

Such imbalance is probably unavoidable in a complex international enterprise. Indeed, the shifting approaches and emphases provide a fascinating perspective on national geomorphic preoccupations. French geomorphology emphasizes climatic morphogenesis, and, although its direct practitioners are underrepresented in this volume, its methodology is well illustrated in Sala's treatment of Spanish landforms. Numerous geomorphic maps elaborate the relationships among landforms that derive from exogenic processes operating under both present and past climatic regimes. In Spain river terraces and piedmonts (glacis) are generally explained in terms of climatic change.

For the British Isles emphasis is placed on planation surfaces, drainage evolution, and the effects of Quaternary glaciation. Probably because of minimal German participation in the volume, the treatment for Germany is largely descriptive, including basic geology and landforms. In contrast, the extensive discussion of Hercynian and Carpathian central Europe by Demek is analytical, striking a balance in explaining an endogenically produced structural framework that is modified by diverse exogenic processes controlled by climate.

The sections authored by Eastern Europeans provide useful insight into their science. A central theme is the adherence by Russian geomorphologists to the concept of identifying morphostructures, that is, relief generated by a combination of active tectonism and climatically controlled degradation. Morphostructures can be regional, such as the Fennoscandian shield, or local, such as a fault-controlled valley. They are produced by alternating periods of uplift (with resulting dissection) and stabilization (yielding various kinds of planation surfaces). In Russia and Eastern Europe river terraces and planation surfaces are interpreted within a tectonic framework. Happily an extensive reference list and an index of obscure places and concepts aids in documenting the important contributions of Eastern European geomorphologists.

The Russian contributions to the volume are also fascinating for their avoidance of plate-tectonic theory as a unifying concept. This highlights a schism between the geomorphic thought of Eastern and Western Europe that permeates the whole volume. Yet the total effort remains true to a theme of large-scale geomorphology. This is a theme that has been neglected in recent decades, as geomorphologists occupied themselves with the study of relatively

small-scale processes. However, the advent of new technologies for global remote sensing and unifying models for the operation of global tectonic and climatic systems has created an opportunity to put large-scale geomorphology on a firm scientific basis. Though this book contains only limited reference to these modern developments, it may aid in contributing to the baseline of regional geomorphology from which a revitalized science of global morphological dynamics will emerge. Certainly the book leaves no question about the value of geomorphic research. Despite the methodological arguments of various geomorphologists, geomorphology remains the analysis of the dynamic interface between our rocky planetary surface and its mobile atmosphere and hydrosphere. The importance of that interface to all life makes it worthy of our best scientific scrutiny.

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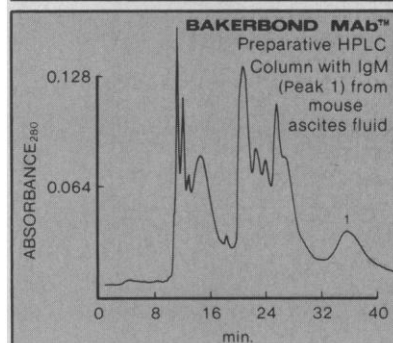
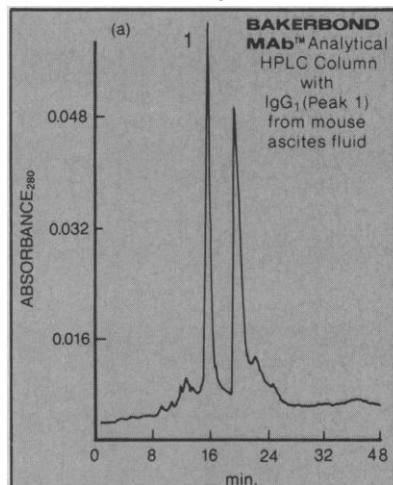
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POSITIONS OPEN

ASTRONOMERS, National Optical Astronomy Observatories, La Serena, Chile—The National Optical Astronomy Observatories announces the opening of one or two positions to join the tenure-track scientific staff at the Cerro Tololo Inter-American Observatory. The positions offer exceptional opportunities to observe the southern skies in a vigorous and stimulating environment. Staff positions carry the additional attraction of substantial financial advantages including a full remission of income tax on salary; a significant (currently 25 percent) overseas allowance; housing at a subsidized rate; annual home leave for staff members and family; and other generous benefits. Professional travel policy is liberal, and staff have outstanding opportunities to contribute to the Observatory's scientific program and to develop their own capabilities in research and instrument development. Scientists who feel that their accomplishments, personality, and desire for a more adventurous approach can match the high standards and opportunities presented here are invited to forward their application, curriculum vitae, and the names of three references to: **Dr. P. Osmer, Director, Cerro Tololo Inter-American Observatory, Casilla 603, La Serena, Chile. With copies to: Judith Ruffino, Personnel Manager, National Optical Astronomy Observatories, P.O. Box 26732, Tucson, Arizona 85726. An Equal Opportunity/Affirmative Action Employer.**

Search reopened. **BIOLOGY:** Tenure-track position at the assistant level in vertebrate biology. Start August 1984. Candidate will teach courses in anatomy and physiology and introductory biology. Applicants should have an earned doctorate and demonstrated interest and ability in undergraduate teaching and research. Salary: \$18,000 to \$20,000 for 9-month contract, dependent on experience. Send résumé and three letters of recommendation to: **Vice President for Academic Affairs, College of Santa Fe, Santa Fe, New Mexico 87501. Closing date: 27 July 1984.**

DEPARTMENT OF OPHTHALMOLOGY AND VISUAL SCIENCE Yale University School of Medicine

CELL BIOLOGIST—Tenured position. Send curriculum vitae and bibliography along with a statement of your research interests to: **Dorothy Weiland, Department of Ophthalmology and Visual Science, Yale University School of Medicine, P.O. Box 3333, New Haven, Conn. 06510. Affirmative Action/Equal Opportunity Employer.**

Search reopened. **CHEMISTRY:** Tenure-track position at the assistant level. Competence in physical and organic area. Start August 1984. Applicants should have an earned doctorate. A demonstrated interest and ability in undergraduate teaching and research is desired. Salary: \$18,000 to \$20,000 for 9-month contract, dependent on experience. Send résumé and three letters of recommendation to: **Vice President for Academic Affairs, College of Santa Fe, Santa Fe, New Mexico 87501. Closing date: 27 July 1984.**

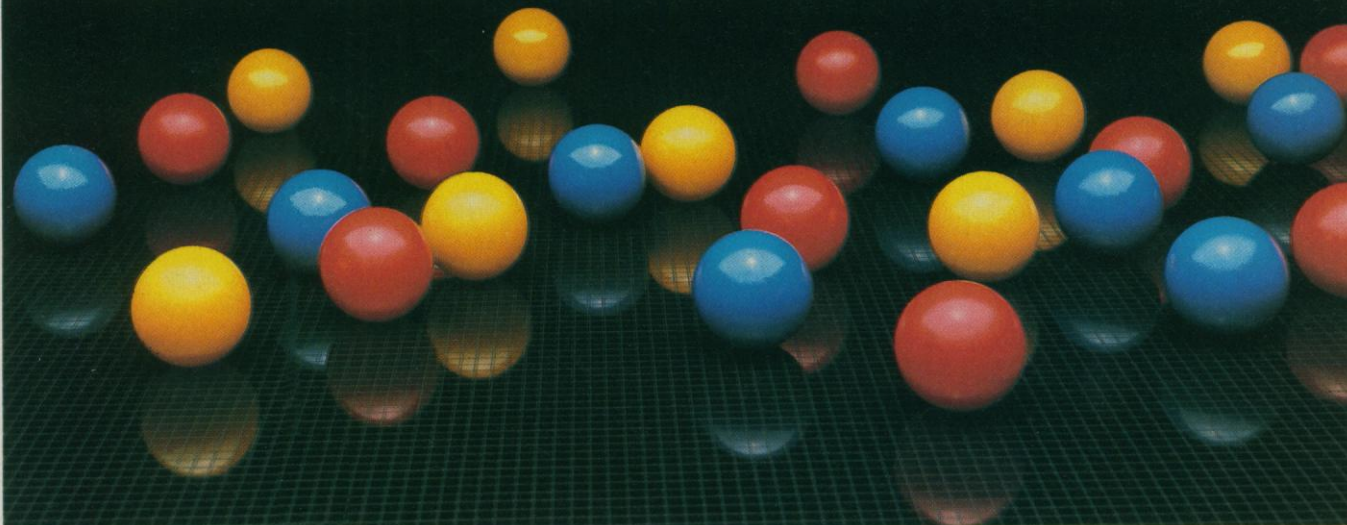
DEAN, COLLEGE OF ENGINEERING, CORNELL UNIVERSITY is seeking a dean of its College of Engineering effective earliest possible date and by no later than 15 August 1985. Qualifications for appointment as a tenured professor at a major research university are required. In addition, academic, administrative, and fund raising experiences are desirable. Nominations and applications should be forwarded by 1 September 1984 to: **Robert Barker, Provost, CORNELL UNIVERSITY, 300 Day Hall, Ithaca, New York 14853. An Affirmative Action/Equal Opportunity Employer.**

HARVARD MEDICAL SCHOOL DEPARTMENT OF GENETICS

The Department of Genetics at the Harvard Medical School invites qualified Ph.D. or M.D. scientists to submit applications for an appointment at the **assistant professor** level. Candidates with demonstrated interests in molecular approaches to understanding the genetics of development, the nervous system, and cellular growth and regulation are particularly encouraged to apply, but all candidates pursuing imaginative solutions to contemporary genetic problems, including those of man, will be given serious consideration. Applicants should submit curriculum vitae, reprints, statement of research interests, and the names of three references to: **Dr. Philip Leder, Chairman, Department of Genetics, Harvard Medical School, 45 Shattuck Street, Boston, Mass. 02115.**

Harvard University is an Equal Opportunity/Affirmative Action Employer. Qualified women and minority groups are strongly encouraged to apply.

Join Du Pont, one of the top R&D teams in the Life Sciences



Technical innovation continues to be the hallmark of Du Pont's growth and success. We are making a particularly strong commitment to the Life Sciences, now allocating approximately 25% of the company's research budget to this area.

Our R&D facilities in the Wilmington, Delaware area are outstanding, including a new \$85 million addition to our main research center. In this stimulating professional environment, expanded activity is taking place in immunology, neurobiology, fermentation, microbiology, molecular genetics, plant biology and pathology, and entomology. In Glasgow, Delaware is a new laboratory for medical diagnostic research and a facility for biomedical research is located in Glenolden, Pennsylvania.

As a valued member of a highly skilled, interdisciplinary Du Pont team, you'll enjoy the challenge of working on important programs at the leading edge of Life Science technology. We have the following immediate opportunities in the Research Division of the Central Research and Development Department:

Salaries will be fully commensurate with background and liberal Du Pont benefits include relocation. For immediate consideration, send curriculum vitae and list of references in complete confidence, indicating area of interest, to: **Dr. S. T. Toy, Employee Relations, Dept., Room X40932, E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware 19898.**

□ **MOLECULAR BIOLOGISTS**

Will conduct fundamental studies in enzyme mechanisms, protein structure, genetic engineering, gene expression, cell biology, genetic recombination, virology, and synthetic organic chemistry relating to molecular biology. Studies involve both prokaryotic and eukaryotic organisms. Requires highly motivated, experienced professionals possessing PhD degrees, and post doctoral experience in the following sciences: Microbiology, Biochemistry, Organic Chemistry, Genetics, and/or Virology.

□ **NEUROBIOLOGISTS**

In this creative high-output position, you will work as a member of the Neurobiology Group. Background in molecular biology, neurochemistry, behavioral pharmacology, developmental neurobiology, and neuroendocrinology preferred. Requires PhD in Neuroscience or M.D. and 2+ years relevant postdoctoral experience.

□ **AGRICULTURAL RESEARCH SCIENTISTS**

Will do fundamental research on biochemical and genetic aspects of developmental biology, intermediary metabolism, detoxification mechanisms, pathology and assimilate transport in plants. Requires PhD with postdoctoral experience in biochemistry and/or molecular biology relating to plant sciences.

□ **IMMUNOLOGISTS**

Challenging opportunity within the Immunology Group. Candidates will participate in investigator-initiated research in: 1) molecular and biochemical immunology focusing on cellular transformation, immunoregulation, or cell surface receptors or 2) cellular aspects of lymphocyte cloning, cytotoxicity, surface receptor function, or T-cell regulation. Requires minimum 2-3 years and significant postdoctoral experience.



