vation, and above all by the extensive application in every direction of exact experimental methods to subjects which have, hitherto, hardly been approached along this path." Could there be a better creed for the present-day biologist?

**Jan A. Witkowski**
*Banbury Center, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY 11724*

**Some Other Books of Interest**


This selection of essays that have appeared in the journal Technology and Culture from 1966 to 1989 provides "a spectrum of historical perspectives on how, when, or why individuals, societies, governments, and industries have made choices regarding the use of technologies."

The volume opens with discussions of two 19th-century cases of technological threats to public health and safety that raised issues about the regulatory functions of central governments—Carlos Flick on the movement for smoke abatement in Britain and John G. Burke on explosions of steam boilers in the United States. In a set of papers concerned with the effects of technology in the domestic milieu, Claude Fischer discusses the telephone industry's shift from representing that instrument as a practical device to promoting it as an avenue to sociability, Fred Schroeder recounts how the electrical plug-and-receptacle system came to replace the lighting fixture as a source of power for other appliances, and Suellen Hoy reports on the role of public health concerns in making the garbage disposer a common home appliance. Other essays in the first part of the book deal with mechanization in the Pacific Coast salmon canning industry (O'Bannon), the U.S. government and technology in the Great Depression (PurSELL), Consolidated Edison's attempt to build a nuclear reactor in New York City in the early 1960s (Mazzuzan), concerns about thermal pollution due to nuclear plants, 1965-1974 (Walker), and political factors that influenced the design of NASA's space station system (Fries).

The final four essays take a critical look at some traditional ways in which technologies have been viewed. In the first of a pair focused on women, Ruth Schwartz Cowan notes industries in which technological change has been variously accelerated (cigar-making) and slowed (garment-making) by the availability of women workers and cites the "spector" of several million American women cooking supper every night over several million separate stoves as evidence that "the household has resisted industrialization with greater success than any other productive locale in our culture." Christine Bose et al. question the notion that new household technologies have been unalloyed benefits to women, citing among other counter-evidence the "stresses associated with selecting specific equipment from a large marketplace array, learning to use it, storing it, cleaning it, and repairing it." The final pair of essays is more concerned with matters of engineering: David Billington and Robert Mark, arguing in favor of "historical study from an engineering perspective," address misunderstandings centering on Gothic cathedrals and the long-span bridges of the late 19th and 20th centuries as symbols of their respective eras, and Eugene Ferguson calls for more consideration of the importance of visual imagination, as distinct from formal science, in invention, using examples as diverse as the Newcomen steam engine and wooden toy animals.

—**Katherine Livingston**

**Sex in China.** Studies in Sexology in Chinese Culture. Fang Fu Ruan, with the editorial collaboration of Moleen Matsumura. Plenum, New York, 1991. xiv, 208 pp., illus. $32.50. Perspectives in Sexuality.

Fang Fu Ruan, now at the Institute for Advanced Study of Human Sexuality in San Francisco, is a medical historian and physician who compiled the "first and only comprehensive sex handbook published in Mainland China since 1949." The present book was written out of his conviction that any genuine political reform in China will have to include a less "conservative and ignorant" attitude toward sexual matters than is currently displayed by the leadership of either conservative or reformist factions. In particular, he is concerned with "strengthen[ing] the position of the common people in their struggle for basic sexual rights" by documenting the existence in China of a tradition of positive attitudes toward sexuality and offering evidence to refute the idea that such phenomena as prostitution and homosexuality are imports from the West or results of progressive social reform. He begins his effort in this direction with an exposition of the concepts of Yin and Yang and of sexual attitudes in the three literate religious traditions of China. He then surveys classical Chinese "sexological" texts (dating from as early as 168 B.C.), rediscovered in the 19th century, and currently not easily available in China) and sexual techniques as represented in the literature of Taoism, China's only indigenous religion and "one of the few that has stressed the importance of using sexual techniques for individual benefit." Turning to practices that are currently subject to special efforts at repression, the author traces prostitution and then pornography from their earliest recorded origins in China, through efforts at abolition attendant on the advent of the Communist regime in the 1950s and their subsequent reemergence in the 1970s, to the crackdown that followed the events in Tiananmen Square. Similar treatments of homosexuality and of transvestism and transsexuality draw (in the absence of statistical information) on anecdotal reports of Chinese and other journalists and correspondence received by the author. In a final chapter, "Changing attitudes toward sex in China today," the author reports some survey and medical data indicating that the current official restrictions on sexual expression are at odds with the attitudes and behavior of the population and summarizes efforts in sex education instigated by Chou En-lai in 1963, in which he himself was a major participant prior to his departure from China in 1985. An annotated reference list gives further information about the classical and contemporary literature on which the author draws.

—**Katherine Livingston**

**Books Received**


POSITIONS OPEN

The Department of Psychology, University of California, Irvine (UCI), has a second opening for a Ph.D. in pharmacology, psychobiology, neuroscience or biology, or related field at the Assistant Professor level. Candidate would join the movement disorders group working with an M.D. and a Ph.D. who should have expertise in behavioral and neurochemical aspects of Parkinson's disease. Send curriculum vitae and names of three references to: Dr. Steven O. Dein, Department of Neurology, University of California, Irvine, CA 92715. Refer to position #91-7. Aflirmative Action/Equal Opportunity Employer.

PSYCHONEUROIMMUNOLOGIST UNIVERSITY OF TEXAS MEDICAL BRANCH (UTMB)

The Department of Psychiatry and Behavioral Sciences is searching for candidates for a position at the ASSISTANT PROFESSOR level. We are looking for an independent scientist to collaborate with an established, multidisciplinary group in studying the interactions between the nervous and immune systems. The applicant should have a Ph.D., or equivalent degree with postdoctoral experience. Preference will be given to individuals with molecular biology experience and interests in neuroendocrinology, cytokines, neuroimmunology or behavioral disorders. Primarily, the candidate will be expected to carry on an active research program; but clinical participation, dependent upon the individual's qualifications and interests, may be possible. Women and minorities are encouraged to apply. Applicants should submit full curriculum vitae, research interests, three recent reprints, and the name of three references to: Dr. Eric M. Smith, Chairman, Department of Psychiatry and Behavioral Sciences, University of Texas Medical Branch Galveston, TX 77550 Equal Opportunity/Affirmative Action Employer, M/F.

POSITIONS OPEN

CELLULAR AND MOLECULAR NEUROBIOLOGY DEPARTMENT OF PHYSIOLOGY AND BEHAVIOR UNIVERSITY OF IOWA COLLEGE OF MEDICINE

Applications are invited for tenure-track positions at the ASSISTANT PROFESSOR level. We are interested in individuals studying the cellular architecture, neurochemistry, neurotransmitter systems, and cellular and molecular aspects of learning and memory. Applicants should have a strong record of research accomplishment using modern electrophysiological, cell biological and/or molecular biological techniques. Substantial start-up support is available for equipment, personnel and indirect costs. Minimum requirements include Ph.D. and/or M.D. degrees and 2 years of relevant postdoctoral training. Screening will begin 1 December 1991. Send curriculum vitae, a statement of research plans, representative publications and at least three letters of recommendation to: Neurobiology Search Committee Department of Physiology and Biophysics The University of Iowa College of Medicine Iowa City, IA 52242 The University of Iowa is an Equal Opportunity and Affirmative Action Employer. Women and minorities are encouraged to apply.

ENVIRONMENTAL SCIENCE/ECOLOGY FACULTY POSITION

The Department of Natural Sciences at the College of St. Francis (CSF) invites applications for a full-time faculty position at the ASSISTANT PROFESSOR level beginning August 1992. The successful candidate will play a leadership role in the implementation of a new environmental science major, including: teaching (earth science, botany, ecology, environmental issues and other courses in areas of expertise), advising environmental science majors, supervision of undergraduate research and internships, and service on college committees. Doctorate in environmental science, ecology or related field required. Undergraduate teaching experience preferred.

The College of St. Francis is a Catholic college offering programs in the liberal arts and sciences as well as professional, preprofessional and career programs at both the undergraduate and graduate levels. CSF is located 35 miles southwest of Chicago. CSF is an Equal Opportunity Employer and encourages the employment of women and minorities. Salary and benefits are competitive.

To apply, send a letter of application, curriculum vitae, transcripts and a sample syllabus to the Chairperson of the Search Committee at: Ms. Joanne Corcoran, Science Search Secretary, College of St. Francis, 500 Wilcox Street, Joliet, IL 60435. Review of applications will begin 15 December 1991 and continue until the position is filled.

FACULTY POSITIONS IN MOLECULAR ENDOCRINOLOGY

The Laboratory of Molecular Endocrinology at the Royal Victoria Hospital, McGill University, invites applications for two tenure-track positions at the level of ASSISTANT PROFESSOR (or higher). We seek individuals with a strong background in molecular biology whose research interests should be related to endocrinology and, preferably, include one of the following areas: receptor structure and function, intracellular signaling mechanisms, or mechanisms of gene transcription. Requirements are a Ph.D. or M.D. degree, several years of postdoctoral experience, and a potential or demonstrated capacity to initiate and conduct an independent, externally funded research program in molecular endocrinology. The Laboratory of Molecular Endocrinology is located in the research wing of the Royal Victoria Hospital, a major teaching hospital.

Core research facilities and start-up support are available. Applicants should submit their curriculum vitae, a letter summarizing background and research goals, as well as names and addresses of three references to: Hanz H. Zinge, M.D., Ph.D., Director, Laboratory of Molecular Endocrinology Royal Victoria Hospital 687 Pine Avenue West Montreal, Quebec, Canada H3A 1A1 FAX: 514-982-0893
POSITIONS OPEN

ECOLOGY/BIOLOGY. Indiana University Northwest. ASSISTANT PROFESSOR. Tenure-track position to begin fall semester 1992. Candidates must have a Ph.D. and be committed to teaching undergraduates in biology with a special interest in ecology and environmental concerns. Significant research potential exists in many areas of ecology. In addition, the Indiana University Northwest system with an enrollment of 5500 plus students. Applicants should send curriculum vitae, transcripts, and names of referees to: Dr. Eric N. Olson, Department of Biological Sciences, Indiana University Northwest, 3400 Broadway, Gary, IN 46408. Indiana University is an Equal Opportunity/Affirmative Action Employer.

EXERCISE PHYSIOLOGY. The Department of Kinesiology is seeking an exercise physiologist in either the cellular/biochemical mechanisms of exercise or functional/physical activity epidemiological aspects of the exercise. The appointment, beginning August 1992, is expected to be at the ASSISTANT PROFESSOR level but candidates at all levels will be considered. Send your curriculum vitae, three letters of reference and examples of publications to: Dr. William Byrnes, Kinesiology, University of Colorado, Boulder, CO 80309-0354. Applications must be postmarked by 15 January 1992. The University of Colorado is an Equal Opportunity/Affirmative Action Employer.

FRAMINGHAM STATE COLLEGE DEPARTMENT OF BIOLOGY. Applications are invited for a tenure-track position at the ASSISTANT PROFESSOR level, to begin in the fall of 1992. Candidates should have a Ph.D. and demonstrate a strong commitment to teaching undergraduate biology courses. Send a letter of self-introduction, a current curriculum vitae, and the names of three references to: Dr. J. C. Klaas, Department of Biology, Framingham State College, Framingham, MA 01701. An Equal Opportunity/Affirmative Action Employer. People of color, women, and persons with disabilities are encouraged to apply.

BIOLOGY TEACHING POSITION. ASSISTANT PROFFESSOR to teach 12 undergraduate semester hours per semester, including upper division courses in cell and animal physiology, genetics, marine mammalogy, general mammalogy, and perhaps other courses; advise undergraduate students; perform appropriate university and public service. Ph.D. in biology or related field required. Commitment to quality teaching and research is essential. Ph.D. or equivalent is required. Salary is competitive and commensurate with qualifications and experience. This is a 9-month position. Application, curriculum vitae, names of three references, unofficial transcripts and one-page statement of philosophy of biology teaching and research should be sent to: Alaska Southeast is an Equal Opportunity/Equal Employment Opportunity Employer and Educational Institution.

EASTERN NEW MEXICO UNIVERSITY (ENMU) ASSISTANT PROFESSOR OF BIOLOGY. Two tenure-track positions. (1) Botany-plant general biology, anatomy, and physiology; biogeography; systematics; genetics. General biology program. Ph.D. and/or a Ph.D. in a related field with the ability to teach at all levels. (2) Aquatic biology- limnology; evolution; fisheries biology; ecology; animal general biology; statistics. Ph.D. and/or a Ph.D. in a related field with the ability to teach at all levels. Consideration will be given to teaching excellence, commitment to scholarly activity and research, demonstration of professional expertise in a specified discipline, and teaching experience. Salary is competitive and commensurate with qualifications and experience. Positions are available January 1992. Send a letter including a current vitae, official transcripts, and three references to: Biology Search Committee, ENMU, Portales, NM 88130. Deadline for applications is 15 January 1992. New Mexico is an open records state; therefore, it is the policy of the University to reveal to the public the identities of the applicants for whom outside inquiries have been made or for whom on-campus interviews are scheduled. ENMU is an Equal Opportunity/Affirmative Action Employer.

INVERTEBRATE BIOLOGY ASSISTANT PROFESSOR. The Department of Biology, Hamilton College, invites applications for a tenure-track position at the assistant professor level, effective August 1992. Applicants must have a Ph.D. degree; postdoctoral training and teaching experience preferred. The successful applicant will teach a survey course in general biology, as well as a nonmajor's course or team-teach in the introductory core, develop a course in his/her specialty not including ecology, and develop an ongoing research program involving undergraduates. The salaries of assistant professors in the Department's fully equipped SEM and TEM facility will be favorably considered. Send curriculum vitae, statement of teaching and research interests, and three copies of reference to: Dr. David A. Gapp, Chair, Biology Department, Hamilton College, 198 College Hill Road, Clinton, NY 12723. Applications must be received by 15 January 1992. Women and minority groups are encouraged to apply. Hamilton College is an Equal Opportunity/Affirmative Action Employer.

