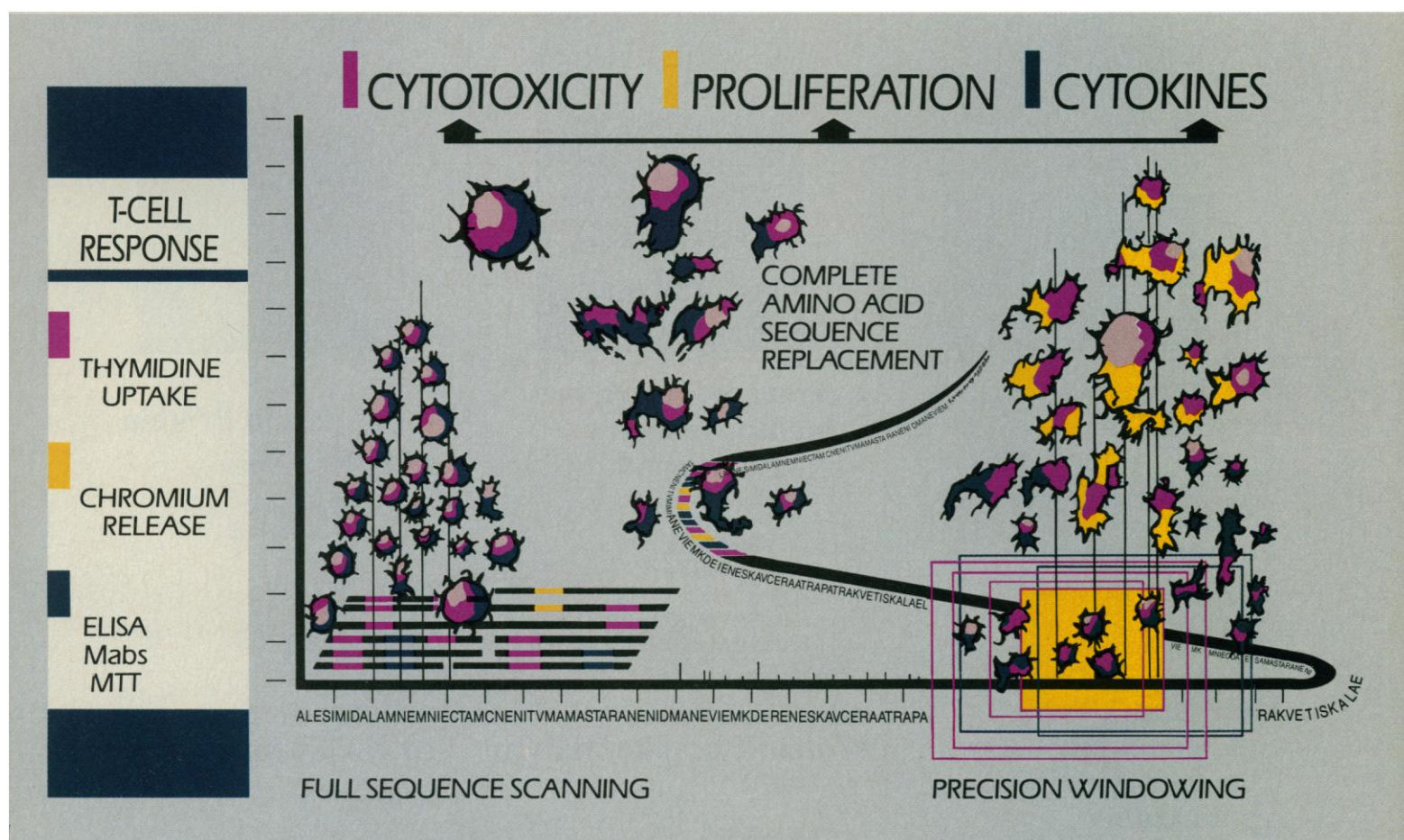


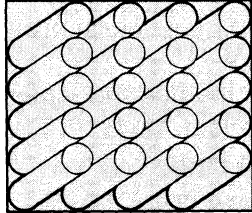
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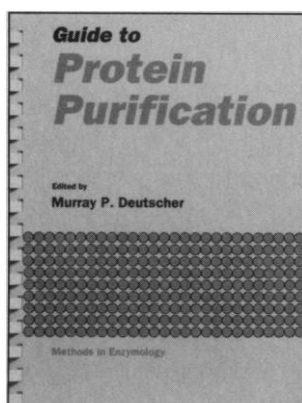
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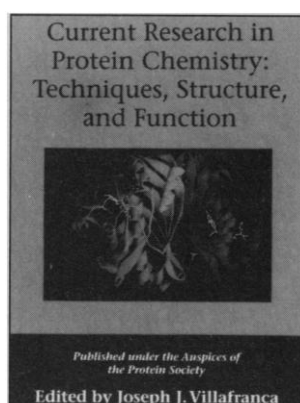
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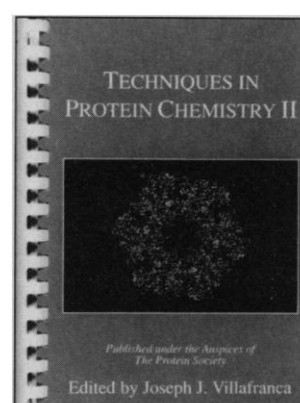
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# Science & Society

Books from AAAS

## **Science, Technology, and Society** *Emerging Relationships*

*Edited by Rosemary Chalk*

This volume provides a thorough introduction to the issues concerning the unique relationships among science, technology, and society (STS). It offers 85 articles, editorials, and letters published over the past 40 years in *Science*, the weekly journal of the AAAS.

The material provides a broad overview of the emerging relationships of science, technology, and society in the period after World War II. Contributors include Bertrand Russell, C.P. Snow, Pope John Paul II, and many scholars well known in the scientific literature. The collection reflects a variety of perspectives on science, tech-

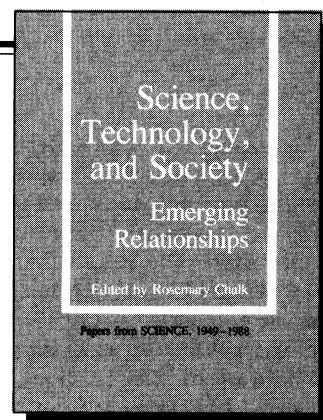
nology, and society. Provocative essays capture the concerns of leaders in the scientific community who sought to articulate the pressing problems of their times.

The book is a valuable resource for those with a professional interest in STS studies. It is also designed for use as a supplemental text for college or high school courses examining the social context of STS. And it is of interest to lay readers who want to gain an insight into the purposes and values that shape the directions of science.

**Topics include:** Scientific responsibility; science and freedom; science and eth-

ics; the human side of science; scientists and citizens; science and the modern world; fraud and misconduct in science; professional rights and duties in the health sciences; science and risk; and science and national security.

1988; 262 pp.; softcover; index  
#88-12S - \$19.95 (members \$15.95)  
ISBN#0-87168-332-6



## **Renewing a Scientific Society** *The American Association for the Advancement of Science from World War II to 1970*

*Dael Wolfle*

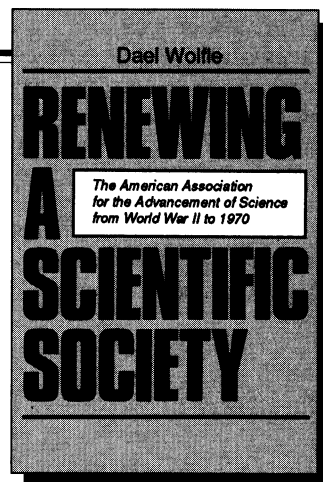
Dael Wolfle was executive officer of AAAS during the post-war period that saw an unprecedented growth in American science. In this clear and engaging narrative, he describes the Association's role in that growth as well as its internal changes as it sought to serve its four key constituencies: scientists working in all fields of science and technology, students seeking careers in those fields, a public that increasingly needed to understand new technological advances, and opinion leaders whose decisions could influence scientific and technological activities.

Dr. Wolfle also describes the AAAS's work on a wide range of national issues, including development of the National Science Foundation; Cold War concerns about the loyalty and freedom of scientists; questions about the ownership and control of research; efforts to develop an effective science curriculum for all Americans; and issues regarding air conservation, the use of arid lands, the effects of herbicides in Vietnam, and much more.

This book is essential for historians of science, members of scholarly organiza-

tions, and everyone who wants to understand the inner workings of a major scientific society.

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The DS-5000 Gel Destainer, made from clear plastic to allow viewing of the gels during processing, can reduce the time required for staining and destaining gels. The DS-5000 uses a stir bar and magnetic stirring plate to circulate staining and destaining solution across the surface of a gel for post-electrophoretic processing. The solution circulates across the gel surface by the

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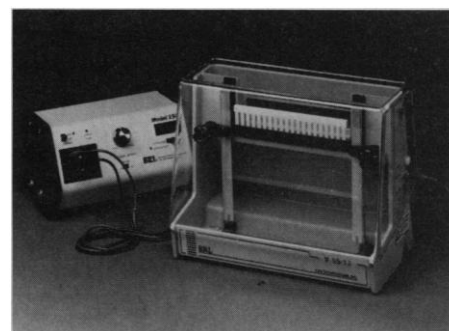
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*Molecular Biology Products* is a brochure that describes a hybridization incubator, programmable cyclers, high-temperature microplates, and a chiller pump. Techn. Circle 543.

*The Nest Group Ideabook II* is a 24-page brochure that describes chromatographic alternatives for the separation of proteins, peptides, and nucleic acids. The Nest Group. Circle 544.

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# Personnel Placement

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To ESTIMATE ad cost, count total number of 52 character lines and multiply by \$41 to find approximate cost of ad per week. Each line of centered heading counts as one line. Also count one line for white space between headline and first line of text; all partial lines are also counted as full lines (including all centered reply information).

Remember, this is a rough estimate only. Allow for variation between estimated typewritten lines and ads when actually typeset for magazine. Therefore, purchase orders must allow additional funds for flexibility and/or adjustment. *Science* cannot provide proofs of typeset ads.

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**BOXES AND LOGOS:** Any line classified ad can be boxed and/or published with logo to increase its visibility on page. Since the box takes up additional space, one line now equals 48 characters and spaces; two additional lines will be added to allow for top and bottom rules. Logos are billed according to the number of lines needed to fit logo in space.

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**ASSISTANT PROFESSOR OF NATURAL RESOURCES.** University of Vermont (UVM) seeks applications for a tenure-track position with a specialty in water resources. Candidates must have Ph.D., demonstrated scholarly accomplishment, and familiarity with biotic and abiotic aspects of water resources. Teaching duties include introductory water resources, upper level wetlands ecology, and advanced course in specialty. Submit curriculum vitae and three letters of reference to: **Dr. Alan McIntosh, Search Committee Chair, School of Natural Resources, University of Vermont, Aiken Center, Burlington, VT 05405** by 1 August 1991. *UVM is an Equal Opportunity/Affirmative Action Employer. Applications from multicultural and women candidates are especially encouraged.*

**ASSISTANT PROFESSOR.** Positions in the Division of Anatomic Pathology of the Department of Pathology and Laboratory Medicine of the University of Pennsylvania Medical School. Candidates are expected to have strong background in anatomic pathology and interest in research on cellular or molecular mechanisms of cell growth regulation. Prerequisites for these positions are a medical degree, Board certification or eligibility in anatomic pathology, and a valid medical license.

Send curriculum vitae and names of three references to:

**Giuseppe G. Pietra, M.D.**  
Director, Division of Anatomic Pathology  
Department of Pathology and Laboratory Medicine  
Hospital of the University of Pennsylvania  
3400 Spruce Street  
Philadelphia, PA 19104

*The University of Pennsylvania is an Equal Opportunity Employer.*

## POPULATION BIOLOGIST

Applications are invited for a tenure-track **ASSISTANT PROFESSORSHIP** in the Department of Zoology, University of Toronto, beginning January 1992 or negotiable. We are seeking an outstanding and innovative population biologist who has recently received his/her Ph.D. degree (preferably with postdoctoral experience in population genetics and evolutionary ecology of animal populations). The successful candidate will be expected to establish a vigorous, independent research program and to teach at undergraduate and graduate levels. Salary will be commensurate with experience and qualifications. By 1 September 1991 applicants should send current curriculum vitae, a description of their future research plans, and three letters of reference to: **Dr. I. Tallan, Department of Zoology, University of Toronto, Toronto, Canada M5S 1A1.** *Applications are invited from all qualified women and men.*

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Applications are invited for the position of **ASSISTANT PROFESSOR** of silviculture in the School of Forestry and Environmental Studies at Yale University. The incumbent will be expected to develop and sustain an active research program and teach graduate courses in silviculture. Interacting with other members of the faculty through interdisciplinary teaching or research is important. Candidates are expected to have substantial field experience and to be cognizant of the biological, environmental, social, and economic implications of their work.

Send curriculum vitae, statement of research and teaching interests, the names of three references, reprints, and other appropriate examples of academic and professional work to:

**Dr. Kristiina Vogt**  
Chair, Appointments Committee  
Yale University  
School of Forestry and Environmental Studies  
370 Prospect Street  
New Haven, CT 06511

Deadline for receipt of applications is 30 September 1991 or until suitable candidates are found. The position will be available 1 July 1992. For further information about the Yale School of Forestry and Environmental Studies and the position described above, call 203-432-5076 or 203-432-5100.