REG. U.S. PAT. & TM. OFF.
Equal Opportunity Employer M/F

Head of the Department of Veterinary Science and Director of the Idaho Faculty of WOI. The Department of Veterinary Science is a part of the College of Agriculture and has responsibilities in teaching, research, and extension. Idaho participates in the Washington, Oregon, Idaho (WOI) Regional Program in Veterinary Medical Education. This challenging position is open to an outstanding individual who: (i) holds the D.V.M. degree (with additional Ph.D. or specialty Board-certification preferred), (ii) has shown distinction in instruction and research at the university level, (iii) has successful administrative experience, (iv) has an understanding of the importance of service and extension aspects of veterinary medicine to the state, and (v) shows the ability to interact effectively with faculty and local, state, and national leaders in veterinary medical and biomedical science. The candidate should be eligible for appointment as professor. The position carries the concurrent appointment of associate dean for WOI at Washington State University (located 8 miles distant in Pullman, Washington). Modern research facilities are located on campus, and The Caine Veterinary Teaching Center is located near Caldwell, Idaho.

The deadline for nominations and applications is 1 September 1984, or until a suitable candidate is identified. The position is available as soon as a suitable candidate is selected. Applications should include a letter of interest, complete résumé, and names, addresses, and telephone numbers of at least three references. Send to: **Dr. Wayne E. Magee, Chairman, Search Committee, Head of Veterinary Science, Department of Bacteriology and Biochemistry, Life Sciences, Room 14, University of Idaho, Moscow, Idaho 83843.**

The University of Idaho is an Equal Opportunity/Affirmative Action Employer and Educational Institution.

CHAIRPERSON

DEPARTMENT OF PREVENTIVE MEDICINE AND COMMUNITY HEALTH UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON

Applications and nominations are invited for the position of chairperson of the Department of Preventive Medicine and Community Health (PM&CH) at the University of Texas Medical Branch (UTMB) at Galveston. The department consists of active divisions with established research programs in environmental toxicology and genetics, the behavioral components and family/cultural concomitants of health promotion and disease prevention, and epidemiology-biometry. As a basic science department within the medical school, PM&CH participates in the academic training of physicians and offers a Ph.D. degree in preventive medicine and community health, with areas of concentration in quantitative sciences, environmental toxicology, sociomedical sciences, and medical humanities, through the University of Texas Graduate School of Biomedical Sciences.

Successful candidates will have credentials in one or more of the following areas: medicine; epidemiology; public health, administration, public policy; development, implementation, and evaluation of community-based preventive medicine/health promotion programs. Candidates must have a distinguished record of scholarly activity including excellence in teaching and an active research program in health promotion and disease prevention. They must demonstrate the ability to develop a clinical residency training program in PM&CH, to interact effectively with a diverse body of faculty and students, and to generate extramural support.

Send letter of application, curriculum vitae, and three letters of reference to: **Dr. Mary C. Cerreto, Chairperson, PM&CH Search Committee, Department of Pediatrics, University of Texas Medical Branch, Galveston, Texas 77550. UTMB is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

CHAIR IN REPRODUCTION DEPARTMENT OF CLINICAL STUDIES NEW BOLTON CENTER UNIVERSITY OF PENNSYLVANIA SCHOOL OF VETERINARY MEDICINE

Both nominations and applications are invited for a newly endowed chair, The Marion Dill and David George Jones Chair, in reproduction at the School of Veterinary Medicine, University of Pennsylvania. This initiative represents an intent on the part of the school to build upon its already strong program in reproduction. The successful applicant will be expected to develop an innovative program of research in an area which is discernibly relevant to the reproductive biology of farm animals. The applicant should also have the experience and interest to develop a role in leadership of the Section of Reproductive Studies at New Bolton Center. A degree in veterinary medicine is desirable but not essential.

New Bolton Center is the rural campus of the School of Veterinary Medicine and is situated 30 miles west of Philadelphia.

Interested individuals should send curriculum vitae, references, and a summary of research interests to: **Dr. Alan M. Kelly, School of Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, Pa. 19104.** Closing date for applications is 30 September 1984.

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

CHAIRPERSON Fruit Crops Department Institute of Food and Agricultural Science University of Florida, Gainesville

Applications and nominations are invited for a position of leadership and administration of teaching, research, and extension programs in the Fruit Crops Department at the University of Florida. Appointee will also be responsible for coordinating statewide programs at the Agricultural Research and Education Centers. The department has 19 faculty members, encompassing program activities in citrus, deciduous fruits, and other subtropical and tropical fruits. Citrus alone represents a billion-dollar commodity to the state of Florida so an outstanding opportunity exists for the integration of research and teaching needs with those of this industry. Demonstrated administrative skills, a strong background in research, and experience in teaching or extension are desired. A Ph.D. in horticulture or related field is required. Applications accepted until 15 August 1984. Application letter should be sent to: **Dr. T. E. Crocker, Department of Fruit Crops, University of Florida, Gainesville, Fla. 32611. Telephone: 904-392-1996.**

COCHLEAR ANATOMIST

A full-time research position is available immediately for a person with training and research interests in cochlear anatomy. Must have the potential to develop own research program, be able to compete for external research support, and to collaborate on projects in neuroanatomy, neurophysiology, and biophysics. Qualified persons should send curriculum vitae and names of three references to: **J. H. Mills, Department of Otolaryngology and Communicative Sciences, Medical University of South Carolina, Charleston, S.C. 29425. Equal Opportunity Employer, M/F/H.**

CYTOGENETICIST

Arkansas Children's Hospital, an affiliate of University of Arkansas for Medical Sciences, is seeking a Ph.D. cytogeneticist to direct the clinical cytogenetics laboratory. American Board of Medical Genetics certification or eligibility preferred. Applicants should submit résumés and references to: **Personnel Department, Arkansas Children's Hospital, 804 Wolfe Street, Little Rock, Ark. 72202; telephone: 501-370-1166.**

FACULTY POSITION in biochemistry at **LAKE SUPERIOR STATE COLLEGE**; tenure-track position; to teach biochemistry and health chemistry at undergraduate level. Ph.D. required with demonstrated ability to teach in undergraduate environment; master's possible for temporary appointment. Rank and salary commensurate with qualifications and experience. Excellent fringe benefits; position available for fall 1984. Submit curriculum vitae and three letters of recommendation to: **Office of Employee Relations, LAKE SUPERIOR STATE COLLEGE, Sault Ste. Marie, Michigan 49783, by 27 July 1984, or until position is filled. An Equal Opportunity Employer.**

POSITIONS OPEN

DIRECTOR OF SPONSORED PROGRAMS at Western Kentucky University. Candidates should possess suitable terminal degree and have experience with proposal preparation and sponsored program activities. Salary: \$36,000 to \$39,000. Possible faculty appointment. Job description available upon request. Letter of application and résumé should be submitted by 30 July 1984 to: **Director of Personnel Services, Western Kentucky University, Bowling Green, Ky. 42101. An Equal Opportunity Employer.**

ELECTRON MICROSCOPIST Department of Biology University of Utah

Supervise and maintain departmental TEM/SEM facility, serve and collaborate with faculty, provide training in EM use. Opportunity for independent research as well. Nontenure-track faculty position. Send résumé of academic and TEM/SEM experience and three letters of reference by 1 September 1984 to: **Dr. L. H. Wullstein, Department of Biology, University of Utah, Salt Lake City, Utah 84112.**

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITION available at the assistant to full professor level for research and teaching for candidates with an M.D. or Ph.D. who have research interests in one of the following areas: DNA virology, molecular genetics, medically related microbiology, neurobiology, or cytoskeletal structure and function. Submit curriculum vitae and three letters of reference to: **Dr. Bruce Kline, Chairman, Search Committee, Department of Cell Biology, Mayo Clinic, Rochester, Minnesota 55905. An Equal Opportunity/Affirmative Action Institution.**

FACULTY POSITION available for a Board-certified family physician. The role would involve direct patient care, participation in the teaching of both residents and medical students, and the development of original investigation. Appointment can be at the instructor, assistant professor, associate professor, or full professor level, depending upon credentials. The department, now in its seventh year, has a well-balanced faculty group, a successful residency program, and a rapidly developing research support system. Those interested should send curriculum vitae to: **Dr. Terence C. Davies, Professor and Chairman, Department of Family Practice, The University of Michigan Medical Center, 1018 Fuller Street, Ann Arbor, Michigan, 48109-0010; telephone 313-764-2648. A non-discriminatory Affirmative Action Employer.**

FACULTY POSITION FACULTY OF PHARMACY UNIVERSITY OF TORONTO

Applications are invited for a tenure or tenure-stream appointment at the level of assistant or associate professor and commencing immediately. Candidates will be expected to develop an independent programme of research, to supervise graduate students, and to teach biochemistry to undergraduates in pharmacy. The successful applicant must have a Ph.D. degree and have at least two years of postdoctoral experience in a relevant area of biochemistry or a related field. *In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and landed immigrants.* However, others are encouraged to apply. Applicants should send, by 31 August 1984, an updated curriculum vitae, with three letters of reference and brief outline of future research to: **R. M. Baxter, Dean, Faculty of Pharmacy, University of Toronto, Toronto, Ontario, Canada M5S 1A1.**

FOOD BIOCHEMISTRY

The nutrition program in the Department of Biochemistry invites applications for a full-time, tenure-track position at assistant professor level for 1 January 1985 or until position is filled. Responsibilities include teaching food biochemistry courses and developing an independent research program in food and nutrition. Qualifications: Ph.D. in food, nutrition, or related discipline required; postdoctoral research experience preferred; knowledge of English and French essential. Salary dependent on experience. Deadline for application: 1 September 1984. Please submit application with curriculum vitae, publication list, brief summary of research interests, and names of three referees to: **Dr. Morris Kates, Chairman, Department of Biochemistry, University of Ottawa, Ottawa, Ontario, Canada K1N 9B4. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.**

PHARMACEUTICAL RESEARCH PHYSICIAN

Boehringer Mannheim Corporation, an international leader in the pharmaceutical industry, is establishing a medical research and regulatory group in Rockville, Maryland to handle its U.S. drug development operation.

We have a ground floor opportunity for an energetic physician interested in cardiovascular and metabolic drugs. He or she will be the medical leader of the firm's initial research team.

Candidates must be board certified in internal medicine and experienced in clinical investigations. Industry experience and hands-on participation in the design and conduct of clinical trials are desirable assets.

The group will be located near NIH, FDA, and the Washington, D.C. medical schools. An academic appointment is encouraged. International and domestic travel is required.

Compensation is commensurate with experience and education, with opportunity for advancement. Please send curriculum vitae to:

TASA, Inc.

Dept. G
875 Third Avenue, Suite 1501
New York, New York 10022

TASA, Inc. is an international executive search firm.

Microbial Geneticist

Pfizer Central Research has an opening in its Fermentation and Recovery R & D group for a Microbial Geneticist with an MS degree and experience in mutation and selection techniques, protoplast fusion and recombinant DNA methods. Demonstrated ability to work with a wide range of industrial organisms (fungi, yeast, bacteria) is essential. A working knowledge of modern analytical techniques (SDS-PAGE, GPC, HPLC, etc.) is also required.

The successful candidate will assist in optimization of fermentation processes, and in the analysis of key biochemical compounds. Working in a multidisciplinary team, you will contribute to the commercialization of a wide variety of new biosynthetic products.

This position offers an excellent opportunity for professional recognition and career growth. We also offer competitive compensation, a comprehensive benefit package and the opportunity to live in an attractive Connecticut shore community. Please send resume and description of research accomplishments to: Lorraine C. Corr, Personnel Associate, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



An equal
opportunity employer

ST. JOHN'S UNIVERSITY, New York

Research Technician to assist in all phases of research and laboratory management. B.A. or B.S. required; M.S. preferred in microbiology, biochemistry, or a related field, and at least a year of experience in nucleic acid biochemistry and/or virology. Salary commensurate with experience and qualifications. **Write:** Dr. T. Carter, Department of Biological Sciences, St. John's University, Jamaica, N.Y. 11439.

An Equal Opportunity
Employer--M/F

MANAGER BIOTECHNOLOGY RESEARCH

Stauffer Chemical Company, a Fortune 500 diversified chemical company, seeks a Scientist/Manager to direct the efforts of 70 scientific and support personnel in Biotechnology and Food Ingredients research.

The successful candidate will have:

- **Ph.D in Molecular Biology, Biochemistry, or Biotechnology**
- **A record of significant accomplishments**
- **Ability to lead technical staff and programs**
- **5-10 years relevant managerial experience**
- **Technical and managerial creativeness**
- **A working knowledge of some of the following:**
Recombinant DNA/Molecular Biology, Food Technology,
Fermentation and Applied Microbiology, Crop Protection
Chemicals and Seeds

This position is located at the de Guigne Technical Center in Richmond, California and reports to the Vice President-Research. It offers a competitive salary level, visibility and the opportunity for growth and recognition.

