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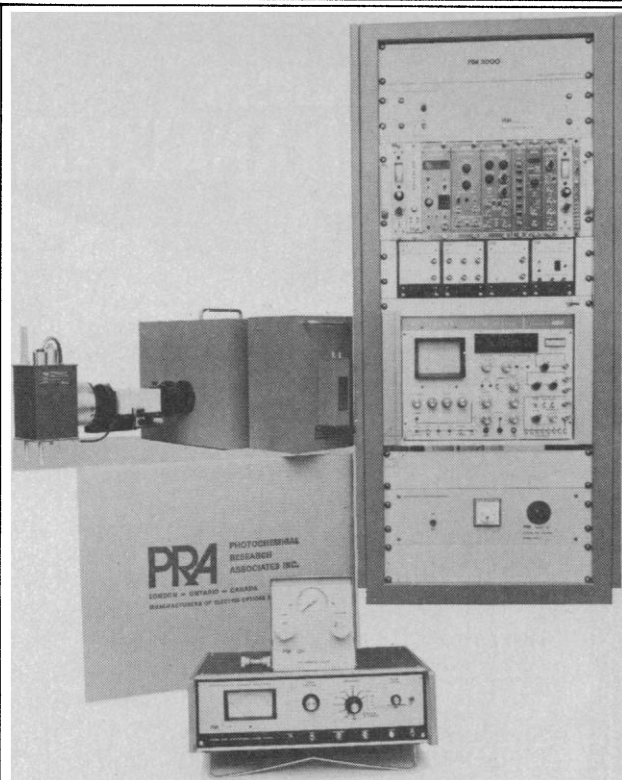
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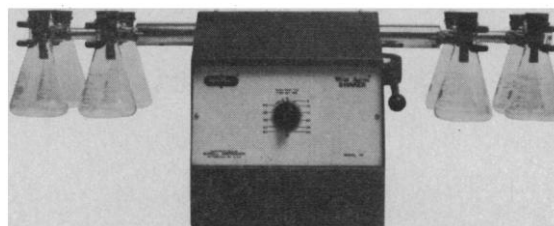
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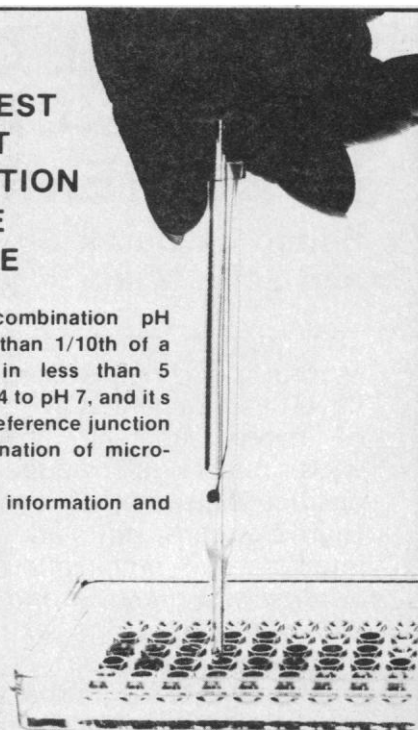
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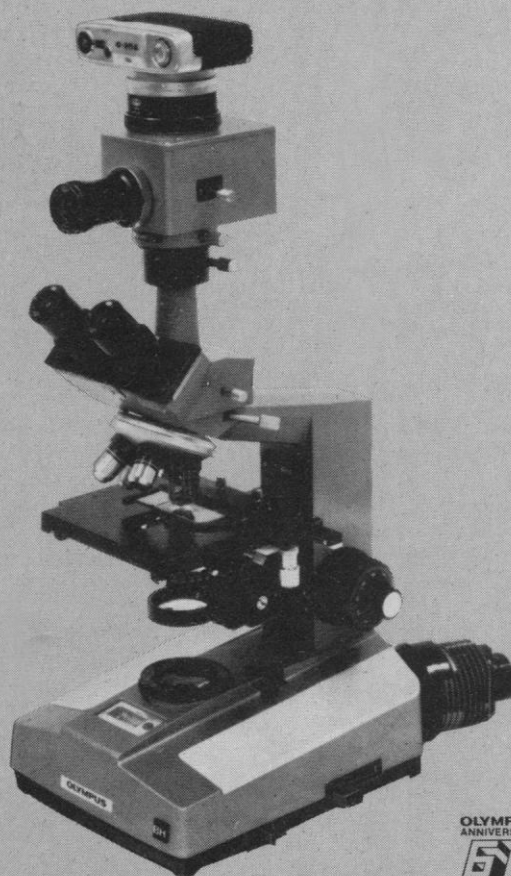
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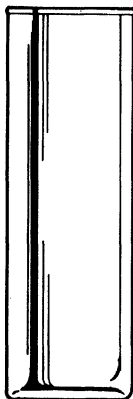
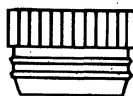


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Two positions at postdoctoral and research associate levels for individuals interested in studying membrane actions of peptide and catecholamine hormones. Please send résumés to: **Dr. Martin Soenenberg, Sloan-Kettering Institute, 1275 York Avenue, New York, N.Y. 10021.**

CELL BIOLOGIST/BIOCHEMIST

Active research group using cell culture model systems to study mechanisms of hydrocarbon carcinogenesis and the effects of tumor promoters on cell differentiation has two openings for postdoctoral fellows and associate scientists. Strong research background with experience in cell biology, biochemistry and/or chemical carcinogenesis in vitro is required.

Please send curriculum vitae with names of three references to: **Dr. Lella Diamond or Dr. Giovanni Rovera, Wistar Institute of Anatomy and Biology, 36th Street at Spruce, Philadelphia, Pa. 19104.**

Research Scientists

Meloy Laboratories, Inc., a member of the Revlon Health Care Group of companies, is a diversified, high technology organization located in suburban Washington, D.C. Our organization conducts long-range studies for the medical research community, develops and markets a line of sophisticated immunodiagnostic products, and produces a variety of instruments to monitor environmental quality.

We are currently seeking candidates in the following areas:

- **Cell Biology/Immunology:** for new product development; Ph.D. required. Should have experience with GMP requirements.
- **Protein Purification Utilizing HPLC:** two positions to expand research capabilities. M.S. required.
- **Microbial Genetics:** several positions available to assist in broadening our current capabilities. M.S. degree and experience with cloning and plasmids required.
- **Immunodiagnostic Production:** B.S./M.S. with minimum of 4 to 5 years of immunochemistry, specializing in production of anti-serum products, human reference standards and controls, and related immunodiagnostics. Supervisory position. GMP.