*Yale University is an Equal Opportunity/Affirmative Action Employer. Women and minority group members are encouraged to apply.*

## POSITIONS OPEN

**VIROLOGIST.** The Department of Medical Microbiology and Immunology, University of Wisconsin, Madison, invites applications for a tenure-track position (12-month basis) at the **ASSISTANT PROFESSOR** level. The anticipated starting date is January 1992. Applicants must have a Ph.D. and/or M.D. and relevant postdoctoral experience. The successful candidate will be expected to develop an independent research program and participate in virology teaching to graduate and medical students.

Send curriculum vitae, the names and addresses of three referees, and a statement describing present and future research interests by 30 September 1991 to: **Dr. Gerald Byrne, Chair, Search Committee, Department of Medical Microbiology and Immunology, University of Wisconsin, Madison, WI 53706.** *The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer.*

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Ph.D. or appropriate earned doctorate for microbiology required. Primarily teaching infectious diseases and public health to second-year medical students. Conduct and assist in weekly laboratories. Emphasis on teaching excellence; research encouraged. Rank and salary commensurate with qualifications. Start September 1991 or sooner. Send, by 28 June 1991, curriculum vitae and letter plus names, addresses, and telephone numbers of three professional references to: **Dr. Lauritz A. Jensen, Head, Microbiology Department, University of Health Sciences, College of Osteopathic Medicine, 2105 Independence Boulevard, Kansas City, MO 64124.** Telephone: 816-283-2200.

## MOREHOUSE SCHOOL OF MEDICINE ASSISTANT/ASSOCIATE PROFESSOR MOLECULAR BIOLOGY OR IMMUNOLOGY

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Morehouse School of Medicine is an expanding, new, private medical school with a strong commitment to the academic and scientific growth of minority students.

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## HARVARD MEDICAL SCHOOL DANA-FARBER CANCER INSTITUTE PROFESSOR OF GENETICS

Harvard Medical School is seeking a professor of genetics to be located in its Department of Genetics. The successful candidate should be a distinguished geneticist working on the analysis of regulated gene expression in eukaryotes. The successful candidate will be expected to participate in the teaching of medical and graduate students including organizing a basic genetics course and participating in one or more of the professional training programs conducted by the Division of Medical Sciences. Administrative responsibilities will include serving on appropriate committees of the Department of Genetics and Harvard Medical School. Interested individuals should send a letter and curriculum vitae to: **Dr. Richard Kolodner, Division of Cellular and Molecular Biology, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.** *Harvard Medical School and Dana-Farber Cancer Institute are Equal Opportunity/Affirmative Action Employers. Women and minority candidates are encouraged to apply.*

## POSITIONS OPEN

### RESEARCH ASSISTANT PROFESSOR

Full-time, non tenure-track position for Ph.D. with laboratory expertise in immunoparasitology and biotechnology. Participate in established research programs with *Eimeria tenella* and/or *Cryptosporidium parvum*. Salary commensurate with experience and qualifications. Application deadline is 1 July 1991 or until position is filled. Send a letter of application, curriculum vitae, and the names, addresses, and telephone numbers of at least three professional references to: **Dr. Mark C. Healey, Search Committee Chairman, Department of Animal, Dairy, and Veterinary Sciences, Utah State University (USU), Logan, UT 84322-5600.** *USU is an Affirmative Action/Equal Opportunity Employer.*

### RESEARCH ASSISTANT PROFESSORS

Experience in vibrational spectroscopy of lipids. Candidate must have a Ph.D. degree in the field of physical or biophysical chemistry. A second position is available for someone with a Ph.D. degree, at least 4 years of experience, and extensive background in the vibrational spectroscopy of biomacromolecules, particularly phospholipids. Knowledge of state-of-the-art infrared and Raman spectrophotometry essential. Ability to attract research funding and effective oral and written communication required. Send résumés to: **Dr. Aleyda V. Kasten, Department of Biochemistry, Georgetown University, Basic Science 337, Washington, DC 20057.** *Equal Opportunity Employer.*

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### HARVARD MEDICAL SCHOOL DEPARTMENT OF NEUROBIOLOGY

The Harvard Medical School is seeking to fill a tenured **PROFESSORSHIP OF NEUROBIOLOGY** with an individual whose primary interest is in cellular electrophysiology. The individual should be a master of modern microelectrode techniques and thoroughly familiar with the mathematics and biophysics required to analyze the kinetics of ligand gated and voltage gated ion channels. The candidate must also be a thoughtful teacher who is able to present membrane biophysics to advanced graduate students and, on a different level, to medical students and beginning graduate students. *Harvard University is committed to increasing the numbers of minorities and women among its faculty and particularly encourages applications from such candidates.* Interested individuals should send curriculum vitae to: **Professor Gerald D. Fischbach, Senior Faculty Search Committee B, Department of Neurobiology, Harvard Medical School, 220 Longwood Avenue, Boston, MA 02115.** *Harvard Medical School is an Affirmative Action/Equal Opportunity Employer.*

**PUBLIC INFORMATION COORDINATOR.** For cancer research association in Philadelphia. Challenging position in public education and relations for professional with excellent writing and communications skills. Responsibilities include liaison with government officials, scientists, lay persons, and the media. Relevant experience in congressional activities, media operations, public relations, or fund-raising preferred. Knowledge of biomedical science helpful. Send résumé, writing sample, and desired salary range to: **Post Office Box 54335, Philadelphia, PA 19105.**

## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR BRIGHAM AND WOMEN'S HOSPITAL AND HARVARD MEDICAL SCHOOL

The Division of Genetics in the Department of Medicine of the Brigham and Women's Hospital and Harvard Medical School is seeking applicants for a position as **ASSISTANT/ASSOCIATE PROFESSOR** to complement existent strengths in molecular mechanisms of gene transcription and molecular development. Areas of research interest must involve either molecular, cellular, and/or genetic aspects of human disease. Candidates should demonstrate a strong commitment to excellence and interaction with an enthusiastic research community. Must provide evidence of originality, significant accomplishment, and promise, and of ability to establish a nationally recognized, independent research program. Ample support will be provided for start-up and early development. Candidates will possess M.D., M.D./Ph.D., or Ph.D. with suitable postdoctoral experience. Please send, by 1 August 1991, curriculum vitae, list of publications, three (3) letters of recommendation, and a one-page summary of research interests to: **Chair, Search Committee, Division of Genetics, Department of Medicine, Brigham and Women's Hospital, Thorn 917, 75 Francis Street, Boston, MA 02115.** *The Brigham and Women's Hospital is an Equal Opportunity/Affirmative Action Employer.*

**ADMINISTRATOR.** For cancer research association in Philadelphia. Challenging position in not-for-profit organizational operations. Includes general administration and staff support for committees. Requires dedicated, detail-oriented person with undergraduate degree (graduate degree preferred), excellent writing and communications skills, ability to handle multiple projects. Biomedical science orientation, experience with database management or BASIC helpful. Send résumé, writing sample, and desired salary range to: **P.O. 54335, Philadelphia, PA 19105.**

### SYSTEMATIST RECENT MARINE INVERTEBRATE

The Department of Invertebrate Zoology and Geology seeks an **ASSISTANT CURATOR** with demonstrated excellence in collection-based, organismal research employing modern phylogenetic techniques. The successful candidate will participate in the Academy's exhibit and educational activities, including conservation biology and biodiversity. Send curriculum vitae and three references by 1 July 1991 to: **Dr. Terrence Gosliner, Director of Research, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118.** *Equal Opportunity Employer.*

### ASSISTANT LEADER, WILDLIFE WASHINGTON COOPERATIVE FISH AND WILDLIFE RESEARCH UNIT

The U.S. Fish and Wildlife Service (FWS) and the University of Washington invite applications for the position of **ASSISTANT UNIT LEADER-WILDLIFE** (GS-486-11/12) in the Washington Cooperative Fish and Wildlife Research Unit within the School of Fisheries. Candidates must have a Ph.D. in wildlife science, zoology, biology, or closely related field and meet the requirements stated in the OPM X-118 Handbook. The successful candidate will be employed by the FWS, will hold faculty appointments in the School of Fisheries and the College of Forest Resources at the university, and will be expected to plan, conduct, and direct research related to wildlife biology and management with emphasis on aquatic wildlife (freshwater, estuarine, or marine), their habitats, population dynamics, and interactions with fish/fisheries. In addition, the successful candidate will be expected to teach one graduate level course per year and must meet the requirements for a faculty appointment at the university. To apply, send a completed SF-171 and OPM Form 1170 (list of college courses) to: **Dot Easley, Personnel Division, Research and Development, U.S. Fish and Wildlife Service, Mail Stop 725, ARLSQ, Washington, DC 20240.** Applications must be postmarked no later than 2 July 1991. A copy of the application should be sent to: **Dr. Robert Stickney, Director, School of Fisheries, WH-10, University of Washington, Seattle, WA 98195.** *The U.S. Fish and Wildlife Service and the University of Washington are Affirmative Action/Equal Opportunity Employers. Women and minorities are encouraged to apply.*

## POSITIONS OPEN

### RESEARCH LEADER/LOCATION COORDINATOR

### U.S. DEPARTMENT OF AGRICULTURE (USDA)

### AGRICULTURAL RESEARCH SERVICE (ARS)

ARS is seeking a permanent, full-time **RESEARCH PHYSIOLOGIST (POULTRY)** to lead a research team investigating biochemical and physiological mechanisms affecting growth and body composition. This position is in Georgetown, Delaware, in the heart of the Delmarva poultry industry. Knowledge of fat and muscle biology principles, and how adipose, liver, and muscle tissues interact during growth and development and skill in modern biochemistry and molecular biology are required. Knowledge of avian biology and ability to lead a research team and to conduct research are desirable. *Must be a U.S. citizen.* Salary range: \$44,000 to \$59,000 commensurate with qualifications. For information on the research program and position, contact **Dr. H. L. Rothbart at 215-233-6593.** For information on application procedures/forms, contact **Beverly Webert at 301-344-1921.** Applications in response to this advertisement must be marked 1N042 and be received by 12 July 1991.

*USDA/ARS is an Equal Opportunity Employer.*



### ALLERGY/IMMUNOLOGY

Allergy/immunology **LABORATORY SUPERVISOR** sought to coordinate research and diagnostic activities, including in vitro testing and basophil histamine release, respiratory virus, and tissue culture studies; must be capable of teaching and supervising clinical fellows performing basic science research experiments. M.D./Ph.D. microbiologist/immunologist with at least 2 years of graduate-level research experience in pediatric allergy/immunology and virology desired for this **INSTRUCTOR** position. Submit letter and curriculum vitae to: **Dr. Thomas F. Smith, Department of Pediatrics, Emory University School of Medicine, 69 Butler Street, S.E., Atlanta, GA 30303** by 1 July 1991. *Equal Opportunity Employer, M/F.*

### INSTITUTE OF GEOPHYSICS AND PLANETARY PHYSICS, UCLA LOUIS B. SLICHTER PROFESSOR OF GEOPHYSICS AND PLANETARY PHYSICS

The Institute of Geophysics and Planetary Physics at the University of California, Los Angeles, announces the establishment of a professorial chair endowed in honor of Louis B. Slichter. Applications are invited from outstanding scientists whose research interests fall within the broad range of specialties relevant to geophysics and planetary physics. The emphasis in this recruitment is on excellence and scientific leadership. Subjects of special interest to the institute span nonlinear dynamics, including fluid dynamics, climate dynamics and geobiospheric coupling, the dynamics of the mantle and the core and dynamical earthquake systems, the physics of high pressures, the properties of the solar system including the interplanetary medium, the formation and evolution of the Earth and planets, and the origin and evolution of life. This list is intended to be suggestive rather than restrictive. Applications, including a letter of interest, curriculum vitae, and a brief statement of research interests, should be sent to: **Chair, Slichter Search Committee, Institute of Geophysics and Planetary Physics, Slichter Hall, University of California, Los Angeles, CA 90024-1567.** Applications should be received before 1 September 1991. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

**VISITING ASSISTANT EXHIBIT DEVELOPERS.** Temporary positions are available to develop exhibits about imaging science, telecommunications, and sickle cell anemia. M.S. or Ph.D. degree in a science field required. Additional requirements: excellent writing skills, outstanding creative ability to demystify science and technology, and experience in project management. Salary will be commensurate with experience. Send curriculum vitae, examples of creative work, and names of three references to: **Senior Scientist, Museum of Science and Industry, 57th Street and Lake Shore Drive, Chicago, IL 60637-2093.** *Affirmative Action/Equal Opportunity Employer.*

## FACULTY POSITION TENURE TRACK

### TERRY FOX CANCER RESEARCH LABORATORIES

Applications are invited for the fourth tenure-track faculty position in the recently established Terry Fox Cancer Research Laboratories located within the Division of Basic Medical Sciences, Faculty of Medicine, Memorial University, St. John's, Newfoundland, CANADA. Applicants must possess a doctorate and relevant experience in one of the following areas: gene expression, developmental molecular biology or inter-cellular/intracellular signalling. The successful candidate will be expected to develop an independent, externally funded research programme but will be encouraged to participate in collaborative projects with other members of the Terry Fox Laboratories. The laboratories are modern, well equipped and provide over 5000 sq. ft. of communal space for four investigators.