MICROBIAL ECOLOGIST. Applications are invited for the director of a three tenure-track ASSISTANT PROFESSORS to be filled in the area of aquatic ecosystems. We are particularly interested in individuals conducting field-based biochemical studies of benthic, heterotrophic ecosystems, but all applicants will be considered. Current related faculty research includes plankton ecology, environmental physiology, aquatic geochemistry, and Ph.D. and demonstrated interest in multidisciplinary research required. Expertise in statistics desirable. Teaching at the undergraduate level (M.S. and Ph.D.) level and a Ph.D. required. The successful candidate will have a strong statement of research and teaching interests, selected publications (undergraduate and graduate), curriculum vitae, and three letters of reference to: Craig Wingfield, Chair, Departmental Search Committee, University of Sciences, Lehigh University, Bethlehem, PA 18015. Application review begins 2 January 1992. Lehigh University's equal opportunity/Affirmative Action Employer. Women and minorities are strongly encouraged to apply.

ASSISTANT/ASSOCIATE PROFESSOR. U.T. M. D. ANDERSON CANCER CENTER SCIENCE PARK. The Department of Veterinary Resources, University of Texas M. D. Anderson Cancer Center Science Park, invites applications for a tenure-track position at the Assistant Professor level to initiate an SIV/HIV research program. The position is with a satellite research laboratory that holds large numbers of primates, located in the rural, central Texas community of Bastrop, Texas. Candidates (Ph.D./M.D./D.V.M.) should have at least 3 years of postdoctoral research training with infectious disease agents in the areas of virology or virology is desirable. Candidates should have a publication record and will be expected to secure grant funding. Salary/ benefits competitive. Comprehensive support facilities include a newly constructed molecular pathology laboratory. Submit curriculum vitae, description of research program and interests to: Dr. Michael E. Keeling, D.V.M., Professor and Chairman, Department of Veterinary Resources, U.T. Cancer Center Science Park, Route 2, Box 151-B, Bastrop, TX 78602. The University of Texas is an Equal Opportunity/Affirmative Action/Smoke-Free Employer.

FACULTY POSITION AVAILABLE IN MOLECULAR GENETICS. The Division of Life Sciences, The University of Texas at San Antonio, invites applications for a tenure-track ASSISTANT PROFESSOR in molecular genetics. Candidates must have a Ph.D. and several years of research productivity and substantial ability and interest in teaching genetics at the undergraduate and graduate levels. A Ph.D. is required and postdoctoral experience on the nervous system is desired. Submit curriculum vitae, names of at least three references, and representative publications to: Director, Division of Life Sciences, The University of Texas at San Antonio, San Antonio, TX 78249-0662. Closing date to receive applications is 1 March 1992. The University of Texas at San Antonio is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

THE UNIVERSITY OF CALGARY ELECTRON MICROSCOPIST. The University of Calgary Department of Anatomy invites applications for a full-time academic position at the ASSISTANT PROFESSOR level as a cell biologist/ electron microscopist. A Ph.D. and/or M.D. 2 years postdoctoral experience, and a proven research record in eukaryotic molecular/cell biology with expertise in electron microscopy. Rank and salary will be commensurate with qualifications and experience. The successful candidate will be expected to conduct studies for salary support from the Alberta Heritage Foundation for Medical Research, and will have 75% of time protected for research. Experience with Cell Biology/OncoLOGY, and/or EM imaging required. Priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary has an Employment Equity Program and encourages applications from all qualified candidates, including women, aboriginal people, visible minorities, and people with disabilities. Submit curriculum vitae, synopsis of research interests, and the names and addresses of three referees, by 15 January 1992 to: Dr. R. Hawkes Head, Department of Anatomy The University of Calgary 3330 Hospital Drive N.W. Calgary, Alberta T2N 4N1 Canada

IMMUNOLOGIST. Bradley University invites applications for a tenure-track appointment at the ASSISTANT PROFESSOR level. The starting date is 17 August 1992. Responsibilities, in addition to introductory level courses, include teaching an upper division course in immunology and one of the following areas: microbiology, cell biology, or molecular biology. The individual will have demonstrated the ability to maintain an active research program involving undergraduate and/or graduate students. A Ph.D. degree and a proven research record is preferred. Applications should submit curriculum vitae, a statement of research interests and three letters of recommendation to: Dr. John A. DeFino, Department of Biology, Bradley University, Peoria, IL 61625. To ensure full consideration applications should be received by 31 December 1991. Applications will continue to be accepted until the position is filled. Interviews may be conducted before the closing date, but no final decision will be made before that time. Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.

FACULTY POSITION AVAILABLE IN MOLECULAR VIOLOGY. The Division of Life Sciences, The University of Texas at San Antonio, invites applications for a tenure-track ASSISTANT PROFESSOR in molecular virology. Candidates must have a Ph.D. and several years of research productivity and substantial ability and interest in teaching virology at the undergraduate and graduate levels. A Ph.D. is required and postdoctoral experience in the nervous system is desired. Submit curriculum vitae, names of at least three professional references, and representative publications to: Director, Division of Life Sciences, The University of Texas at San Antonio, San Antonio, TX 78249-0662. Closing date to receive applications is 1 March 1992. The University of Texas at San Antonio is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.
If you’re a PhD or Post Doctoral Chemist...

...you should be in Chicago in January

In the third week of January Glaxo Group Research will be holding preliminary interviews for Synthetic Organic Chemists about to complete their PhD/Post Doc in the States in 1992.

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Please fax your CV (or send by express courier) by 20th December 1991 to Ted Smith, Human Resources Manager, Glaxo Group Research, Park Road, Ware, Herts SG12 ODJ, England. Fax: (0920) 469237.

Glaxo Group Research

MOLECULAR MEDICINE TRAINING PROGRAM

The National Institute of Diabetes and Digestive and Kidney Diseases at the National Institutes of Health has established a novel program for training physicians in advanced basic molecular biology and genetics and their applications to human disease. The three year program combines basic laboratory research in molecular biology and genetics with the option of clinical training in molecular biology and genetics with the option of clinical training in several clinical subspecialties. Research training takes place in the laboratories of the NIDDK intramural program. These laboratories are part of the main NIH intramural campus located in Bethesda, Maryland, a 20 minute ride from Washington, D.C. The intramural program of the NIH offers an outstanding and world-renown research environment.

Clinical training leading to board certification is available in the following participating subspecialties: Endocrinology, Genetics, Gastroenterology, and Hematology. First year salary is $38,500; second year is $40,500; third year is $42,500.

For additional information, please send your curriculum vitae and a list of three references to:

Allen M. Spiegel, M.D., Director, Division of Intramural Research

PHN: 301-496-4128
FAX: 301-496-9943

National Institute of Diabetes and Digestive and Kidney Diseases

National Institutes of Health, Building 10, Room 9N222, 9000 Rockville Pike, Bethesda, MD 20892

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HUMAN GENETICIST

Molecular Genetics of Disease and Genome Technology
Assistant, Associate or Full Professor

Roswell Park Cancer Institute seeks applicants who have demonstrated research and funding excellence in human molecular genetics. This tenure-track position requires establishing a vigorous, independent, grant-supported research program; directing graduate research; and participating in teaching graduate courses in the applicant's area of interest. Preference will be given to those involved in the molecular characterization of human inherited diseases, including cancer, and the development of human genome technology. Active participation in program projects focusing on the molecular genetics of disease and genome mapping will be encouraged. Academic appointments will be in the Roswell Park Division, State University of New York at Buffalo. Competitive rank, salary, start-up funds and space will be commensurate with qualifications. Salary will be provided in full by the State of New York.

Roswell Park is a National Cancer Institute-designated comprehensive cancer center. The successful applicant will join a dynamic faculty that has recently begun a significant expansion at both the research and clinical level. The Department of Human Genetics is an active research department with extensive interactions with researchers in other departments with modern molecular biology programs. There are excellent opportunities for collaboration with the clinical departments at Roswell Park and with researchers and clinicians at the State University of New York at Buffalo. Buffalo, a Western New York city between Lakes Erie and Ontario, has the cultural amenities of a large city within minutes of a rural setting.

Please send curriculum vitae, a brief description of research interests and three references to: Thomas B. Shows, Ph.D., Chairman, Department of Human Genetics, Roswell Park Cancer Institute, Elm and Carlton Streets, Buffalo, New York 14263.
EUKARYOTIC CELL BIOLOGIST. The Department of Biology at New Mexico State University anticipates making a tenure-track faculty appointment at the ASSISTANT PROFESSOR level for fall 1992. Applicants are expected to have postdoctoral research experience and the ability to implement a molecular approach to research in plant or animal cell biology. Areas of interest include but are not restricted to developmental biology, neurobiology, and genetics. The successful candidate will be expected to develop a vigorous, externally fundable research program and to teach at the undergraduate and graduate levels. This person will also have the opportunity to participate in the Molecular Biology Graduate Program and the NIH-sponsored Minority Access to Research Careers and Minority Biomedical Research Support programs. Women and minority candidates are strongly encouraged to apply. The department offers bachelor's degrees in biology and microbiology and an M.S. and Ph.D. in biology. Submit curriculum vitae, concise statements of research and teaching interests, and the names, addresses, and telephone numbers of at least three references to: Dr. Cecilio R. Barrera, Search Committee, Department of Biology, Box 30001, New Mexico State University, Las Cruces, NM 88003. Review of applications will begin on 10 January 1992. New Mexico State University is an Affirmative Action/Equal Opportunity Employer. (Position is contingent upon the availability of funds.)

FACULTY POSITION IN PHYSIOLOGY

The Department of Physiology at the University of Massachusetts Medical School has two openings for entry level ASSISTANT PROFESSORS. Applicants must have completed the M.D. or Ph.D. degree, at least 2 years of postdoctoral research training, and have a strong background and research interest that focuses on cellular and molecular bases of physiology. Successful applicants will be expected to conduct active independent research programs and participate in teaching medical and graduate students. Candidates should submit by 1 December 1991 curriculum vitae, a complete list of publications, a brief statement summarizing present and future research interests and objectives, and have three letters of reference sent to:

H. Maurice Goodman, Ph.D.
Professor and Chairman
Department of Physiology
University of Massachusetts Medical School
55 Lake Avenue North
Worcester, MA 01655

The University of Massachusetts Medical School is an Affirmative Action/Equal Opportunity Employer. Applications from women, minorities and handicapped persons are especially encouraged.

ATTENTION

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For more information on how you can interview candidates on-site contact Jacquelyn Roberts at (202) 326-6737.

American Cyanamid Company has a longstanding and highly successful commitment to the discovery and development of new products through research. Continued expansion of our research facility in Princeton, NJ has created opportunities within the Immunology Group. We are seeking creative and highly motivated individuals to establish and build basic research programs in their respective fields, as well as integrate with established programs.

Individuals will join a productive group utilizing modern techniques in immunology to elucidate the host's response to pathogens and manipulation of the host's neuroendocrine system. Current research interests are focused on establishing the B and T cell epitopes to induce autoimmune responses, creating the role of existing and new cytokines in pathogenesis, and potential applications of novel immunomodulators.

RESEARCH IMMUNOLOGISTS (PhD)

PhDs in Immunology, Cell Biology, Molecular Biology or related fields with 2-4 years' post-doctoral experience are sought. A productive scientific career as evidenced by a good publication record, quality references and a documented ability to implement independent and focused scientific programs is required.

T Cell Epitopes and Antigen Presentation

Scientists will establish an independent research program in defining T cell epitopes in out-bred species (clustertopes), and/or establishing the influence of antigen presentation and processing on mediating such responses. Homologous proteins which may be targets of autoimmunity are also of interest. Familiarity with T cell hybridomas, antigen presentation, macrophage activation and vaccine design is desired.

Cytokine Biologist

Scientists will establish a research program in the area of cytokine biology, with particular emphasis on identifying new or existing cytokines which play a central role in various infectious disease processes. Directed research program may encompass, but is not limited to, structure/function relationships of cytokines and receptors, synergistic activities of cytokines, chimeric molecules, and novel activities of cytokines. Experience with modern techniques in molecular biology, cellular immunology, flow cytometry and biochemistry is desired.

RESEARCH ASSISTANT (BS/MS)

Cellular or Molecular Immunology

The successful candidate will assist a senior scientist in various phases of research as it relates to the general field of defining T cell epitopes and antigen presentation/processing. A willingness to assume responsibility, develop an independent research project, and work within a team environment is required. Continuing education, publishing and presentations at scientific meetings are encouraged. A BS with 4-6 years' experience or MS with 2-4 years' experience in the general fields of Biology, Immunology, or related fields is desired. Work experience with modern techniques in molecular biology, cellular immunology, B and T cell hybridomas, biochemistry and flow cytometry is desirable.

Individuals with appropriate experience and a desire to broaden their career opportunities as well as be recognized for a diversity of scientific achievements, are encouraged to apply to: American Cyanamid Company, Personnel Department - MJD, P.O. Box 400, Princeton, NJ 08543-0400. An Equal Opportunity Employer M/F/H/V.