Salary commensurate with background and experience. Full benefits package offered. Interested candidates should submit résumé in complete confidence to:

MELOY LABORATORIES, INC.
6715 Electronic Drive
Springfield, Virginia 22151
Attention: Code R30

Equal Opportunity Employer, M/F

MELOY

Meloy Laboratories, Inc.
6715 Electronic Drive-R30
Springfield, Virginia 22151

Research Biologist

The Research & Development Division of G. D. Searle & Co., located in north suburban Chicago, has an immediate opening in the Department of Biological Research for a Research Biologist in Reproductive Endocrinology. Duties involve professional level research in the areas of ovarian and uterine physiology.

Candidates must have an M.S. in Physiology/Biochemistry with a strong background and training in Endocrinology. Ability to work with experimental animals and proficiency in biochemical and surgical techniques are essential.

We are offering a competitive starting salary, comprehensive benefits, and a challenging work environment.

Submit your resume complete with salary history/requirements in confidence to:

Lana Roth

G. D. Searle & Co.
Research & Development Division
P.O. Box 5110
Chicago, IL 60680

*Equal Opportunity M/F/H...
A Practice, Not Just A Policy*



INTERNATIONAL CROPS RESEARCH INSTITUTE FOR THE SEMI-ARID TROPICS (ICRISAT)

needs the following personnel, all to be based at headquarters near Hyderabad, India, unless otherwise indicated:

PROGRAM LEADER, FARMING SYSTEMS RESEARCH

The appointee will be required to provide administrative and scientific leadership to a multidisciplinary team of about 30 scientists and supporting staff in developing farming systems that will increase and stabilize agricultural production in the seasonally dry semi-arid tropics. Must be able to understand, conceptualize, and articulate an holistic approach to agriculture and to research in farming systems. Qualifications: doctorate with excellent academic record in agronomy, soil science, agricultural economics, or agricultural engineering. At least 10 years of experience in field research with some experience in developing countries. Good theoretical background, a demonstrated scientific ability through formal publications, and significant administrative experience are desirable qualifications.

SOIL AND WATER SCIENTIST

The appointee will work with the Associate Director, Cooperative Programs in liaison with ICRISAT programs in Africa and elsewhere, and assist in preparation and writing of research projects, project funding proposals, and reports. The post will involve regular overseas travel and will include assessment of ongoing programs. Qualifications: doctorate with an excellent academic record in soil and water engineering, soil science, or agricultural engineering; substantial formal training in hydrology; proven ability for team work with other scientists in interdisciplinary research programs. Experience in agricultural research pertaining to less developed countries of the semi-arid tropics, at least 10 years of postdoctoral research experience, and an ability to speak and write French would be advantageous.

SOIL PHYSICIST

Responsible within a multidisciplinary, farming systems research program for developing and conducting research to investigate major soil physical factors that limit crop production and resource use in the semi-arid tropics and develop methods suitable for their alleviation by farmers of limited means. Qualifications: doctorate in soil physics or associated sciences or equivalent. Ten years of experience in both theoretical and applied soil physical research. Ability to lead a team of scientists and to collaborate in interdisciplinary research. Experience in tropical or arid environments would be an advantage.

CROP PHYSIOLOGISTS

One each for groundnut and pulses (pigeonpea and chickpea), to plan and conduct physiological research in cooperation with a multidisciplinary team of international scientists. Research will be problem-solving and field-oriented, but requires knowledge of modern laboratory techniques. Qualifications: a doctorate with excellent academic record; demonstrated scientific ability through formal publications and relevant work experience postgraduation.

PLANT VIROLOGIST

Responsible for planning and conducting research, in cooperation with an interdisciplinary team of scientists, on virus diseases of ICRISAT crops (sorghum, pearl millet, chickpea, pigeonpea, groundnut), with special reference to groundnuts. Qualifications: doctorate in plant pathology with 10 years of research experience in plant virology, preferably in legumes, as evidenced by publications/reports. Experience in electronmicroscopy and serological techniques would be a definite advantage.

PLANT BREEDER, GROUNDNUT (To be based in Africa)

Responsible for planning and conducting research, in cooperation with a team of international scientists, to develop advance breeding materials for national and regional programs. Qualifications: doctorate in plant breeding with 5 years of research experience in plant breeding, preferably in groundnut, as evidenced by publications/reports. Experience in the semi-arid tropics and bilingual ability in English and French would be an advantage.

TRAINING OFFICER

Responsible for assisting in development of practically oriented training program and instruction related to SAT crop improvement and natural resource utilization, with emphasis on communication in both French and English. Qualifications: doctorate or equivalent in genetics, plant breeding, soil science, or agronomy with experience in teaching; French as first language or demonstrated ability to speak and write fluently in French; proven ability for team work with other scientists in interdisciplinary research and training programs. Ten years of postdoctoral research experience, and experience in agricultural training and research pertaining to less developed countries of the SAT would be an advantage.

Salaries for all of above positions commensurate with qualifications and experience; excellent fringe benefits.

Send résumé by 15 December 1979 to: **Director, ICRISAT, ICRISAT Patancheru P.O., Andhra Pradesh, 502 324, India.**

POSITIONS OPEN

UNIVERSITY OF CHICAGO DIVISION OF THE BIOLOGICAL SCIENCES

The Department of Pharmacological and Physiological Sciences is considering candidates with research interests in the fields of cellular or membrane physiology as well as mammalian reproductive physiology or neuroendocrinology. *From the time of its original charter, the principle of the University of Chicago has been to appoint scholars without regard to race, color, religion, sex, or national origin.* Please have three professional persons write us concerning you and send your résumé, together with your most significant publications, to:

Alfred Heller, Professor and Chairman
Department of Pharmacological and
Physiological Sciences
The University of Chicago
947 East 58 Street
Chicago, Illinois 60637

UNIVERSITY OF CHICAGO DIVISION OF THE BIOLOGICAL SCIENCES

The Department of Pharmacological and Physiological Sciences is considering candidates with research interests in the area of neurobiology. *From the time of its original charter, the principle of the University of Chicago has been to appoint scholars without regard to race, color, religion, sex, or national origin.* Please have three professional persons write us concerning you and send your résumé, together with your most significant publications, to:

Alfred Heller, Professor and Chairman
Department of Pharmacological and
Physiological Sciences
The University of Chicago
947 East 58 Street
Chicago, Illinois 60637

BIOMEDICAL SCIENCES WASHINGTON UNIVERSITY

Applications are invited for two tenure-track positions in the Department of Biomedical Science, School of Dental Medicine. The individuals must be fully qualified to teach either gross anatomy or immunology and have demonstrated a strong research capability and commitment. Preference will be given to persons amenable to collaborative investigations in areas of ongoing research (for example, bone and mineral metabolism, radiation pathology) or where future research is anticipated (for example, periodontal disease, craniofacial embryology).