Write in confidence to:



Dr. R.I. Mateles
Vice President-Research
Stauffer Chemical Company
Westport, Conn. 06881

An Equal Opportunity Employer M/F

**University of California
Lawrence Berkeley Laboratory
Announces an opening
1 January 1985 for
Associate Laboratory Director and
Head of Nuclear Science Division**

The Lawrence Berkeley Laboratory is a multi-purpose research laboratory funded by the Department of Energy. Its Nuclear Science Division conducts a multimillion dollar research program in low, medium and high-energy nuclear physics. The Head of the Division has primary responsibility for the leadership and management of this program under the general direction of the Deputy Director for General Sciences and the Laboratory Director. As an Associate Director of the Laboratory, the incumbent will also participate in formulating the research policy and long-term direction of the Laboratory as a whole. Candidates must have had significant experience as practicing nuclear physicists and be of the general calibre of persons holding senior tenure positions in major research institutions. The successful applicant would be expected to serve as Associate Director and Division Head for an initial term of 3 to 5 years, subject to renewal for further terms by mutual agreement.

The Laboratory is seeking a respected and energetic nuclear physicist willing to play a strong leadership role at a challenging time. Qualifications must be such that it will be natural to consider him or her for a tenured appointment in the Department of Physics on the Berkeley campus of the University of California, as well as at the Laboratory. Interested applicants should submit a curriculum vitae, together with the names of three references to: Dr. J.D. Jackson, Chairman, Nuclear Science Search Committee, c/o Employment Office, LAWRENCE BERKELEY LABORATORY, 1 Cyclotron Road, Berkeley, CA 94720. Refer to Job A/2947. An Equal Opportunity Employer M/F/H. Deadline for applications: August 31, 1984.



University of California

POSITIONS OPEN

FACULTY POSITION
Department of Obstetrics and Gynecology
University of Texas Health Science Center
at San Antonio

In keeping with our interest in reproductive biology and our wish to apply the techniques of cell biology to problems of reproductive biology, we are seeking a **developmental biologist** with expertise in **recombinant DNA methodology** to fill a full-time faculty position (tenure track). Salary and rank are open to negotiation. This individual should have a doctoral degree and have developed an independent area of research. Formal teaching experience is an asset but not essential. The Department of Obstetrics and Gynecology and the NIH-supported Center for Research in Reproductive Biology offer excellent research facilities and a highly interdisciplinary environment.

Nominations and applications should be sent to: **Dr. M.J.K. Harper, Chairman, Search Committee at the Department of Obstetrics and Gynecology, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, Texas 78284 (telephone: 512-691-6677),** and should include up-to-date curriculum vitae and three names of references who will not be contacted unless the individual is short listed for this position.

The University of Texas Health Science Center at San Antonio is an Equal Opportunity/Affirmative Action Employer.

**THE HEBREW UNIVERSITY OF JERUSALEM
FACULTY POSITION IN MICROBIOLOGY**

The Institute of Microbiology invites applications for a tenure-track faculty position. The appointee will be expected to develop an independent research program in general bacteriology, bacterial physiology, or bacterial and molecular genetics, and to teach general bacteriology and bacterial physiology at the undergraduate and graduate levels. Qualified candidates should submit detailed curriculum vitae, list of publications, three references, and a brief research plan, until 30 September 1984, to: **A. Arnon, The Institute of Microbiology, The Hebrew University-Hadassah Medical School, P.O. Box 1172, Jerusalem 91010, Israel.**

FISH: NUTRITION, PHYSIOLOGY, PATHOLOGY, BREEDING LARVAL REARING SPECIALIST. The Oceanic Institute, Waimanalo, Hawaii 96795, is initiating a comprehensive milkfish research program. Seeking M.S. and Ph.D. staff with marine finfish research experience. Closing date: 3 August 1984. Send résumé to: **Nancy Roberts. Telephone: 808-259-7951.**

FOREST GENETICIST

Assistant professor, 12-month, tenure-track position available 1 December 1984, to conduct research identifying genetic characters of forest trees with the goal of applying advances in physiology and genetic engineering to tree improvement. Also expected to teach a course in forest genetics and participate in continuing education activities. Ph.D. required; applicant should have a background in forestry and training in physiological genetics, biochemistry, or molecular biology. Send letter of application, complete résumé, transcripts, examples of publications, and three letters of reference by 15 September 1984 to: **Dr. Logan Norris, Head, Department of Forest Science, College of Forestry, Oregon State University, Corvallis, Oregon 97331. An Equal Opportunity/Affirmative Action Employer, complies with Section 504 of the Rehabilitation Act of 1973.**

IMMUNOLOGY

The West Virginia School of Osteopathic Medicine (WVSOM) invites applications for a tenure-track, 9-month-appointment, available immediately. Preference will be given to those applicants with abilities in parasitology, as well as immunology. Successful candidates will be expected to teach in a general microbiology course, participate in the committee structure of the School and take part in a developing research program. Qualified individuals must hold a Ph.D. in microbiology or immunology and postdoctoral experience is desirable. Rank and salary will be commensurate with experience. Applications, including current curriculum vitae and the names of three references, should be sent to: **Michael K. Cope, Ph.D., Associate Dean for Academic Affairs, West Virginia School of Osteopathic Medicine, Lewisburg, West Virginia 24901. Deadline for applications is 30 August 1984.**

WVSOM is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

CHEMICAL ENGINEERING, DEPARTMENT HEAD. Strong academic, research, and administrative skills desired. Direct inquiries to: **Dr. Carl O. Thomas, Search Committee Chairman, Department of Chemical Engineering, University of Tennessee, Knoxville, Tenn. 37996-2200. Telephone: 615-974-5329.** Application deadline: 15 September 1984. *University of Tennessee, Knoxville, is an Equal Opportunity/Title IX/Section 504 Employer.*

TRUDEAU INSTITUTE

Applications are invited for an **IMMUNOBIOLOGIST** to develop an independent research program. Consideration will be given to applicants with training and interest in antiviral immunity or transplantation immunology. Appointment may be made at either junior or senior faculty rank. Applicants should have at least 3 years of postdoctoral experience and provide visible evidence that they already have been scientifically productive. Funds are available to support the successful applicant for a minimum of 3 years.

The Trudeau Institute is a not-for-profit pure research institute situated on the shore of Saranac Lake, N.Y., 8 miles from Lake Placid, N.Y.

Send curriculum vitae and names of three references to:

**Dr. Robert J. North, Director
Trudeau Institute, Inc.
P.O. Box 59
Saranac Lake, N.Y. 12983
An Equal Opportunity Employer**

IMMUNOLOGIST, FACULTY POSITION. A full-time, tenure-track position in the Pathology Department at rank of assistant or associate professor. Ph.D. or comparable degree with demonstrated leadership in teaching and research. Establish research program competitive for external funding. Participation in Ph.D. graduate programs in department expected. Limited hospital service responsibility in immunopathology laboratory. Send curriculum vitae and references to: **C. Robert Baisden, Chief, Section of Clinical Pathology, Medical College of Georgia, Augusta, Ga. 30912. Equal Opportunity Employer, M/F. J1805.**

INSECT POPULATION ECOLOGIST: Assistant professor, tenure-track position. Responsibilities: 100 percent research. Develop program on insect population ecology. Initial emphasis on population dynamics of spider mites in tree fruit system. Qualifications: Ph.D. in biology with broad training in insect population ecology, including biological control. Demonstrated expertise in statistics and management decision models essential. Send curriculum vitae, transcripts, and names of five references to: **H. Reissig, Chairman, Search Committee, Department of Entomology, New York State Agricultural Experiment Station, Cornell University, Geneva, N.Y. 14456.** Position available 1 January 1985. Application deadline: 1 October 1984.

**VISITING INSTRUCTOR IN
GENETICS/BIOCHEMISTRY**

The Department of Biochemistry and Biophysics at Texas A&M University invites applications for a 9-month, nontenure-track visiting instructorship. Duties will include teaching and coordination of undergraduate laboratories in genetics and biochemistry. Some supervision of graduate teaching assistants will be required. Participation in the department's research programs is encouraged, but is not mandatory. Qualifications for this position will include a Ph.D. in either biochemistry, genetics, or a related field, with some teaching experience; however, candidates with master's degrees and extensive teaching experience will be considered. Applicants should send curriculum vitae, a list of publications, and the names with telephone numbers, of three references to:

**Dr. E. G. Sander, Head
Department of Biochemistry and Biophysics
Texas A&M University
College Station, Texas 77843
Telephone: 409-845-5032**

The closing date for the receipt of applications is 27 July 1984, as a successful candidate will be expected to begin work no later than 1 September 1984. *Texas A&M University is an Equal Opportunity/Affirmative Action Employer, and invites applications from minority groups and women.*

POSITIONS OPEN

IMMUNOLOGIST—Applications are invited for a postdoctoral fellowship position in the Division of Neurological Surgery, University of Wisconsin, Madison. Applicants should have a thorough understanding of immunological techniques including hybridoma methodology as well as basic tissue culture and molecular biological techniques. Experience in protein, purification and characterization and previous work with infectious and toxic agents are desirable. Candidate will be expected to carry out research on cell surface antigens of human brain tumors obtained from surgical material and/or grown in tissue culture. Salary commensurate with experience. Send letter of application and curriculum vitae and names of three references to: **Chairman, Division of Neurosurgery, H4/346, Clinical Science Center, 600 Highland Avenue, Madison, Wis. 53792**, by 1 September 1984. *The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer.*

SCRIPPS INSTITUTION OF OCEANOGRAPHY/MARINE GEOPHYSICS. The Scripps Institution of Oceanography invites applications for a tenure-track position in solid-earth geophysics/tectonophysics. The level of the appointment will depend on the applicant's qualifications. Candidates will be expected to supervise and conduct research in geophysical studies or tectonophysics with emphasis on the ocean basins and their margins. The position will also involve graduate-level teaching and the supervision of graduate student research. Applicants must hold Ph.D. degree and have demonstrated excellence and independence in research in geophysics-tectonophysics. Associate or professorial level candidates must show evidence of strong research record in their specialization; assistant level candidates will be expected to show evidence of their potential through publication record appropriate for their experience and letters of recommendation. Send letter of application including description of research interests, list of publications, résumé of teaching experience, and names of at least three references to: **Chairman, Graduate Department, A-008, Scripps Institution of Oceanography, University of California, San Diego, La Jolla, Calif. 92093**. Closing date for applications is 15 October 1984. We expect to fill the position in calendar year 1985. *An Equal Opportunity/Affirmative Action Employer. Women and minorities are especially invited to apply.*

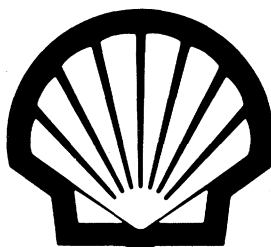
MEDICAL DIRECTOR ALCOHOL TREATMENT PROGRAM

Duke University Medical Center, Department of Psychiatry, and Durham County Mental Health Center (DCMHC) offer a joint position for an experienced psychiatrist. The successful applicant will be appointed medical director of the DCMHC Alcoholism Treatment Center (half-time) and director of the Duke Department of Psychiatry alcoholism program. DCMHC facility is located close to Duke Hospital and provides an excellent base for clinical and academic activity. Core departmental resources at Duke are available for data management, clinical research admissions, and research laboratory support. Applicant must have clinical skills in alcohol treatment and must be able to provide planning and supervision to a comprehensive alcohol treatment program. Qualified candidates with a strong academic and research orientation will be preferred. Address inquiries to: **Daniel Blazer, M.D., Head, Division of Community and Social Psychiatry, Duke University Medical Center Box, P.O. Box 3173, Durham, North Carolina 27710**. *Duke University and Durham County Mental Health Center are Equal Opportunity/Affirmative Action Employers.*

POSITION OPEN. Work on the metabolism of sulfur-containing compounds by methanogens and its relation to microbial metal corrosion. Background in microbial physiology, anaerobic microbiology, or biochemistry. Starting date: 1 September 1984. Send curriculum vitae, including references, to: **Dr. Lacy Daniels, Department of Microbiology, University of Iowa, Iowa City, Iowa 52242**.

PLANT MOLECULAR BIOLOGY MCGILL UNIVERSITY

A postdoctoral research associate position is available in our Genetic Manipulation Research Group effective September 1984. The research involves studies on symbiotic genes of *Rhizobium japonicum*. Experience in the area of microbiology and molecular biology is essential. Apply before July 30 to: **Professor D. P. S. Verma, Department of Biology, McGill University, 1205 Dr. Penfield Avenue, Montreal, Quebec, Canada H3A 1B1**. Telephone: 514-392-4970.



POSITIONS IN TOXICOLOGY RESEARCH

The following positions are available in Toxicology Research at Shell Development Company.