29 NOVEMBER 1991
POSITIONS OPEN

ASSISTANT PROFESSOR
DEPARTMENT OF SURGERY
YALE UNIVERSITY SCHOOL OF MEDICINE

The Gastrointestinal Surgical Pathobiology Research Unit requires an individual skilled in membrane transport physiology or an equivalent field to develop an independent investigator. This individual should possess detailed knowledge of transport mechanisms, molecular physiology, and the techniques necessary for isolated gastric gland or renal tubule perfusion. A broad knowledge based in the area of confocal microscopy, digitized image analysis and membrane pump assays is required. Teaching skills in the area of molecular physiology and particularly ion transport are required. Forward curriculum vitae including the names of three references by 6 December 1991 to: David Ross, Gastrointestinal Surgical Pathobiology Research Unit: Irwin M. Moldin, M.D., Ph.D., Department of Surgery, Yale University School of Medicine, 333 Cedar Street, Room 109 FMB, New Haven, CT 06510. Yale is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSISTANT PROFESSOR

The Department of Pharmacology, SUNY Health Science Center at Syracuse seeks an M.D. or Ph.D. with 5 years of experience in nonlinear dynamics and electrophysiology for a tenure position of research assistant professor. Background in mathematics and studies on wave propagation in excitable media are essential, as well as experience in electrophysiology, modeling and the recording of electrical activity from cardiac tissues. Send curriculum vitae, statement of research interests, and three letters of recommendation by 1 January 1992 to: Dr. Jose Jalife, Department of Pharmacology, SUNY Health Science Center at Syracuse, 766 Irving Avenue, Syracuse, NY 13210.

An Equal Opportunity/Affirmative Action Employer.

VISITING ASSISTANT PROFESSOR OF BIOLOGY

Hope College is seeking the position of visiting assistant professor beginning in August 1992. This appointment will be for a 2-year period with the possibility of renewal for an additional year. The individual selected for this position will be expected to teach general microbiology and participate in the introductory program for biology majors. The individual will be strongly encouraged to take advantage of the opportunity to participate in one of the ongoing research programs in the department. The biology faculty has a strong record of activity in externally funded research. A list of research proposals is available upon request.

Hope College is a distinguished Christian co-educational, residential liberal arts college affiliated with the Reformed Church in America. Hope College has maintained a strong science program that involves both teaching and research. Applications from women and minority persons are particularly encouraged.

Send a letter of interest to have curriculum vitae, transcripts, a statement of teaching competencies and indication of research orientation, and three letters of recommendation forwarded as soon as possible to: Dr. Harvey D. Blankespoor, Chairman, Biology Department Hope College Holland, MI 49423

Applications will be accepted until this position is filled.

PHYSIOLOGIST. Tenure-track position, ASSISTANT PROFESSOR to teach graduate and undergraduate human physiology, also pharmacology, neurosciences and pathology. Earned doctorate plus teaching experience in allied health program. Review of applications will begin on 7 January 1992 and will continue until position is filled. Forward curriculum vitae and names of three references to: Dr. Brian Curry, School of Health Sciences, Grand Valley State University, Allendale, MI 49401. Equal Opportunity Employer/Affirmative Action.

POSITIONS OPEN

RESEARCH ASSOCIATE/ RESEARCH ASSISTANT PROFESSOR
BIOPHYSICS AND ELECTROPHYSIOLOGY

The Living Physics Group of the Department of Physics and Astronomy at Vanderbilt University has an active research program utilizing magnetic and electric measurements to study electrical activity and action potential propagation in normal and injured nerve and cardiac, smooth, and skeletal muscle. We are seeking a biophysicist/electrophysicist interested in initiating a program of research on the effect of confocal microscopy and other microscopic techniques necessary for the study of cell biology. The candidate will be expected to participate in the general research program of the department. Applications should include current curriculum vitae, copies of up to five relevant reprints and a brief statement of future research plans. All applications will be considered. Deadline for applications is 31 January 1992. Application materials should be sent to: Chair, Cell Biology Search Committee Department of Biological Sciences Vanderbilt University Nashville, TN 37235-1048

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

POSITIONS OPEN

AQUATIC ECOLOGY
ICHTHYOLOGY PROFESSORSHIP

The Department of Systematics and Ecology anticipates a tenure-track ASSISTANT/ASSOCIATE PROFESSOR position opening in aquatic ecology/ichthyology to begin 17 August 1992 contingent upon final budgetary approval. Salary range is available with the precise amount dependent upon the experience of the candidate. Teaching duties will include a course in general ecology and an early in independent research program in fish ecology and/or fisheries biology and a course or courses in his/her specialty. The successful applicant must have, at the time of appointment, demonstrated ability to obtain outside funding. Preference will be given to individuals with research experience in aquatic community ecology, ichthyology, fisheries, or community ecology, and teaching experience. A description and information about the department and university is available upon request. A letter of application, curriculum vitae, copies of published papers, and three letters of recommendation should be sent to: Dr. John O'Brien, Department of Systematics and Ecology, University of Kansas, Lawrence, KS 66045-2100. Telephone: 913-864-4375. Review of applications will begin on 3 January 1992 and continue until the position is filled. The University of Kansas is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR. The Ohio State University. Tenure-track (12-month) position in small grains breeding/genetics. Responsibilities include directing a breeding program, teaching scholarly research, teaching, and advising graduate students. Qualifications include earned Ph.D. in a plant breeding, genetics, cytogenticns or related field with postdoctoral and/or research experience preferred. Submit two copies of: letter of application stating career goals, research interests, and qualifications; complete curriculum vitae; and copies of publication reprints. A list of three references with addresses for correspondence will be requested by 1 February 1992 or until a suitable candidate is identified to: Dr. Michael McMullen, Search Committee Chair, Department of Plant Sciences, Ohio State University, 1014 Coffey, Laboratory Building, Columbus, OH 43210. Telephone: 614-292-7166.

MOLECULAR ONCOLOGY
FACULTY POSITION

Louisiana State University Medical Center (LSUMC)-Shreveport is a proud teaching affiliate of the Center of Excellence in Cancer Research. Opportunities are available at the ASSISTANT/ASSOCIATE PROFESSOR level for individuals actively pursuing cancer research, especially in the areas of tumor, metabolism, genetics, growth factors, oncogenes, and signal transduction. Appointments will be jointly between the center and either the Department of Molecular Biology/Immunology or Biochemistry/Molecular Biology.

If interested, please send three letters of reference, a copy of your curriculum vitae and a brief description of research interests to: Jonathan Glass, M.D. Professor of Medicine Director, Center for Excellence in Cancer Research LSU Medical Center-Shreveport P.O. Box 33932 Shreveport, LA 71130-3932

The Center for Nuclear Science of New York University (NYU) invites applications for two tenure-track faculty positions in the area of systems and integrative neuroscience. Appointments may be made at the level of ASSISTANT PROFESSOR, ASSOCIATE PROFESSOR, or PROFESSOR. The Center for Nuclear Science is an interdepartmental unit of the Faculty of Arts and Science, cooperating with the Departments of Biology, Computer Science, Mathematics, Physics, and Psychology. New members of the center hold appointments jointly in the center and in one or more of these departments.

Candidates should send curriculum vitae, a statement of current research interests, copies of recent relevant publications and the names and addresses of three of their individuals willing to provide letters of reference, to: Professor Robert Sharp, Director, Center for Nuclear Science, NYU, Meyer Hall, New York, NY 10003. NYU encourages applications from women and members of minority groups.
How to solve the equation for success.

Pfizer is a lot more than a pharmaceuticals and healthcare industry leader. It's a group of people dedicated to discovering, developing and marketing innovative pharmaceuticals, animal health and specialty chemical products that improve the quality of life worldwide. As a Fortune 100 company, Pfizer is committed to continuing its remarkable growth by investing more than half a billion dollars annually in research and development.

BS/MS Scientists

If you have relevant laboratory experience and strong theoretical knowledge, take advantage of this opportunity to join multi-disciplinary teams in one of the following areas:

**Viral Immunology** — Evaluate efficacy and mode of action of novel immunostimulants in *in vivo* influenza A models. Experience in immune function assays, cell culture, *in vivo* modeling and biochemical techniques highly desired.

**Microbial Pathogenicity** — Study virulence factors that determine colonization and host immune responses to a novel gastrointestinal pathogen. An Immunology or Biochemistry background would be advantageous.

**Diabetes and Obesity** — Conduct studies elucidating mechanism controlling energy expenditure, insulin action or carbohydrate metabolism. Experience in Molecular Biology Techniques and/or *in vivo* modeling desired.

**Biochemical Toxicology** — Investigate mechanisms of chemical-induced toxicity using established and novel *in vivo* and *in vitro* methodologies. Experience in analytical methods development and instrumentation desired.

Our excellent benefits include competitive salaries, health and dental care, paid holidays and vacations, savings, investment and pension plans, and relocation assistance to our attractive Connecticut shore location.

To learn how you can be part of our success, please send your resume to: Mr. Kym Goddu, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, CT 06340. We are an equal opportunity employer.
IMMUNOLOGY FACULTY. Case Western Reserve University. Brand new research space is available for several immunologists to join an existing group of eight in the Institute of Pathology, Case Western Reserve University. Basic research in any area of immunology will be considered. For appointment as ASSOCIATE or FULL PROFESSOR (tenure track), candidates should have a strong program and demonstrated potential. For appointment as ASSOCIATE or FULL PROFESSOR (tenure track), candidates should have completed a productive postdoctoral fellowship. For an appointment at the ASSOCIATE or FULL PROFESSOR level, candidates should have established a productive laboratory. Applicants should submit curriculum vitae, a brief description of past and current research and future plans, and the names of three references.

ENVIRONMENTAL TOXICOLOGIST. ASSOCIATE/FULL PROFESSOR, academic year appointment, tenure track, fall 1992. Minimum qualifications include a Ph.D. in a discipline related to the environmental toxicology of aquatic systems. Must complement interdisciplinarity in program in environmental quality and hazardous materials management. Evidence of strong established research program with extramural funding required. Experience in the areas of measuring aquatic contamination and environmental impact and the ability to teach graduate courses is required.

Applications should be sent to: Richard Z. Zappert, Institute of Pathology, Case Western Reserve University (CWRU), 2085 Adelbert Road, Cleveland, OH 44106. CWRU is an Equal Opportunity/Affirmative Action Employer.

TRINITY COLLEGE DANA PROFESSORSHIP

Supported by funds from the Charles A. Dana Foundation, Trinity College is seeking a senior faculty member interested in a visiting appointment to begin in the fall of 1992 or 1993. The Dana Professorship is designed to bring to the College a person whose field of expertise lies outside that of other members of the faculty. The fields in which we are currently interested are:

(1) Anthropology (especially of European cultures).

(2) Linguistics.

(3) Science/technology and society.

Candidates should have records of distinguished teaching and scholarship. It would be helpful to have specific experience in teaching and research experiences with students and to have a strong commitment to involving undergraduate students in the excitement of intellectual life while bridging disciplinary boundaries. Applications should include a curriculum vitae, a description of research interests, publications and other evidence of scholarly achievement, and a letter from several public lectures and to lead faculty seminars as part of his or her duties, which include teaching two courses per semester for a period of 3 years and may be renewable. Salary and benefits are competitive.

Applications should be sent to: Richard Z. Zappert, Institute of Pathology, Case Western Reserve University (CWRU), 2085 Adelbert Road, Cleveland, OH 44106. Women and minority groups are especially welcome to apply. The search committee will begin reading applications immediately.

Trinity College is an Equal Opportunity, Affirmative Action Employer.

UNIVERSITY OF CALIFORNIA SAN FRANCISCO (UCSF)

FACULTY POSITION IN CELL BIOLOGY

The Department of Anatomy and the Program in Cell Biology seeks exceptional candidates for a tenure track position as ASSOCIATE or FULL PROFESSOR in any area of modern cell biology including neuroscience, development, immunology, genetics and biological structure. Starting after 1 July 1992. The successful applicant will join an established faculty and be expected to submit research proposals, a summary of research accomplishments, research plans and budgetary copies of publications, and arrange to have three to five letters of recommendation sent to: Department of Anatomy, University of California, San Francisco, CA 94143-0452. Applications received after 1 February 1992 may not receive full consideration. UCSF is an Equal Opportunity/Affirmative Action Employer.

ENDOWED CHAIR

MOLECULAR GENETICS APPLIED TO CROP IMPROVEMENT

UNIVERSITY OF MINNESOTA

The Department of Agronomy and Plant Genetics, University of Minnesota, invites applications and nominations for a position in molecular genetics applied to crop improvement. The successful candidate will join three other research faculty in the newly established endowed chair in molecular genetics and will contribute to work in the areas of plant molecular biology, plant cell culture, and cereal improvement. A minimum of 4 years of experience in research, teaching, and graduate education is necessary with evidence of major contributions, demonstrated excellence, and outstanding potential in molecular genetics. The chair position will be expected to provide leadership in research, teaching, and graduate education. Research will emphasize the application of molecular genetics to soybean and other crop plants. Interested candidates are encouraged to submit curriculum vitae, description of research interests, collection management and public program experience, grant/contract funding, names of three references, and a description of their qualifications to: Professor Ronald L. Phillips, Chair, Search Committee, Department of Agronomy and Plant Genetics, University of Minnesota, St. Paul, MN 55108. Telephone: 612-625-1213. Fax: 612-625-1268. The University of Minnesota is an Equal Opportunity Educator and Employe.

RESEARCH INVESTOR

Will participate in and direct laboratory work involving molecular characterization of human retroviruses which involves molecular cloning, nucleotide sequencing, expression of cloned genes, site-directed mutagenesis, PCR, and sterile cell culture techniques. The applicant will also work with infectious AIDS virus in an appropriate biosafety containment facility. The applicant should have a Ph.D. or M.D. in microbiology/virology or equivalent with 3 years of experience in AIDS virus research and will supervise quality control and safety in the laboratory. M.D. or Ph.D. in microbiology/virology with 1 year of experience in postgraduate research in molecular virology. Experience should include knowledge of molecular cloning, sequencing of cloned DNA, and expression of viral DNA and tissue culture of infectious virus. Forty hours per week, 8:00 a.m. to 5:00 p.m. Salary: $31,636.25 per annum. Contact Dr. Jerry B. Starnes, Senior Staff Investigator, University of California, San Francisco, Room 3440 Third Avenue South, Birmingham, AL 35222. Re: Job Order #AL0262367.