Applicants should submit their curriculum vitae, a brief statement of research interests and arrange to have three letters of reference forwarded to:

**Dr. Laura Gillespie, Terry Fox Cancer Research Scientist Search Committee, Division of Basic Medical Sciences, Faculty of Medicine, Memorial University, St. John's, Newfoundland, CANADA A1B 3V6** by August 1, 1991.

*Memorial University of Newfoundland is an equal opportunity employer. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.*

### Associate Director, Ohio State Biotechnology Center.

We seek a Ph.D. scientist with administrative talent and experience to work with the Director in managing all aspects of the university-wide biotechnology program headquartered in a 93000 square foot, newly remodeled building in this large, comprehensive university. The functions of the center include coordination of research, training, and technology transfer. Research programs encompass agricultural and medical areas. Submit curriculum vitae and references to **P. E. Kolattukudy, Director, Ohio State Biotechnology Center, Rightmire Hall, 1060 Carmack Road, The Ohio State University, Columbus, Ohio 43210.** Screening will start July 1, 1991. Telephone: (614) 292-5670. FAX: (614) 292-5379. The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

## Department of Health and Human Services Public Health Service National Institutes of Health National Institute of Diabetes and Digestive and Kidney Diseases

Opening Date: May 22, 1991

Closing Date: June 21, 1991

***(All applications must be postmarked before closing date)***

### Position: DIRECTOR, Division of Diabetes, Endocrinology and Metabolic Diseases (DEMD)

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) invites nominations and applications for the position of Director, Division of Diabetes, Endocrinology and Metabolic Diseases. This Institute conducts, fosters, and supports research and research training on the prevention, management, and cure of diabetes and related endocrine and metabolic diseases; kidney, urologic and blood diseases; and digestive diseases. Programs encompass intramural laboratory research and extramural (grants and contracts) activities in fundamental diabetes, digestive and kidney disorders.

The Director, Division of Diabetes, Endocrinology and Metabolic Diseases, has the management responsibilities for matters and policies pertaining to research grant, contract, training and specialized programs in diabetes, endocrinology and metabolic diseases including basic and applied research, training fellowships and institutional training awards, multipurpose centers of research, clinical trials, technological development and application of research findings; collection and dissemination of reliable data and information, budget development; planning and direction a trans-NIH Diabetes Program to provide coordination, continuity and leadership in diabetes at the NIH; and advising and participating with outside voluntary health organizations, and the National Advisory Council and National Diabetes Advisory Board in identifying and assessing the needs and requirements for research and manpower development in categorical diseases.

This is a Civil Service position in the Senior Executive Service (SES), with a salary range from \$87,000 to \$100,500 per annum, depending on qualifications. Physicians may be eligible for a comparability allowance up to \$20,000 per year. (Alternatively, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service). Mandatory professional/technical qualifications are the minimum education requirements for Medical Officer, GS-602, (or equivalent combinations of experience and training), as defined by the U.S. Office of Personnel Management Handbook X-118, Qualifications Standards for Positions under the General Schedule, which is available in Federal Personnel Offices and Federal Job Information Centers. **Further information on these qualifications is available by contacting Ms. Sheila E. Williamson, Personnel Management Specialist, National Institute of Diabetes and Digestive and Kidney Diseases, Building 31, Room 9A30, Bethesda, Maryland 20892, (301) 496-4231.**

Mandatory managerial/executive qualifications include evidence of management of a basic or clinical research program, demonstrating ability to assume leadership responsibilities in developing program goals; representing the program to outside groups; directing program planning, execution, and evaluation; and conducting a fair and equitable employment program, including the attainment of EEO objectives.

Candidates who meet the mandatory qualifications will be further evaluated by the Search Committee on the degree to which they exceed the mandatory managerial/executive qualifications, and on the following desirable qualifications: scientific reputation/peer recognition; training and education; leadership of basic or clinical research or research administration program, and honors and awards.

**Applications for Federal Employment (SF-171) should be sent to Mr. Clifford Moss, Executive Secretary, Search Committee for Director, Division of Diabetes, Endocrinology and Metabolic Diseases, Building 31, Room 9A30, National Institutes of Diabetes and Digestive and Kidney Diseases, Bethesda, Maryland 20892, telephone (301) 496-4231.** A current curriculum vitae and bibliography must accompany all applications. Applicants of women and/or minority group members are especially solicited.

*NIH is an Equal Opportunity Employer*

## VICE PROVOST FOR INFORMATION TECHNOLOGIES

University of Cincinnati  
Health Sciences Center



This is a new position reporting to the Senior Vice President and Provost for Health Education. This person will develop an integrated information management plan for the Health Sciences Center. Direct and insure coordination of information and management services provided by a) University Hospital Information System, b) Health Sciences Center Libraries and Instructional Support, c) Academic and Health Care Information Systems Research and d) Physician Health Care Delivery Organizations. Provide information technology and management services for Health Sciences Center units including a) Health Sciences Center Administration, b) College of Medicine, c) College of Pharmacy, d) College of Nursing and Health and e) Medical Center Information and Communications. Coordinate Health Sciences Center information resources with those provided by a) University Library System, b) University West Campus Information Organization and c) Ohio Library Network (Ohiolink).

The successful candidate will have at least 5 years experience in information systems management and medical informatics in a large university hospital/academic medical center complex. An M.D., Ph.D., M.D./Ph.D. is required. Other terminal degrees will be considered. Primary responsibility will be integration of unit operations which are currently autonomous. If you are interested in this position, send your resume and the names of three references to: **Robert C. Gesteland, Associate Dean, University of Cincinnati College of Medicine, ML 555, Cincinnati, OH 45267-0555 or call 513-558-6098.**

Affirmative Action/Equal Opportunity Employer

## SUPERVISORY RESEARCH CHEMIST

Applications are invited for a supervisory research chemist at the National Cancer Institute, National Institutes of Health, Bethesda, Maryland campus. Individuals should have demonstrated experience in enzymology, physical experience in the area of thyroid peroxidase, its enzymology, regulation and role in thyroid cancer and autoimmune diseases, send curriculum vitae, list of publications and names of three references to:

**Ms. Christina Marrow  
AO, CPCP, DCE, NCI  
National Institutes of Health  
Bldg. 37, Room 1A07  
9000 Rockville Pike  
Bethesda, MD 20892**



NIH is an Equal  
Opportunity Employer

## POSITIONS OPEN

### HARVARD MEDICAL SCHOOL DEPARTMENT OF NEUROBIOLOGY

The Harvard Medical School Department of Neurobiology is seeking a **PROFESSOR** whose primary research interest is in the area of ion channel molecular structure. The successful candidate must be expert in those protein chemical techniques required to relate protein 3-D structure to ion channel function. She/he must also be an excellent teacher, able to participate in medical school courses as well as graduate seminars. Candidates must be experienced research mentors with excellent records of training Ph.D. candidates and postdoctoral fellows. *Harvard University is committed to increasing the numbers of minorities and women among its faculty so we particularly encourage applications from such candidates.* Interested individuals should send curriculum vitae to: **Professor Gerald D. Fischbach, Senior Faculty Search Committee A, Department of Neurobiology, Harvard Medical School, 220 Longwood Avenue, Boston, MA 02115. Harvard Medical School is an Affirmative Action/Equal Opportunity Employer.**

**HEMATOLOGY/ONCOLOGY. DIRECTOR** of the Division of Hematology and Oncology to lead an excellent clinical program including bone marrow transplantation. Newly constructed research and clinical facilities will be available to allow expansion. Extensive research experience is required as well as leadership in clinical and teaching programs. Position is available now. The academic appointment is likely to be the rank of professor in the Department of Pediatrics, the College of Medicine, University of Cincinnati, and the position of director of the division carries with it an endowed chair. The division has an additional endowed chair, presently unfilled. Applications are requested by 1 July 1991, but will be accepted until the position is filled. Please send résumé to: **Dr. David Glass, Children's Hospital Medical Center, Division of Rheumatology, PAV 1-129, Elland and Bethesda Avenues, Cincinnati, OH 45229-2899. The Children's Hospital Medical Center is an Equal Opportunity Employer.**

### COMPUTATIONAL CHEMISTS

Biosym Technologies, an industry leader in the development of software tools and research in molecular design and basic computational chemistry, has immediate opportunities for:

#### SENIOR SCIENTIST-PROJECT LEADER POSTDOCTORAL ASSOCIATE SCIENTIST/PROGRAMMER

These positions address fundamental problems in the modeling of biological systems including lipids and the theory and development of small molecule building and conformational searching/analysis functionality.

A Ph.D. in physical chemistry or chemical physics is preferred. Experience with FORTRAN and/or "C" programming is important. Background in quantum mechanics, molecular modeling, theoretical chemistry, empirical force field development, vibrational spectroscopy, and/or crystallography is desirable.

Biosym is an *Equal Opportunity Employer* with a unique, creative working environment, flextime, and a competitive benefits package. If you are interested in these unique opportunities, please submit a detailed résumé, transcript, and three letters of recommendation to: **Kim McCullough, Biosym Technologies, 10065 Barnes Canyon Road, San Diego, CA 92121.**

The Naval Research Laboratory for Computational Physics is seeking an **AEROSPACE ENGINEER**, GM-13, salary: \$44,348 per annum. Duties: Develops computational models and conducts numerical and theoretical investigations of turbulent compressible and incompressible flows in complex systems and over complex bodies moving through a fluid. Qualifications: A degree in aerospace engineering (an advanced degree is highly desirable) plus demonstrated experience in developing advanced numerical/theoretical techniques such as finite-element methods on unstructured adaptive grids for the study of time-dependent compressible and incompressible fluid flows in complex systems and over maneuvering bodies of complex geometry. To apply, submit a résumé or SF-171 by 30 June 1991: **Naval Research Laboratory, Civilian Personnel Division, Attention: 44-0009-14 (S), 4555 Overlook Avenue, S.W., Washington, DC 20375-5000. An Equal Opportunity Employer. U.S. citizenship required.**

## POSITIONS OPEN

### STAFF SCIENTIST ENERGY ANALYSIS PROGRAM

Lawrence Berkeley Laboratory, a multi-disciplinary national laboratory run by the University of California for the Department of Energy, is involved in significant programs of energy and environmental analysis.

In this career position, you'll participate in studies of the urban heat island phenomenon as it affects building energy use and air quality.

You'll need experience in the design of monitoring experiments, analysis of measured data, use of urban boundary layer models, and simulation of building energy use with advanced hourly programs. A Ph.D. in engineering, architecture, or environmental disciplines is preferred.

To apply for this challenging opportunity, please send your résumé to: **Lawrence Berkeley Laboratory, Employment Office, Job #B/6452, 90/1042, One Cyclotron Road, Berkeley, CA 94720. An Equal Opportunity Employer. Women and minorities are encouraged to apply.**



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### THE UNIVERSITY OF MICHIGAN SCHOOL OF DENTISTRY

Full-time **TENURE-TRACK POSITION** available in Department of Oral Medicine, Pathology, and Surgery at The University of Michigan. Candidate should possess a Ph.D. in a basic science. A dental degree in the area of wound healing in hard and/or soft tissue with expertise in cell and molecular biology would be highly desirable. Demonstrated experience in securing of outside funding and evidence of an independent research program required. Individual will be expected to establish collaborative research efforts and encouraged to obtain cross-appointment in the medical center. Rank and salary commensurate with qualifications and experience. *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.* Submit curriculum vitae, a statement of research interests and goals, and three references by 31 July 1991 to:

**Dr. Stephen E. Feinberg  
Chair**

**University of Michigan School of Dentistry  
Department of Oral Medicine/Pathology/Surgery  
Ann Arbor, MI 48109-1078**

### UNIVERSITY OF OXFORD DEPARTMENT OF ZOOLOGY

**DEPARTMENTAL DEMONSTRATOR** posts in neuroscience with behaviour, in ornithology, and in ecology. Duties include teaching undergraduates (particularly practical work) and supervision of undergraduate and graduate research projects and theses.

Appointments begin 1 September 1991 and will be for 3 years (renewable for a further 3 years). The salary will be within the university scale: £10,699 to £14,038.

Applications should consist of full curriculum vitae, a two-page description of past and proposed research, and the names of two academic referees. Closing date is 28 June 1991. Send applications to: **Mrs. S. M. Brooks, Department of Zoology, South Parks Road, Oxford OX1 3PS, U.K.**

*Oxford University is an Equal Opportunity Employer.*

### FACULTY POSITION IN MOLECULAR ONCOLOGY

The University of Pittsburgh, Department of Medicine, Division of Medical Oncology, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. The area of research should encompass the study of molecular aspects of human oncology and tumor immunology. Candidates should have a Ph.D. degree in molecular biology or an M.D. or M.D./Ph.D. degree and several years of postdoctoral training. Applicants should send curriculum vitae, a brief description of current and future research interests, and the names of references to: **Dr. John Kirkwood, University of Pittsburgh, Department of Medicine, Division of Medical Oncology, Pittsburgh Cancer Institute, Montefiore-University Hospital, 3459 Fifth Avenue, Main North, Pittsburgh, PA 15213.**

**SCIENCE** recruitment ads reach thousands of scientists in all disciplines, worldwide. **Classified Advertising** telephone: 202-326-6555. FAX: 202-682-0816.