Genetic Toxicology

Required: PhD in genetics or related field and experience with mammalian or whole animal systems. This is an entry-level laboratory position. The person will function as a study director in the design, conduct and interpretation of experiments, and will be involved in evaluation of genetic toxicology data and program development to access the genotoxicity of selected chemicals.

Experimental Toxicology

Required: PhD in toxicology or pharmacology. Training or experience in neurotoxicology or the neurosciences is preferred. This is an entry-level laboratory position. The person will function as a study director in the laboratory in the design, conduct and interpretation of experiments and in the evaluation of existing toxicological information.

Products/Processes Toxicology

Required: PhD in toxicology or pharmacology. This is an entry-level position. The person will be located in head office and will interact principally with Head Office-Health, Safety and Environment, the business centers and the laboratory staff. Responsibilities include interpreting toxicology data on selected products (detergents, plastics, and selected oil products), evaluating the toxicologic effect of manufacturing processes, and representing Shell at specific trade associations.

Nucleic Acid Biochemistry

Required: PhD in biochemistry, molecular biology or related field with research experience in nucleic acid biochemistry. This is a two-year postdoctoral position. The person will work on a project to determine the extent of interaction of cellular nucleic acids (exposed in vivo and in vitro) with chemicals of interest to Shell.

Pharmacokinetics

Required: PhD in biochemistry or related field with research experience in pharmacokinetics. This is a two-year postdoctoral position. The person will work on a project to determine the pharmacokinetics of chemicals of interest to Shell. Systems used will include in vivo (rodent) and in vitro models.

The positions, located in Houston at Shell's Westhollow Research Center, offer competitive salary and excellent benefits.

Applicants should be U.S. citizens or have permanent resident visa. Interested applicants should send a résumé, in confidence, to: Research Recruitment, Shell Development Company, P.O. Box 1380, Houston, Texas 77001.

Shell Development Company

An Equal Opportunity Employer M/F

POSITIONS OPEN

MOLECULAR BIOLOGIST with the Biological Control of Insects Laboratory of the Agricultural Research Service (ARS), U.S. Department of Agriculture (USDA), Columbia, Missouri. Career Federal Service. Candidate will develop independent research program on the molecular biology and genetics of pathogenic microorganisms (for example, insect viruses: baculoviruses) of insect pests. Postdoctoral experience desirable. Salary: GS/M-11/12/13 (\$25,489 to \$47,226), based on qualifications and experience. For applications, contact: **Jerrie Brooks, USDA-ARS-B91, Personnel Operations Branch, Building 003, Room 318H, BARC-West, Beltsville, Maryland 20705. Telephone: 301-344-4567.** Candidates must be U.S. citizens. *An Equal Opportunity Employer.*

MOLECULAR BIOLOGISTS

The Department of Biology, The University of Alabama, invites applications for two tenure-track positions at the **ASSISTANT or ASSOCIATE PROFESSOR** level to begin August 1985. We seek individuals with research interests in molecular biology. Demonstrated expertise in some aspect of recombinant DNA technology (including gene isolation and cloning, nucleic acid sequencing and/or gene expression and regulation) is essential. Successful candidates will be expected to develop an active, independent research program and participate in departmental teaching programs. The Ph.D. and postdoctoral experience are required. Rank and salary commensurate with experience. Applicants should submit curriculum vitae, a statement of research interests, and at least three letters of reference by 1 September 1984 to:

**Dr. Ronald Lindahl, Chairman
Search Committee
Department of Biology
The University of Alabama
P.O. Box 1227
University, Alabama 35486**

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

MOLECULAR BIOLOGIST-GENETIC ENGINEERING. Molecular mechanisms of Carcinogenesis Laboratory seeking Ph.D. molecular biologist with a minimum of 4 years of specialized recombinant RNA/DNA research in the study of cancer. Must have extensive experience in chemical synthesis of DNA, site-specific mutagenesis, protein expression vectors, *v-mos* protein synthesis, and a thorough understanding of Moloney sarcoma virus oncogene in order to do state-of-the-art research, studying, classifying, isolating, and genetically reproducing RNA tumor viruses. Particular studies involve the role of oncogene products and mechanisms using: Moloney sarcoma virus oncogene as a model system; the expression of the *v-mos* oncogene of the Moloney murine sarcoma virus in bacteria; the generation of recombinant between mouse and human *mos* gene homologs; the expression of recombinants in *Escherichia coli* to examine the nature and function of the polypeptides; and a detailed evaluation of the proteins by critically altering amino acids in the protein structure. The salary offered is \$26,000 per annum for a 40-hour week. Submit résumés to: **Maryland State Employment Service, 1100 North Eutaw Street, Baltimore, Md. 21201; Job Order Number 0481861.** Job location: Frederick, Maryland.

The Department of Anatomy at the University of Tennessee Center for the Health Sciences (UTCHS) is recruiting for **NEURO OR CELL BIOLOGISTS** at the assistant or associate professor level. Ph.D. or M.D. and postdoctoral experience required. Send curriculum vitae, description of research interest, and names of three references to: **S. T. Kitai, Chairman, UTCHS Department of Anatomy, 875 Monroe Avenue, Memphis, Tennessee 38163.** Deadline for application: 1 October 1984.

PHYSIOLOGY INSTRUCTIONAL LABORATORY DIRECTOR

Supervision of teaching assistants and technicians for laboratory sections of undergraduate courses including general physiology for nurses, introductory physiology for biology majors, and upper-division comparative physiology. Opportunity to design and develop new experiments. Ph.D. and teaching experience required. Human anatomy training desirable. Send résumé, including names of three references, by 1 August 1984 to:

**Dr. M. M. Appleman, Chairman
Department of Biological Sciences
University of Southern California
Los Angeles, Calif. 90089-0371
An Equal Opportunity Institution**

POSITIONS OPEN

The Medical University of South Carolina is searching for a **PARASITOLOGIST/MICROBIOLOGIST/IMMUNOLOGIST** with primary interest in invertebrate hosts at the assistant or associate professor level. The successful candidate will be assigned to the Marine Biomedical Research Program and will serve as the assistant director. This is primarily a research position although there are some administrative duties. Persons with successful extramural support experience will be given preference. Send curriculum vitae and arrange to have three letters of recommendation sent to: **Dr. Thomas C. Cheng, Director, Marine Biomedical Research Program, Medical University of South Carolina, P.O. Box 12559 (Fort Johnson), Charleston, S.C. 29412. Telephone: 803-795-7490.** *The Medical University is an Equal Opportunity Employer.*

PATHOLOGY. Assistant pathologist AP/CP to join group at tertiary care children's hospital. Expertise in special chemistry preferred. Send curriculum vitae to: **Stanley B. Smith, M.D., Director of Pathology, Miami Children's Hospital, 6125 Southwest 31 Street, Miami, Florida 33155.**

Applications are invited for a **tenurable appointment in the DEPARTMENT OF PHYSIOLOGY**, College of Medicine, University of Saskatchewan. The successful candidate must be capable of maintaining an independent research program, direction of postgraduate students, undergraduate instruction of medical and related health science students. Areas of particular interest to the department are neurophysiology and renal physiology; however, all applications from qualified individuals will be vetted. Applicants must have a Ph.D., D.D.S., D.V.M., or M.D. and postdoctoral training. Academic rank and salary for the successful candidate will be commensurate with the qualifications of the individual. Address enquiries to:

**N. M. McDuffie, Professor and Head
Department of Physiology
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan, Canada S7N 0W0**

This position is available immediately. *In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.*

PLANT PHYSIOLOGIST. Permanent federal position with U.S. Department of Agriculture. Water Management Research, Fresno, California. Seeking scientist trained and skilled in modeling plant response to water management systems for agricultural crops. Must be U.S. citizen. Salary commensurate with qualifications at the GS-11/12/13 level, \$25,489 to \$36,327. For application, telephone: **RITA MILLARD at 301-344-3138** in Beltsville, Maryland before 17 September 1984. *Equal Opportunity/Affirmative Action Employer.*

PLANT TISSUE CULTURE

A position is available at the Tissue Culture Laboratory of a horticultural company in West Chicago, Illinois. The qualifications for the position are: M.S. or B.S. in horticulture or related area with a strong background and interest in plant tissue, cell and protoplast culture. Send résumé to:

**Dr. Irwin Chu
George J. Ball, Inc.
P.O. Box 335
West Chicago, Ill. 60185**

POSTDOCTORAL FELLOW POSITION at the University of Arizona on the Cancer Biology Training Grant. Two to three years of support at NIH stipend level will be provided. Candidates must be U.S. citizens. The Cancer Biology Training Program offers a broad range of research opportunities in advanced approaches to cancer biology. The training program is designed to be comprehensive and includes faculty from eight different departments in the Colleges of Medicine, Pharmacy, and Arts and Sciences. For further information or specific faculty sponsorship, contact: **E. W. Gerner, Ph.D., Professor of Radiology Radiation Oncology Division, University of Arizona Health Sciences Center, Tucson, Arizona 85724.**

POSTDOCTORAL-NEUROVASCULAR PHYSIOLOGY position available to study the interaction of sympathetic nerves and blood vessels during physiologic and pathologic states in animals and humans. Ph.D. or M.D. U.S. citizenship required. Send curriculum vitae, statement of research interests, and two references to: **Dr. Shirley Mueller, Departments of Neurology and Physiology, Indiana University, 1001 West 10 Street, Indianapolis, Ind. 46202.**

POSITIONS OPEN

PEPTIDE CHEMIST/BIOCHEMIST. Positions available immediately for Ph.D.-level postdoctoral research associate to study synthesis and mechanism of actions of peptide growth factors. Send résumé and two letters of recommendation to: **Dr. James Tam, Box 294, Rockefeller University, 1230 York Avenue, New York, N.Y. 10021.** *Equal Opportunity/Affirmative Action Employer.*

PLANT MOLECULAR BIOLOGIST. West Lafayette, Indiana. The Department of Horticulture at Purdue University is accepting applications for a 12-month, tenure-track position for an assistant or associate professor. Appointee will initiate a research program in the application of molecular biology to improve productivity and/or quality of horticultural crops. Approaches should form a bridge between basic cellular/molecular biology and plant genetics. Appointee should have a Ph.D., demonstrated interest and ability to conduct research in plant molecular biology, and a strong background in plant biochemistry or physiology and genetics; also the ability to communicate effectively and to direct graduate students. Experience beyond the Ph.D. such as a postdoctorate or a previous research appointment is highly desirable. Salary will be competitive and commensurate with training and experience. Applications will be accepted through 15 August 1984, or thereafter until position is filled. Biographical information, a statement of professional goals, reprints of pertinent publications, transcripts, and names of four references should be sent to: **Professor Joe H. Cherry, Chairman, Search Committee, Department of Horticulture, Purdue University, West Lafayette, Ind. 47907.** *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

PLANT STRESS PHYSIOLOGIST

Department of Horticulture, Purdue University, is accepting applications for a 12-month, tenure-track position for an assistant or associate professor in the area of plant stress physiology. Appointee will initiate a research program in stress physiology emphasizing areas limiting horticultural crop productivity such as salt, water, and temperature. Applicants will be expected to contribute to the departmental teaching program. Qualifications include a Ph.D. degree, demonstrated interest and ability to conduct research in stress physiology, a strong background in biochemistry and plant physiology, and an ability to communicate effectively and to direct graduate students. Experience beyond the Ph.D. such as a postdoctorate or a previous research appointment is highly desirable. Salary will be competitive and commensurate with training and experience. Applications will be accepted through 15 August 1984, or thereafter until position is filled. Biographical information, a statement of professional goals, reprints of pertinent publications, transcripts, and names of four references should be sent to: **Professor Joe H. Cherry, Chairman Search Committee, Department of Horticulture, Purdue University, West Lafayette, Ind. 47907.** *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL ASSOCIATE available immediately to work with research team involved in electrophysiology, immunocytochemistry, and electron microscopy of mammalian neuroendocrine hypothalamus. Ph.D. with training in electrophysiology required; experience with intracellular recording preferred. Ample opportunity to take advantage of multidisciplinary research expertise through our interdepartmental Neuroscience Program. Salary will be competitive and commensurate with experience. Send curriculum vitae and three letters of reference to:

**Professor Glenn I. Hattton
Neuroscience Program
Michigan State University
East Lansing, Michigan 48824-1117**

Michigan State University is an Affirmative Action/Equal Opportunity Employer.