TULANE UNIVERSITY FREEPORT-McMoRan Chair in ENVIRONMENTAL POLICY

Tulane University's Center for Bioenvironmental Research announces the establishment of the Freeport-McMoRan Chair in Environmental Policy, and invites nominations and applications. The candidates must have a national reputation in a major area of environmental policy, as indicated by a strong record of research and publications. Specifically, we seek the following qualities:

Ph.D. or equivalent degree required; teaching experience strongly preferred; academic qualifications commensurate with a tenured appointment as full professor; a research record demonstrating integral knowledge of scientific issues and policy development in the environmental area; familiarity with the process of setting, implementing, and evaluating environmental policies; expertise in risk management, including risk assessment, and/or in the analysis of economic, political, social, legal aspects of environmental policy.

The chairholder will be a tenured member of the Tulane University faculty with an appointment in the appropriate academic department and also a member of a national bioenvironmental research institute. The center consists of faculty of Tulane and Xavier Universities from a broad range of academic disciplines. The chairholder will be expected not only to pursue significant research but to foster cooperative inter-disciplinary efforts among colleagues on this subject. Applicants are encouraged to submit their materials as quickly as possible. All correspondence should be directed to:

Professor Les Byllig
Chair of Search Committee
Freeport McMoRan Chair in Environmental Policy

Department of Sociology
220 Newcomb Hall
Tulane University
New Orleans, LA 70118

DIRECTOR OF ELECTRON MICROSCOPY LABORATORY AND PROFESSOR OR ASSOCIATE PROFESSOR OF BIOLOGICAL SCIENCES SEARCH REOPENED

The Department of Biological Sciences at Clemson University in cooperation with the Greenville Hospital System invites applications from outstanding electron microscopists for the Directorship of an EM laboratory and a senior faculty appointment at the level of professor or associate professor in the Department of Biological Sciences.

The successful candidate will be expected to direct a university-wide multiuser EM Laboratory equipped with scanning and transmission microscopes used for biological and materials research and to conduct an independent, extramurally funded research program in cell ultrastructure, developmental biology, or reproductive biology.

This is a unique opportunity to join a rapidly expanding department dedicated to achieving excellence in an integrated approach to cell biology, genetics, cells, and molecules. A commitment has been made to provide substantial space and funds for the EM laboratory and microscopes. The successful candidate should send curriculum vitae, representative publications, a statement of research interests, and the names and telephone numbers of three references to: Professor W. Robert Little, Search Committee Coordinator, Department of Biological Sciences, Clemson University, Clemson, SC 29634.

All materials should be received by 15 January 1992 in order to assure consideration.
Bristol-Myers Squibb Pharmaceutical Research Institute

RESEARCH SCIENTIST
(Seattle, Washington)

HIV VIROLOGY -- Conduct research in BL-3 facility with HIV. Specific responsibilities include assisting in generation, characterization and cloning of cell lines producing human monoclonal antibodies to HIV. You will also maintain virus stocks and cell lines used in HIV neutralization assays.

Candidates should have 5 years experience in HIV virology research which should include recent experience with biochemistry and monoclonal antibodies. Please reply to: Bristol-Myers Squibb, Human Resources Department #910794, 3006 1st Ave., Seattle, WA 98121.

RESEARCH SCIENTISTS
(Princeton, New Jersey)

Metabolic Diseases

2 Positions

- Participate in a new project studying vascular wall biology and inflammatory mechanisms in atherosclerosis with particular focus on LDL oxidative modification and monocyte/macrophage involvement. This will entail the use of cellular, biochemical and molecular biology experimental approaches to develop new assays and methods to study atherogenesis. Please reply to Dept. 266A-AR.

- Participate in various aspects of cholesterol metabolism research. Requires a strong background in cellular biology to include experience with cultured cell lines, quantitation of ligand binding to cell receptors, and evaluation of intracellular transport processes. Please reply to Dept. 266B-AR.

Cardiovascular Biochemistry

2 Positions

- Quantify mRNA growth factors, collagen and components of renin angiotensin system in animal models of heart failure and atherosclerosis. This will include Western blot analysis, enzyme assays and RIA procedures. Please reply to Dept. 266C-AR.

- Primary areas of involvement include molecular pharmacology of receptors including techniques to measure receptor signal transduction (Phospholipid Metabolism); receptor binding and molecular biology of receptors (Transcribed and Stable Expression of Receptor Genes). Requires experience in either molecular (cell biology) or biochemistry (signal transduction). Please reply to Dept. 266D-AR.

All above positions require a BS/MS in Biology, Biochemistry or Molecular Biology and 2-4 years of experience.

Please forward your resume (including Dept. #) to: Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources Dept., P.O. Box 4000, Princeton, NJ 08543-4000. Equal Opportunity Employer, M/F/D/V.

Bristol-Myers Squibb Company
Applications are invited for about 20 Royal Society University Research Fellowships tenable in the first instance for five years from 1 October 1992 (or slightly later in the academic year 1992–93), with two possible further renewals for three and then two years. The Fellowships are available in any branch of science, including agriculture, medicine, mathematics, engineering and technology. The primary criterion for selection will be scientific merit based on record so far and on future potential. Some account will also be taken of the facilities and intellectual environment being offered by the prospective host department. Salaries will be on the non-clinical university scale, with London Allowance where appropriate. Annual research expenses (a sum of up to £10,000 may be sought in 1992–93) will be available, together with return travel and a contribution to baggage costs for successful applicants from overseas and their families.

Applicants should be scientists normally with between three and ten years of postdoctoral research experience. They must be British Citizens and propose to hold the fellowships in universities or polytechnics in the United Kingdom. Those who already have substantial posts in these places will not normally be considered. Previously unsuccessful applicants may apply again if still eligible, but should make fresh applications and arrange for updated referees’ statements.

Application details are available (on written request only) from Mrs. U.M.A. Tokie, The Royal Society, 6 Carlton House Terrace, London, SW1Y 5AG (Fax: 071-930-2170). Closing date 14 February 1992. Application forms are not available after 31 January and applications arriving after 4 p.m. on 14 February will not be considered.
OPPORTUNITIES
IN
CHEMICAL
BIOTECHNOLOGY

Microbiologist/Microbial Enzymologist
Ph.D. Microbiology with 3+ year biotechnology industrial experience with enzyme/whole cell biotransformations to design and develop biocatalytic systems for the production of chiral chemical intermediates and products for the pharmaceutical, agricultural, and food industries. Must be capable of taking a scientific concept through to industrial process.

Microbiologists/
Biochemists
BS/MS Microbiology or Microbial Biochemistry with experience with microorganisms, enzymes and HPLC, GC, UV. Strong organic chemistry background with industry experience preferred.

Biochemist/
Organic Chemist
Experienced MS or Ph.D. Biochemist/Organic Chemist to be involved in the application of biocatalysis for production of chiral amines & other chemicals. Analytical experience, particularly chiral, is essential. A background in the use of enzymes for organic synthesis is preferred.

Process Chemist
MS or Ph.D. in Organic Chemistry with solid analytical capability to work independently on synthetic chemical process development for the manufacture of racemic and chiral amines and other chemicals.

Production Chemist
BS/MS Organic Chemistry or Chem.E. with strong organic background, plus 3-5 years hands-on experience with pilot operations and analytical procedures within the pharmaceutical or fine chemical industry.

Celgene Corporation is committed to the leadership position in chemical biotechnology. Building on recent success, we seek independent self starters to join our Chiral Chemicals Group. Celgene offers competitive salaries and benefits, including Educational Assistance and a 401(k) program. Our modern facility in Central NJ, an hour from NYC and Philadelphia, provides an attractive environment conducive to personal growth and scientific achievement. Qualified applicants should send a detailed resume to, Manager HR Dept. CEN, Celgene Corp., 7 Powder Horn Drive, Warren, NJ 07059 USA. EOEMP

Dean of the Graduate School and Vice President for Research
As a result of administrative restructuring, Tulane University invites nominations and applications for a new position: Dean of the Graduate School and Vice President for Research. A terminal degree and a distinguished scholarly record are required; administrative experience is preferred. Priority consideration will be given to candidates in the Physical, Natural, or Engineering Sciences. Appointment is expected to begin no later than 1 July 1992.

As Dean this individual will have administrative responsibilities for admissions, financial aid and monitoring of approximately 1,000 students enrolled in the Graduate School. Working with the Graduate Council, he or she will coordinate curriculum development and program review with the forty departments offering programs on the masters and doctoral levels. He or she will be the chief administrative officer representing the Graduate School, consisting of 350 members from the Faculty of the Liberal Arts and Sciences, the School of Engineering, the A.B. Freeman School of Business, the School of Medicine and the School of Public Health and Tropical Medicine.

As Vice President for Research he or she will be responsible for fostering scholarly activity, seeking support for it, and administering research support programs. The Directors of the Office of Research and Project Administration, the Office of Technology Transfer, and other offices related to scholarly activity will report to this individual. He or she will work closely with the Committee on Research in administering summer research support and other programs, and committees related to the fostering of scholarly inquiry and the administration of funded research. Knowledge of funding sources is essential.

Nominations and applications are due by January 15, 1992. All applications should be accompanied by a c.v. and the names of four professional references. Correspondence should be addressed to:

Richard Gonzalez, Chair Search Committee Office of the Provost 200 Gibson Hall Tulane University New Orleans, LA 70118

Tulane University is an Equal Opportunity/Affirmative Action Employer. Qualified women and minority members are particularly invited to apply.

DIRECTOR, ADDICTION RESEARCH
Applications are being accepted for the position of Director, Addiction Research at the rank of tenured associate or full professor. This position will involve close interaction with the Departments of Molecular Biology and Psychiatry, with full appointments in one or both departments. Appointments in other clinical departments may also be considered.

This position involves 3 aspects: (1) basic research in drug addiction, (2) teaching Medical Pharmacology, (3) administrative responsibilities in the development and evaluation of treatment programs for drug addiction.

A PhD, or equivalent degree, plus a record of research excellence (as exemplified by national recognition in literature, funding agencies and professional organizations), and a proven track record of administrative capabilities is required. Consideration will be given to applicants with research strengths in the central nervous system, pharmacology and/or behavioral aspects. Candidates applying molecular biology techniques to the study of drug addiction are urged to apply.

Excellent start-up funds are available, including space in the Basic Science Department; seed money for equipment/supplies and junior faculty positions. As a result of expansion and growth of its research and teaching facilities, the University of Medicine & Dentistry of New Jersey-School of Osteopathic Medicine is also actively recruiting basic scientists and clinical faculty. The main campus, located in Stratford, NJ, is 30 miles East of Philadelphia and is convenient to many Northeast and Mid-Atlantic cities.

The University offers an excellent salary and benefits package. For consideration, please submit your CV and 3 references to: R. Michael Gallagher, DO, Associate Dean for Clinical Affairs, UMDNJ-SOM, 401 S. Central Plaza, Stratford, NJ 08084. The UMDNJ is an Affirmative Action/Equal Employment Opportunity Employer, m/f/h/v, and a member of the University Health System of New Jersey.
University of Copenhagen

Applications are invited for the position as professor in Animal Physiology at the Zoophysiological Laboratory A, August Krogh Institute, University of Copenhagen, Be appointed by the 1st of July 1992.

Candidates should have research experience in organ and/or whole animal physiology and be engaged in original investigations to elucidate basic physiological principles. Emphasis will also be placed on documented understanding of physiological problems in a broad sense and ability to teach at two or more levels of organization between ecological physiology and cellular physiology. Current research at the laboratory ranges from biophysical and cell physiological characterization of epithelia to the interplay between organisms and their environment. The candidate is expected to participate in fruitful collaboration with the staff at the laboratory and with other staff members at the August Krogh Institute. The research areas of the August Krogh Institute range from biochemistry to human physiology.

Further information about the position, research planning, facilities, and staff can be obtained from the Chairman of the Zoophysiological Laboratory A, or from the Chairman of the August Krogh Institute (13 Universitetsparken, DK-2100, Copenhagen Ø, Denmark.)

The Professor will participate in the Department's teaching at all levels. The language of instruction is Danish, but English will be accepted for the first two years of the appointment.

The Professor will be appointed as a Civil Servant under the Ministry of Education and Research. The salary scale is 361,079.59 Danish kroner per annum.

Applications should include a current curriculum vitae, a complete list of publications, copies of the scientific publications and further documentation which the applicant wishes to be considered, and a brief outline of proposed research. Information concerning the applicant's teaching experience, which will be evaluated by the Study Board, should also be enclosed. All material should be submitted in triplicate together with a complete list of the enclosed material.

After evaluation of the applicants qualifications by a Search Committee, the report will be sent to all applicants in complete form.

Applications are to be addressed to Her Majesty the Queen of Denmark and sent to the Faculty of Natural Sciences, Panum Institute, Blegdamsvej 3, DK-2200 Copenhagen N, Denmark.

The closing date for receipt of applications is 6th January 1992.

Pharmaceutical

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

Our Regional Medical Associates establish relationships within major medical institutions for the purpose of acting as scientific liaison and providing in-depth information regarding SmithKline Beecham products. This includes the training of representatives and medical professionals. Travel 40%.

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

We offer one of the best compensation packages— including car — in the industry. If you’d like to be a part of our success, send your resume and salary history to: SCIENCE BOX 13, Science Classified Advertising, 1333 H Street, NW, Room 940, Washington, DC 20005. We are an Equal Opportunity Employer, M/F/H/V.