The University of British Columbia

## **FACULTY POSITIONS**

### **Forest Products Waste Management**

As the result of an award of an NSERC/COFI Industrial Chair in Forest Products Waste Management, the University of British Columbia is initiating a search for three new tenure track faculty members. The senior Chair will be in the Environmental Engineering Group within the Department of Civil Engineering, while the two junior positions will be in Chemical Engineering and Microbiology, respectively. The intent of the award, totalling some \$2.6 million CD over 5 years, is to set up the infrastructure for an on-going research effort to address the myriad of environmental issues facing the forest products industry. It is anticipated that the new faculty members will work in concert with each other, with existing faculty experts in various departments on the campus, with the Pulp and Paper Research Institute of Canada, and with member companies of the Council of Forest Industries (COFI). Sufficient funding has been secured in the basic award to purchase significant new equipment, to support a number of graduate students, and to operate an analytical organic laboratory.

The closing date for the junior positions applications is later than that for the senior Chair position so that the senior Chair designate can play a significant role in the selection for the junior faculty members.

#### **GENERAL INFORMATION ON CHAIRS**

### **SENIOR CHAIR**

#### **Department of Civil Engineering**

An immediate opening exists for a tenured Full Professor to occupy the Senior Chair position. The successful candidate will have primary responsibility for the establishment of a core research program in the area of forest products waste management, and will be instrumental in ensuring that a viable interdisciplinary research group is brought together to focus on specific waste management problems. In addition, there will be a need for involvement in an appropriate teaching role within the Department.

Qualifications for the position should include an undergraduate degree in Civil or Chemical Engineering plus a Ph.D. in a discipline appropriate to the thrust of the Chair.

The successful candidate will possess very significant research/development experience in the area of pulp and paper wastewater management, and will have a keen interest in developing research efforts in a variety of forest products waste management areas.

Deadline for applications is **July 15, 1991**, with an appointment to be effective on **September 1, 1991, or earlier if appropriate**. Salary will be commensurate with qualifications and experience.

### **JUNIOR CHAIR**

#### **Department Of Chemical Engineering**

Applications are invited for a tenure-track position at the Assistant Professor level. Qualifications should include a Ph.D. in Chemical Engineering, or in a closely related field, plus research or work experience in wastewater management related to the forest products industry. Significant knowledge of pulp and paper process technology would also be an asset.

The successful candidate will have an opportunity to be involved with existing award-winning research in the field of organic and toxicity removal from pulp mill effluents. Opportunities also exist to work with researchers in the Departments of Chemical and Civil Engineering, and in the Pulp and Paper Centre, on such diverse topics as environmental manipulation of biomass speciation in treatment systems, and mill process modifications to decrease impacts of wastewater on the environment. Furthermore, the successful candidate will be encouraged to initiate separate research thrusts within the general mandate of the chair. The teaching of some basic Chemical Engineering courses will also form part of his/her duties.

Deadline for applications is **July 31, 1991** with an appointment to be effective on **January 1, 1992 or earlier if appropriate**. Salary will be commensurate with experience.

### **JUNIOR CHAIR**

#### **Department of Microbiology**

Applications are invited for a tenure-track Assistant Professor in the Department of Microbiology, at U.B.C. Applicants should have a Ph.D., postdoctoral experience and a strong research record.

The preferred candidate would have a background in microbial physiology and metabolism, genetics of degradation of xenobiotics, or environmental microbiology. It is expected that the candidate will have the potential to develop a world class research program using molecular genetic approaches to the problems of toxic and/or non-toxic components of forest industry waste products and that the research will complement existing programs in Microbiology and other related departments. There will be significant opportunity to interact with existing and developing programs in waste management and in designing approaches to the sustainable development of natural resources. The individual will participate in undergraduate teaching and in the large Ph.D. program in the Microbiology Department.

Deadline for applications is **July 31, 1991**, with an appointment to be effective on **January 1, 1992, or earlier if appropriate**. Salary will be commensurate with qualifications and experience.

In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents. Please submit application, together with the names of three referees to: **Dr. W.K. Oldham, Head, Department of Civil Engineering, The University of British Columbia, 2324 Main Mall, Vancouver, B.C. CANADA V6T 1W5**. The University of British Columbia encourages qualified women and minority applicants.

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## **BIOCHEMIST Drug Metabolism**

Burroughs Wellcome Co. is known for creativity and innovation. The Division of Pharmacokinetics and Drug Metabolism has an opportunity for a scientist to conduct disposition and pharmacokinetic studies with major emphasis on the analysis of drug and metabolites in biological fluids, and analytical method development.

Candidates must have a Ph.D. degree in a biological science; OR a Master's degree in a biological science plus two years of experience in drug metabolism, pharmacokinetics or biochemical pharmacology; OR a Bachelor's degree in a biological or chemical science plus four years of experience as above. *In vivo* experience and two years of experience with HPLC and other chromatographic techniques are required. Experience with *in vitro* systems and cell culture would be a plus.

At Burroughs Wellcome Co., you will enjoy a compensation and benefits package that is among the best in the pharmaceutical industry, along with the advantages of being part of an innovative pharmaceutical leader. Please send your resume, indicating position number in your cover letter, by **July 8, 1991**, to: **Burroughs Wellcome Co., Scientific Recruiting and Staffing, Pos. #62517-4, 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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## **University of Minnesota Earl Bakken Endowed Professorship in Biomedical Engineering**

The University of Minnesota Medical School and Institute of Technology invite nominations and applications for the *Earl Bakken Endowed Professorship in Biomedical Engineering*. This newly established professorship in the area of Biomedical Engineering/Bioengineering will be affiliated with a recently established, state-funded and privately endowed Biomedical Engineering Center at the University of Minnesota.

The recipient of this Chair will hold a tenured faculty appointment at the rank of professor in one or more of the engineering departments in the Institute of Technology such as Chemical Engineering and Materials Science, Mechanical engineering, Electrical Engineering or in one or more Basic Science departments in the Medical School. This individual will develop an interdisciplinary research program in biomedical engineering/bioengineering or biological applications of engineering problems and principals in the Biomedical Engineering Center and ongoing graduate program.

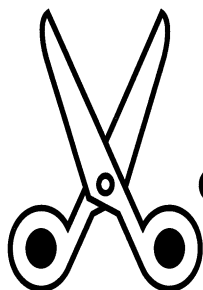
The individual must have superlative academic credentials with a national or international reputation for excellence in research and scholarly publications, evidence of effective leadership in education and training of biomedical engineers/bioengineers at the graduate level or equivalent. It would be desirable, but not a requisite, for the Chair holder to have a primary engineering focus with significant documented interest in biology, biocompatibility, biomaterials or tissue engineering. The holder of this endowed chair is expected to play a leadership role in the overall growth of the bioengineering effort at the University.

Submit nominations/applications by July 31, 1991 to:

Dr. Theodore R. Oegema, Chair  
Earl Bakken Endowed Professorship in Biomedical Engineering  
University of Minnesota  
Box 310 UMHC  
420 Delaware Street S.E.  
Minneapolis, Minnesota 55455  
(612) 625-7446

This is the extension of an ongoing search.

*The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities.*



# SCIENCE

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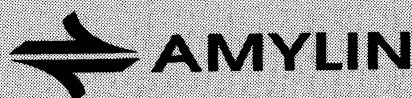
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## DEPARTMENT OF IMMUNOCHEMISTRY Head of Assay Development

Amylin Corporation in San Diego, CA is a development stage pharmaceutical company developing novel pharmaceutical and diagnostic products for diabetes and other metabolic disorders. Products are initially based on the discovery of amylin, a pancreatic beta cell hormone (see Cooper et al., *Biochem et Biophys Acta* (1989) 1014: 247-58). The Immunochimistry Department is seeking an outstanding individual with demonstrated accomplishment in immunoassay development for plasma analytes. This individual will be responsible for developing and supporting a range of immunoassays for research purposes, clinical studies and diagnostic product development. Both higher degree and industrial experience with knowledge of GMP are desirable but not essential.

Amylin Corporation offers a stimulating and challenging opportunity to participate in a new area of biomedical science, as well as an excellent benefits package which includes equity ownership participation. Please send your curriculum vitae and names and addresses of three references to: **Ms. Audrey McGovern, Human Resources Administrator, Amylin Corporation, 9373 Towne Centre Dr., Suite 250, San Diego, CA 92121, or Fax (619) 552-2212.** Amylin Corporation is an Equal Opportunity Employer.



National Institutes of Health  
National Institute of General Medical Sciences  
Minority Opportunities in Research Programs Branch

## DIRECTOR

### Minority Opportunities in Research Programs Branch

This is a civil service position in the Senior Executive Service (SES) with a salary range from \$87,000 to \$100,500.

Serves as the principal advisor to the Director, NIGMS, regarding the overall direction of and approaches to the Institute's minority research and research training programs. Advises NIGMS senior staff and, as appropriate, officials of other NIH ICDs, of NIH as a whole, or of other agencies, as well as members of Congress, on trends and developments concerning these programs as they relate to the missions of the NIGMS, NIH, PHS, DHHS, other Federal agencies, the biomedical research community, and related groups. Keeps the Director, NIGMS, and other officials fully informed of program and related considerations having significant bearing upon the planning, development, and administration of NIGMS minority research and research training programs. Oversees resource allocations and advises the Director, NIGMS, as to distribution among the various minority research and research training mechanisms supported by the Institute as well as priorities in regard to award of specific grants. Serves as a channel of communication with the NIH, other agencies, the Congress, and the extramural community regarding these programs.

Position information and qualifications requirements may be obtained by contacting: **Howard R. Chernoff, Personnel Officer, National Institute of General Medical Sciences, 5333 Westbard Avenue, Room 9A-09, Bethesda, MD 20892, (301) 496-7161**

Application for Federal Employment (SF-171), CV and Bibliography must be submitted to above address and received no later than July 31, 1991.

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## Chief Of Division

### WHERE INDUSTRY AND TECHNOLOGY MEET

Minimum \$A93K plus benefits plus car

*CSIRO Division of Building, Construction & Engineering  
Victoria, Australia*

We are seeking an outstanding person who will provide strong leadership, high industrial acceptance and create a climate conducive to first class research in our Division of Building, Construction and Engineering.

The Division's primary mission is to improve the quality and cost-effectiveness of building, construction and engineering through world class research and development. It has a major role in support of the Building Code of Australia. Its mission will be achieved through the establishment of close working relationships and collaborative research with industrial partners and agencies.

The Division has some 210 staff located in well equipped laboratories at Highett (Melbourne), Victoria and a further 100 staff at North Ryde (Sydney), New South Wales.

The Chief will be responsible to the Director of the Institute for the leadership and direction of the Division's research, commercialisation and technology transfer programs and the effective management of the Division's operations.

Candidates should have a sound appreciation of the operation and needs of Australia's construction and related engineering industries. A strong commitment to first class research, the transfer of research results to industry, demonstrable management skills, organisational ability and communication skills of a high order, together with the ability to interact with the building and construction industries at a senior level, will be of importance.

We invite applications for the position and would also like to hear from people within the field who may wish to suggest possible candidates. The current salary for the position will be not less than \$A93,372 per annum and for an exceptional candidate a salary up to \$A101,588 pa would be offered.

Appointment to CSIRO is for an indefinite period and carries Australian Government superannuation privileges, subject to normal conditions. The position of Chief of the Division is offered for a negotiable term of five to seven years with subsequent options for a further term if mutually desired or for a senior position in the Organisation.

Alternatively, a successful candidate may wish to negotiate a private contract.

The Chairman of the Selection Committee, Dr A. F. Reid, would be pleased to provide further information or discuss the position with potential applicants. He would also be pleased to receive nominations for the appointment from people with standing in the field. He may be contacted in Sydney by telephoning 61 2 887 8212 or on facsimile 61 2 887 8197.

Applications stating full personal and professional details, and names of at least three professional referees, quoting Ref No 9811, should be directed to: **The Director, CSIRO Institute of Minerals, Energy & Construction, PO Box 93, North Ryde NSW 2113, Australia.** Closing date for applications: 5 July 1991.