Please forward résumé, the name of three referees, and a brief statement of research activities and plans to: **Dr. A. J. Kahn, Search Coordinator, Washington University, School of Dental Medicine, 4559 Scott Avenue, St. Louis, Missouri 63110.** *An Equal Opportunity Employer.*

CARDIOVASCULAR PHARMACOLOGIST

Applications are invited for a position in pharmacology at the assistant or associate professor level, starting July 1980. Applicants should be prepared to conduct a strong research program in the area of cardiac electrophysiology and to take an active role in the medical and graduate teaching in the department. Excellent facilities are available in a fully equipped laboratory. The position is funded by the state of New York with a competitive salary scale. Send curriculum vitae, list of publications, and two letters of recommendation to: **I. M. Weiner, Chairman, Department of Pharmacology, Upstate Medical Center, Syracuse, N.Y. 13210.** Deadline for receipt of applications: 15 January 1980.

An Equal Opportunity/Affirmative Action Employer

CELL BIOLOGIST EMORY UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF ANATOMY

Applications are invited for a position as assistant professor of anatomy. The Ph.D. degree or equivalent and relevant postdoctoral experience are required. Candidates must be able to maintain an independent, funded research program. Research in the area of cellular neurobiology, membrane biology, developmental biology, or protein biosynthesis is preferred. The applicant must have the skills necessary for teaching in team taught cell biology and human histology courses for professional students. Deadline for receipt of applications is 1 January 1980. Send curriculum vitae, names of four referees, and description of current research interests to: **Dr. Jerome Sutlin, Chairman, Department of Anatomy, Emory University School of Medicine, Atlanta, Georgia 30322.**

Emory University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

CELL PHYSIOLOGY POSTDOCTORAL RESEARCH ASSOCIATE

Position available immediately for recent Ph.D. in cell physiology or related discipline. Experience in animal modeling would be useful. This position is in basic research. The project involves the development of new approaches to probing biochemistry and physiology in vivo using tracers labeled with positron emitting radionuclides.

The successful candidate will work closely with colleagues in an ongoing multidisciplinary program in neuroscience, mapping of cellular structures and enzyme systems, quantitation of receptor affinity and kinetics in vivo. Research on isolated organ systems, for example, heart, blood flow, transport mechanisms, will also be carried out.

Applicants should send résumé and transcripts, and request that three letters of recommendation be sent to:

Dr. Alfred P. Wolf
Department of Chemistry
Brookhaven National Laboratory
Associated Universities, Inc.
Upton, Long Island, N.Y. 11973
An Equal Opportunity Employer, M/F

CHAIRPERSON—MICROBIOLOGY. Applications and nominations are invited for the chairmanship of the Department of Microbiology. Candidates with an outstanding record of accomplishment in research and a demonstrated commitment to medical and graduate education are sought.

Please send curriculum vitae and names of three references to: **Dr. Bruce McL. Breckenridge, Department of Pharmacology, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—Rutgers Medical School, P.O. Box 101, Piscataway, N.J. 08854.** *Equal Opportunity/Affirmative Action Employer, M/F.*

CHAIRPERSON, DEPARTMENT OF BIOLOGY. East Carolina University is continuing its search and invites applications and nominations for the position of chairperson of the Department of Biology, starting 15 August 1980. Well-equipped department including 21 faculty of diverse interests. Broad undergraduate program with graduate program to master's level. Applicants should have academic and administrative experience consistent with rank of full professor, a commitment to quality instruction at all levels, a record of quality research, and proven ability to attract grant funds. Experience in thesis direction at doctoral level desirable. Letter of application, curriculum vitae, and the names and addresses of at least three references should be sent to: **Dr. C. E. Bland, Chairman, Search Committee, Department of Biology, East Carolina University, Greenville, N.C. 27834.** Closing date for receipt of applications is 15 January 1980.

East Carolina University is an Equal Opportunity/Affirmative Action Employer.

THE WEIZMANN INSTITUTE OF SCIENCE
is pleased to announce the availability of
the **Charles H. Revson Career Development Chairs**
and **Postdoctoral Fellowships**

The Revson Chairs are intended for promising scientists who are eligible for appointment as senior scientists at the Weizmann Institute.

The Revson Fellowships will be awarded to promising scientists within 3 years after they have received their Ph.D. degrees.

Both categories are intended for either scientists who reside in Israel or for those who are considering making their residence in that country; these appointments can commence at any time during 1980.

The appointments for Revson Career Development Chairs are for 3 to 4 years. Appointees found suitable at the end of this period will be invited to continue their employment as permanent members of the Weizmann Institute's scientific staff.

Appointments for Revson Postdoctoral Fellowships are for 1 to 2 years.

Candidates are requested to write to:
The Charles H. Revson Foundation Program
c/o The Academic Secretary
Weizmann Institute of Science
Rehovot, Israel

for application forms.

POSITIONS OPEN

CHAIR IN BIOCHEMISTRY

The University of Tennessee Center for the Health Sciences, Memphis, invites applications from highly qualified senior faculty for the position of chairperson of the Department of Biochemistry in the College of Medicine. The criteria for selection will include: leadership and scientific achievement in the field of biochemistry; concern for excellence and experience in teaching students in a health sciences center at the undergraduate, graduate, and continuing education levels; significant contributions in research and education; demonstrated administrative skills; and commitment to the academic process.