BIOCHEMISTRY

SmithKline Beecham Pharmaceuticals

FACULTY POSITIONS IN BIOCHEMISTRY

St. Jude Children’s Research Hospital

St. Jude Children’s Research Hospital, a private research institute, is engaged in a major expansion of its facilities and scientific activities. A new research building opened in August, 1991 which provides 240,000 square feet of new laboratory space to house the institute’s basic science programs. As part of this expansion, new faculty positions are now available in the Department of Biochemistry. Although preference will be given to applicants who have recently completed postdoctoral training and are seeking positions at the level of Assistant Member, more senior investigators with appropriate research interests and qualifications will be considered for positions of higher faculty rank. Candidates with programs focusing on the regulation of cell growth, differentiation and transformation, the biochemistry and molecular biology of signal transduction, and mechanisms of gene regulation are particularly encouraged to apply. Opportunities exist for collaborative interactions with ongoing basic research programs in Virology and Molecular Biology, Immunology, Tumor Cell Biology, and Pharmacology, as well as with clinical investigators in Hematology/Oncology and Infectious Diseases. In addition to new facilities and excellent start-up funds, salaries are nationally competitive and include a generous benefits package. A strong institutional commitment to its faculty ensures stability in program development and continuity of research activities.

Applicants should submit a curriculum vitae, a letter summarizing their research accomplishments and goals, and the names of three references to:

Dr. James N. Ihle
Chairman, Department of Biochemistry
St. Jude Children’s Research Hospital
332 N. Lauderdale
Memphis, TN 38105 USA

SJC RH IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER
Graduate School Dean

The Medical College of Wisconsin is seeking a Dean of the Graduate School.

Responsibilities of the position include:
- Providing a vision for further growth of the School.
- Improving the identity and quality of existing graduate programs.
- Developing interdisciplinary graduate programs.
- Serving as a senior administrative official.
- Supervising the Graduate School Administrative Office.

Qualifications of candidates should include:
- Ph.D. in a medically-related science.
- Active research career.
- A minimum of five years administrative experience.
- Proven ability to work collegially with administration, faculty and students.

This position offers the opportunity to guide a biomedical graduate program that is growing in both size and quality. It will require a 60% full-time effort. The remaining 40% of time will be available for research in the applicant’s academic discipline, for which an appropriate academic appointment is available. Address inquiries to: Graduate School Dean Search Committee, Office of Faculty Affairs, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226

Equal Opportunity/Affirmative Action Employer M/F/H

GRADUATE TRAINING IN VIRAL ONCOLOGY AND IMMUNOLOGY

Stipends are available for students pursuing a Ph.D. in molecular oncology or immunology beginning September 1992. The principal interests of participating faculty are viral and cellular oncogenes, growth control, and molecular, cellular, and tumor immunology.

Students will be supported chiefly by an NIH programmatic training grant, requiring US citizenship, or resident status. We strongly encourage applications from minority students. Limited funding is also available outside of this source. Information and application forms are available from: Dr. R.B. Carroll, Graduate Student Advisor, Department of Pathology, New York University Medical School, 550 First Avenue, New York, NY 10016.

NYU is an Equal Opportunity Employer.

HEALTH SCIENTIST ADMINISTRATOR IN CYSTIC FIBROSIS

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) seeks a scientist (Ph.D., M.D., or equivalent) with a track record of research accomplishment in cell and/or molecular biology and excellent interpersonal and written communications skills to serve as Health Scientist Administrator (GS-12-13-14) for its Cystic Fibrosis Program and a component of its Metabolic Diseases Research Program. The position involves scientific administration of grants and contracts, program planning and development, close interaction with leading researchers, and the opportunity to organize and attend scientific meetings. The position is currently available at a salary range of $37,294 to $68,129 per annum. Please submit an Application for Federal Employment (SF-171) and/or CV and bibliography by January 1, 1992 to:

Judith E. Fradkin, M.D.
Chief, Endocrinology and Metabolic Diseases Programs Branch
National Institute of Diabetes and Digestive and Kidney Diseases
National Institutes of Health
Westwood Building, Room 603
5333 Westbard Avenue
Bethesda, MD 20892

U.S. Citizenship Required
NIH is an Equal Opportunity Employer

ALL SOULS COLLEGE, OXFORD

SENIOR RESEARCH FELLOWSHIP IN THEORETICAL SCIENCES

The College intends to elect a Senior Research Fellow in the Theoretical Sciences tenable with effect from 1st October 1992 (or a mutually agreed earlier or later date).

The Theoretical Sciences Research Fellowship is open to men and women whose work lies within the fields of the physical and biological sciences broadly defined.

The College regards a Senior Research Fellowship as being of comparable academic standing to an Oxford University Professorship, and applicants are expected to have a correspondingly distinguished record of achievement in research.

Senior Research Fellowships are normally held until retirement age (subject to renewal by the College every seven years and the requirements of the Education Reform Act, 1988). The total emoluments are comparable to those of a University professor.

Further particulars, including details of emoluments and terms of appointment, application forms, and copies of a memorandum for referees may be obtained from the Warden’s Secretary, All Souls College, Oxford OX1 4AL, England. Applications, on the application form, should reach the Warden not later than 1st February 1992 (the envelope containing the application to be marked “Senior Research Fellowship”). Applicants are asked to ensure that references, from not more than three referees, also reach the Warden by 1st February 1992.
ACADEMIC POSITION

PESTICIDE CHEMIST OR TOXICOLOGIST

The Pesticide Chemistry and Toxicology Laboratory in the Department of Entomological Sciences of the University of California at Berkeley invites applications for a Postdoc in chemical or toxicological position. Applicants must hold a Ph.D. or equivalent degree in chemistry, biochemistry, toxicology or related fields and must have extensive experience in multidisciplinary research on organic compounds. Responsibilities of the successful candidate include: conducting cooperative research on the degradation and action of pesticides and other related compounds in the laboratory and in the field. New instrumental approaches in chemical and biochemical research; coordinating activities of the Pesticide Chemistry and Toxicology Laboratory. Position starts 1 February 1992 or a mutually agreed upon date thereafter as an assistant or associate or full professor in the non-tenure series on a full-time fiscal year basis and starting salary dependent upon qualifications. To assure full consideration applicants must submit curriculum vitae, publication list, college transcripts, and names of three professors for consideration. For further information, write: Dr. Howard J. Hsieh, Pesticide Chemistry and Toxicology Laboratory, Department of Entomological Sciences, 114 Wellman Hall, University of California, Berkeley, CA 94720. Telephone: 510-642-5424. FAX: 510-642-6497. The University of California is an Equal Opportunity/Affirmative Action Employer.

MOLECULAR VIROLOGIST

The Department of Medical Microbiology and Infectious Diseases, University of Alberta, invites applications for a FACULTY POSITION in virology. Applicants should have a Ph.D. degree with at least 3 years of professional research experience. Preference will be given to candidates with experience in the application of molecular techniques to understanding of retroviral diseases. Up to 15% of time will be devoted to teaching, with the remainder available for research in undergraduate and graduate teaching, including the supervision of graduate students. Salary and rank will be commensurate with training and experience. Annual salary range for 1991/92: Assistant Professor $33,995 to $35,755; Associate Professor $45,083 to $47,700; Professor $57,300 to $62,415. Applications are invited by March 15, 1992. Application to: Dr. D. Cadwell, Chairman, Department of Medical Microbiology and Infectious Diseases, 1–4 Medical Sciences Building, University of Alberta, Edmonton, Alberta, T6G 2H7, Canada.

The University of Alberta is committed to the principle of Equity in Employment. The university encourages applications from aboriginal persons, disabled persons, members of visible minorities, and women.

DOCTORAL PROGRAM IN MICROBIOLOGY AND MOLECULAR GENETICS seeks quality candidates to study molecular genetics, virology, immunology, pathogenic microbiology, microbial biochemistry, biotechnology, and applied environmental biology in a cooperative program between Rutgers, The State University of New Jersey, and the University of Medicine and Dentistry of New Jersey. Positions are available from various university departments, research centers and institutes participate in the program to provide excellent research training and employment opportunities. Fellowships, assistantships and scholarships provide up to $20,000 per year plus tuition to qualified applicants on a full-time basis. Dr. David A. Taub, Program Director. Graduate Program in Microbiology and Molecular Genetics, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903. Telephone: 908-932-9383, FAX: 908-932-1262.

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LECTURER

INTRODUCTORY BIOLOGY LABORATORIES DEPARTMENT OF BIOLOGY

The Department of Biology at the University of Michigan announces the availability of a non-stem-track lecturer position in introductory biology laboratory. The position is available for the 1991/92 academic year. The Department of Microbiology and Molecular Genetics, University of Michigan, 1120 Biotechnology Laboratory, Ann Arbor, MI 48109. Deadline: 1 February 1992. Applications should include a curriculum vitae and names of three references. For further information, contact: Dr. A. B. Hazlett, Department of Biology, University of Michigan, Ann Arbor, MI 48109-1044.

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

NEO-RENAISSANCE INDIVIDUAL INTERESTED IN INNOVATIVE SCIENCE EDUCATION


PREDOCTORAL TRAINING IN NEUROSCIENCE

NEUROSCIENCE CENTER OF EXCELLENCE LOUISIANA STATE UNIVERSITY (LSU) MEDICAL CENTER SCHOOL OF MEDICINE NEW ORLEANS

The Neuroscience Center of Excellence in New Orleans is accepting inquiries concerning graduate training leading to a Ph.D. in neuroscience. The Neuroscience Center is an interdisciplinary unit of the Medical School with over 40 basic and clinical neuroscience faculty whose research expertise extends from molecular to behavioral neuroscience. The Center has a new and exciting Ph.D. program focusing on the comprehensive research interest and activity. The program will start in the fall of 1992. Competitive stipends are available on a competitive basis. Highly qualified individuals should send inquiries about the program to: Dr. Nicolas G. Bazan, Director, Neuroscience Center of Excellence, 2020 Gravier Street, LSU Medical Center, New Orleans, LA 70112 or telephone: 504-568-6700, ext. 521; FAX: 504-568-5801.

POSTDOCTORAL POSITION available to study arachidonic acid metabolism and mediator functions in inflammatory diseases. A focus of the group is the characterization of 20-HETE, a prostaglandin H2 pathway metabolite with potent vasoactive and other activities. The individual is expected to possess a strong background in biochemistry and pharmacology. The position is available immediately with a duration of 2 years. Contact: Dr. Alan D. Alona, Program Director. Graduate Program in Microbiology and Molecular Genetics, Rutgers University, P.O. Box 231, New Brunswick, NJ 08903. Telephone: 908-932-9831, FAX: 908-932-1262.

An Affirmative Action Equal Opportunity Employer.


POSTDOCTORAL POSITION. NIH-funded project to study single-stranded DNA virus structure with an emphasis on the development of computer algorithms to predict protein structure. In particular, our group is interested in applying neural networks and symbolic calculations to chemical interactions, force fields and protein structure prediction. We are also investigating the modeling of parasitic serine and cysteine protease structures by homology to proteases of known structure. Please send curriculum vitae, a brief description of research interests, and two letters of recommendation to: Dr. Fred E. Cohen, Department of Pharmaceutical Chemistry, University of California at San Francisco, (UCSF), 300 Parnassus Ave, CA 94143. UCSF is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION is available in an atherosclerosis research group. Areas of investigation include platelet, monocyte, and vascular cell function; arachidonic acid metabolism and lipid mediators of cell function; and factors associated with accelerated vascular disease in the diabetic population. Send curriculum vitae, a brief description of research interests, and two letters of recommendation to: Dr. H. Skrinska, Ph.D., Department of Health Sciences, University of Wisconsin–Milwaukee, P.O. Box 413, Milwaukee, WI 53201.

POSTDOCTORAL POSITION IN YEAST GENETICS AND MOLECULAR BIOLOGY. Candidate to study the Saccharomyces cerevisiae mRNA transcription apparatus with emphasis on RNA polymerase II. Send curriculum vitae, a brief description of research interests, and two letters of recommendation to: Dr. R. Cherry, Department of Biology, University of Wisconsin–Madison, 415 North Titley Street, Madison, WI 53706. Experience in molecular biology is required. The postdoc experience is helpful. The Roche Institute of Molecular Biology is an independent research institute funded by Hoffmann-La Roche, and is located in the northeastern suburbs of New York City. The institute has an academic setting with exceptional resources and competitive salaries. Please send curriculum vitae and the names of three references to: Dr. Nancy Woychik, Roche Institute of Molecular Biology, Nutley, NJ 07110. We are an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY VANDERBILT UNIVERSITY

Positions are available April 1992 to isolate develop-
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 PHARMACOLOGIST
Immunosciences

We are currently seeking a Ph.D. Pharmacologist interested in drug discovery and familiar with inflammatory and allergic models of human disease. Publication within the above is definitely a plus. The selected candidate must be able to supervise assistants and work closely with associates in a multi-disciplinary team. Job #RB7613.

ASSISTANT PHARMACOLOGIST

We require a degree in the biological sciences, a strong interest in pharmaceutical research, and some experience in a research environment in an in vivo situation. Background involving computer assisted data analysis and/or biochemical assays is preferred, and research experience with inflammation models would be a definite advantage. Job #53559.

Abbott offers an excellent salary and benefits package including profit sharing and a stock retirement plan. We are located in an attractive suburban area approximately 30 miles north of Chicago. For consideration, please send your resume (indicating the appropriate Job #) with salary history to: Patricia Handy, Corporate Placement, One Abbott Park Rd., Abbott Park, IL 60064. Abbott is an Affirmative Action Employer/Smoke-Free Environment.