A **POSTDOCTORAL POSITION** is available for a biochemist (recent Ph.D.) to work on a grant-funded research project on lung and brain development. Previous experience in protein biochemistry and enzymology as related to cyclic AMP, glycogen metabolism, and phospholipid synthesis and secretion is desirable. One year appointment initially. Salary according to qualifications and experience. Submit complete curriculum vitae to: **Dr. M. S. Nijjar, Director, Alvin Buckwald Centre Research Laboratory, Department of Pediatrics, University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N 0X0.**

Staff Fellow (Ph.D.)
Salary Range — \$17,000 to \$35,467
(Having less than 3 years professional research experience)

Senior Staff Fellow (Ph.D.)
Salary Range — \$20,688 to \$39,767
(3-7 years research experience)

NATIONAL INSTITUTES OF HEALTH
NATIONAL INSTITUTE OF ENVIRONMENTAL
HEALTH SCIENCES
LABORATORY OF MOLECULAR BIOPHYSICS

The Prostaglandin Workgroup in the Laboratory of Molecular Biophysics is seeking an individual to participate in studies of arachidonic acid metabolism. These investigations are centered on two areas of research: (1) Metabolism of toxic chemicals, particularly carcinogens, catalyzed by prostaglandin H synthetase. Use of unique biochemical endpoints to assess the importance of this enzyme system in tumor induction *in vivo* will be developed. (2) Metabolism of arachidonic acid to prostaglandins and leukotrienes by isolated cells. Studies are focused on role of these lipids in various biological processes including promotion of carcinogenesis and modulation of chloride ion and mucus secretion. The candidate for either area of research must have a record of demonstrated research productivity and the ability to carry out independent as well as collaborative research. The initial appointment is for two years, with additional extension possible for talented researcher. Salary commensurate with candidate's qualifications and experience. Send curriculum vitae, bibliography and three recommendation letters to:

Mr. Bruce Wiggins, Code: HN-V2K
NIEHS Personnel Office
P.O. Box 12233 (MD 1-01)
Research Triangle Park, NC 27709
(919) 541-3317

NIH is an Equal Opportunity Employer;
women and minorities are encouraged to apply.

STAFF FELLOWSHIP APPOINTMENT

**NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE**

The National Institutes of Health (NIH), National Institute of Neurological and Communicative Disorders and Stroke (NINCDS), invites applications for a Staff Fellowship position in the Clinical Epilepsy Section, Medical Neurology Branch, Intramural Research Program. We are looking for a post doctoral fellow in the field of pharmacology to assist in the establishment of a clinical pharmacology laboratory in a well established clinical research program in epilepsy. This section will serve as a focal point for antiepileptic drug studies, including pharmacodynamics, pharmacokinetics and metabolism, as well as investigations of the relationships of neurotransmitters to epilepsy and to drug therapy. Collaboration in clinical research projects is the primary mission of the laboratory, but independent investigation in epilepsy will be encouraged and expected. Although this is a non-tenured position, a multiyear appointment is anticipated to allow for maximum productivity.

Candidates must have been awarded a doctoral degree in a biomedical, behavioral or related science, or have been certified by a university as meeting all requirements leading to such a degree, and must have less than seven (7) years of professional level research experience. Candidates must be U.S. citizens or resident aliens who will be eligible for citizenship within four (4) years. The salary will range from \$17,000 to \$39,767 per year depending upon the appointee's qualifications and experience.

To apply please submit a PHS Form 3997, Application for the Staff Fellowship Program at the NIH, curriculum vitae, bibliography, transcripts of graduate college records, and a brief summary of your doctoral dissertation to: Mr. Jerry T. Chambers; NINCDS Personnel Office; Building 31, Room 8A-23; 9000 Rockville Pike; Bethesda, MD 20205. Questions should be directed to Mr. Chambers at (301) 496-6334.

*THE NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE
DISORDERS AND STROKE IS AN EQUAL OPPORTUNITY EMPLOYER*

CNS Research Opportunity

Pfizer Central Research is seeking a qualified scientific assistant to conduct research in the areas of depression, psychosis, anxiety and related CNS disorders.

This position requires a BS degree in biology or related discipline. An MS degree will be an advantage. Research experience in a biochemically related field is necessary. People with skills in the following areas are of particular interest:

- brain neurotransmitter mechanisms
- HPLC methods
- cyclic nucleotides
- receptor binding techniques
- computer operations

In addition to the potential for career growth, this position provides an opportunity for a motivated individual to contribute to all levels of experimental work in a stimulating professional environment. We offer an excellent salary, benefit and relocation package plus an attractive Connecticut shore location. Qualified applicants should submit their resume, including summary of research accomplishments, to: Mrs. Lorraine C. Corr, Personnel Associate, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



An Equal
Opportunity Employer

NATIONAL INSTITUTES OF HEALTH
NATIONAL INSTITUTE
OF GENERAL MEDICAL SCIENCES
PHARMACOLOGICAL SCIENCES
PROGRAM BRANCH

Director, Pharmacological Sciences Program Branch

This is a civil service position in the
Senior Executive Service (SES)
with a salary range from \$58,938 to \$66,000
(Physicians may be eligible for a Physicians'
Comparability Allowance up to \$10,000 per year)

Has overall responsibility for planning, organizing and administering a large (about \$59 million/year) program of grants, contracts, and both individual and institutional fellowship awards, designed to foster and support biomedical research and research training in the fields of pharmacological sciences and biorelated chemistry.

Position information and qualifications requirements may be obtained by contacting:

Howard R. Chernoff, Personnel Officer
National Institute of General Medical Sciences
Westwood Building, Room 9A-13
Bethesda, MD 20205, (301) 496-7161

Applications (SF-171, CV and Bibliography) must be submitted to above address and postmarked not later than July 31, 1984.

AN EQUAL OPPORTUNITY EMPLOYER

Senior Toxicologist

Contact Lens Care Products

Alcon Laboratories has enjoyed continued and consistent growth as a Fort Worth-based pharmaceutical concern. Presently our expansion includes a career opportunity for a Senior Toxicologist. Reporting to the Director of Corporate Toxicology, primary responsibilities will include the supervision of preclinical contact lens care product evaluations.

Qualifications include:

- ☐ Ph.D. in Toxicology, Pharmacology or related areas.
- ☐ 0-5 years experience in conducting preclinical contact lens care product evaluations.
- ☐ Experience in preparing IDE/PMA's.
- ☐ Highly developed oral/written communication skills desirable.

In return, Alcon offers:

- ☐ Opportunity for professional advancement within a quality-oriented organization.
- ☐ Competitive starting salary in a lower cost of living region of the country.
- ☐ Comprehensive life/health/dental insurance coverage for professional and dependents.
- ☐ Generous profit sharing trust program.
- ☐ Southwest lifestyle in Dallas/Fort Worth offering a wide variety of cultural and recreational activities.

If your qualifications and desire for quality and results within a state-of-the-art environment compel you to respond in confidence to this outstanding opportunity, submit your detailed resume, with salary history, to:

Tom D. Faver, Employee Relations - Employment Manager



Alcon Laboratories, Inc.
P.O. Box 1959
Fort Worth, Texas 76101
Equal Opportunity Employer, M/F/V/H
Principals Only, Please!

BASIC AND APPLIED BIOMEDICAL SCIENTISTS

Litton Bionetics, Inc., is expanding a new initiative in research and development in advanced biotechnologies as related to research, diagnostics and therapeutic products, and we want you. You should have a Ph.D. or M.D. with postdoctoral experience applicable to one of the following areas:

- **CANCER BIOLOGY/IMMUNOLOGY** development and application of monoclonal tumor specific antibodies.
- **BIOCHEMISTRY** protein sequencing, amino acid analysis, protein purification and characterization.
- **MOLECULAR BIOLOGY** research in genetics of gene expression in E. Coli and Eucaryote gene cloning. Development and application of expression vectors, construction and analysis of cDNA and genetic libraries.
- **IMMUNOCHEMISTRY** development of enzyme-based immunoassay procedures using monoclonal antibodies to detect circulating tumor antigen.
- **POST DOCTORAL FELLOWSHIPS** to study the above disciplines.

This is an attractive opportunity for scientists interested in basic research, biotechnology development and technology transfer. This new research initiative will work closely with our established and rapidly growing laboratory and diagnostics production area.

Attractive compensation package and high visibility. Please send resume including salary history in confidence to:

M.G. Hanna, Jr., Ph.D., Director,
Litton Institute of
Applied Biotechnology
Litton Bionetics, Inc.
5516 Nicholson Lane
Kensington, Maryland 20895
An Equal Opportunity Employer



Litton Bionetics

POSITIONS OPEN

PLANT VIROLOGIST UNIVERSITY OF CALIFORNIA, DAVIS

Assistant professor of plant pathology, 11-month, tenure-track appointment to begin on or before 1 January 1985, with 25 percent teaching, 75 percent research. To participate in a graduate course in plant virology and other courses in plant pathology; to develop original research program on etiology, epidemiology and control of virus diseases of agricultural crops; to participate in mission-oriented research, University service, and advising and training of graduate students. Applicants should have a Ph.D. in plant pathology or a related discipline and expertise in plant virology. Send (i) curriculum vitae, (ii) official undergraduate and graduate transcripts, (iii) list of official published work with reprints, (iv) statement of teaching and research interests, and (v) names and addresses of three references to: **J. M. Duniway, Department of Plant Pathology, University of California, Davis, Calif. 95616. Telephone: 916-752-0324/0301.** Closing deadline: 1 October 1984. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION in cell membrane and receptor studies of gastrointestinal hormones and cholinergics or in cancer immunology (for example, glycoprotein antigenicity) as part of multidisciplinary program in pancreatic carcinogenesis. Send curriculum vitae, three letters of recommendation to: **Dr. Parviz Pour, Eppley Institute for Research in Cancer, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, Neb. 68105.**

POSTDOCTORAL POSITION—STARVATION PROTEINS

Available immediately to study proteins that bacteria synthesize at the onset of starvation and that seem to prolong longevity of the starvation state. Background in physiology and genetics desirable. Send curriculum vitae and names of three references to: **Dr. A. Matin, Department of Medical Microbiology, Sherman Fairchild Science Building, Stanford University School of Medicine, Stanford, California 94305.**

POSTDOCTORAL POSITIONS available immediately to study: (i) immunotoxic effects of organophosphorus insecticides and other environmental agents, and (ii) linkage among major histocompatibility complex P-450 system and immune function during the aging process. Experience in immunology and/or biochemical pharmacology desired. Send curriculum vitae and three references to: **Dr. Toshiko Imamura, Division of Toxicology and Physiology, University of California, Riverside, Calif. 92521.** *An Affirmative Action/Equal Opportunity Employer.*

TWO POSTDOCTORAL POSITIONS available (immediately and 1 October 1984) to join a tumor cell biology group investigating the interaction of normal cells with malignant cells. Studies are in protein chemistry, receptosomes, and recombinant DNA research. Background in protein chemistry or molecular biology desirable. Send curriculum vitae and names of three references to: **Walter E. Laug, M.D., Division of Hematology-Oncology, Childrens Hospital of Los Angeles, 4650 Sunset Boulevard, Los Angeles, Calif. 90027.** *Equal Opportunity/Affirmative Action Employer*

POSTDOCTORAL POSITIONS AVAILABLE

Immediately in the laboratories of a group of investigators interested in understanding biological regulatory processes at biochemical and physiological levels.

Richard Jope, Ph.D.: Effects of lithium on acetylcholine and phosphatidylinositol metabolism in rat brain and in blood from psychiatric patients.

David D. Ku, Ph.D.: Pathogenesis of coronary vasospasm. Role of intimal endothelial cells.

Elias Meezan, Ph.D.: Pathogenesis of diabetic microangiopathy. Insulin receptor structure-function in renal-retinal microvasculature.

Dennis Pillion, Ph.D.: Insulin binding and action in isolated microvessels of the retina and cerebral cortex; diabetic microangiopathy.

Jeffrey B. Smith, Ph.D.: Hormonal control of cell calcium in cultured vascular smooth muscle cells.

Please contact the appropriate investigator at: **Department of Pharmacology, University of Alabama in Birmingham, University Station, Birmingham, Ala. 35294.** *An Equal Opportunity/Affirmative Action Employer.*

**MACQUARIE UNIVERSITY
SYDNEY, AUSTRALIA
LECTURER IN BIOLOGY
LECTURER IN PHYSICS**

Equality of Employment Opportunity is University Policy

Applications are invited for appointment to the following lectureships tenable not before 1 February 1985 for a fixed term of 5 years.

Salary (under review): A\$24,353 to A\$31,994 per annum.

Further information about the University and advice regarding the method of application should be obtained from: The Secretary-General, Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF, England, or from: The Registrar, Macquarie University, North Ryde, New South Wales 2113, Australia.