Submit letters of application with curriculum vitae and references to: **Bob A. Freeman, Ph.D., Chairman of the Search Committee, Department of Microbiology, University of Tennessee Center for the Health Sciences, Memphis, Tennessee 38163.**

An Equal Opportunity/Affirmative Action Employer

BOTANY DEPARTMENT CHAIRPERSON IOWA STATE UNIVERSITY

The Department of Botany at Iowa State University invites applications for the position of chairperson to be effective 1 July 1980. The department includes 21 professional staff with broad interests in teaching and research. The successful candidate is expected to maintain an active research program, a commitment to quality teaching, and have a demonstrated potential for leadership. Appointment to be made at associate or full professor with a salary of \$30,000 to \$40,000 (12-month basis).

Deadline for application is 15 December 1979 or until the position is filled. Applicants should send curriculum vitae, a list of publications, a statement of research and teaching interests, and the names of three references to: **Donald J. Nevins, Chairman of Search Committee, Department of Botany, Iowa State University, Ames, Iowa 50011; telephone: 515-294-1749.**

Iowa State is an Equal Opportunity/Affirmative Action Employer.

CHAIRMAN OF BIOLOGICAL SCIENCES

To administer a department that offers baccalaureate majors in environmental health, medical technology, and biological sciences, as well as a graduate program (M.S.) in biology. The chairman must work closely with related Departments of Biological Chemistry, Physiology, Anatomy, and Microbiology and Immunology in a jointly sponsored Biomedical Ph.D. Program. Ph.D. with demonstrable research, teaching, and administrative leadership required. Salary and area of specialization open. Send application with résumé by 1 December 1979 to: **Dr. Jerry H. Hubschman, Biology Search Committee, Wright State University, Dayton, Ohio 45435.**

An Affirmative Action/Equal Opportunity Employer

COGNITIVE PROCESSES: UNIVERSITY OF CALIFORNIA, BERKELEY. Two-year position, starting approximately January 1980 or earlier, is available for someone with research competence in cognitive science and a knowledge of introductory college-level physics. Position involves collaboration on a study of cognitive mechanisms facilitating human problem-solving in physics. Annual salary is approximately \$20,000 for person with Ph.D. degree. For further details, write: **Professor F. Reif, Physics Department and Science/Math Education, University of California, Berkeley, California 94720.** *The University of California is an Affirmative Action Employer.*

UNIVERSITY OF CALIFORNIA, SAN DIEGO, DEPARTMENT OF CHEMISTRY. Invites applications for a faculty position in **COSMOCHEMISTRY**, beginning September 1980. Position is at the assistant professor level, with salary up to \$23,300, depending on qualifications. Preference is for candidates with background in meteorites, lunar and planetary studies; however, the specific area is less important than the requirement that the candidate have demonstrated ability in both teaching and research. Candidates should send curriculum vitae, including a list of publications, a description of research proposals and educational ideas, and the names of three references, to: **Chairman, Department of Chemistry, B-014, University of California, San Diego, La Jolla, California 92093.** Deadline for applications is 1 December 1979.

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

POSITIONS OPEN

DEAN, GRADUATE DIVISION University of California, San Francisco

The San Francisco campus of the University of California is devoted entirely to the health sciences: dentistry, medicine, nursing, and pharmacy. The Graduate Division certifies the award of the advanced academic degrees in health and related sciences. The dean of the Graduate Division serves as the chief administrative officer of the division and provides academic leadership in all matters related to graduate academic programs.

Candidates for this position should have an earned doctorate and superior academic and professional achievement sufficient to meet the university's requirement for a senior faculty appointment; administrative, teaching, and research experience; familiarity with the philosophies of graduate education. Health science-related background preferred. The salary will be commensurate with qualifications. The preferred starting date will be 1 July 1980.

Send curriculum vitae to: **Search Committee—Dean, Graduate Division, Room 115S, University of California, San Francisco, California 94143.**

Deadline: 30 November 1979.

An Affirmative Employer, M/F/H

DEAN OF THE GRADUATE COLLEGE/ ASSOCIATE VICE CHANCELLOR FOR RESEARCH AND GRADUATE EDUCATION

University of Illinois Medical Center, Chicago.

The Medical Center is seeking qualified applicants for the position of Dean of the Graduate College/Associate Vice Chancellor for Research and Graduate Education.

The dean is responsible for all aspects of the graduate programs at the Medical Center and acts in concert with other academic officers to formulate educational standards and policies. In addition, the dean has jurisdiction over common research resources and chairs the Campus Research Board which is responsible for allocating institutional research funds.

Candidate must possess the Ph.D. or other doctoral degree, be an established scholar with achievement sufficient to receive appointment at the tenured level, and have broad experience in graduate education in biological and health sciences. Prior administrative experience and the ability to work with colleagues in achieving institutional goals are important qualifications.

To receive full consideration, letters of interest, curriculum vitae, and nominations should be received by: **The Search Committee Chairman, E. P. Cohen, M.D., Dean, School of Basic Medical Sciences, University of Illinois at the Medical Center, P.O. Box 6998, Chicago, Ill. 60680,** no later than 1 December 1979.

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

ENTOMOLOGIST

Agricultural chemical company is seeking an M.S. or Ph.D. entomologist with desire to work in industrial insecticide-screening operation. Planning and coordinating programs for optimization of corporate agricultural products is primary objective. Actual position location is 80 miles northwest of the Chicago metropolitan area.

Benefits program includes liberal relocation allowance and stock ownership plan. Send résumé, including salary history, to:

Personnel Manager



**Velsicol
Chemical
Corporation**

**341 East Ohio Street
Chicago, Illinois 60611**

An Equal Opportunity Employer, M/F

POSITIONS OPEN

UNIVERSITY OF PITTSBURGH—CLINICAL PHARMACOLOGY—The School of Dental Medicine is seeking candidates at the assistant professor level for a program in clinical pharmacology; individuals with a Ph.D. degree in pharmacology or clinical pharmacology and a D.M.D. or D.D.S. degree are preferred. Responsibilities include teaching of clinical pharmacology to third-year dental students and graduate dental students. Participation in elective courses in pharmacology as part of the pre-professional dental curriculum for M.S./Ph.D. degree program in pharmacology is also desired. An ability to conduct independent research is required. *As an Equal Opportunity Employer, this university encourages all persons, regardless of age, sex, or race, to apply.* This position will be effective 1 July 1980. Send curriculum vitae to: **Dr. John R. Gilbertson, Chairman, Department of Pharmacology-Physiology, School of Dental Medicine, University of Pittsburgh, Pittsburgh, Pa. 15261.**

POSITIONS OPEN

CONSULTING ENTOMOLOGIST—WRITER

Unique opportunity for Ph.D. with broad field experience in crop insects, especially cotton and soybeans. Will develop organization to disseminate information on crop pests to farmers and consultants on a national and international scale.