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Program Manager, Ocean Optics

The Office of Naval Research is seeking a highly qualified individual to plan and manage a contract research program in optical oceanography. The sponsored research is conducted principally at universities and private laboratories, with research performed by leading scientists in the field. This is a Civil Service position at the GM-14 or 15 level ($52,406-$80,138), depending on qualifications.

The individual selected will establish goals for and conceive, organize and direct research and development programs in new areas of optical oceanography with emphasis on theoretical and experimental aspects of oceanographic radiative energy transfer, ocean color, visibility/imaging, and particulate optics. The incumbent will identify new research opportunities, communicate ONR interests to the scientific community, evaluate and select research proposals for funding, manage available resources, and represent the program within the Navy and DoD. This position provides the challenge and opportunity to have a creative and significant impact on the direction and quality of research conducted at the national level. Additionally, the opportunity exists to establish or maintain an individual research program at an academic institution or government laboratory.

Applicants must have a Ph.D. or equivalent training in optical oceanography or in an area related to optical oceanography, and at least one year of professional experience or an equivalent combination of education and experience. To be qualifying, this experience must have been at a level of difficulty and responsibility equivalent to that of the next lower grade in the Federal Service. Demonstrated research experience in preferred.

Interested persons should send a resume, list of publications and a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers or from the address below), to: OFFICE OF THE CHIEF OF NAVAL RESEARCH, Civilian Personnel Division, OCNR Code 01242, Attn: Announcement #91-46 (S), 800 North Quincy Street, Arlington, VA 22217-5000.

Applications will be accepted through 31 January 1992 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplemental forms, please call (703) 696-4705 or TDD (703)696-2681.

U.S. Citizenship Required

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The College of Osteopathic Medicine and Surgery in Des Moines, Iowa, offers an accelerated three-year program leading to the Doctor of Osteopathy (D.O.) degree. Doctors of Osteopathy are fully licensed physicians who practice all aspects of medicine in every state.

Your doctoral degree in biological sciences or medical sciences qualifies you to be considered for admission to this accelerated program.

The Graduate Professional Education Program (GPEP) features:

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- Financial assistance to qualified students.
- Self-paced learning through independent study.

For more information and an application contact:
Admissions Office, GPEP Program
University of Osteopathic Medicine and Health Sciences
3200 Grand Avenue
Des Moines, IA 50312-4198
(515) 271-1450 or 271-1614

NANOTECHNOLOGY Reprint
Engineering a Small World: From Atomic Manipulation to Microfabrication

This 42-page special section, reprinted from the 29 November issue of Science, is your entry to the expanding world of small-scale engineering. It's a field that spans microelectronics, materials science, chemistry, molecular biology, and microscopy. In this special section, ten illustrated articles by research leaders and by science journalists present the full scope of this small world.

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POSITIONS OPEN

POSTDOCTORAL POSITION

A postdoctoral position is available to study molecular mechanisms governing progression of human malignant melanoma. Areas of particular interest include the isolation and analysis of genes expressed in primary and metastatic melanomas. Expertise in the area of molecular biology is essential. Interested candidates should send curriculum vitae and names of three references to: Dorothee Becker, Ph.D., University of Pittsburgh, Department of Medicine, Biomedical Science Tower, E1057, Pittsburgh, PA 15261.

POSTDOCTORAL FELLOWSHIPS in atherosclerosis research: Characterization of regulation of cholesteryl ester hydrolyases and their role in the dietary absorption and subsequent cellular storage of sterols [PNAS 86, 6913 (1980)]; (2) secretary control of atherogenic lipoproteins and their molecular interactions with the cell surface [JBC 266, 16741 (1990); J. Clin. Invest., October 1991, in press]. Techniques used include cell and molecular biology, as well as transgenic models. Positions supported by NIH training grant with supplementation of stipend. Must be permanent residents of U.S. citizens. Send curriculum vitae and names of three references to: Dr. E. A. Fisher or Dr. K. J. Williams, Department of Biochemistry, Medical College of Pennsylvania, 333 Henry Avenue, Philadelphia, PA 19129. FAX: 215-843-8849.

POSTDOCTORAL FELLOWSHIP Position available for biochemist/cell biologist to study growth factor receptors and related proteins. Previous experience in protein purification/cell biology is desirable. Submit curriculum vitae and names of three references to: Coriell Institute for Medical Research, Personnel Department, 401 Haddon Avenue, Camden, NJ 08103. Equal Opportunity Employer/Affirmative Action.

SMITHSONIAN POSTDOCTORAL FELLOWSHIPS IN MOLECULAR EVOLUTION AND PLANT PHYSIOLOGY

Postdoctoral fellows in molecular evolution and plant physiology are available for research to be conducted at one or more of the following Smithsonian Institution bureaus: National Museum of Natural History (Washington, D.C.); National Zoological Park (Washington, D.C.); Smithsonian Tropical Research Institute (Panama). In addition to a portion of the research the fellow may be expected to conduct at the Smithsonian Environmental Research Center (Maryland). Stipends are $24,000 annually, including travel. Tenures are from 12 to 24 months. Deadline: 15 February. For information write: Office of Fellowships and Grants, Desk MS, Smithsonian Institution, Washington, DC 20560.

HARVARD MEDICAL SCHOOL MASSACHUSETTS GENERAL HOSPITAL (MGH)
POSTDOCTORAL FELLOW
Position available immediately to study tumor microcirculation and pathophysiology. Areas of interest include ratio imaging (in vivo and in vitro), photobleaching, mathematical modeling, and cellular biology. Experience with video microscopy and computer-assisted image analysis is highly desirable. A 2-year (extendable) commitment is required, with salary commensurate with experience. Harvard-MGH is an Affirmative Action, Equal Opportunity Employer. Applications from women and minority group members are welcome. Please submit curriculum vitae and three references within 3 weeks to: Dr. Rakesh K. Jain, Radiation Oncology, Harvard Medical School—Massachusetts General Hospital, Boston, MA 02114.

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SCIENCE, VOL. 254
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Amgen has distinguished itself as the leader in the development of human therapeutic products through applications of biotechnology. As a result of our continuing commitment to excellence, we are actively seeking individuals to contribute to our protein refolding, purification, and scale-up efforts in process development.

Applicants for Research Scientist positions must have a Ph.D. in Biochemistry, Chemical Engineering or a related discipline with an emphasis on the purification and refolding of recombinant proteins. Previous industrial experience is desirable but not essential.

Candidates for Research Associate positions must have a Bachelor's or Master's degree in Biochemistry or a related field and a minimum of two years' experience in the purification and characterization of proteins.

Amgen provides a stimulating and challenging research environment in which scientists are given the resources necessary to achieve their full potential. Our salary and benefits package, including full relocation benefits, reflects this commitment. If you have the necessary skills and would like to be a part of a growing organization that places a high priority on its human resources, please send a CV or resume, in confidence, to:

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Amgen Center
Thousand Oaks
CA 91320-1789

USDA—FOREST SERVICE
Southern Forest Experiment Station
Two Positions

RESEARCH FORESTER/PROJECT LEADER

We are seeking a Project Leader/Supervisory Research Forester for our Growth and Yield of Natural Even-aged Lobolly and Longleaf Pines Research Unit at Mississippi State University, Mississippi. The unit's mission is to develop integrated systems for predicting the development, growth, and yield of natural even-aged stands of lobolly and longleaf pines in the South. Studies will be conducted to determine how the growth of stands may be described, quantitatively and how it is affected by stand structure, treatments, and the passage of time. Research also involves use of long-term growth and yield data to investigate the effects of Global Change. We are interested in candidates with a knowledge of forest biometrics, computers, statistical analyses, and modeling, and have the ability to interpret and effectively report research results orally and in technical writing. Qualifications: Ph.D. or equivalent in Forestry or related fields. Announcement number is SO-406-C-91D

RESEARCH FORESTER/ECOLOGIST/PROJECT LEADER

We are also seeking a Project Leader/Supervisory Research Forester or Ecologist for our Regeneration and Management of Southern Hardwoods research unit, Southern Hardwood Laboratory, Stoneville, Mississippi. The mission of the program is to 1) determine alternative silvicultural methods and guidelines necessary for regeneration and multiple-use management of southern bottomland/wetland hardwood resources, 2) increase understanding of bottomland/wetland forest ecology, and 3) expand understanding of selected wildlife species responses to varying levels of habitat disturbance or loss. We are interested in candidates with a knowledge of forestry or related plant science, computers, statistical design and analyses, and modeling, and have the ability to interpret and effectively report research results orally and in technical writing. Qualifications: Ph.D. or equivalent in Forestry, Ecology or related fields. Announcement number is SO-018-C-92D

Applicants must have a strong research background, and experience in program and research team management. Salary: $44,348–68,129. Contact: Dr. Walter Hough, 504/589-3003. Application materials sent on request. APPLICATIONS POSTMARK DEADLINES: 23 December 1991.
GLOBAL CHANGE POSTDOCTORAL FELLOWSHIPS are available from the Department of Energy for research related to the U.S. Global Change Research Program. The fellowships address the nation's global change activities carried out by DOE and the Committee on Earth and Environmental Sciences. Stipend is $35,000. Fellowships are tenable at approved federal and university laboratories including those of DOE, NASA, EPA, and other agencies in CEES. A doctoral degree received after 1 May 1999 is required. Deadline is 15 February 1992. Contact: Global Change Postdoctoral Fellowships, Science/Engineering Education Office, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831-0117; telephone: 615-576-4805.

ROCKEFELLER FOUNDATION ENVIRONMENTAL RESEARCH FELLOWSHIPS IN INTERNATIONAL AGRICULTURE

These research fellowships provide an opportunity for established environmental scientists to join multidisciplinary research teams at international agricultural research centers such as IRRI, CIMMYT, CIAT, IITA, ICRISAT, CIF and AVRDC. The objective is to encourage creative and imaginative research aimed at integrating environmental and natural resource protection with mainstream international agricultural research and development. The fellowships provide 1 to 2 years' tenancy at the host center plus research support with funding shared between the Foundation and the center. Natural scientists and engineers from all parts of the globe having expertise and an established record of research productivity are encouraged to apply. Applicants must qualify for an appointment of visiting scientist at the host center, and a written project proposal needs to be developed and submitted jointly with the center. For a full description of the program and application requirements, write to:

- Environmental Research Fellowships in International Agriculture
- Agricultural Sciences Division
- The Rockefeller Foundation
- 1258 Avenue of the Americas
- New York, NY 10036

The Rockefeller Foundation places strong emphasis on Affirmative Action principles.

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE. Emory University. A position is open to participate in ongoing studies of molecular regulation of insulin-like growth factors and their binding proteins. Applicants should have experience with cell culture, cell sorting, transfection, LDL receptor binding, and other molecular biology techniques. Please send curriculum vitae and names of three references to: Dr. J. R. Hume or Dr. B. Horowitz, Department of Physiology/SS2, University of Nevada School of Medicine, Reno, NV 89557-4004. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH INVESTIGATOR/FELLOW. Electrophysiology/Molecular Biology of Ion Channels. NIH position to study expression of cardiac ion channels in Xenopus oocytes. Experience using electrophysiological and/or molecular biological techniques desirable. Salary negotiable. Send curriculum vitae and names of three references to: Dr. J. R. Hume or Dr. B. Horowitz, Department of Physiology/SS2, University of Nevada School of Medicine, Reno, NV 89557-4004. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE. Available immediately to study the regulation of antigen processing for T cell activation and the mechanisms by which marijuana interacts with immune responses. Funding is available for a 2- to 3-year appointment. Experience in cell biology, biochemistry, and molecular biology is desirable. Salary commensurate with experience. Send curriculum vitae and names of three references to: Dr. Kathleen McCoy, Department of Microbiology and Immunology, MCV Station Box 678, Virginia Commonwealth University, Richmond, VA 23258-0678. FAX: 804-786-9946. Virginia Commonwealth University is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply. Individuals with experience in a culturally diverse environment are highly preferred.

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately to examine aspartokinase-homoserine dehydrogenase gene regulation and expression in transgenic tobacco. The position includes the development of transgenic plants at the USDA, Agricultural Research Service (ARS), Plant Molecular Biology Laboratory, Beltsville, Maryland. Excellent salary and benefits. Send curriculum vitae and names of three references to: Dr. Benjamin F. Mathews, USDA, ARS, Plant Molecular Biology Laboratory, Building 906, Room 118, 10300 Baltimore Avenue, Beltsville, MD 20705-3150. ARS is an Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately to examine aspartokinase-homoserine dehydrogenase gene regulation and expression in transgenic tobacco. The position includes the development of transgenic plants at the USDA, Agricultural Research Service (ARS), Plant Molecular Biology Laboratory, Beltsville, Maryland. Excellent salary and benefits. Send curriculum vitae and names of three references to: Dr. Benjamin F. Mathews, USDA, ARS, Plant Molecular Biology Laboratory, Building 906, Room 118, 10300 Baltimore Avenue, Beltsville, MD 20705-3150. ARS is an Equal Opportunity Employer.

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National Cancer Institute
Surgery Branch
National Institutes of Health, Building 10, Room 2B47, 9000 Rockville Pike, Bethesda, Maryland 20892
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Protein Biochemist
Merck Sharp & Dohme Research Laboratories is currently offering an excellent career opportunity for a protein biochemist to join the Department of Cellular and Molecular Biology. The selected individual will provide technical support involving purification and characterization of recombinant proteins of potential pharmaceutical interest. Major responsibilities include routine implementation of the following: ELISA, radio-immunoassays, radio-receptor assays, SDS-PAGE and immunoblotting; operation and maintenance of HPLC and FPLC systems; data analysis on PC-based softwares. Requirements include a BS/MS in chemistry or the biological sciences with a general background in biochemistry and at least two years of relevant experience. Ability to analyze data, troubleshoot instrumentation and a familiarity with computers is necessary. Excellent oral and written communication skills and organizational skills are required.