Applications close 3 August 1984. **LECTURER IN BIOLOGY in the FIELD OF MOLECULAR BIOLOGY, SCHOOL OF BIOLOGICAL SCIENCES.**

Preference will be given to applicants with experience in recombinant DNA techniques, for example, vector construction involving either *E. coli* or *S. cerevisiae* plasmids and DNA sequencing. Good prospects exist for collaborative research at the molecular level with existing research groups within the school currently working in plant physiology/biochemistry, virology (particularly of the Herpes group), developmental biology of *Dictyostelium* and X-inactivation of marsupials. The CSIRO Plant Physiology Unit of the Division of Food Research is also located in the school and regularly participates in collaborative research projects.

The successful candidate will be expected to assist in the teaching of undergraduate courses (mainly at the upper level) and to supervise postgraduate research students. Further information about the position can be obtained from Professor D. W. Cooper, head of the School of Biological Sciences.

LECTURER IN PHYSICS, SCHOOL OF MATHEMATICS AND PHYSICS (which also includes ELECTRONICS and COMPUTING).

The duties of the appointee will include teaching in physics to honours degree level (some teaching in electronics may also be required) and conduct of research in physics including postgraduate research supervision. The field of research interest of applicants is not restricted, but some preference may be shown for physicists with strong theoretical backgrounds who are interested in interacting with experimentalists working in the areas of optical physics, atomic and molecular physics, physics of materials (including thin films) and other areas of interest in the discipline.

Microbial Physiologist

Pfizer Central Research is seeking a highly qualified individual for its Fermentation and Recovery R & D group. The successful candidate should have a PhD in Microbiology or Biochemistry with a strong emphasis on microbial physiology. Relevant post-doctoral experience is highly desirable. Hands-on knowledge of modern chromatographic, electrophoretic and radiochemical methods is essential. Experience with computer-coupled instrumentation and the ability to work as a member of a highly motivated multidisciplinary team is important.

Duties will include optimization of fermentation processes for medicinals, enzymes, polysaccharides and other chemicals, basic studies of metabolic pathways and control mechanisms and the isolation and analysis of key metabolic intermediates.

This position offers an excellent opportunity for professional recognition and career growth. We also offer competitive compensation, a comprehensive benefit package and the opportunity to live in an attractive Connecticut shore community. Please send resume and description of research accomplishments to: Jerry K. Larson, Ph.D., Manager of Employment, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



An equal
opportunity employer

DIRECTOR, CORPORATE AND INDUSTRIAL RESEARCH

Rutgers, The State University of New Jersey, invites nominations and applications for the position of Director, Corporate and Industrial Research. The primary mission will be to make available to business and industry in New Jersey the capabilities of the University in mission-focused research, technical assistance, and continuing professional education for scientific and technical personnel.

The primary responsibilities of the Director will be to enhance industry's awareness and support of the University and its scientific, technical and educational programs; to develop mechanisms to foster formal cooperative relationships between the University and specific industries; and to develop policy and provide guidance to researchers and University units respecting patent arrangements.

Candidates for the position should be accomplished doctoral level researchers with a substantial body of publications in a scientific discipline. Additionally, candidates should have served creditably and in positions of increasing responsibility in the academic community and/or in the industrial research community.

Salary will be negotiable, depending upon the successful candidate's qualifications and previous experience within the corporate and/or academic communities.

Applications and nominations, Referencing Number 235, should be addressed to:

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Division of Personnel Services
New Brunswick, NJ 08903

An Affirmative Action/
Equal Opportunity Employer

Consumer Products Research & Development

American Cyanamid, maker of fine fragrance lines including NINA RICCI®, PIERRE CARDIN®, and NIKI DE SAINT PHALLE®, as well as familiar products like OLD SPICE®, BRECK®, and PINE SOL®, is a dynamic, forward thinking company.

Our vigorous commitment to research, innovative manufacturing techniques and the high quality of our products have made us a worldwide leader in the consumer products industry.

At Cyanamid our success is based on the contributions of our employees. Within our Consumer Products Research Division, you will find a supportive work environment and real potential for career advancement. We encourage excellence. We reward initiative.

Inquiries are invited from individuals with expertise in the areas of fragrance, household, personal products and technical research services such as analytical, microbiological, packaging, process development and research data processing.



American Cyanamid Company

Consumer Products Research Division

Attn: Ms. S.L. Johnson

Manager, Administration, Dept. 713

697 Route 46, Clifton, New Jersey 07015

An Equal Opportunity Employer m/f

Postdoctoral Fellow — Plant Biology

The Molecular Biology Department of Zoecon Corporation is seeking a Postdoctoral Scientist to work on a project to generate mutants via somaclonal variation, DNA insertions (or conventional mutagens), as well as to characterize mutants and mutational processes.

A strong background in plant development and Mendelian genetics is essential. Experience with plant cell culture and molecular biology is highly desirable.

Zoecon Corporation, a subsidiary of Sandoz, has been a leader in innovative biological research for over 15 years. This broadly based agricultural biotechnology firm has estab-

lished research programs in molecular biology, plant tissue culture, plant pathology and insect physiology.

Our research laboratories are located in Palo Alto, California, in close proximity to Stanford University. We conduct our research in an open, academic-like environment which strongly encourages publication and interaction with other scientists throughout the world.

To apply for this position, please send CV and three references to: Carole Hurd, Zoecon Corporation, 975 California Avenue, Palo Alto, CA 94304. We are an equal opportunity employer.

zoëcon
A SANDOZ COMPANY

Senior Scientist GENETIC ENGINEERING

Bristol-Myers Company, a leader in industrial biotechnology and a major international manufacturer of pharmaceutical products, has a challenging genetic research opportunity in its Genetic Engineering Department.

We are seeking a scientist who will be responsible for the development of host/vector systems for the efficient expression of cloned gene products. The successful candidate will be expected to work closely with scientists in both the Genetic Engineering and Fermentation Development Departments.

To qualify, your published research must document past experience in the cloning and

expression of heterologous genes. In addition, you should be experienced in DNA sequencing techniques. A Doctorate in Molecular Biology/Biochemistry must be supported by 2 or more years of postdoctoral research.

Bristol-Myers offers a salary fully commensurate with your experience and qualifications, a comprehensive benefits package, and a professional environment where high visibility will propel you farther faster. For prompt, confidential consideration, please forward your resume indicating current compensation, to: Department Head, Genetic Engineering



**BRISTOL-MYERS COMPANY
INDUSTRIAL DIVISION**

P.O. Box 4755, Syracuse, New York 13221
An equal opportunity employer M/F

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to examine the neural control of blood pressure in the conscious primate. Interested individual should have some experience in working with chronic animals and have an interest in primate research. NIH salary. Send curriculum vitae to: **Dr. Kurtis G. Cornish, Department of Physiology and Biophysics, University of Nebraska College of Medicine, Omaha, Neb. 68105.** An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available 1 August 1984. Person wanted to help start new project on the cloning of genes from *Brucella abortus* and expressing them in *Escherichia coli*. Salary: \$18,000 to \$22,000, plus faculty fringe benefits. Good facilities, extensive technical support, and travel money available. Prefer experience in gene cloning. Send résumé and the names of three references to: **Dr. John A. Bantle, Department of Zoology, 430 LSW, Oklahoma State University, Stillwater, Okla. 74078.**

POSTDOCTORAL POSITION available immediately on NIH training grant. Candidates should apply directly to either **Dr. Andrew J. Lechner** (physiological and ultrastructural changes in the starved perinatal lung) or **Dr. Maw-Shung Liu** (myocardial and hepatic metabolism in endotoxic shock). Submit letter of interest, curriculum vitae, and the names of three references to the above: **Department of Physiology, St. Louis University School of Medicine, St. Louis, Mo. 63104.** An Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE/RESEARCH SCIENTIST POSITION to join molecular virology research program. Current studies concern development of genetic methods to study regulation of immunity and assembly of enveloped virions. Experience with recombinant DNA and sequencing technology preferred. Send curriculum vitae and names and addresses of three references to: **Dr. Jack Maniloff, Department of Microbiology, University of Rochester, Medical Center, Rochester, N.Y. 14642.**

POSTDOCTORAL RESEARCH ASSOCIATE

Bio-organic chemist or organic chemist interested in working with enzymes to work on problems concerning enzyme stereochemistry in the laboratory of **Dr. D. John Aberhart**. Send curriculum vitae and names of three references to: **Dr. D. John Aberhart, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545.**

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POSTDOCTORAL RESEARCH ASSOCIATE. Investigation of gating currents and calcium release in striated muscle fibers using electrical and optical measurement techniques including voltage-clamp, scanning microspectrophotometry, fluorescence photometry, and digital computer use, for someone interested in the measurement and regulation of intracellular calcium. Send curriculum vitae and names of three references to: **Dr. R. F. Rakowski, Marine Biological Laboratory, Woods Hole, Mass. 02543.**

PROFESSOR IN DIABETES RESEARCH ST. JOSEPH'S HOSPITAL RESEARCH INSTITUTE LONDON, ONTARIO

An endowed position in diabetes research has been created at St. Joseph's Hospital Research Institute. St. Joseph's Hospital is a 530-bed teaching hospital affiliated with the University of Western Ontario. The Research Institute was opened in October 1983. Endocrinology and metabolism, particularly as relates to diabetes, has been established as a major focus of research effort and clinical thrust of the hospital.

The successful candidate will hold an academic appointment at the University of Western Ontario at the level of associate or full professor. The individual should possess the degree of Ph.D., and/or M.D., or appropriate background, and have a major (greater than 75 percent) time commitment to research. Seed funding will be available to transfer and re-establish existing research activities.

The position of professor in diabetes research represents a unique opportunity to develop and combine a substantial research commitment with a well-established clinical programme.

Replies in confidence to:

**Dr. J.R.G. Challis, Director
The Research Institute
St. Joseph's Hospital
269 Grosvenor Street**

London, Ontario, Canada N6A 4V2

RADON RESEARCH

The Lawrence Berkeley Laboratory's Applied Science Division is seeking an outstanding scientist to join its Building Ventilation and Indoor Air Quality Program, taking principal research responsibility for the radon group, including efforts characterizing the materials from which radon originates, its modes of transport through source and intermediate materials, and the mechanisms by which radon enters homes. Specific responsibilities include formulation of broad research objectives and specific projects, supervision of several other scientists, technicians, or graduate students, and coordination with other research efforts—at the Laboratory and elsewhere—on the behavior of indoor air pollutants.

Requires demonstrated excellence in independent research and publications, strong indications of potential for scientific leadership, and several years' experience related to radiation measurements, trace element analysis, pollutant or tracer monitoring, or fluid or radiochemical transport, as might be undertaken by a physicist, geophysicist, atmospheric scientist, geochemist/hydrologist, soil physicist, or radiogeologist. Substantial instrumental background preferred. Strong capabilities for theoretical analysis and synthesis would be a substantial asset. Prefer Ph.D. in Physics, Engineering, Geology, or Chemistry.

To apply for this position, please send TWO resumes, including publications list and salary history to: Employment Office, Building 90, Room 1042, Lawrence Berkeley Laboratory, One Cyclotron Road, Berkeley, CA 94720. Please specify Job #A/2963. An Affirmative Action/Equal Opportunity Employer M/F/H.



LAWRENCE
BERKELEY
LABORATORY

University of California

Veterinary Microbiologist Animal Health Research

Pfizer, Inc., a world leader in animal health, has an immediate opening for a PhD microbiologist at its modern Animal Health Research facility in Terre Haute, Indiana. As a member of the Discovery Research team, you will develop and conduct basic and applied research programs to evaluate potential antimicrobials for domestic animals. In addition, you will obtain and maintain new pathogenic cultures relevant to domestic animal diseases.

The successful candidate will have a PhD in veterinary microbiology or microbiology and 1-2 years post-doctoral experience with bacterial infections in domestic animals. Publication of important findings will be encouraged.

Pfizer offers an excellent opportunity for professional recognition and career growth, with competitive compensation and excellent benefits package. Interested qualified applicants should submit a current resume to: Daniel L. Stahl, Personnel Supervisor, Pfizer Inc., P.O. Box 88, Terre Haute, Indiana 47808.



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Opportunity Employer

NATIONAL INSTITUTE OF ARTHRITIS, DIABETES, AND DIGESTIVE AND KIDNEY DISEASES OFFICE OF THE DIRECTOR

DIRECTOR DIVISION OF DIGESTIVE DISEASES

(and Associate Director for
Digestive Diseases)—Dual Position

Incumbent must be a recognized and respected leader in the field of digestive diseases related research, with experience and expertise in the development of new knowledge and new technology in digestive diseases. Responsibilities include identifying research needs and opportunities; planning, developing and implementing a high quality extramural research and research training program in the field; and conducting laboratory investigations in digestive diseases related research.

Salary Range—\$58,938 to \$66,400 per annum.

(Physicians may be eligible for a comparability allowance up to \$10,000 per year). Candidates may alternatively be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.

