPS FOR BIOLOGICAL AND BIOMEDICAL SCIENCES

The Howard Hughes Medical Institute has established a number of programs that support training in fundamental biological and biomedical research. Awards, based on international competitions each year, focus on research directed to understanding basic biological processes and disease mechanisms. Fellowships may be held at academic or not-for-profit research institutions.

# Predoctoral Fellowships in Biological Sciences

Up to five years of support for full-time graduate study toward a Ph.D. degree in biostatistics, cell biology and regulation, epidemiology, genetics, immunology, neuroscience, or structural biology. Applicants must not have completed the first year of postbaccalaureate graduate study in biology. *Application deadline: early November*.

# Postdoctoral Research Fellowships for Physicians

An opportunity for physicians to further their training in science. Three years of support for training in fundamental research subsequent to postgraduate clinical training. *Application deadline: early March*.

## ■ Research Scholars at the National Institutes of Health

Under this joint HHMI-NIH program, medical students in the United States spend an intensive year in research in the intramural program at the NIH in Bethesda, Maryland. Residence is provided at the Cloister on the NIH campus. *Application deadline: early January*.

## Research Training Fellowships for Medical Students

An opportunity for medical students in the United States to explore a burgeoning interest in fundamental research. Support is awarded for one year of full-time fundamental research in a laboratory at the student's medical school or another institution (except NIH). *Application deadline: early December*.

## FOR PROGRAM ANNOUNCEMENTS AND APPLICATIONS

FOR PREDOCTORAL FELLOWSHIPS: Hughes Fellowship Program The Fellowship Office National Research Council 2101 Constitution Avenue, N:W. Washington, D.C. 20418 (202) 334-2872 FOR OTHER PROGRAMS: Howard Hughes Medical Institute Office of Grants and Special Programs Department AK92 6701 Rockledge Drive Bethesda, MD 20817 (301) 571-8412

The Howard Hughes Medical Institute, an Equal Opportunity Employer, welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.



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