Merck Sharp & Dohme Research Laboratories are located in Rahway, New Jersey approximately 25 miles from New York City. Our salaries, benefits and research environment are excellent. For immediate consideration, please send your resume to S.R. Jenkins, Ad #101, Merck & Co., Inc., P.O. Box 2000, Rahway, N.J. 07065.

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GEOPHYSICISTS

Applications are invited from suitably qualified physicists for a full-time lecturership which will become vacant from 1 February 1992.

The applicant will be expected to initiate or participate in an active programme of research. The present research interests of the Department are in the fields of geophysics, of the Earth's interior, and applied mathematics. However, candidates with experience in any area of physics will be considered.

The Department teaches physics to students in the Health Sciences (Medicine, Dentistry, Pharmacy, Physiotherapy) as well as to Science students.

Commencing salary will be dependent on qualifications and experience, and will be made within the following salary range: Lecturer: $NZ27,440 to $NZ49,088, with a bar at $NZ45,448 per annum. Lecturer (Medically qualified): $NZ41,600 - $NZ49,400 per annum.

Further particulars are available from the Secretary-General, Association of Commonwealth Universities, 36 Gordon Square, London WC1H OPH, England, or the Registrar, University of Otago, P.O. Box 36, Dunedin, New Zealand (Facsimile 64 3 4741 607).

Applications noting A91/42 close with the Registrar and London on 12 December 1991.

Equal opportunity in employment is University policy.

University of Otago
New Zealand

LECTOR IN PHYSIOLOGY

Applications are invited for a Lecturer in Physiology at the University of Otago.

The Ohio State Biotechnology Program is seeking a qualified individual to manage the transgenic animal facility and to provide technical guidance to researchers throughout the campus in generating transgenic animals. Candidates should have an M.S. or Ph.D. and a minimum of two years of experience in the field. Send curriculum vitae and three letters of reference to: Dr. Jeffrey N. Masters, Chairperson, Transgenic Technologist Search Committee, Ohio State Biotechnology Center, 206 Rightmire Hall, 1060 Carmack Rd., Columbus, OH 43210-1002. Screening of candidates will begin January 15, 1992. The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

THE OHIO STATE UNIVERSITY

CHEMISTS-ENGINEERS-
PHYSICISTS-MATHEMATICIANS-
OPERATIONS RESEARCH ANALYSTS-
INTERNATIONAL RELATIONS SPECIALISTS-
STATISTICIANS-ECONOMISTS-
GEOPHYSICISTS

Under its William C. Foster Fellows Visiting Scholars program, named in honor of its first Director, the U.S. Arms Control and Disarmament Agency offers an opportunity for scholars in these and other disciplines to apply their expertise to reduction and control of armaments to increase world security. During the 1992-93 academic year scholars might participate in such activities as designing treaty provisions that permit adequate verification, evaluating data relating to compliance with treaties to force, performing arms control research, estimating the effect of treaty proposals on the strategic and conventional military balance, supporting inter-agency development of arms control policy, exploring possibilities for reducing nuclear weapon proliferation and third world instability, taking part in international negotiations on arms control, and implementing ratified arms control treaties.

Visiting scholars must be citizens of the United States and on the faculty of a recognized institution of higher learning. For information call (202) 647-4600 or write to Foster Fellows Visiting Scholars Program, Operations Analysis, Room 5726, U.S. Arms Control and Disarmament Agency, 320 21st Street, NW, Washington, DC 20451. Application deadline is January 31, 1992.

WILLIAM C. FOSTER
FELLOWS VISITING SCHOLARS PROGRAM
U.S. ARMS CONTROL AND DISARMAMENT AGENCY
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**FACULTY POSITIONS IN MOLECULAR BIOLOGY**

**CASE WESTERN RESERVE UNIVERSITY**

**SCHOOL OF MEDICINE**

Four full-time tenure track faculty positions are available in the Department of Molecular Biology and Microbiology. It is anticipated that appointments will be made at the Assistant Professor Level; however, exceptionally qualified senior investigators are encouraged to apply.

Two positions will be filled by applicants working in broadly defined areas of eukaryotic and prokaryotic molecular biology. In prokaryotes, we are particularly interested in individuals working in the areas of transcriptional regulation, molecular mechanisms of pathogenesis, and molecular control of transport. In eukaryotes, our interests include but are not exclusive to individuals studying the transcription apparatus, signal transduction and yeast molecular biology.

Two additional appointments will be made in the newly established Center for Molecular Parasitology. These positions are restricted to individuals who are asking basic mechanistic questions regarding transcriptional and post-transcriptional (RNA processing) gene regulation in lower eukaryotic organisms. Such organisms include the parasitic protozoa and helminths as well as free living organisms (both protozoa and helminthes) which provide models for the study of gene expression in parasites.

All four positions will be highly competitive with regard to start-up funds, laboratory space and salary. Applicants for all positions (specify the area in which you wish to be considered) should send curriculum vitae, statement of research interest and the names of four references by 1 February 1991 to:

Search Committee Chairman  
Department of Molecular Biology and Microbiology  
Case Western Reserve University  
10900 Euclid Ave.  
Cleveland, OH 44106-4960


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**POST-DOCTORAL POSITION**

**National Institute of Diabetes and Digestive and Kidney Diseases**

**Phoenix, Arizona**

A post-doctoral fellowship is available for a recent Ph.D. in biochemistry or related discipline to participate in studies of the mechanism of insulin resistance in man. Results of studies conducted in our laboratory suggest that abnormal regulation of skeletal muscle protein phosphatase (PPI) activity by insulin may be a primary defect responsible for insulin resistance and subsequent development of non-insulin dependent diabetes mellitus in humans. Current projects include studies of mechanisms of insulin regulation of PPI activity and gene expression.

This position is funded through the NIH Intramural Research Training Award Program and has a starting annual stipend of $25,000 - $28,000, depending on length of previous post-doctoral experience.

Send curriculum vitae and letter of application to:

**David Mott, Ph.D.**

**Clinical Diabetes and Nutrition Section**  
National Institutes of Health  
4212 North 16th Street  
Room 541  
Phoenix, Arizona 85016

NIH is an Equal Opportunity Employer.
**Post-Doctoral Scientist**

Hybritech Incorporated, a $100 million subsidiary of Fortune 100 Eli Lilly and Company and a recognized leader in the manufacturing and marketing of in vitro diagnostic tests utilizing monoclonal antibody technology, has an opportunity for a Post-Doctoral Scientist in our San Diego research facility.

**Multiple Drug Resistance**

This industrial post-doctoral position will focus on the study of the mechanisms of Multiple Drug Resistance utilizing monoclonal antibodies which recognize P-glycoprotein. The research will also focus on the development of imaginative approaches to diagnosis and treatment of drug resistant neoplasia. The ideal candidate for this position will have a PhD with knowledge and experience in the field of drug resistance.

Hybritech’s investment in facilities, R&D and human resources reflects our commitment to remain in the forefront of monoclonal antibody technology and related fields. Our salaries and benefits also reflect that commitment. Please direct your resume to HYBRITECH INCORPORATED, Human Resources SM/S/11-29-91, P.O. Box 269006, San Diego, CA 92196-9006. We are committed to diversity in our workforce/EEO.

**Molecular Biologist/ DNA Biochemist**

**San Francisco Bay Area**

We are seeking professionals to be part of a multi-disciplinary team working to create a line of DNA diagnostic products. You will help develop our proprietary DNA detection (oligonucleotide ligation) technology into clinical diagnostic assays.

Successful candidates should have a doctorate in a life science discipline and a strong background in molecular genetics. These positions require at least 4 years of experience with nucleic acid hybridization, amplification and detection. Experience with either cell culture, microbiology, or diagnostics assay development is highly desirable. We are seeking people with a creative flair to be strong individual contributors to a group effort.

We offer a competitive salary and benefits package. Please forward your resume to Applied Biosystems, Inc., Human Resources - Reference #0492, 850 Lincoln Centre Drive, Foster City, CA 94404. Applied Biosystems is an equal opportunity employer.

**RESEARCH ASSOCIATES**

Amgen is a dynamic and growing organization that is a recognized leader in recombinant DNA technology. Our leadership in developing erythropoietin and other products for human therapeutics and human diagnostics through applied biotechnology has placed us firmly in the forefront of the industry. We are currently recruiting for two Research Associate positions.

Both positions require a BS degree in Biology or a related science.

The primary responsibility of the first position will be the maintenance of various mammalian cell lines and related growth and production experiments on these cells. The use of large scale cell culture techniques will be required. One to two years' experience in tissue culture and a basic understanding of Molecular Biology are preferred. Other responsibilities will include the ordering of supplies and the maintaining of a legible and detailed laboratory notebook.

The second Research Associate position requires experience with dideoxy sequencing, basic cloning techniques and computer analysis of DNA sequencing. Experience with ABI 373 automatic sequencer is preferred.

Both positions require the willingness and ability to carry out detailed instructions and work well within a team structure, including overtime and weekends as needed.

Amgen offers a stimulating and challenging environment on the leading edge of biotechnology as well as an excellent compensation and benefits package. If you have the necessary skills and would like to be a part of a company that places a high priority on its human resources, please send a resume, in confidence, to:

**AMGEN, INC.**  
**Recruitment, Dept. #4414**  
**Amgen Center**  
**Thousand Oaks**  
**CA 91320-1789**

*Equal Opportunity Employer*
POSTDOCTORAL RESEARCH ASSOCIATE

Position is available immediately for M.D. or Ph.D. to participate in collaborative clinical studies in transplantation immunology. Job involves establishment of animal models of acute graft-versus-host disease, histological and immunohistological analysis of animal tissues, cytokine and cytotoxicity assays with immunological and biological methods; development of monoclonal antibodies; definition and molecular cloning of structurally related cytokine involves. Must have M.D. or equivalent with 1 year of postdoctoral experience in molecular biology and 2 years of experience in research and related publications. Fourty hours per week; $25,045 per year. Send resume to the attention of Tille Moore, Job Order #B24697, Kentucky School 300 South Upper Street, Lexington, KY 40508.

PEOPLE PERSONNEL PLACEMENT ADS in our line classified columns can be boxed for higher visibility. Call SCIENCE at 202-326-6855 for details.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

RESEARCH ASSOCIATE. To carry out research on influenza virus using molecular biology and genetic studies. Develop better vaccines against influenza and investigate epidemiology of influenza. Assist in training students. This position is paid at as well as expected salaried position. Must have Ph.D. Degree. Write up results of research for publication and present results at national/international meetings. Send curriculum vitae, publish records, expression of mutual interest, and a statement on research training for an interview. Forty hours per week. $42,000 per year. Position open.

POSITIONS OPEN

AQUATIC ECOLOGIST

A new tenure-track position is available at the University of Oklahoma (OU) Biological Station, with academic appointment in the Departments of Zoology or Botany/Microbiology. The position is 70% research, 20% teaching, and 10% service. The successful candidate will establish an extramurally funded research program in residence at the Biological Station, located at Lake Texoma, teaching a course per year, either at the Biological Station or on the main campus. A completed Ph.D. is required. Postdoctoral research experience, strong quantitative and computer skills, quality publications, and demonstrated ability to compete for extramural funding are desirable. Preference will be given to an individual whose research addresses recent ecological theory as it applies to aquatic or limnetic and limnic systems, and complements that of the resident faculty (Golladay, Gophe, Hal, and Matthews).

Applications must include complete curriculum vitae, resumes, a description of research interests, and four letters of recommendation. Pending budgetary approval, screening of applicants will begin January 1992 and continue until the position is filled.

Women and minority candidates are encouraged to apply. Applications or requests for additional information should be directed to: Chair, Search Committee, Biological Station, HC 71 Box 205, Kingston, OK 73439. Telephone: 405-564-2463; FAX: 405-564-2479.

The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer. OU has a policy of being responsive to the needs of dual career couples.

EVOLUTIONARY PLANT BIOLOGIST

The University of California, Berkeley, seeks a distinguished evolutionary plant biologist to assume a tenured professorial appointment in the Department of Integrative Biology (Ph.D. or equivalent degree), and direct the Plant and Microbiological Sciences facility. The department, with more than 35 faculty members and an active graduate student body, includes taxonomic and systematic methods and whose research interests and/or abilities include current molecular evolutionary approaches. The successful candidate will be expected to contribute to the development of evolutionary plant biology on the campus, provide leadership in the herbaria, direct the growth and maintenance of the collections, and develop an active program of research and instruction that will attract students to the department.

Applications should include curriculum vitae, names and addresses of three references, a summary of current research, descriptions of past research including reprints, and evidence of teaching and administrative experience. The deadline for received applications is 15 January 1992. The anticipated earliest start date is 1 July 1992. Send applications to: Jere H. Lipps, Chair, Department of Integrative Biology, 3090 Life Sciences Hall, University of California, Berkeley, CA 94720. The University of California is an Equal Opportunity/Affirmative Action Employer.

NEUROBIOLOGIST

The Department of Biological Sciences at the University of Wisconsin-Milwaukee (UWM) anticipates a tenure-track position in neurobiology. We seek an individual with expertise in cellular or molecular aspects of the nervous system, with research interests complementing those of existing faculty members in cellular and molecular biology, developmental biology, or behavioral neuroscience. In addition to establishing an active extramurally funded research program, the successful candidate would be expected to contribute to departmental teaching, including a course in neurobiology.