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HDM 9811

## POSITIONS OPEN

**FACULTY, TENURE TRACK, BIOPHYSICS/CELLULAR NEUROPHYSIOLOGY.** The Institute of Neurobiology, University of Puerto Rico Medical Sciences Campus, seeks a researcher to study tropical invertebrates or lower vertebrates. Limited teaching in Spanish or English. Send curriculum vitae, reprints and the names of three references to: **Dr. Conchita Zuazaga, Institute of Neurobiology, 201 Boulevard del Valle, Old San Juan, PR 00901.**

**FACULTY POSITION.** The Department of Pharmacology, Creighton University School of Medicine, invites applicants for a tenure-track position at the level of **ASSISTANT OR ASSOCIATE PROFESSOR.** Applicants should have a Ph.D. in pharmacology and 2 years of postdoctoral experience, as well as a commitment to research and an interest in teaching professional students and graduate students. Current research interests in the department include pharmacology of secretion, the central nervous system, smooth muscle, adrenergic receptors, and renal pharmacology. We seek individuals interested in receptors and signal transduction, ion channels, or molecular biology; however, all qualified individuals are encouraged to apply. Interested individuals should send an outline of future research plans, curriculum vitae, and three letters of reference to: **Dr. Frank Dowd, Chairman, Department of Pharmacology, Creighton University, Omaha, NE 68178. Women and minorities are encouraged to apply. Creighton University is an Equal Opportunity/Affirmative Action Employer.**

### UNIVERSITY OF MIAMI DEPARTMENT OF RADIATION ONCOLOGY SENIOR RESEARCH ASSOCIATE/ INSTRUCTOR

The Department of Radiation Oncology has an immediate opening for a junior level scientist (senior research associate/instructor) with a background in molecular biology and either oncogenes, DNA repair, retroviruses, radiation response, or drug resistance, to join an interdisciplinary group investigating the molecular genetic mechanisms of drug and radiation resistance. A Ph.D. in molecular biology, biochemistry, cell biology, or virology is required. Salary and appointment will depend on experience and qualifications. Send curriculum vitae, a short statement of research interests, and the names, telephone numbers, and addresses of three references to: **Dr. Marshall Sklar, Associate Professor of Radiation Oncology, Department of Radiation Oncology (D-31), University of Miami School of Medicine, P.O. Box 016960, Miami, FL 33101. Telephone: 305-549-7885.**

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

**DEVELOPMENTAL BIOLOGY.** Plastic surgery research laboratory, with well-developed facilities for histologic preparation of skeletal tissue and computerized histometry, wishes to investigate craniofacial embryopathology. Need Ph.D. cell biologist or anatomist interested in mechanisms of craniofacial birth defects and the growth and development of bone. Require ability to manage laboratory, collaborate with clinicians, and write grants. Salary and academic position dependent on qualifications. Send curriculum vitae and one-page statement of research interests to: **Ralph E. Holmes, M.D., Division of Plastic Surgery, University of California School of Medicine, 225 Dickinson Street, San Diego, CA 92103. An Equal Opportunity Employer.**

### LIMNOLOGIST

The Academy of Natural Sciences seeks a Ph.D.-level biologist with broad experience in freshwater systems. A specialty in algal ecology and/or physiology is preferred. The individual should have experience in working with practical environmental problems, possess strong organizational and communication skills, and have demonstrated ability to design and supervise large multi-element projects. Position provides a limited opportunity to pursue research interests. Successful candidate will be part of a multidisciplinary team, responsible for designing and implementing research programs on water bodies throughout the United States. Please forward a résumé, career goals, and four (4) references to: **Dr. John W. Sherman, Division of Environmental Research, The Academy of Natural Sciences, 1900 Benjamin Franklin Parkway, Philadelphia, PA 19103-1195. An Equal Opportunity Employer.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY.** Available immediately to develop program to humanize and modify murine monoclonal antibodies. Experience in cloning, sequencing, and mammalian cell expression required; working knowledge of immunogenetics desirable. Send curriculum vitae to: **Dr. Roberto Ceriani, John Muir Cancer and Aging Research Institute, 2055 North Broadway, Walnut Creek, CA 94596. An Equal Opportunity Employer.**

**POSTDOCTORAL POSITION, ONCOGENE EXPRESSION.** A position is available in the Walther Oncology Center at the Indiana University School of Medicine to study the transacting factors regulating the expression of the BCR and the BCR/ABL gene in Philadelphia<sup>1</sup> chromosome-positive leukemias. Requirements: M.D. or Ph.D.; general background and experience in molecular biology. Experience with protein isolation and purification would be helpful but is not required. Send a copy of your curriculum vitae and the names of three references to: **Dr. David Leibowitz, Hematology/Oncology, IB 442, 975 West Walnut Street, Indianapolis, IN 46202-5121. Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL POSITION BIOCHEMISTRY, MOLECULAR/CELL BIOLOGY

Available to study glycosyltransferases/glycosidases involved in glycoprotein biosynthesis and processing. Experience in protein purification, molecular cloning, and gene expression is advantageous. Send résumé and two letters of reference to: **Dr. Inder K. Vijay, Program in Molecular and Cell Biology, Room 2125, Animal Sciences Center, University of Maryland, College Park, MD 20742. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL ASSOCIATE.** Positions (two) available in a molecular-oriented neuroscience laboratory which studies the anatomical and chemical basis of vestibular system neurotransmission and modulation focusing on neuropeptide, monoamine, and excitatory amino acid transmitters. Experience doing HPLC, receptor binding, electron microscopy, in situ hybridization, or in vivo microdialysis is desirable. Ph.D. in biological sciences required. Positions available to start between 1 August 1991 and 1 October 1991. Send curriculum vitae as soon as possible and/or before 31 August 1991 to: **Alvin J. Beitz, Ph.D., Department of Veterinary Biology, University of Minnesota, 1988 Fitch Avenue, St. Paul, MN 55108. The University of Minnesota is an Equal Opportunity Educator and Employer.**

**MOLECULAR BIOLOGY/ENDOCRINOLOGY POSTDOCTORAL POSITIONS.** Several junior/senior postdoctoral positions to work on transcriptional regulation of hormone action and aging. Experience/interest in cloning, sequencing, DNA-protein interaction, and cell culture is required. Attractive salary/benefits, academic/living environment. Send curriculum vitae and names of three references to: **Arun K. Roy, Ph.D., Professor and Head, Division of Molecular Genetics, Department of Obstetrics/Gynecology, University of Texas Health Science Center, San Antonio, TX 78284-7836.**

### POSTDOCTORAL POSITION MOLECULAR PHARMACOLOGY/ MOLECULAR NEUROBIOLOGY

Available summer 1991 at Tufts University School of Medicine to study aspects of CNS receptor regulation, especially GABA and glutamate. Background in molecular biology or molecular pharmacology preferred. Excellent salary and benefits. Please send curriculum vitae with references to: **Dr. L. G. Miller, Box 1007, NEMC, 750 Washington Street, Boston, MA 02111.**

### PLANT PHYSIOLOGIST/BIOCHEMIST

**POSTDOCTORAL POSITION** to study the uptake and metabolism of industrial waste compounds by plant cultures and seedlings. Two-year position starting 1 September 1991 (\$21,000 per year). Prefer person with GC and tissue culture or microbiology experience. Send curriculum vitae and three reference letters to: **John Fletcher, Department of Botany and Microbiology, University of Oklahoma (OU), Norman, OK 73019-0245. Telephone: 405-325-1644. OU is an Equal Opportunity Employer.**

## POSITIONS OPEN

### POSTDOCTORAL POSITION

Available immediately in a laboratory actively engaged in studying the structure and expression of the growth hormone receptor in mice. Applicants must have a Ph.D. and a strong background in molecular biology with previous experience in genomic cloning. Send curriculum vitae and three reference letters to: **Dr. Frank Talamantes, Sinsheimer Laboratories, University of California, Santa Cruz, CA 95064. Affirmative Action/Equal Opportunity Employer.**

### POSTDOCTORAL POSITION IN BIOORGANIC CHEMISTRY

To work on the isolation of antibody catalysts with sequence-specific protease activity. The research will include the synthesis of peptide analogues, the purification of monoclonal antibodies, and the assay of catalytic activity. To start within the next year; salary at NIH level or higher. To apply, send curriculum vitae and three letters of reference to: **Professor David E. Hansen, Department of Chemistry, Amherst College, Amherst, MA 01002. Telephone: 413-542-2731. Amherst College is an Equal Opportunity/Affirmative Action Employer.** Professor Hansen is also a member of the Molecular and Cellular Biology Program at the University of Massachusetts at Amherst.

One **POSTDOCTORAL POSITION** is available to work on the molecular genetics of development of *C. elegans* and the molecular biology of mammalian development. Candidates should have a strong background in biochemistry or chemistry and specific interests in the role of gene expression during development, including RNA processing.

Submit curriculum vitae to:

**David Hirsh, Chairman  
Biochemistry and Molecular Biophysics  
Columbia University  
630 West 168th Street  
New York, NY 10032**

*Columbia University takes Affirmative Action to ensure Equal Opportunity.*

### JOHNS HOPKINS SCHOOL OF MEDICINE POSTDOCTORAL POSITION

Available now in the area of molecular and cell biology of hemostasis. Molecular biology studies include mutation analysis of inherited platelet disorders, characterization of transcriptional regulation of the fibrinogen receptor genes, and alternately spliced mRNAs. Cell biology studies emphasize mammalian cell transfection of fibrinogen receptor genes for the analysis of receptor activation, biosynthesis, and physiology. Send curriculum vitae to: **Paul F. Bray, M.D., 305 Hunterian, Johns Hopkins Medical School, 725 North Wolfe Street, Baltimore, MD 21205. Telephone: 301-955-7417. An Affirmative Action/Equal Opportunity Employer.**

### POSTDOCTORAL ASSOCIATE

A postdoctoral position is open to study the control of translation by polyadenylation during early *Xenopus* development. Pertinent reference for the project include *Genes Dev.* 3, 803 (1989); *MCB* 10, 5634 (1990); *EMBO J.* 9, 3743 (1990). Please send curriculum vitae and names, addresses, and telephone numbers of three persons who may supply references to: **Dr. Joel Richter, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.**

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Affirmative Action Employer, M/F/H.*

### POSTDOCTORAL POSITIONS IN HUMAN BRAIN NEUROCHEMISTRY CLARKE INSTITUTE OF PSYCHIATRY

Two positions are available to investigate (i) the major monoamine and excitatory amino acid neurotransmitter systems and (ii) membrane phospholipid metabolism, in the autopsied brain of patients with hereditary neurodegenerative and neuropsychiatric disorders. Applicants will have extensive experience in molecular biological techniques including isolation of protein and RNA, Western and Northern blotting, in situ hybridization, and/or immunohistochemistry. FAX curriculum vitae to: **Dr. Stephen Kish, Human Brain Laboratory, Clarke Institute of Psychiatry, 250 College Street, Toronto, Ontario, M5T 1R8 Canada. FAX: 416-979-7871.**



## MOLECULAR BIOLOGIST

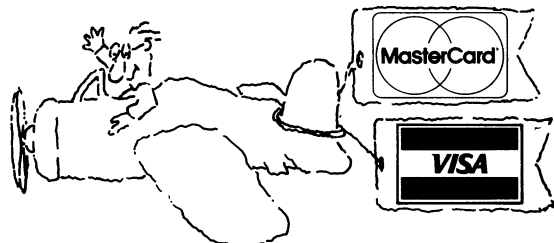
INTERESTED IN GENE EXPRESSION IN  
MAMMALIAN CELLS

The Surgery Branch of the National Cancer Institute has an immediate opening for a Senior Investigator to join its studies of the gene therapy of human cancer. This position involves a responsibility for studies of the introduction of genes into human lymphocytes and tumor cells using retroviral mediated gene transduction. The position involves responsibility for conducting independent research programs in this area and the supervision of junior scientists. Prior postdoctoral experience in molecular biology is required. Interested candidates should send a Curriculum Vitae and two letters of reference. For further information and application procedures, please contact:

**Steven A. Rosenberg, M.D., Ph.D.**  
Chief, Surgery Branch  
National Cancer Institute  
National Institutes of Health  
Public Health Service  
Building 10, Room 2B42  
9000 Rockville Pike  
Bethesda, Maryland 20892  
(301) 496-4164



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For both positions, you will need a Ph.D. in Chemistry, Biochemistry, Pharmacy, Pharmacology or a related discipline, together with 5-10 years' post-doctoral supervisory experience in Drug Metabolism or Pharmacokinetics.

We offer excellent salaries and benefits. Ours is a smoke-free workplace. For immediate consideration, please send your resume to: **Mr. B. Decker, Schering-Plough Research, P.O. Box DS-91-02, 60 Orange Street, Bloomfield, NJ 07003.** We are an equal opportunity employer.

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# Career Opportunities For Scientists

VICAL is a young biopharmaceutical company with breakthrough technology to deliver functional nucleic acids into cells *in vitro* and *in vivo* without viruses. We are offering opportunities for highly motivated, creative Scientists to join our Gene Therapeutics™ team in this emerging field for the following areas:

## Molecular Biology

Accomplished molecular biologist with at least 5 years experience with a leading biotechnology company. You will direct our gene expression effort to establish and maintain front-line expertise in high level expression vector technology, focusing on eukaryotic, and overseeing prokaryotic expression systems.

Research Scientist with 1-3 years postdoctoral experience in molecular biology with particular emphasis on high level expression systems in *E.coli*.

## Polynucleic Acid Chemistry

Chemist with at least 3 years postdoctoral experience in the chemical modification of polynucleotides. Familiarity with antisense and/or hybridizable probe technology, and understanding of methylphosphonate and phosphorothioate chemistry are desirable.

## Protein Biochemistry

Research Scientist with at least 2-3 years of postdoctoral biotechnology experience with strong emphasis on protein analysis and recovery, preferably from genetically engineered prokaryotic and eukaryotic sources.

## Pharmacology/Physiology

Research Scientist with 2-3 years of postdoctoral experience and background in peptide or recombinant protein research. The successful candidate will study genetic approaches to the delivery of biologically active proteins and peptides *in vivo*.

## Research Associates

BS/MS level staff with strong credentials in the biosciences including proficiency in immunoassays (ELISA, RIA) cell culture, cellular immunology or histology.

VICAL rewards your efforts with excellent benefits. Salary and equity commensurate with experience. For immediate consideration, please send resume to: Human Resources Dept., Vical Inc., 9373 Towne Centre Dr., Suite 100, San Diego, CA 92121



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# President

## International Institute for Sustainable Development

### Winnipeg, Manitoba

Applications and nominations are sought for the President and Chief Executive Officer of the International Institute for Sustainable Development (IISD).

### THE ORGANIZATION

IISD was established in March 1990 with C\$25 million in support from the Government of Canada and the Province of Manitoba, to promote the concept and practices of sustainable development. The Institute carries out its work in public, private and voluntary sectors, internationally and nationally. A major emphasis is on the links between the developed and developing world that enhance or inhibit global sustainable development.

IISD is governed by an independent international board of directors, and is an equal opportunity employer.