Telephone: **George Johnson, Technology Resource Systems, 150 South Wacker Drive, Chicago, Ill. 60606.** Office: 312-782-0977; home: 312-668-8702.

DEAN, SCHOOL OF SCIENCE

Chief academic officer, School of Science, 1 September 1980. Responsible for academic, curricular, budgetary, and personnel matters and for bringing services of school to the community. Salary range: \$34,176 to \$41,316. Send résumé by 1 December 1979 to: **Search Committee, c/o Vice President, Academic Affairs, California State University, Hayward, Hayward, California 94542.** *Affirmative Action Employer.*

RESEARCH POSITION IN EXPERIMENTAL PHYSICS

The Princeton Plasma Physics Laboratory conducts a vigorous research and development program in controlled thermonuclear fusion. The laboratory, sponsored by the U.S. Department of Energy, currently operates two large tokamak experiments, the PLT and the PDX, as well as a number of small plasma research devices. A major new device, the TFTR, is under construction. A new experiment, the S-1 Spheromak, which will test an innovative approach to magnetically controlled fusion is in the design stage.

These experiments are supported by strong groups of theoretical physicists and engineers and by excellent computer facilities.

We are seeking creative experimentalists with a doctoral degree or equivalent experience, especially in the following areas:

- Plasma Physics
- Data Acquisition and Analysis
- Neutron and X-Ray Detection
- Visible and Infrared Lasers and Detectors
- Surface and Vacuum Physics
- Atomic Physics
- Millimeter Wave Measurements
- Visible and Ultraviolet Spectro
- X-Ray Spectroscopy
- Radio Frequency and Particle Beam Heating
- Neutral Particle Energy Analysis

We offer an excellent benefits package.

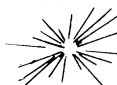
Qualified candidates are invited to send their résumés to:

**Project MSR
Personnel Department**

PLASMA PHYSICS LABORATORY

**POST OFFICE BOX 451
PRINCETON, NEW JERSEY 08544**

*An Equal Opportunity/
Affirmative Action Employer M/F/H*



**Princeton
University**

POSITIONS OPEN

POSITION IN DEVELOPMENTAL BIOLOGY DEPARTMENT OF ZOOLOGY UNIVERSITY OF CALIFORNIA, BERKELEY

Applications are invited for an anticipated opening at the level of assistant professor of zoology pending final budgetary approval. The teaching and research interests of the candidate should be in the area of animal developmental biology with emphasis on mechanisms operating at the cell and tissue level. Possible areas of specialization may include, but are not restricted to, gene expression in development, mechanisms of morphogenesis, regulation of pattern formation, and developmental neurobiology. Teaching responsibilities may include an advanced undergraduate course in developmental mechanisms, a graduate specialty course, and contributions to the teaching of general biology. Applicants should send curriculum vitae, bibliography with copies of publications, a summary of research and teaching objectives, and the names of three references by 1 January 1980 to: **Chairman, Search Committee in Development, Department of Zoology, University of California, Berkeley, California 94720.**

The University of California is an Affirmative Action Employer.

School of Public Health, University of Illinois at the Medical Center, Chicago, is seeking a **DIRECTOR AND PROFESSOR** for Environmental and Occupational Health Sciences Program to start September 1980. Graduate degrees emphasize environmental science, toxicology/medicine, and industrial hygiene. Responsibilities include administration, teaching, research, and service. Salary commensurate with experience. Send credentials by 31 December 1979 to: **Dr. Dale Mattson, Chairman, Search Committee, School of Public Health, University of Illinois, P.O. Box 6998, Chicago, Ill. 60680.** *Affirmative Action/Equal Opportunity Employer.*

DIRECTOR OF CYTOGENETICS LABORATORY UNIVERSITY OF WASHINGTON Experienced Cytogeneticist (Ph.D. or M.D.)

Position requires management of established prenatal and postnatal diagnostic laboratory and independent research experience in experimental cytogenetics. Early starting date desirable. Send curriculum vitae and the names and addresses of at least three references to: **Dr. George M. Martin, Division of Genetic Pathology, Department of Pathology, SM-30, University of Washington, Seattle, Washington 98195.** *The University of Washington is an Affirmative Action/Equal Opportunity Employer.*

ENVIRONMENTAL MICROBIOLOGY

The Department of Biological Sciences, Drexel University, is seeking candidates for two postdoctoral positions to be filled before January 1980. The positions are primarily for research on drinking water microbiology and the sampling of water distribution systems. Some participation in the teaching of basic and environmental microbiology is required. Appointments will be made at rank and salary commensurate with the candidates' experience and will be renewable at the end of the 1979-1980 academic year. Send applications with curriculum vitae and names of three references to: **W. O. Pipes, Department of Biological Sciences, Drexel University, Philadelphia, Pa. 19104**

Drexel University is an Equal Opportunity/Affirmative Action Employer.

TENURE-TRACK FACULTY. Applications are invited for several faculty positions in the program in genetics and molecular biology, to contribute to graduate and undergraduate program development, and maintain a vigorous research program. Applicants should have one or more years of postdoctoral training and submit a full résumé, including names of at least three references.

LABORATORY ASSISTANTS. Applicants are invited to assist in the development of a new laboratory instructional program in genetics and molecular biology and in laboratories in population biology. Must qualify for admission to graduate program, maintain full-time graduate student status and satisfactory progress to advanced degree.

Submit applications to:

**David L. Jameson
Program in Genetics and Molecular Biology
University of Houston
Houston, Texas 77004**

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

EMBRYOLOGIST/DEVELOPMENTAL BIOLOGIST AND GENETICIST

The Department of Biology anticipates appointment of two tenure-track assistant professors beginning August 1980. **Embryologist/developmental biologist:** preference will be given to those able to teach and carry out research in experimental embryology or in basic concepts of development. **Geneticist:** preference will be given to those specializing in and able to teach in one of the following areas: cytogenetics, developmental genetics, or molecular genetics of higher eukaryotic organisms.