Applications should provide curriculum vitae, a concise statement of research and teaching goals, and three letters of reference sent to: Chair, Neurobiologist Search Committee, Department of Biological Sciences, University of Wisconsin-Milwaukee, P.O. Box 413, Milwaukee, WI 53201.

The closing date for receipt of applications is 1 February 1992. The University of Wisconsin-Milwaukee is an Equal Opportunity, Affirmative Action Employer. UWM is required to release a list of the names of nominees and applicants upon request.
E. CLAIBORNE ROBINS DISTINGUISHED UNIVERSITY PROFESSORSHIP IN THE SCIENCES
UNIVERSITY OF RICHMOND

The University of Richmond announces the establishment of the E. Claiborne Robins Distinguished University Professorship in the Sciences, and seeks senior scholars for appointments from one semester to five years in duration. The purpose of this chair is to enhance interest in and understanding of science, scientific research, and science education among the University community, and especially among its undergraduate population. Appointments to the chair will be made on the basis of (1) eminence in science (including mathematics and computer science), in science studies (including the history, philosophy and sociology of science), or science education; (2) preparation for and commitment to teaching undergraduates; and (3) expressed desire to offer, among other things, courses, seminars, or public lectures that will reach across disciplinary lines and appeal to science majors and non-majors alike.

Nominations as well as applications are invited. Applicants should send a statement of interest, curriculum vitae, selected writings, and the names and addresses of at least three references to

David E. Leary
Dean of Arts and Sciences
University of Richmond
Richmond, VA 23173

Review of applications will begin soon after receipt. The University of Richmond is an equal opportunity and affirmative action employer, and it encourages women and minorities to apply for its positions.

MOLECULAR GENETICIST

POST-DOCTORAL POSITION

National Institute of Diabetes and Digestive
and Kidney Diseases
Phoenix, Arizona

Full-time post-doctoral research position for an M.D. or Ph.D. (preferably with some years of relevant experience) at the Clinical Diabetes and Nutrition Section. The project involves genetic analyses of obesity related phenotypes in the Pima Indian population.

The candidate is expected to work independently, as well as in close collaboration with other investigators studying the genetics of non-insulin dependent diabetes.

Send curriculum vitae, three letters of reference, and a summary of current research activity to:

Eric Ravussin, Ph.D.
Clinical Diabetes and
Nutrition Section
National Institutes of Health
4212 North 16th Street, Room 541
Phoenix, Arizona 85016

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CAREER OPPORTUNITIES
IN OLIGONUCLEOTIDE THERAPEUTICS

ISIS Pharmaceuticals, located in Carlsbad, CA (San Diego County), is a pharmaceutical company focused on antisense oligonucleotide therapeutics. ISIS has innovative research programs, strong funding, a world-class scientific advisory board, excellent facilities and strong academic ties which make ISIS an exciting opportunity for outstanding individuals. Present openings include:

Ph.D.’s RNA Biochemistry

We are seeking Ph.D. scientists to develop and implement research programs in RNA structure, processing, translation, and the identification of novel therapeutic targets for antisense oligonucleotides within these processes. We provide a unique opportunity to study RNA processing with strong chemical support providing novel oligonucleotide analogs designed to target specific gene expression. This program is part of a long-term commitment to high quality and high-visibility research in RNA processing and metabolism. Position code 103.

Ph.D. Phospholipid Biochemist/Biophysicist

We are seeking a Ph.D. scientist to develop and implement a research program in the interaction of oligonucleotides and novel oligonucleotide analogs with biological membranes and artificial membrane model systems. The successful candidate would work closely with medicinal chemists and cellular biologists to study the mechanisms by which oligonucleotides and their analogs interact with biological membranes and aid in the design of novel oligonucleotides. At least 2 years’ postdoctoral experience in lipid biochemistry and/or biophysical techniques required. Experience in membrane transport processes or cell biology of membrane topology desired. Position code 104.

Ph.D.’s Combinatorial (Random-mer) Strategies

We are recruiting Ph.D.’s at several levels to build our program in combinatorial approaches to novel oligonucleotide ligand-receptor recognition. This program currently is based upon three distinct ISIS proprietary methodologies which use RNA, DNA and a library of novel analogs to design unique oligonucleotide based ligands. These positions require innovative scientists trained in the chemistry and biochemistry of nucleic acids and molecular recognition. Position code 105.

Postdoctoral Scientists,
Oligonucleotide Molecular Pharmacology, RNA Biochemistry, NMR

Postdoctoral positions are available to do innovative research on the molecular pharmacology of oligonucleotides (position 106), RNA Biochemistry, Structure or Metabolism (position 107), or Nucleic Acid Structural Studies by NMR (position 108).

ISIS Pharmaceuticals offers a competitive salary, benefits, and substantial equity participation. Our new facility is located in San Diego County near the University of California, San Diego, and other major scientific centers. Please submit a cover letter, which clearly specifies position code, cv, reprints of relevant publications, and names and telephone numbers of references to: Ms. Linda Kopps, ISIS Pharmaceuticals, 2280 Faraday Avenue, Carlsbad, CA 92008. An Equal Opportunity Employer.

ISIS PHARMACEUTICALS
RESEARCH AGRONOMIST to develop and identify millet inbred lines and hybrids, including maintenance of germ plasm; plan and supervise laboratory and field operations such as seed filing, inventory, seed packaging, planting, pollinating, harvesting and data collection; prepare reports and data summaries; supervise selection and training of temporary employees. M.S. agronomy (plant breeding) or equivalent experience and 6 months of experience in job or as agricultural scientist. Salary: $2666 per month. Job site/interview: Fresno, California. Send ad with résumé to: Job #19980, Sacramento, CA 95823–0560 no later than 13 December 1991.

FERTILIZATION MICROBIOLOGIST. SANDOZ Research is committed to agri-research. Our innovative bio- rational approach offers a challenging work environment. Our Biologicals Department is seeking an inter- midiate level scientist with an M.S. in microbiology/ bacteriology or B.S. with several years of relevant experience. Responsibilities include fermentation development, experimentation at the shake flask, jar fermenter, and pilot fermenter levels; overseeing a jar fermenter facility; performing and interpreting experiments associated with strain improvement and selection. Send résumé to: HR Department, 975 California Avenue, Palo Alto, CA 94301–1104. affirmative Action/Equal Opportunity Employer.

CHILDREN’S HOSPITAL DANA-FARBER CANCER INSTITUTE DIVISION OF EMERGENCY MEDICINE AND INFECTIOUS DISEASE Ph.D. level scientist to perform research on the pathogenesis of endotoxin shock. Experience in protein and polynucleotide purification is required and experience in molecular biology desirable. Candidate will be expected to work independently and generate grant support in 2 to 3 years. Teach curriculum curve vitae to: Dr. J. Fleisher, M.D., Children’s Hospital, 300 Longwood Avenue, Boston, MA 02115. To assure full consideration, curriculum vitae must be received prior to 1 February 1992. Women and minorities are encouraged to apply.

RESEARCH PHARMACIST. Provide technical and project leadership in all phases of research and development of drug delivery systems and diagnostic products, including design, development, scale-up and testing oral, parenteral and inhalation products. Responsible for projects in the development of biodegradable polymer-coated delivery systems, specifically microspheres, for parenteral drug delivery. Responsible for utilizing research instrumentation such as high-performance liquid chromatography, particle size analyzers, atomic absorption spectrophotometer and electron microscopes. Also assist in toxicology, pharmacokinetic modeling and handling of tumor-bearing animals. Ph.D. in pharmacology required together with 2 years, 6 months experience as a research pharmacist or 2 years, 6 months experience as a postdoctoral research fellow or postdoctoral lecturer. Experience must have included the development and testing of magnetic microspheres for parenteral drug delivery and drug targeting together with the application of microencapsulation for improving drug delivery via aerosols and the microencapsulation for parenteral delivery of erythropoyn. Forty hours, 8:00 a.m. to 5:00 p.m., $41,000 per year. Must have proof of legal immigration status in the United States. Send résumés to: Illinois Department of Employment Security, 401 South State Street-South, Chicago, IL 60604. Attention: M. Zielinski, Reference #V-IL-3212-2. No calls. An Employer-Paid Ad.

RESEARCH SCIENTIST needed by biotechnology research and development firm to conduct scientific research directed at identification of endothelial plasminogen activator inhibitor (PAI-1). Ph.D. or equivalent require- ments: Ph.D. in biochemistry or molecular biology and 2 years of experience in the job offered or 2 years of postdoctoral experience in endothelial plasminogen activator inhibitor (PAI-1). Publications in recognized international journals in the area of cDNA cloning/gene regulation. Salary: $36,000 per year. Send CV, letters of reference and salary requirements to: J.O. Brady; J. Feinberg; M. Pastan; M. Pastan; M. Katz. FAX:301496-9721. Please specify to which scientist your letter is directed. The National Cancer Institute is an equal opportunity employer.

RESEARCH FORESTER, USDA Forest Service, Northeastern Forest Experiment Station, Radnor, Penn- sylvania. Salary range $37,294 to $48,480 per year. Position is with the Global Change Research Program. Research involves formulating an approach for modeling carbon storage and fluxes of carbon between terrestrial ecosystems and the atmosphere, and linking the model to regional atmospheric chemical models used to project resource produc- tion. For more information, telephone: 215-975-4035 before 15 December 1991.

SCIENTIST. To analyze and interpret experiment data on the transmission of the earth’s atmosphere at millimeter wavelengths, and to generate and evaluate new approaches to studying the earth’s atmosphere. Experience in experimental geophysics and in radio astronomy are required; $27,500 per year. Mail or hand carry résumé with a copy of the ad attached to: J.O. Brady; J.I.S. Feinberg; D. Horvich; A. Kizewski; A. Jain; J. Krishnaswamy; T. Friedman; J. Greer; M.S. Herschfield; A. Lo; S. J. In; T. K. In; J. Katz. Reference #V-IL-3212-2. No calls. An Employer-Paid Ad.

OPENINGS FOR SCIENTISTS. The Weizmann Institute of Science is now offering a limited number of temporary appointments to the pos- ition of scientist. Candidates must have completed 2 years of postdoctoral work. Appointments will be made in all the areas of scientific research at the institute.

BIOLOGY CHEMISTRY BIOCHEMISTRY-BIOPHYSICS PHYSICS MATHEMATICS SCIENCE TEACHING Appointments are for a period of 1 year, however, they may be extended for a period not to exceed 5 years from receipt of Ph.D. degree (or equivalent). Successful ap- pointees will be eligible to apply for promotion to the position of senior scientist. Financial compensation for a scientist is at the level of lecturer and includes all of the associated benefits. In addition, a relocation stipend is provided. Appointment forms and additional information may be obtained from:

The Feinberg Graduate School The Weizmann Institute of Science 32 Road, Rehovot 76100, Israel

APPLICATIONS are received twice each year: 1 January and 15 May.

TECHNICAL STAFF-PHYSICS. Ph.D. in physics. Two years of experience in the job offered or 3 years of experience as a postdoctoral appointee. Experience should include application of numerical and formal many-body techniques to studies of superconductivity, disordered systems, Fermi liquids and strongly correlated electronic systems. The above evidence is a minimum of six publications in refereed scientific journals. Responsible for planning and implementing research which provides fundamental theoretical understanding, and in- ternational recognition in DNA technology and condensed matter physics. Salary: $4492 per month; 40 hours per week/ 8:30 a.m. to 5:00 p.m. Send résumés to: Illinois De- partment of Employment Security, 401 South State Street, 3 South, Chicago, IL 60604. Attention: D. Rule, Reference #V-IL-3745-R. No calls. Must have proof of legal immigration status in the United States. An Employer-Paid ad.

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HOWARD HUGHES MEDICAL INSTITUTE

POSTDOCTORAL RESEARCH FELLOWSHIPS FOR PHYSICIANS

1992 Competition

25 Fellowships will be awarded to physicians by the Howard Hughes Medical Institute for three years of training in fundamental biomedical research. Awards, based on an international competition each year, focus on research directed to an understanding of basic biological processes and disease mechanisms. Fellowships may be held at any academic or not-for-profit research institution, including but not limited to Hughes laboratories.

■ Fellowship Terms
  - Three years of support
  - Full-time fundamental research
  - $35,000-$50,000 annual stipend
  - $15,000 research allowance
  - $12,000 institutional allowance

■ Eligibility
  - M.D., M.D./Ph.D., M.B.B.S., or D.O., with the first medical degree awarded no earlier than 1982
  - At the start of the fellowship
    - at least two years of postgraduate clinical training completed
    - no more than two years of postdoctoral research training completed
  - Applicants (and fellows) may not have faculty appointments
  - Fellows may not be enrolled in graduate degree programs
  - No citizenship requirements: U.S. citizens may study abroad, but others must study in the United States

■ Schedule
  - Application deadline: March 1, 1992
  - Awards announced: September 1992
  - Fellowships start: January 1, 1993 - September 1, 1993

FOR 1992 PROGRAM ANNOUNCEMENTS AND APPLICATIONS

Howard Hughes Medical Institute
Office of Grants and Special Programs
Postdoctoral Research Fellowships for Physicians
Department CC92
6701 Rockledge Drive
Bethesda, MD 20817, United States of America
Telephone (301) 571-8412

The Howard Hughes Medical Institute, an Equal Opportunity Employer, welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.
No other refrigerated bench centrifuge can match the Centra-MP4R's extraordinary range of low to high speed applications.

For example, the MP4R can spin more tubes, faster, than dedicated refrigerated microcentrifuges. It separates a liter of sample in less space and in less time than other bench units. It takes batches of most tube sizes to 250mL. And it has program memory, rate control for delicate samples, and advanced features to meet the diverse needs of research applications.

So if you're in the market for a multipurpose centrifuge that can do it all, choose the one centrifuge that does it all best. The IEC Centra-MP4R.