### THE JOB

IISD was established to provide international leadership in a new field. The President will continue the process of building a world class organization which will both generate and disseminate information and knowledge of sustainable development principles and issues. A major emphasis is exploring appropriate relationships between developed and developing countries, between the rich and the poor, to ensure sustainability and equitable distribution. Extensive travel within and outside Canada is required.

### THE PERSON

The President must have outstanding communication skills and either have, or quickly establish credible links with a broad range of national and international public and private sector organizations. The successful candidate knows how to get results: s/he leads with vision and compelling motivating skills; has recognized experience related to sustainable development, a demonstrated capacity to manage programs in this field, good fund-raising skills that s/he is prepared to hone. Fluency in English is essential; other language skills would be very desirable.

Please reply in confidence, quoting file #W001, to: International Institute for Sustainable Development, 212 McDermott Avenue, Winnipeg, Manitoba R3B 0S3.

## Brandeis University Assistant Professor Drosophila Molecular Geneticist

Brandeis University invites applications for a tenure-track position in the Department of Biology. We are looking for an individual whose research efforts are focused on the molecular genetics of *Drosophila* development, neurobiology, or behavior. The successful candidate will be offered an excellent opportunity to mount an independent research program and to have the opportunity to interact with a strong group of investigators with similar interests. Teaching at both the undergraduate and graduate levels is expected.

Applicants should submit C.V. including descriptions of current and proposed research, as well as arrange for three letters of recommendation to be sent to: Drosophila Search Committee, Biology Dept., Brandeis University, PO Box 9110, Waltham, MA 02254. Applications should be received no later than July 1, 1991.

The Brandeis University Biology Department consists of members from diverse backgrounds and is committed to offering equal opportunity to minorities and women. Such applications are welcome.

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# BRANDEIS UNIVERSITY



Natural Sciences and Engineering  
Research Council of Canada

Conseil de recherches en sciences  
naturelles et en génie du Canada

## NSERC INTERNATIONAL FELLOWSHIPS

The Natural Sciences and Engineering Research Council of Canada (NSERC) offers International Fellowships to provide foreign doctoral graduates with the opportunity to further their research training and experience. These awards are tenable in Canadian universities.

**Eligibility:** Applicants must have earned a Ph.D. in science or engineering from a recognized foreign university within the last five years (or expect to have earned such a degree by the time the award is taken up). Candidates must not be Canadian citizens or permanent residents of Canada.

**Duration of Award:** Fellowships are awarded for one year; renewals for a second year are possible.

**Stipend and Number of Fellowships:** Fellowships have an annual value of \$29,000 plus a travel allowance. It is expected that 70 new fellowships will be offered.

**Application Procedures:** Applications must be submitted directly to the university department in which it is proposed to hold an award. Candidates must not apply to more than one university.

**Date of Submission:** The deadline for receipt of applications by the proposed host university is December 1, 1991.

For further information or to obtain the application forms, contact:

International Fellowships Office  
Natural Sciences and Engineering Research Council  
200 Kent Street  
Ottawa, Ontario  
CANADA  
K1A 1H5  
Telephone: (613) 992-9169

# Canada

The Division of RHEUMATOLOGY  
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## Research associate in Biology

*with experience in the field of  
BONE RESEARCH*

The candidate, Ph.D. has an excellent knowledge of bone metabolism obtained e.g. during post-doctoral training.

The successful applicant, motivated by the discovery of new molecules that act against osteoporosis, will be in charge of and develop the unit of Cell Culture in the Division of Rheumatology and will collaborate with the biochemists and pharmacologists already present in that division.

Applicants should submit a handwritten letter, C.V. to  
**PUBLIVAL / 5039 27, route des Gardes  
92190 MEUDON FRANCE.**

## ELECTRONICS ENGINEER

Career Civil Service Position for an electronics engineer, salary ranging from \$44,348-\$57,650 per annum, depending upon qualifications.

The individual selected will be responsible for conceiving and designing computationally efficient algorithms and image processing including statistical and structural pattern recognition and application of these areas of expertise to the solution of biomedical research problems

**Qualifications:** Candidates must hold a doctoral degree or equivalent in engineering, plus have one (1) year of professional experience that has equipped the applicant to be an expert in the application of image processing techniques to biological signals, including signal parameterization and representation, digital filtering design, analysis of random signals, texture characterization, compact image coding, development of applications developed for Macintosh computers. Candidates must have a significant record of publication in the scholarly literature.

Candidates should submit curriculum vitae, bibliography and at least three references to: **Number 9048012, Department of Economic and Employment Development, 1100 North Eutaw Street, Room 212, Baltimore, Maryland 21201.**

*U.S. Citizenship is required  
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## POSITIONS OPEN

### POSTDOCTORAL POSITION, DIABETES

Position available to participate in a program to study the effects of cytokines on pancreatic beta cells for approximately 3 years in an outstanding research environment with opportunities for collaborative interaction with others at affiliated university. Ph.D.'s with prior training in immunology and/or islet physiology and interested in the pathogenesis of IDDM are invited to send curriculum vitae, summary of research experience, and the names of three references to: **Jerry Palmer, M.D., Chief, Endocrinology, Metabolism, and Nutrition, Department of Veterans Affairs, Medical Center (111), 1660 South Columbian Way, Seattle, WA 98108. FAX: 206-764-2598. U.S. citizenship required. Equal Opportunity Employer. Minorities are encouraged to apply.**

**POSTDOCTORAL ASSOCIATE POSITION, MOLECULAR BIOLOGY/GROWTH FACTOR REGULATION OF GENE EXPRESSION, MAYO CLINIC.** Available early 1992 in newly established group investigating the molecular and cellular biology of musculoskeletal tissue formation and repair [*J. Biol. Chem.* 110, 2195-2207 (1990)]. A background in bone or cartilage research not a requirement. Salary commensurate with training and experience. Please send curriculum vitae and two letters of reference to: **Dr. Mark E. Bolander, Departments of Orthopedic Surgery and Biochemistry and Molecular Biology, Mayo Clinic, Rochester, MN 55905. Mayo Foundation is an Affirmative Action/Equal Opportunity Employer and Educator.**

**NORTH CAROLINA: RESEARCH ASSOCIATE.** NIH-funded postdoctoral position (up to 3 years) to study transduction properties of airway receptors and their role in the control of breathing. Experience in nerve recording desirable. Strong background in respiration physiology or neuroscience essential. Send curriculum vitae to: **Dr. O. P. Mathew, Department of Pediatrics, Section of Neonatology, East Carolina University School of Medicine, Greenville, NC 27858. East Carolina University is an Equal Opportunity/Affirmative Action Employer. Applicants must comply with the Immigration Reform and Control Act.**

**POSTDOCTORAL FELLOW, CARDIOVASCULAR MOLECULAR BIOLOGY.** Postdoctoral research fellow to participate in ongoing studies of the regulation of cardiac signal transduction protein gene expression or the molecular biological basis of altered signal transduction in heart failure. Candidates should have Ph.D. or M.D. degree and extensive expertise in molecular biology. Position available 1 July 1991. Please send curriculum vitae, statement of research interests, and three references with telephone numbers to: **Dr. Arthur M. Feldman, Departments of Medicine and Physiology, The Johns Hopkins University School of Medicine, Hunterian 405, 725 North Wolfe Street, Baltimore, MD 21205. Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL RESEARCH ASSOCIATE

A postdoctoral position is available to study differentiation of the human embryonal carcinoma cell line, Tera-2, using a newly identified family of DNA binding proteins. Applicant will work with one graduate student and one technical assistant. Background in molecular genetics is desirable. Please send curriculum vitae and names of three references to: **Dr. Keiichi Itakura, Molecular Genetics Department, Beckman Research Institute of the City of Hope, 1450 East Duarte Road, Duarte, CA 91010.**

**RESEARCH ASSOCIATE.** Position for electrical engineer in hospital-based laboratory investigating basic motor physiology and movement disorders. Applicant must have master's degree in electrical engineering or equivalent and experience with physiological data collection, programming, and signal analysis. Preference given to candidates with background in motor neurophysiology. The position involves interaction with patients in a hospital setting. Send curriculum vitae and three letters of reference to: **Dr. Seth Pullman, The Neurological Institute, Columbia-Presbyterian Medical Center, 710 West 168th Street, New York, NY 10032. An Equal Opportunity/Affirmative Action Employer.**

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## POSITIONS OPEN

### POSTDOCTORAL FELLOWSHIPS LIFE SCIENCES RESEARCH FOUNDATION (LSRF)

The LSRF solicits monies from industry, foundations, and individuals to support postdoctoral fellowships in the life sciences. Active solicitation of funds continues, for which we need the assistance of all concerned individuals.

**Eligibility:** Three-year fellowships will be awarded on a competitive basis to graduates with M.D. or Ph.D. degrees in any field of the life sciences. *U.S. citizens are eligible to apply with no restrictions on the laboratory of their choice. Foreign applicants are eligible for study in U.S. laboratories.* Only research in nonprofit institutions will be supported. Those who are changing their field of research by way of a second postdoctoral or as an independent research associate are encouraged to apply.

**Timetable:** Applications deadline is 1 October 1991 for award as early as summer 1992. Awards will be announced in March 1992.

For information and an application write to: **LSRF, c/o Lewis Thomas Laboratories, Washington Road, Princeton University, Princeton, NJ 08544.**

### POSTDOCTORAL FELLOWSHIP

An opportunity for research in electrophysiology is available at the Medical College of Pennsylvania. The research program is a collaborative effort combining physiologists, neuropathologists, mathematicians, and physicists and is directed to the systematic application of dynamical analysis and chaos to studies of CNS activity. The specific objective of this project is an electrophysiological investigation of epileptogenesis in animal models. Candidates should have a Ph.D. and experience in electrophysiological recording techniques.

Applications, including curriculum vitae and names of three references, should be submitted to: **I. D. Zimmerman, Department of Physiology and Biochemistry, The Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, PA 19129. FAX: 215-843-8849.** Further information can be obtained from Dr. Zimmerman at 215-842-7046.

### POSTDOCTORAL FELLOWSHIPS

The Cellular and Molecular Biology Group in the Life Sciences Division of the Los Alamos National Laboratory is seeking postdoctoral fellows to perform basic cellular and molecular biological research in the Pulmonary Biology and Toxicology Program. Current ongoing areas of research in this program include: mechanisms of acute lung injury, mechanisms of lung repair and pulmonary fibrogenesis, and lung defense mechanisms with emphasis on pulmonary macrophages and pulmonary macrophage subpopulations. Individuals with a strong background in pulmonary cell biology and/or molecular biology are encouraged to apply. Applicants should have received their doctoral degree within the past 3 years. Postdoctoral appointments are for 1 year, renewable for a second year. The salary range is \$36,666 to \$38,619 per year. *U.S. citizenship is required. Applicants must also be eligible for a Q security clearance.* For further information, contact: **Bruce E. Lehnert, Ph.D., Pulmonary Biology/Toxicology Section Leader, Cellular and Molecular Biology Group (LS-4), Life Sciences Division, MS M888, Los Alamos National Laboratory, Los Alamos, NM 87545. Telephone: 505-667-2753.** To formally apply, please send curriculum vitae, a letter describing research interests, employment application, three letters of reference, and graduate and undergraduate transcripts to: **Mary Anne With, MS P280, Human Resources Development Division PD 91-089, Los Alamos National Laboratory, Los Alamos, NM 87545.** For employment applications, call 505-667-0872. *Los Alamos is an Affirmative Action/Equal Opportunity Employer.*

### POSTDOCTORAL RESEARCH ASSOCIATE.

Research position available immediately for investigation of milk protein interactions using various techniques including analytical affinity chromatography or for application at recombinant DNA and immobilization technologies to bioreactor development. Preference will be given to persons with experience in protein chemistry or enzymology. Please send your curriculum vitae and the names and addresses of three references to: **Professor H. E. Swaisgood, Department of Food Science, North Carolina State University (NCSU), Box 7624, Raleigh, NC 27695-7624. NCSU is an Equal Opportunity/Affirmative Action Employer.**



The Immune Response  
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### RESEARCH SCIENTIST AUTOIMMUNE DISEASE

The IMMUNE RESPONSE CORPORATION of San Diego, California is seeking a Ph.D. level scientist to participate in the development of therapeutic products for autoimmune diseases. We are currently looking for a Cellular and/or Molecular Immunologist to work on T cell immunoregulation in autoimmune disease. The IMMUNE RESPONSE CORPORATION offers excellent salary and benefits, and an opportunity to make a significant contribution in the stimulating environment of a young research-based organization.

Interested candidates should submit the curriculum vitae to:

**Chief Scientific Officer  
The Immune Response Corporation  
5935 Darwin Court  
Carlsbad, CA 92008  
Ref: Cellular Immunologist  
EQUAL OPPORTUNITY EMPLOYER**

NYU  
Medical  
Center

## ASSISTANT RESEARCH SCIENTIST

A Postdoctoral research opportunity is available in the laboratory of Dr. Eric Simon, Department of Psychiatry. You'll perform experiments involving the techniques of Cloning, preparation of cDNA and genomic libraries, transfection of cells and gene expression, sitedirected mutagenesis, as well as PCR and protein purification. Ph.D in Molecular Biology is required. Please send CV to Ms. Singh, Professional Recruiter, 550 First Avenue, New York, NY 10016.