Applicants must hold the Ph.D. or equivalent and, in addition to teaching undergraduate and graduate courses in their specialty, are expected to develop a strong research program and supervise thesis and nonthesis M.S. candidates. Newly renovated research facilities are available. Applicant should submit curriculum vitae, official transcripts, and three letters of reference by 8 December 1979 to:

**Department of Biology
Indiana University-Purdue University at Indianapolis
1201 East 38 Street
Indianapolis, Indiana 46205**

An Affirmative Action/Equal Opportunity Employer

FACULTY POSITIONS (THREE) IN MICROBIOLOGY. The Genetics and Cell Biology Group in the Department of Microbiology, University of Alabama in Birmingham, has three vacancies for assistant professorships (tenure-track) for individuals with research expertise in one or more of the following areas: microbial physiology and biochemistry, genetic and biochemical aspects of pathogenicity of nonviral agents of dental or medical significance, and microbial and molecular genetics. Preference will be given to those who have strong credentials for and commitment to developing an independent research program working with prokaryotic or lower eukaryotic organisms and who have interest and aptitude for teaching graduate, medical, and dental students. Positions available during 1980. Salary commensurate with experience but not less than \$22,000 for a 12-month appointment. Send letter outlining current and future research interests, curriculum vitae, bibliography, and names and addresses of three references to: **Roy Curtiss III, Department of Microbiology, Box 11 SDB, The Medical Center, The University of Alabama in Birmingham, Birmingham, Ala. 35294.** *An Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF PRINCE EDWARD ISLAND FACULTY POSITION DEPARTMENT OF BIOLOGY

Applications are invited for a 5-month term sabbatical-leave replacement position at the assistant professor level for the period 1 January 1980 to 31 May 1980. Teaching duties will consist of lectures and laboratories in cell physiology and animal physiology.

Applicants should have a Ph.D., and teaching experience is preferred. Salary will be according to qualifications, but will be approximately \$10,000. Send curriculum vitae and the names of three references to:

**I. G. MacQuarrie, Chairman
Biology Department
University of Prince Edward Island
Charlottetown, Prince Edward Island
Canada C1A 4P3**

FACULTY POSITION Department of Forest Science Texas A & M University

FOREST ECONOMIST, with strong background in quantitative methods, to teach and conduct research. Emphasis on intensive management of southern forests.

Qualifications: Ph.D. or equivalent with at least one degree in forestry.

Position: Open 1 January 1980. Tenure-track. Assistant professor. Salary dependent on qualifications.

Application: Send résumé and three letters of reference by 1 December 1979 to:

**Chairman, Search Committee
Department of Forest Science
Texas A & M University
College Station, Texas 77843**

For further information write above address or telephone: 713-845-5033.

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

POSITIONS OPEN

FACULTY POSITION IN BIOCHEMICAL AND CELLULAR IMMUNOLOGY

Tulane Medical School announces the reopening of its search for an immunologist to be appointed at the assistant professor level in the Department of Microbiology and Immunology. Preference will be given to individuals who demonstrate excellent training and abilities in the area of immunoregulation with particular reference to T cell function in murine and human systems. Experience and interest in the identification of T cell subsets and biochemical studies of molecules affecting the function of such subsets is essential. Familiarity with hybridoma technology would be desirable. An interest and ability in teaching medical and graduate students is required, as is a desire for career development in a university/medical school setting. New applicants should submit curriculum vitae and names of three referees to: **A. Arthur Gottlieb, M.D., Professor and Chairman, Department of Microbiology and Immunology, Tulane Medical School, 1430 Tulane Avenue, New Orleans, La. 70112.** Those who have applied before are welcome to apply again and need only submit a letter indicating their interest in this position. All responses must be received by 1 January 1980. *Tulane is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION. Drew University, Department of Botany, invites applications for an appointment probably at the rank of assistant professor beginning September 1980. Candidates should have a broad knowledge of the subject of botany, but with special emphasis in the field of taxonomy-ecology of higher green plants. Responsibilities include 12 contact hours teaching in introductory and upper-level undergraduate courses which will utilize a ground-level, working greenhouse. Send curriculum vitae, three letters of recommendation, and transcripts by 26 November 1979 to: **Dr. George N. Bistis, Chairman, Department of Botany, Drew University, Madison, N.J. 07940.**

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITIONS

The Department of Zoology at the University of Texas at Austin is recruiting to fill two vacancies.

- 1) **GENETICIST** whose research deals with the eukaryotic genome and its structure and/or function. This opening is at the senior level. The areas of greatest interest are: somatic cell, molecular and/or developmental genetics.
- 2) **REPRODUCTIVE PHYSIOLOGIST** whose research is on the vertebrate central nervous system investigated anatomically and/or biochemically. This individual should be able to relate neural processes to reproduction with an emphasis on the former. This position is open at the assistant professor level; however, senior applicants will be considered.

Applicants should submit curriculum vitae, selected reprints, a brief statement of research plans, qualifications for graduate and undergraduate instruction, and names of five references.

Applications should be sent by 1 December 1979 to: **Chairman, Department of Zoology, University of Texas at Austin, Austin, Texas 78712.**

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

FACULTY POSITION

The Chemistry Department anticipates having a tenure-track position in biochemistry. We are looking for a biochemist with an interest in structure-function relationships with emphasis on the application of sophisticated contemporary tools to biological molecules or systems. This position will require the ability to organize and present, effectively, courses at both the graduate and undergraduate levels. Moreover, potential candidates are expected to have a solid record of accomplishment in research and to show promise of developing vigorous, independent programs of scholarly investigation. To apply, submit a brief biographical sketch, a publication list, names of three references, and a short résumé of ideas for the development of teaching and research programs. Deadline for applications is 1 December 1979. Please apply to:

**Dr. Adam Allerhand, Chairperson
Department of Chemistry
Indiana University
Bloomington, Indiana 47405**

Indiana University is an Equal Opportunity/Affirmative Action Employer.

Research Virologist PhD

Research unit of major ethical pharmaceutical company in Northeast has an outstanding career opportunity. To qualify, you should have a PhD in Virology and/or immunology and experience in these areas as a Post-doctoral fellow or with a pharmaceutical company. Demonstrated supervisory skills enhance your qualifications.

This position provides an exceptional opportunity for advancement in the discipline and management.

Generous compensation and excellent benefits package are included. Relocation will be assisted.