Position information, SF-171 (application), and qualifications requirements may be obtained by contacting:

Mr. Clifford Moss, Executive Secretary
Search Committee for Director,
Division of Digestive Diseases
Building 31, Room 9A34
National Institutes of Health
Bethesda, Maryland 20205
(301) 496-4231

Applications must be postmarked no later than July 31, 1984.

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**ASSISTANT PROFESSORS (THREE)
DEPARTMENT OF SURGERY
WEST HAVEN VA
YALE MEDICAL SCHOOL**

GENERAL SURGERY: Applicant must have completed a fellowship in colorectal surgery. Special interest is required in the development of an experimental surgery laboratory as part of an active clinical and investigative program in the areas of the neural and hormonal modulation of large bowel function. In addition, a strong background in endoscopic, diagnostic and therapeutic procedures is required.

GENERAL SURGERY: A special interest is required in gastrointestinal and endocrine surgery as part of an active clinical and investigative program in the area of the endocrine and gastrointestinal systems. Research experience in the area of plasma peptide radioimmunoassay and isolated organ perfusion systems is required. Competence in both upper and lower GI endoscopic, diagnostic and therapeutic modalities is necessary.

VASCULAR SURGERY: Applicant must have completed a vascular surgery fellowship. A special interest is required in the pathogenesis of atherosclerosis and in particular its relationship to prostaglandin metabolism. A substantial commitment to the development of an investigative program relating to endothelial cell culture and seeding is required.

All candidates will be expected to devote 60 percent of their time to investigative efforts and their remaining time to clinical and teaching responsibilities. The position will require a full-time commitment to the Yale Department of Surgery at the West Haven Veterans Administration Hospital.

Submit complete curriculum vitae and detailed letters of recommendation to:

**Irvin M. Modlin, M.D., Vice Chairman
Department of Surgery
Yale University School of Medicine
P.O. Box 3333
New Haven, Conn. 06510**

Yale is an Equal Opportunity/Affirmative Action Employer. Application deadline is 15 August 1984.

IMMUNOCHEMISTRY

Seragen Diagnostics, Inc., an Indianapolis based manufacturer of instruments and reagents has an immediate opening for an experienced Scientist within the immunoassay products group. The position encompasses broad responsibilities from conception of technical ideas and reduction to practice to market introduction of new products.

The individual we seek should have 3 to 5 years experience in immobilization of biological material in addition to experience in non-isotopic immunoassay development. The successful candidate should be highly self-motivated and goal oriented with strong oral and written communication skills. A Ph.D. is desired, but not necessary providing stated qualifications are satisfied.

Seragen Diagnostics offers competitive salary (commensurate with experience) and benefit programs. For prompt confidential consideration, please send resume and salary history to: Personnel Manager.

Seragen Diagnostics, Inc.
P.O. Box 1210 Indianapolis, IN 46206

SERAGEN

Equal Opportunity Employer

POSITIONS OPEN

POSTDOCTORAL RESEARCH POSITIONS: Associate positions are available to work on various aspects of the biochemistry and molecular biology of adrenergic receptors, their mechanisms of action and regulation. Candidates with a strong background in biochemistry, molecular biology, or biochemical pharmacology are preferred. Send résumé and three letters of recommendation to:

**Dr. Marc G. Caron and
Dr. Robert J. Lefkowitz
Box 3287, Department of Medicine
Duke University Medical Center
Durham, N.C. 27710**

POSTDOCTORAL RESEARCH POSITION for study of cardiovascular and humoral aspects of blood volume regulation. Excellent laboratory space, equipment, and personnel. Requires Ph.D. in physiology or related area with appropriate laboratory experience in cardiovascular, renal, or endocrine areas. Available now. Send curriculum vitae to: **Kenneth L. Goetz, M.D., Ph.D., Director of Research, St. Luke's Hospital, Wornall Road at 44th Street, Kansas City, Mo. 64111.**

POSTDOCTORAL TRAINING FELLOW: Immediately available; M.D. or Ph.D. for research program(s) involving protein purification and analysis, molecular biology, tissue culture, radioimmunoassay, HPLC, and other techniques. For M.D. there will be clinical responsibility in hematology/oncology. U.S. citizen or permanent resident only. Send curriculum vitae and reference to: **Dr. Sheldon P. Rothenberg, VA Medical Center, 800 Poly Place, Brooklyn, N.Y. 11209.**

BIOTECHNOLOGY TRAINING PROGRAM DALHOUSIE UNIVERSITY

The Departments of Biochemistry and Microbiology invite applications for positions at either the predoctoral or postdoctoral level in the newly funded Medical Research Council of Canada Biotechnology Training Program. This program is designed for individuals with diverse backgrounds in science and medicine who wish to learn current theory and techniques of recombinant DNA technology. The research areas available are: Mutagenesis and carcinogenesis, molecular evolution, molecular biology of eukaryotic gene expression, and molecular aspects of hormone expression. Successful applicants will be involved in collaborative projects that provide a wide range of techniques and research approaches in one of these areas. The program will equip students to initiate new medical research utilizing recombinant DNA technology.

Dalhousie University is an Equal Opportunity Employer but in accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

Applicants should send curriculum vitae and two letters of reference to: **Dr. Robert W. Chambers, Head, Department of Biochemistry, Dalhousie University, Halifax, Nova Scotia, Canada B3H 4H7.**

Harvard University, Peabody Museum and Anthropology Department, seek applicants for a newly-endowed **LANDON T. CLAY PROFESSORSHIP OF SCIENTIFIC ARCHAEOLOGY**. Applicants should have well-established archaeological interests and be scientists with active research programs. In addition to pursuing his/her own research, the appointee will be encouraged to develop and direct a laboratory engaging in varied applications of the natural sciences to archaeological problems. *Women and minority group candidates are especially encouraged to apply.* Send detailed curriculum vitae to: **Chairman, Department of Anthropology, Harvard University, Cambridge, Mass. 02138, by 30 November 1984.**

RADIOCHEMIST

CENTOCOR, INC., a leading biotechnology company, has an immediate opening for a radiochemist with a strong protein chemistry background in our in vivo division of Product Development. The successful candidate will be responsible for the development of new techniques for radiolabeling monoclonal antibodies with various radionuclides and for evaluating them in both in vitro and in vivo model systems. The position requires a Ph.D. in radiochemistry or biological science with a minimum of 2 years of related research experience. Experience with immunochemistry and protein chemistry is also required. For confidential consideration, please send résumé to: **Dr. Jeffrey A. Mattis, Director, In Vivo Product Development, CENTOCOR, INC., 244 Great Valley Parkway, Malvern, Pa. 19355.**

POSITIONS OPEN

PROVOST: The Massachusetts General Hospital Institute of Health Professions—To serve as chief administrative officer of a multidisciplinary, degree-granting, academic unit within a major teaching hospital. Division programs currently or soon will include: Master's degrees in dietetics, nursing, physical therapy, and speech-language pathology, and a graduate certificate program in social work. Applicants should hold an earned doctorate, have experience in educational administration, be strongly committed to interdisciplinary education, and be able to provide creative leadership in further development of academic programs. Experience in health care and in education of health professionals strongly preferred. Immediate opening; review of applications will begin 1 August 1984. Inquiries, nominations, and applications with current résumé and names of three professional references should be sent to: **Henry J. Mankin, M.D., Chairperson, Provost Search Committee, Massachusetts General Hospital, Boston, Mass. 02114.**

Affirmative Action/Equal Opportunity Employer

RADIATION SAFETY—UNIVERSITY OF SOUTH CAROLINA. A non-tenured faculty position is available in the Radiology Department of the School of Medicine for a health or radiation physicist with appropriate training and experience to serve as the campus radiation safety officer. The candidate is expected to have a Ph.D. in health or radiation physics or equivalent training and experience. Academic rank and salary will be commensurate with experience. Applications must be received by 1 August 1984. Respond with curriculum vitae to: **Dr. Frank Avignone, Chairman, Radiation Safety Committee, University of South Carolina, Columbia, South Carolina 29208. An Affirmative Action/Equal Opportunity Employer.**

Research Associate/ Postdoctoral Fellow

Cetus Corporation, a leader in biotechnology, is seeking candidates with M.S./Ph.D. in genetics, biochemistry, or microbiology with experience in tissue culture, chromosomal, and isoenzyme analysis.

Excellent organizational skills are required for this supervisory position.

Please send résumé, in confidence, to:

**Cetus Corporation
Box SC-ABLA
1400 Fifty-Third Street
Emeryville, Calif. 94608**

An Equal Opportunity Employer, M/F/H

RESEARCH BIOCHEMIST. Specializing in changes in blood pressure when certain drugs are introduced into the body. Study characteristics of brain norepinephrine and serotonin release as it relates to blood pressure using laboratory rats for study. Experimental techniques include in vivo electrochemistry and HPLC with electrochemical detection. Ph.D. in biochemistry or related field required. Must demonstrate research ability and scientific interest in the study of hypertension by use of laboratory animals and familiarity with in vivo electrochemistry and HPLC with electrochemical detection. Salary: \$17,000 per year; 40-hour week. Contact or send résumé to: **Colorado Job Service Center, 1330 Fox Street, Denver, Colo. 80204. Order Number 2299012.**

RESEARCH COORDINATOR. Ph.D. in biochemistry or related areas to provide day-to-day guidance to a research group composed of postdoctoral fellows, graduate students, and technicians working on enzymology and molecular biology related to lipids and other natural products, under the direction of P. E. Kolattukudy. Send, by 15 August 1984, complete curriculum vitae and references to: **Director, Institute of Biological Chemistry, Washington State University, Pullman, Wash. 99164-6340. An Affirmative Action/Equal Opportunity Employer.**

RESEARCH SCIENTIST: FERMENTATION/PROCESS DEVELOPMENT

AMGEN, an innovative leader in biotechnology, is seeking an experienced researcher in fermentation and process development. Qualified applicant will have M.S. or Ph.D. in microbiology, biochemistry, or biochemical engineering and at least 2 years of industrial experience with fermentation and recovery equipment. Knowledge of high cell density fermentation, continuous culture, and recombinant organisms would be beneficial. Send résumés to: **Recruitment (DF), AMGEN, 1900 Oak Terrace Lane, Thousand Oaks, California 91320.**

CORPORATE INDUSTRIAL TOXICOLOGIST

Abbott Laboratories, a leading international health care corporation, based in North Chicago, Illinois, has an outstanding opportunity available for an experienced Industrial Toxicologist.

This key position will serve as the principal Industrial Toxicology resource for the corporation. Qualified candidates will have a Ph.D. in Toxicology or a related discipline, coupled with at least 6 years professional experience to include 3 years in a corporate environment. A thorough understanding of relevant regulations and regulatory processes is essential, as are strong pharmacology and communication skills.

Located on the Lake Michigan shoreline just 30 miles north of Chicago, we provide excellent salaries, full benefits including profit sharing and stock retirement plan, and outstanding opportunities for professional growth and advancement. For consideration, submit a resume with salary history to: **Jeffrey Luke / Corporate Placement**. Abbott is an Affirmative Action Employer.



"HEALTH CARE WORLDWIDE"

MOLECULAR BIOLOGIST/ VIROLOGIST

The Upjohn Company's Molecular Biology Group has a position open for a person with a BS or MS in virology, genetics, biochemistry or related field. Laboratory experience in some aspect of molecular biology and a strong background in recombinant DNA technology and/or cell culture are required. The individual will participate in designing and developing retrovirus vectors for the expression of cloned viral oncogenes and cellular proto-oncogenes.

Upjohn offers a stimulating research environment, opportunity for career growth, competitive salary and benefits, and relocation assistance.

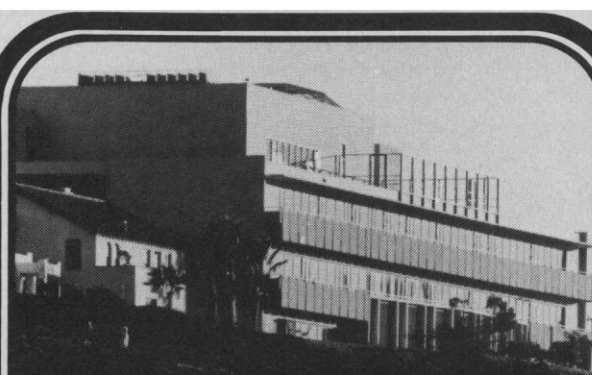
Kalamazoo is a medium-sized Southwestern Michigan community with immediate access to a mix of excellent cultural, educational and recreational pursuits, including numerous lakes and a four-season climate.

For confidential consideration, please call outside Michigan toll-free 1-800-253-8600, ext. 3-6767, or inside Michigan collect 616-323-6767 to request an employment application be sent to you immediately. Please refer to Ad Number 16581-J when calling.