## Research Positions Available

Laboratory of Molecular Genetics  
National Institute on Aging

Postdoctoral and Staff Fellowship (junior/senior level) research positions are available immediately to study the regulation of mammalian stress responses including:

- 1) regulation of heat shock protein expression *in vivo* and *in vitro*.
- 2) transcriptional regulation of genes induced by DNA damage and growth arrest and
- 3) genes induced in response to oxidative stress.

Experience in molecular biology and/or protein biochemistry is highly desirable, but not essential.

Starting salary commensurate with qualifications and experience. Interested candidates should submit curriculum vitae to:

**Nikki J. Holbrook, Ph.D.**  
Senior Investigator  
Gerontology Research Center  
National Institute on Aging  
4940 Eastern Avenue  
Baltimore, MD 21224

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## MOLECULAR BIOLOGIST

The Department of Cellular and Molecular Biology at the Merck Sharp & Dohme Research Laboratories in West Point, PA is seeking a cutting-edge Ph.D. molecular biologist. This person will serve as a focus for the ongoing development and implementation of new techniques in molecular biology within a multi-disciplinary environment. Responsibilities will include expression of recombinant proteins in prokaryotic hosts, new cloning techniques and general molecular technologies. Current projects are in the areas of vaccines, hemostats, endothelial cell function and immunology. Therefore previous experience in and appreciation of biological systems is highly desirable. The successful candidate for this position will be a recognized leader in molecular biology with several years of experience as an independent investigator. Special emphasis will be placed on interpersonal skills, previous supervisory experience, communication ability and talent in finding creative solutions to a broad range of biological problems. The job level and supervisory responsibilities will reflect the previous experience of the successful candidate.

A Ph.D. or equivalent is required in Molecular Biology or related discipline.

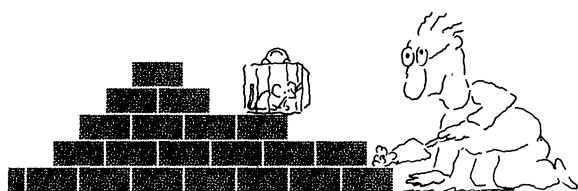
Excellent salary and benefit programs accompany this position at our modern research facilities located 25 miles northwest of Philadelphia. Please send curriculum vitae with cover letter to **Personnel Manager, Ad #D-20, Research Personnel, WP42-2, Merck Sharp & Dohme Research Laboratories, West Point, PA 19486.**

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## VICE PRESIDENT Environment, Safety and Health

Associated Universities, Inc. (AUI), a non-profit educational and scientific institution, established in 1946, founded Brookhaven National Laboratory (BNL) in 1947 and has operated it ever since for the U.S. Department of Energy and its predecessor agencies. BNL, located at Upton, Long Island, NY, has some 3300 employees and a total annual budget in excess of \$300 million. AUI also founded the National Radio Astronomy Observatory (NRAO) in 1956 and has operated it ever since for the U.S. National Science Foundation. Both BNL and NRAO interact strongly with a worldwide community of universities and research institutions and provide facilities and services for thousands of scientists and engineers.

As the Vice President for ES&H, you will be principally headquartered at BNL but will be expected to interact closely with AUI headquarters in Washington, DC, and with other AUI sites. We are seeking an experienced environmental scientist with the following qualifications:

- Superior academic background
- Excellent communications abilities
- Understanding and experience with OSHA, RCRA, CERCLA, TSCA, CAA, CWA, SDWA
- Familiarity with DOE, NSF, Regulatory Agencies and National Laboratories
- Substantial background of working with the scientific community

AUI is an equal opportunity employer. Minorities and females are encouraged to apply. We have an excellent benefit program. Applicants are invited to send resumes and salary requirements in confidence, to: Thomas J. Davin, Jr., Vice President - Corporate Affairs, Associated Universities, Inc., 1400 16th Street, N.W., Suite 730, Washington, DC 20036.

**ASSOCIATED UNIVERSITIES, INC.**

## POSITIONS OPEN

**POSTDOCTORAL POSITIONS.** Available in Departments of Biochemistry, Molecular and Cellular Biology, Microbiology and Immunology, and Pharmacology and Physiology. Applicants must have a Ph.D. or M.D. degree. Positions available during 1991 and 1992. Closing date: 31 December 1991 or until positions are filled. *Women and minorities are urged to apply.* Send applications to appropriate department head: **The University of Arizona, Arizona Health Sciences Center, Tucson, AZ 85724. An Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.**

**BIOCHEMICAL GENETICIST: VIVIGEN LABORATORIES.** The Santa Fe, New Mexico, based genetics testing laboratory is recruiting an ABMG-eligible or -certified biochemical geneticist to join its ongoing clinical prenatal diagnostics program. Primary emphasis will be in prenatal screening, but additional experience in other areas or biochemical genetics is desirable. Contact: **Kirk Aleck, M.D., or Linda Bradley, Ph.D., Vivigen, Inc., 2000 Vivigen Way, Santa Fe, NM 87505.**

**STAFF RESEARCHER.** For pharmaceutical company. Conceive, plans, and conducts experiments to study the genesis of congestive heart failure and the mechanisms underlying myocardial ischemia and cardiac arrhythmias. Establishes and makes use of existing in vitro and in vivo models of cardiac disease. Provides potential new therapeutic approaches to clinical treatment. Ph.D. in pharmacology, physiology, or biochemistry emphasizing cardiac muscle and 1 to 3 years of postdoctorate experience in cardiac muscle physiology, pharmacology, or biochemistry. Must have thorough knowledge in the areas of pharmacology, physiology, biochemistry, and cardiac muscle excitation-contraction coupling and specific experience with at least one of the cardiovascular disease states (congestive heart failure, myocardial ischemia, or cardiac arrhythmias) and experience with electrophysiological techniques, measurement of calcium transients, and myocardial cell culture technology. Salary: \$54,000. Job site and interview. Palo Alto, California. Send your résumé to: **Job Order No. TC 11167, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 22 June 1991.

## POSITIONS OPEN

### HARVARD UNIVERSITY POSTDOCTORAL FELLOWSHIPS INTERDISCIPLINARY OCEAN MODELING

Recent progress in ocean science makes it possible now to estimate and forecast physical oceanographic fields realistically and synoptically via data assimilation. Novel opportunities exist for mesoscale resolution studies of physical, acoustical, biogeochemical, and ecological processes and interactions. Two postdoctoral positions are available, each of 18 months duration, jointly in the Department of Earth and Planetary Sciences and the Division of Applied Sciences for recent Ph.D.'s in ocean science, earth science, acoustics, biology, chemistry, physics, engineering, or applied mathematics. *Harvard is an Equal Opportunity/Affirmative Action Employer. Applications from qualified female and minority group members are especially welcome.* Please apply with curriculum vitae and two references, or address inquiries, to:

**Professor Allan R. Robinson  
Department of Earth and Planetary Sciences  
Division of Applied Sciences  
Harvard University  
Cambridge, MA 02138**

**ENVIRONMENTAL SCIENTIST.** U.S. Environmental Protection Agency (EPA), Environmental Research Laboratory, Corvallis, Oregon. As research leader, will provide programmatic and technical direction to the wetlands components of the EPA's Environmental Monitoring and Assessment Program (EMAP), a national monitoring research program to determine the current status and monitor future trends in ecological condition and environmental stress in wetland ecosystems. The incumbent will be responsible for the planning, implementation, interagency coordination, analysis, and reporting components of the EMAP-Wetlands Program. Position is at GM-1301-14 level; salary range is \$52,406 to \$68,129 per annum depending on qualifications. *Candidate must be a U.S. citizen. An Equal Opportunity Employer.* To receive announcement and application form when formally announced, contact **Pam Taylor at 503-757-4582** no later than 28 June 1991.

## POSITIONS OPEN

The Metropolitan Water Reclamation District of Greater Chicago will conduct civil service examinations for the following positions:

• **RESEARCH CHEMIST IV.** Coordinator of Technical Services and Studies Division: direct professional and technical staff in GC/MS analyses of industrial waste, waterway, and wastewater samples; statistical analysis of environmental monitoring and research data, etc.; or coordinator of Environmental Monitoring and Research Division: applied and basic research of wastewater and sludge processing technology; biological monitoring of waterways, etc. Annual salary range: \$55,749 to \$80,523. Requirements: M.S. or Ph.D. in water resources sciences, environmental engineering, sanitary engineering, or environmental sciences plus 8 years of research experience in wastewater and sludge treatment technology, 6 years of supervision of professional and technical personnel.

• **RESEARCH CHEMIST III.** Wastewater treatment and sludge technology: benchtop testing pilot plant operation or full-scale implementation. Annual salary range: \$45,670 to \$66,674. Requirements: M.S. or Ph.D. as above plus 6 years of research in wastewater and sludge treatment technology, 4 years of direct supervision of technical personnel.

For official application and filing information, call **312-751-5166** or write: **Compensation and Benefits Section, Personnel Department, Metropolitan Water Reclamation District of Greater Chicago, 111 East Erie Street, Chicago, IL 60611. An Equal Opportunity Employer, M/F/H.**

**RESEARCH ASSOCIATE.** With a strong background in protein biochemistry or molecular biology to participate in research on oxygen-regulated gene expression. Excellent facilities and long-term support for interaction with established investigators. Send curriculum vitae and names of three references to: **Donald Massaro, M.D., Georgetown University, Division of Pulmonary Research, Lung Biology Laboratories, Preclinical Science Building, Room GM-12, Washington, DC 20007. Georgetown University is an Equal Opportunity/Affirmative Action Employer.**

# Hilliard Roderick Prize for Excellence in Science, Arms Control, and International Security

**T**he AAAS Program on Science and International Security invites applications for a prize to recognize recent outstanding contributions that have advanced our understanding of issues related to arms control and international security with an important scientific or technical dimension.

**A** prize of \$5,000, plus a commemorative medal, will be awarded at the AAAS Annual Meeting in Chicago, February 1992.

**A** letter of nomination and supporting materials *must be received by close of business September 16, 1991.*

**F**or complete guidelines, contact: **Iris M. Whiting, Hilliard Roderick Prize, American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005, 202/326-6495.**

## POSTDOCTORAL RESEARCH FELLOW/SKIN RESEARCH

Schering-Plough HealthCare Products is a rapidly growing \$670 million division of Schering-Plough Corporation and one of the top five healthcare products companies in the U.S. We are currently seeking a Postdoctoral Research Fellow for a temporary 1 to 2 year assignment at our Memphis, Tennessee location.

The Research Fellow will be responsible for developing procedures, designing experiments and conducting studies to define the role of proteases in desquamation and rapid blister formation. You will also be expected to contribute to the intellectual development of the program and assist lower level personnel with the technical aspects of their work, as required.

Ph.D. or M.D. with research experience in biochemistry or cell biology is required. Academic background in epidermal cell differentiation, regulation of proteases or dermatology is desired. A thorough understanding of techniques required for isolation, characterization and functional analysis of tissue proteases is required. Experience using keratinocyte cell culture, skin organ culture and other skin research techniques a plus. Excellent record keeping, report writing and verbal communication skills a must.

We offer a competitive salary and benefits package. For confidential consideration, please forward your resume with salary requirements to: **Schering-Plough HealthCare Products, A. Schaff, 3030 Jackson Ave., Memphis, TN 38151.** An Equal Opportunity Employer, M/F/H/V.



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## SENIOR STAFF FELLOWSHIP

Senior Staff Fellowship in molecular pharmacology and molecular neurobiology in the Clinical Neuroscience Branch, NIMH Intramural Research Program. Opening for a molecular biologist with experience in studying the genetic (and epigenetic) regulation of neurotransmitter receptor-gated ion channels (specifically GABA<sub>A</sub> receptors). This work will involve studies on the expression of receptor subunit-encoding mRNAs, factors affecting the translation of receptor mRNA as well as the processing and post-translational modification of receptor subunit protein(s). Using molecular biological techniques, the incumbent must be able to isolate and clone cDNAs for the multiple isoforms of the GABA<sub>A</sub> receptor and study the expression of these receptor isoforms in various brain regions and in cultured neurons using Northern analyses and *in situ* hybridization. Requirements: Ph.D. and at least 3 years of laboratory experience related to this position or equivalent postdoctoral training. Salary: depends on education and experience. Federal salary range for Senior Staff Fellowships is \$32,000 to \$57,727. Contact: **Steven M. Paul, M.D., Chief, Section on Molecular Pharmacology, Clinical Neuroscience Branch, NIMH, Bldg. 10, Room 4N224, 9000 Rockville Pike, Bethesda, MD 20892. Phone: 301-496-3501.**

*Position can begin September, 1991.*

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## SCIENTISTS AND POSTDOCTORAL FELLOWS IN NEUROBIOLOGY

REGENERON PHARMACEUTICALS is making rapid progress in the basic understanding of neuronal growth factors and how these proteins can treat degenerative and traumatic neurological disorders. Recent discoveries have increased the need of the Neurobiology Department for scientists with interests and skills in the areas of receptor pharmacology, neurochemistry, and animal behavior.

SCIENTIST positions require a Ph. D. and extensive experience and publications in either of these areas. Experience with animal models of central or peripheral nerve disease, traumatic injury, and neuronal plasticity is desired.

POSTDOCTORAL positions require skills and interests in at least one of the above areas and a strong desire to conduct research on recently discovered neurotrophic factors.