Please forward your resume, in confidence, to:

BOX S 1618

810 7th Ave., New York, N.Y. 10019

An Equal Opportunity Employer M/F

ASSOCIATE DIRECTOR FOR PHYSICS AND MATHEMATICS

LOS ALAMOS SCIENTIFIC LABORATORY

LASL, a leading national scientific laboratory engaged in weapons and energy systems R & D, seeks an accomplished scientist to be responsible to the Laboratory Director for the direction and coordination of basic and applied research in the field of experimental and theoretical physics, nuclear weapons design, accelerator technology, medium energy physics, laser fusion and dynamic testing. Responsibilities will include establishing long range research objectives, allocating resources, reviewing accomplishments and representing the research programs to appropriate agencies and institutions.

Requires demonstrated significant research achievements in physics or a closely related field; ability to direct and coordinate diverse basic and applied research activities to achieve established objectives; skill in effectively communicating complex information succinctly to diverse groups; a Ph.D. or equivalent in physics or allied field.

Direct resume with salary requirements to:

Mr. R. Lynn Wilson, Employment Manager
DIV 80-B
Los Alamos Scientific Laboratory
P. O. Box 1663
Los Alamos, New Mexico 87545

AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER

University of California



LOS ALAMOS SCIENTIFIC LABORATORY

Cystic Fibrosis Foundation Research Program

Unanswered questions regarding cystic fibrosis pose unique challenges in basic and clinical research, and the Cystic Fibrosis Foundation seeks to support meritorious projects proposing promising new ideas. Some of the areas in need of extensive scientific investigation include:

Biochemistry

- Polyamine metabolism and the effect of metabolites on mucous secretion, electrolyte transport, and ciliary function.
- Relationship of cAMP, calcium, sodium, glycoproteins, and membrane receptor phenomenon to the secretory process.
- Proteases and protease inhibitors.
- Comparative studies of normal vs. CF mucous glycoproteins.

Genetics/Developmental Biology

- Basic genetics of CF and mode of genetic transmission.
- Heterozygote detection and prenatal detection of homozygotes.

Microbiology/Immunology

- Basic research on bacterial host-defense mechanisms and extracellular factors influencing the inflammatory process.
- Physiology, biochemistry and virulence of *Pseudomonas aeruginosa*.
- Possible "Pseudomonas-specific" defect.
- Prophylactic immunization to prevent Pseudomonas infection.

Pathophysiology

- Reliable screening tests for the neonatal period.
- Secretory control, stimulus-secretion coupling and mechanisms of increased electrolyte secretion.
- GI physiology with respect to malabsorption, digestion of nutrients, and techniques for assessing pancreatic function.
- Animal models as pathophysiological examples of CF as well as for various aspects of the disease.
- Composition of periciliary fluid and modification of mucociliary transport.

Pharmacology

- Antibiotics or other chemotherapeutic modalities for use against Pseudomonas and Staphylococcal respiratory infections.
- Effective bronchodilators and mucolytic agents.

Application Deadlines

New Investigator Research Grants	February 1, September 1
Research Scholar Awards	September 1
Research Grants	February 1, September 1
Research Fellowships	September 1
Clinical Fellowships	October 1
Student Traineeships	February 1, October 1

For further information and application forms contact:

CYSTIC FIBROSIS FOUNDATION, Medical Department, 6000 Executive Boulevard, Suite 309, Rockville, Maryland 20852



POSITIONS OPEN

FACULTY POSITION—MEDICAL MICROBIOLOGIST

Assistant professorship at a large Midwestern university available after 1 July 1980. Applicants should have postdoctoral experience. Duties include coordinating dental microbiology course and assisting in graduate teaching, as well as establishing a strong research program in pathogenic microbiology. Send curriculum vitae, bibliography, research prospectus, and the names of three referees to: **Dr. Irving Crawford, Department of Microbiology, University of Iowa, Iowa City, Iowa 52242** by 31 December 1979. *The University of Iowa is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN COASTAL HYDROLOGY UNIVERSITY OF MARYLAND

The Horn Point Environmental Laboratories (HPEL) of the University of Maryland Center for Environmental and Estuarine Studies announces a tenure-track professorial position for a candidate with research interest in near-surface groundwater dynamics and other hydrological phenomena relevant to the coastal plain. Academic rank and salary commensurate with qualifications and experience. Ph.D. in civil or agricultural engineering required. HPEL has active research programs in diffuse source pollution and groundwater waste disposal systems. Incumbent will direct these programs, develop his/her other research interests, train graduate students, and participate in research-related public service.

HPEL performs research in a wide variety of environmental topics. It is located on an 850-acre campus on the Eastern Shore of Maryland. It has a professional faculty of 12 and a total staff of 70.

Candidates should submit résumés, statement of research interests, and names of six referees to: **Hydrology Search Committee, HPEL, P.O. Box 775, Cambridge, Maryland 21613** by 30 November 1979.

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

FACULTY POSITION in physical chemistry or chemical physics. Applications or nominations are invited for an opening in the Department of Chemistry at Massachusetts Institute of Technology (MIT). Applicants should have demonstrated ability to do exceptional independent research in chemistry. Appointment will probably be at the assistant professor level, but applications and nominations for other levels will be considered. Candidates should submit curriculum vitae, a publications list, a description of research interests, and have three letters of recommendation sent not later than 15 February 1980, to: **Professor J. L. Kinsey, Room 18-399, MIT, Cambridge, Mass. 02139.** *MIT is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION in synthetic organic chemistry, assistant or associate professor, tenure-track position in synthetic organic chemistry starting early 1980. Ph.D. and several years of postdoctoral experience required. The candidate is expected to teach graduate and undergraduate organic chemistry and develop a strong research program in synthesis. Candidates should supply a graduate transcript, curriculum vitae, résumé of future research plans, and have three letters of recommendation sent to: **Dr. Pierre Crabbe, Chairman, Department of Chemistry, University of Missouri, Columbia, Mo. 65211** before 30 November 1979. *An Affirmative Action/Equal Opportunity Employer.*

STANFORD UNIVERSITY GEOCHEMIST—PETROLOGIST

The Department of Geology in the School of Earth Sciences invites applications for a faculty position beginning September 1980. Areas of interest include (but are not limited to) geochemical processes in the crust and mantle of the earth including isotope geochemistry, thermodynamics, kinetics, element distribution and phase equilibria studies. Teaching responsibilities might include graduate and undergraduate courses in geochemistry and igneous petrology. Level of appointment is open, but we are particularly interested in a creative person with a well-established record in research. Applications should include (i) a résumé of education, professional experience, and published research, (ii) a brief statement of plans for future research, and (iii) the names of four references. Send to: **Professor J. G. Liou, Department of Geology, Stanford University, Stanford, Calif. 94305**, by 1 December 1979. *Stanford University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

FACULTY POSITIONS

The Department of Biology, College of the Holy Cross, invites applications for two tenure-track positions beginning fall 1980. Rank and salary are open and depend on qualifications and experience.