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SIBIA is an established biotechnology company involved in a wide spectrum of innovative research programs. SIBIA, with a staff comprised of leading scientific members and with close ties to very senior academic consultants, provides an exceptional scientific research environment in which to work plus a modern laboratory located near the ocean on Coast Boulevard in La Jolla. The broad range of research programs encourages multidisciplinary interaction.

Vacancies exist for:

STAFF RESEARCH SCIENTISTS

MOLECULAR CELL BIOLOGY

Ph.D. in Molecular Biology with 2-7 years of research experience in Molecular and Cellular Biology, including recombinant DNA and nucleic acid hybridization techniques as well as familiarity with gene regulation and expression in procaryotic and eucaryotic systems. Positions available for scientists with recombinant DNA and gene expression research experience in:

- ANIMAL VIRUS SYSTEMS
- YEAST SYSTEMS
- MAMMALIAN SYSTEMS

NUCLEIC ACID CHEMISTRY/MOLECULAR BIOLOGY

Ph.D. in Biochemistry or Organic Chemistry with 2-5 years experience in nucleic acid chemistry and chemical modification of nucleotides. Experience in modern molecular biology including nucleic acid hybridization techniques desirable.

We offer a comprehensive benefits package and competitive salaries. For confidential consideration, please submit your curriculum vitae, a statement of research interests and goals, a list of publications, if applicable, and the names of three professional references to: SIBIA, DEPT. 4040, 505 COAST BOULEVARD SOUTH, LA JOLLA, CALIFORNIA 92037.

SIBIA

THE SALK INSTITUTE
BIOTECHNOLOGY/INDUSTRIAL
ASSOCIATES, INC.

SIBIA is an equal opportunity employer M/F/H/V

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR

Two nontenure-track positions open in a center for molecular vaccines, in the Department of Infectious Diseases and Microbiology, Graduate School of Public Health. Duties include developing and establishing large-scale procedures for the production of pilus and other bacterial protein vaccines and participating in developing graduate courses and a graduate program in biotechnology. Applicants must have a Ph.D. degree or equivalent in microbiology and research and industrial experience in large-scale methods for the growth of bacteria in the pilus-producing phase, protein purification from bacterial cultures, and the preparation of vaccines for human use. Send curriculum vitae and the names of three references by 31 October 1984 to: **Robert B. Yee, Ph.D., 428 PH, University of Pittsburgh, Pittsburgh, Pa. 15261.** An Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSISTANT, PROTEIN SEQUENCING position available to operate gas/liquid/solid-phase protein sequencer in newly established peptide biochemistry laboratory at the Institute for Advanced Biomedical Research, The Oregon Health Sciences University, Portland, Oregon. Opportunity to participate in research program related to molecular neurobiology. Candidates should be experienced in protein sequencing (spinning cup or gas phase). Competitive salary. Send résumé and list of references by 10 August 1984 to: **Dr. Eckard Weber, Department of Psychiatry and Behavioral Sciences, Stanford Medical School, Stanford, California 94305.** The Oregon Health Sciences University is an Equal Opportunity Employer.

SENIOR RESEARCH SCIENTIST

Merck Sharp & Dohme Research Laboratories has an immediate opening for a senior research scientist in the Recombinant DNA Laboratory Department of Synthetic Chemical Research. Candidates with experience in molecular biology are desired. Position involves recombinant DNA experiments utilizing synthetic oligonucleotides as well as other molecular biology techniques to clone and characterize genes of interest. Development of novel recombinant DNA techniques for expression of cloned genes in *Escherichia coli* and eukaryotic cells. Salary, benefits, and growth potential are excellent.

Send curriculum vitae to:

**S. R. Jenkins
Merck & Company, Inc.
Rahway, N.J. 07065**

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SENIOR RESEARCH TOXICOLOGIST NORTHERN CALIFORNIA OCCUPATIONAL HEALTH CENTER

The Northern California Occupational Health Center is seeking a senior research toxicologist with expertise in research methodology and basic and applied toxicology. The individual may hold an M.D. or a Ph.D. degree and have demonstrated ability to obtain basic research grants in her/his specialized area of occupational toxicology research. The individual should be anxious to work in collaboration with physicians working in a major occupational health program at University of California, San Francisco (UCSF), School of Medicine with special expertise preferably in heavy metals or nephrotoxicology, or in occupational cancer, or neurotoxicology. *The University of California is an Affirmative Action Employer which does not discriminate on the basis of race, sex, or age.* For inquiries please call or write: **Charles E. Becker, M.D., Professor of Medicine, UCSF, Head, Division of Occupational Medicine and Toxicology, San Francisco General Medical Center, 1001 Potrero Avenue, Building 30, Fifth Floor, San Francisco, Calif. 94110; telephone: 415-821-5200.** Applications must be received by 10 August 1984.

STAFF TOXICOLOGISTS

California State Department of Health Services invites candidates to participate in employment examinations to be held continuously through 1985. Vacancies exist in Sacramento and Berkeley; annual salary starts at \$38,400. If you have a doctorate in toxicology, biochemistry, pharmacology, or related field and 3 years of experience in environmental toxicology, send your résumé to: **The Department of Health Services, Epidemiological Studies Section, 714 P Street, Room 100, Sacramento Calif. 95814,** as soon as possible. For assistance or further information, telephone: **Robin Kubochi at 916-324-2829.** An Equal Opportunity Employer.

POSITIONS OPEN

RESEARCH ASSOCIATE. Plant physiologist or chemist, GS-435-1320/11. Applicants are sought for a temporary 1-year position with option to be renewed for a second year, in a U.S. Department of Agriculture/Agricultural Research Service (USDA/ARS) research program to study calcium-mediated regulation of plant metabolism. Specific areas of research are: (i) investigate the mechanism and control of calcium transport across plant cell membranes; (ii) study the properties of calcium ATPases in plant cell membranes; (iii) identify the role of free calcium, plant hormones, calmodulin, and protein kinases in regulation of ATPase-mediated transport of calcium. The following qualifications will distinguish better qualified candidates from among those eligible: (i) research experience in calmodulin biochemistry; (ii) knowledge and experience in study of calcium ATPase and membrane transport of calcium; (iii) knowledge and research experience of calcium regulation of metabolism; (iv) Ph.D. or equivalent preferred. Position located in Plant Biochemistry/Bioregulations Laboratory, Utah State University, Logan, Utah. GS-11 salary based on qualifications and experience: \$25,366. For application and further information, contact: **Dr. Roger E. Wyse, USDA-ARS, Utah State University, Logan, Utah 84322; telephone: 801-750-3062.** Candidates must be U.S. citizens. An Equal Opportunity Employer.

RESEARCH POSITION—MICROBIOLOGY/ BIOCHEMISTRY—INFECTIOUS DISEASES

The Veterinary Infectious Disease Organization (VIDO), University of Saskatchewan, has a research position for a microbiologist with a strong interest in bacterial biochemistry and physiology to participate in research programs on economically important diseases of food-producing animals. Major projects are in the areas of *Pasteurella* and *Haemophilus* pneumonias of cattle and swine and viral/bacterial synergism. Applicants should have a degree in microbiology or veterinary medicine, together with a Ph.D., and preferably some postdoctoral experience in at least one of the following areas: host-parasite interactions and bacterial mechanisms of virulence, bacterial biochemistry, physiology, or genetics. An interest in the application of modern microbiological techniques to the solution of problems related to the diagnosis and control of infectious diseases of animals is essential.

Inquiries and applications should be directed to:

**S.D. Acres, D.V.M., M.P.V.M., Ph.D.,
Deputy Director (Research)
VIDO
124 Veterinary Road
Saskatoon, Saskatchewan, Canada S7N, 0W0
306-343-3155**

STAFF OFFICER

The National Research Council seeks applicants for the position of staff officer for its Energy Engineering Board. Duties will include assisting the executive director in the management of two concurrent studies, Energy Conservation and Electric Energy Systems. Applicants should have a B.S. and an M.S. or equivalent in engineering, plus five or more years of experience in energy-related areas, such as energy systems analysis, process engineering, and energy program management. Should also be broadly knowledgeable about current energy issues and the development, analysis, and implementation of U.S. energy policy. Send résumé to: **Dennis F. Miller, Executive Director, Energy Engineering Board, National Research Council, 2101 Constitution Avenue, NW, Washington, D.C. 20418.** An Equal Opportunity Employer.

VETERINARY MEDICINE. The University of Pennsylvania is inviting applications and nominations for the chair of the Department of Clinical Studies (Philadelphia) in the School of Veterinary Medicine. Duties are the fostering of creative scholarship, teaching and clinical training, and leadership of the faculty not only in traditional university pursuits but also in the operation of a major urban teaching hospital. This chair offers an unexcelled opportunity for academic leadership in clinical veterinary medicine. Nominations may be informal. Applications should include a curriculum vitae and the names of three referees. Communications should be addressed by 31 August 1984 to: **Dr. D. S. Kronfeld, School of Veterinary Medicine, University of Pennsylvania, 382 West Street Road, Kennett Square, Pa. 19348.**

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

POSITIONS OPEN

RESEARCH INVESTIGATOR OR POSTDOCTORAL POSITION available to examine growth and differentiation of human tumor cells in semisolid media and on organ-specific matrices. Studies aimed at investigating clonal heterogeneity, differentiation, and drug sensitivity/resistance. Ph.D. in cell biology and experience in cytogenetics, pharmacology, hybridomas, extracellular matrix, or protein chemistry highly desirable. Excellent benefits and negotiable salary. Send résumé to: **Dr. Ronald B. Natale, University of Michigan Medical School, Division of Hematology and Oncology, Room 4701 Upjohn Center, Ann Arbor, Michigan 48109-0010.**

ASSISTANTSHIPS

TEACHING ASSISTANTSHIPS available for qualified applicants in September 1984. Graduate study in Biology Department leading to M.S. or Ph.D. with concentration in biochemistry, botany, zoology, microbiology, physiology, ecology, cell biology, marine biology. Anticipated stipends: \$6000 for 9 months and tuition waiver which includes 1984 summer courses at our marine station at Nahant. For information, write to: **Cynthia Pilkington, Department of Biology, Northeastern University, Boston, Mass. 02115.** An Affirmative Action/Equal Opportunity Employer.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS available to study GABA transport in brain subcellular particles and the arginine pathway for glutamate and GABA formation in brain. Extensive use of standard biochemical procedures and experience in protein separation, purification, and characterization. Experience in monoclonal antibodies and in general molecular biology technology. Salary range from \$16,500 to \$20,000. Submit curriculum vitae and names of three references to: **Eugene Roberts, Ph.D., Director, Department of Neurobiochemistry, Beckman Research Institute of the City of Hope, 1450 East Duarte Road, Duarte, California 91010-0269.**

POSTDOCTORAL FELLOWSHIP in endocrinology research. Group is part of NIH-funded diabetes-endocrinology research center. Focus is on pancreatic islet research. Applicants must possess M.D. or Ph.D. degree with background in biochemistry, physiology, or cell biology. Stipend is competitive. Send curriculum vitae, description of current research interests and objectives, and three letters of recommendation to: **Postdoctoral Search Committee, Department of Biochemistry, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, Mass. 01605.** Affirmative Action/Equal Opportunity Employer.

MONASH UNIVERSITY NATIONAL RESEARCH FELLOWSHIP

National Research Fellow in the Departments of Psychology at Monash University and the University of Melbourne to work in area of experimental psycholinguistics under joint supervision of Dr. K. I. Forster and Dr. R. J. Wales. Applicants should have a Ph.D. with research experience in psycholinguistics. Some formal training in linguistics desirable. Preference to candidates with interests in one or more of following fields: Lexical access, speech perception, syntax, language production, or language acquisition. Salary: A\$18,000 per annum. Fellowship tenable for up to 3 years. No provision for travel costs. Starting date negotiable. Enquiries to Dr. K. I. Forster. Applications including Reference Number 31261, curriculum vitae, and three references to: **The Registrar, Monash University, Clayton, Victoria, Australia, 3168,** by 31 August 1984.

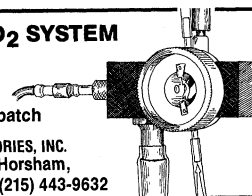
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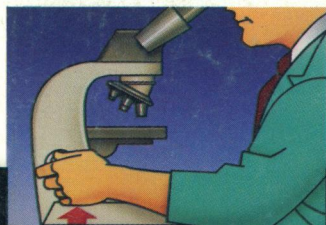
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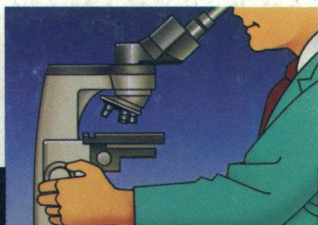


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