REGENERON's modern facility is located on an expansive wooded campus in Westchester County, 20 miles north of Manhattan. The highly collaborative and supportive Regeneron community offers considerable growth potential at the scientist and post-doctoral levels. Please send your resume indicating the relevant position and your immediate career goals to:

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National Cancer Institute  
National Institutes of Health  
Public Health Service

# CANCER PREVENTION FELLOWSHIP PROGRAM

The Division of Cancer Prevention and Control (DCPC) is accepting applications for the Cancer Prevention Fellowship Program (CPFP). The purpose of this program is to attract individuals from a multiplicity of health science disciplines into the field of cancer prevention and control. The program provides for: Master of Public Health training (new feature); Participation in the DCPC Cancer Prevention and Control Academic Course; Working at NCI directly with individual preceptors on cancer prevention and control projects; Field assignments in cancer prevention and control programs at other institutions. Funding permitting, as many as ten Fellows will be accepted for up to three years of training, beginning July 1, 1992 (date may vary for M.P.H. applicants). Benefits include selected relocation and travel expenses, paid federal holidays, and participatory health insurance.

## ELIGIBILITY

M.D. or D.D.S. from a U.S., territorial, or Canadian Medical School or equivalent experience. Foreign medical graduates must have current ECFMG/FMGEMS certification and appropriate experience, e.g., one year residency in a training program approved by the Accreditation Council for Graduate Medical Education.

## OR

Ph.D., Dr. P.H. or other doctoral degree in a related discipline (epidemiology, biostatistics, and the biomedical, nutritional, public health or behavioral sciences) or equivalent experience. Foreign education must be comparable to that received in accredited U.S., territorial, or Canadian institutions.

## PLUS

U.S. citizenship or resident alien eligible for citizenship within four years.

For details and application catalog send a postcard or letter with your name and home address to:

**Douglas L. Weed, M.D., M.P.H., Ph.D., Director, Cancer Prevention Fellowship Program, Division of Cancer Prevention and Control, National Cancer Institute, Executive Plaza South, T-41, Bethesda, MD 20892.**

Further Inquiries: Mrs. Barbara Redding (301) 496-8640 or 496-8641

**Deadline For Receipt of  
Applications:  
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## POSITIONS OPEN

### PLANT MOLECULAR BIOLOGIST

DNAP, one of the largest independent agricultural biotechnology companies, has an immediate opening for a **RESEARCH SCIENTIST** in the Plant Molecular Biology Group. Research focuses on gene isolation and the development of genetically engineered plants with improved characteristics.

The candidate must have a Ph.D. degree with a minimum of 2 years of experience in plant molecular biology/biochemistry. Send curriculum vitae with the names of three references to:

**DNA Plant Technology  
Pamela Dunsmuir, Ph.D.  
6701 San Pablo Avenue  
Oakland, CA 94608-1239  
Equal Opportunity Employer.**

**RESEARCH ASSOCIATE.** Position available to study the molecular biology of avian reoviruses. Project emphasizes characterization of genes involved in immunity and pathogenesis. Applicants should have a strong background in molecular virology. Send curriculum vitae and three letters of references to: **Dr. Vikram N. Vakharia, Center for Agricultural Biotechnology, Avrum Gudelsky Veterinary Science Center, University of Maryland, College Park, MD 20742.** Application deadline is 22 July 1991. *The University of Maryland System is an Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSOCIATE.** Wayne State University (WSU) has an immediate opening for a postdoctoral position to study the role of tyrosine kinases in gastrointestinal mucosal cell proliferation during aging [*Am. J. Physiol.* 257, G554 (1989); *BBA* 992, 35 (1989); *Exp. Gerontol.* 26, 45 (1991)]. Experience in protein purification and/or molecular biology preferred. Send curriculum vitae and names of references to: **Ahdip Majumdar, Ph.D., D.Sc., VA Medical Center, Allen Park, MI 48101.** *WSU is an Affirmative Action/Equal Opportunity Employer.*

**RESEARCH SCIENTIST.** Position available immediately to study eye development in *Drosophila* using genetic, cellular, and molecular biology techniques. The candidate must have experience in the study of the optic morphology hypermutability system in *Drosophila ananassae*. Objectives include the isolation of new transposable element-induced mutations affecting eye morphogenesis in *D. ananassae*, study of genetic interactions with extant mutants, and characterization of the affected genes. This will include the determination of the DNA sequence, production of antibodies against the encoded proteins, developmental expression and subcellular distribution of the gene products using immunohistological techniques, and germline transformation using microinjection. Requires a doctorate degree and at least 5 years of postdoctoral experience. The candidate will lead a group of graduate students and postdoctoral fellows working on the same field and will be responsible for the preparation of publications describing research findings. Salary is \$32,000 per year. Applicants should submit their curriculum vitae and names of three references to: **Chairman, Department of Biology, The Johns Hopkins University, 34th and Charles Streets, Baltimore, MD 21218.** *Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL RESEARCH FELLOW.** Worcester, Massachusetts. Forty hours per week, 9:00 a.m. to 5:00 p.m.; \$30,000 per year. Applies techniques and theories in molecular biology, biochemistry, cell biology, and biophysics (i.e., nuclear magnetic resonance spectroscopy) to investigate the expression and regulation of human glutathione peroxidase (GPx) gene as well as the interactions between GPx gene codon context and cellular protein factors resulting in the incorporation of selenocysteine into GPx. Ph.D. in biological sciences and 1 year of experience in recombinant DNA cloning into bacterial and/or eukaryotic expression vectors, oligonucleotide-directed mutagenesis, generating and maintenance of transgenic animals, overexpression radioisotopic labeling and purification of proteins of both prokaryotic (bacterial) and eukaryotic (human) origins. Knowledge and experience in overexpression and purification and characterization of proteins and nuclear magnetic resonance spectroscopy required. Please respond with two copies of your résumé to: **J.O.# 1512, Commonwealth of Massachusetts, Department of Employment and Training, Special Programs, 2nd Floor, 19 Staniford Street, Boston, MA 02114.**

## POSITIONS OPEN

**RESEARCH SCIENTIST.** With Ph.D. in immunology or microbiology and strong background in both fields to head up program in Pediatric Otolaryngology Immunobiologic Research at The Children's Hospital of Buffalo. Experience required at postdoctoral level. Salary competitive. Send curriculum vitae to: **Linda Brodsky, M.D., Department of Otolaryngology, Children's Hospital of Buffalo, 219 Bryant Street, Buffalo, NY 14222.**

### TOXICOLOGISTS AND ECTOXICOLOGISTS

Dynamac International, a leading environmental consulting firm, is currently seeking M.S. and Ph.D. level scientists for the following positions: **ENVIRONMENTAL TOXICOLOGIST** with 2+ years of experience, preferably with emphasis in aquatic toxicology; **MAMMALIAN TOXICOLOGIST** with 2+ years of experience, preferably with emphasis in reproductive and developmental toxicology. Work involves preparing reports, reviewing information, and assessing the potential consequences to health and/or environment from exposure to specific chemicals. These are nonlaboratory positions requiring excellent oral and written communication skills. Dynamac offers a challenging career-oriented environment, a comprehensive employee benefits package, and competitive salaries. For immediate consideration, please forward résumé to: **Dynamac International, Human Resources Department F-071, 2275 Research Boulevard, Rockville, MD 20850.** *Dynamac is an Affirmative Action/Equal Opportunity Employer.*

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# SANDOZ RESEARCH INSTITUTE POSTDOCTORAL ASSOCIATES

Innovative research at Sandoz has been enhancing medicine around the world for over 100 years—improving the quality of life for countless individuals and revolutionizing scientific concepts. Sandoz Research Institute, the U.S. pharmaceutical R & D division of Sandoz, Ltd., currently seeks qualified professionals for the following openings in Preclinical Research. Our postdoctoral positions are for a period up to two years.

## MOLECULAR BIOLOGIST/BIOCHEMIST

The Monoclonal Antibody Research Department is soliciting applications for a Postdoctoral Associate to join a research team interested in structural characterization of antigenic determinants involved in the binding of antiviral antibodies. The candidate should be an entry-level Ph.D. graduate in Molecular Biology/Biochemistry/Cell Biology with some experience in protein expression and biochemical purification of proteins. The Associate will participate in several ongoing project areas where interdisciplinary communication and scientific publication are encouraged. **Position #324.**

## GENETICIST/BIOCHEMIST

The Department of Lipid Metabolism is soliciting applications for a Postdoctoral Associate to contribute to existing research efforts in cholesterol metabolism. The candidate should be an entry-level Ph.D. graduate in Molecular Biology/Genetics/Biochemistry with some experience in yeast genetics and the use of yeast as a model system to study the regulation of enzyme function. The Associate will participate in several ongoing project areas where interdisciplinary communication and scientific publication are encouraged. **Position #290.**

## MOLECULAR MODELING/IMMUNOLOGY

The Molecular Modeling Department has an opening for a Postdoctoral Associate with experience in computational chemical studies on macromolecules. The candidate should be experienced in studying protein structures from x-ray and/or NMR sources, as well as developing model structures by homology analysis. A primary goal will be to help bridge the computational and experimental research activities in Molecular Modeling and Immunology. The candidate should therefore be able to collaborate with the immunologists as well as maintain awareness of current literature. Structure-function studies of antibody - antigen complexes, and investigation of factors influencing antibody pharmacokinetics will constitute the primary research activities.

**Position #327.**

Being part of the research team at Sandoz has many advantages. Our salaries and benefits programs are designed to attract top candidates and provide them with the resources to produce their best. Comprehensive health, dental, and savings plans as well as fitness and athletic facilities are all provided at our attractive location in northwest New Jersey, which also allows for outstanding academic, cultural, and outdoor pursuits. For consideration, please indicate the number of the position you are applying for and forward your resume, in confidence, to:

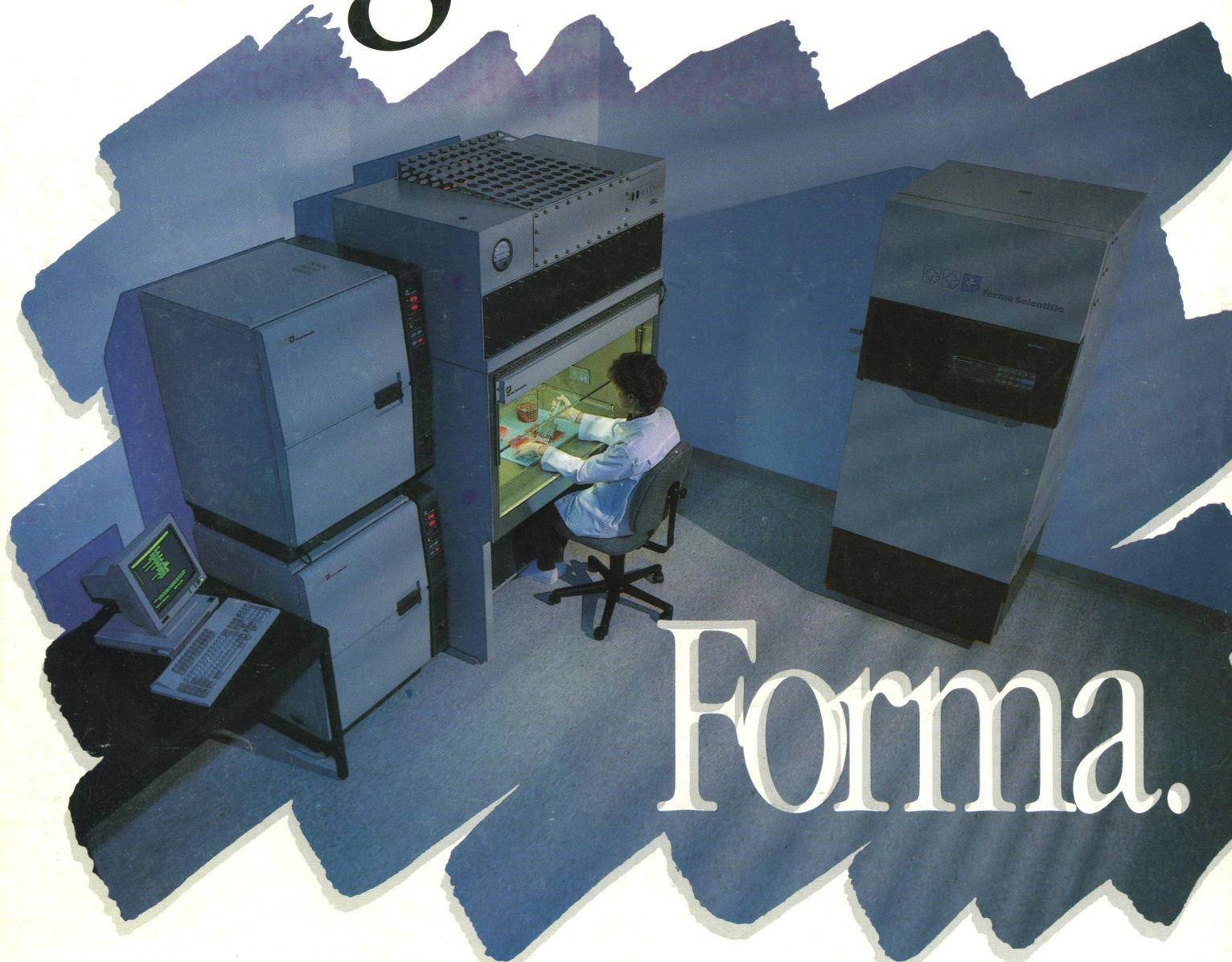
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Director, Human Resources 403/1  
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