- 1) **CELLULAR BIOLOGIST** to teach one semester of general biology with two laboratory sections and an upper-division course in cellular biology with laboratory. Research area is open.
- 2) **VERTEBRATE BIOLOGIST** to teach one semester of general biology with two laboratory sections and a course in comparative anatomy with laboratory. Research area is open.

Candidates should have a strong commitment to undergraduate teaching and to developing a research program that can involve undergraduates. Applicants should submit curriculum vitae, statement of research interests and plans, and names of three referees by 15 December 1979 to: **Dr. William R. Healy, Chairman, Department of Biology, College of the Holy Cross, Worcester, Massachusetts 01610.** *The College of the Holy Cross is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN RESPIRATORY PHYSIOLOGY. The Section on Physiology, The University of South Dakota School of Medicine, invites applications for a faculty position in physiology at the assistant professor level. The position is on a non-tenure track with a maximum duration of 4 years; however, the opportunity for a tenure track could be available at that time. The position is available immediately. The duties of this position include working with existing physiology faculty to develop and teach a strong course in medical physiology, to develop a research program in the individual's area of interest, and to participate in the Ph.D. graduate training program. Applicants must have a Ph.D. degree and have completed 1 year of postdoctoral experience in respiratory physiology. Applicants must send curriculum vitae, including bibliography, brief description of research interests, teaching experience, career objectives, and names of three references to: **Joseph D. Welty, Ph.D., Head, Section on Physiology, Division of Biochemistry, Physiology and Pharmacology, The University of South Dakota School of Medicine, Vermillion, South Dakota 57069; telephone: 605-677-5479.** Closing date for receipt of application is 1 January 1980.

Equal Education and Employment Opportunity/Affirmative Action Institution

FRESHWATER ECOLOGIST

Assistant professorship available August 1980 for a freshwater ecologist. Applicants will be expected to develop and maintain an active research program and have expertise in the analysis and interpretation of physical and chemical parameters of freshwater systems. Send curriculum vitae, including reprints, statement of teaching and research interests, graduate and undergraduate transcripts, and three letters of reference, by 21 December 1979 to:

**William H. Darden
Department of Biology
P.O. Box 1927
University of Alabama
University, Alabama 35486**

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

GENETICIST. To conduct research in molecular genetics of human or other vertebrates and to teach molecular and human genetics. The level of appointment is at the assistant or associate professorship and will depend on qualifications and experience. Interested persons should apply with complete curriculum vitae, including a statement of research and teaching interests, plus the names and addresses of three references. Applications will be accepted through 31 December 1979 and should be addressed to: **Geneticist Search Committee, Department of Genetics, University of California, Davis, California 95616.** *The University of California is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.*

Ph.D. MOLECULAR BIOLOGIST

Abbott Laboratories, a leader in the health care field, has an opening in our Recombinant DNA Research Laboratory. The person we seek will be a Ph.D. in biochemistry, genetics, or microbiology with postdoctoral training in recombinant DNA research. For consideration, send a résumé with salary requirements in confidence to: **N. Warner/Corporate Placement, ABBOTT, North Chicago, Ill. 60064.** *An Affirmative Action Employer.*

POSITIONS OPEN

IMMUNOPARASITOLOGIST for research and teaching. Opportunities for advancement and tenure consideration after appropriate service. Rank: assistant to associate professor. Salary: competitive and dependent upon qualifications. Requirements: Ph.D. and postdoctoral experience which includes training in both immunology and parasitology. An opportunity for an industrious scientist to join a progressive interdisciplinary department. Contact: **Robert B. Wilson, Head, Department of Veterinary Microbiology and Pathology, Washington State University, Pullman, Washington 99164.** *Washington State University is an Equal Opportunity/Affirmative Action Employer.* In order to assist our efforts to meet affirmative action goals, minority, handicapped, and women candidates are encouraged to identify themselves in their applications. Applications should be received by 1 February 1980.

THE MOUNT DESERT ISLAND BIOLOGICAL LABORATORY (MDIBL) welcomes applications from established **INVESTIGATORS** with independent funding who wish to join its year-round program. Work at MDIBL has centered around the use of comparative models to solve biomedical problems. The present year-round program includes groups working on renal physiology, membrane structure and function, and environmental toxicology. A wide range of relevant research interests will be considered. Send curriculum vitae and the names of five references to:

**Dr. David S. Miller, Chairperson
Search Committee
Mount Desert Island Biological Laboratory
Salsbury Cove, Maine 04672**

Yale University's Department of Obstetrics and Gynecology is searching for a **JUNIOR FACULTY MEMBER** with expertise in neurobiology, with special training in anatomic, biochemical, and other aspects of developmental biology. The work will relate primarily to the physiology and disease of reproduction and a strong background in these matters is needed.

Applicant must be prepared to perform and supervise research requiring the use of anatomic microdissection, light and electron microscopy, and radio-labeled steroid and protein hormones in studies of membrane and intracellular receptors and must have a strong background in steroid biochemistry.

A Ph.D. or equivalent, plus postdoctoral experience, is necessary. Evidence of proficiency in teaching and writing scientific manuscripts is required.

Yale University is an Equal Opportunity Employer.

Replies should be sent to:

**Dr. F. Naftolin, Chairman
Department of Obstetrics and Gynecology
Yale University School of Medicine
333 Cedar Street
New Haven, Conn. 06510**

JUNIOR INVESTIGATOR to study the interaction of metallic implants with biological systems. Experience in measurement of trace metal ions required. Ph.D. in bioengineering. Direct inquiries to: **Jorge O. Galante, M.D., Department of Orthopedic Surgery, Rush-Presbyterian-St. Luke's Medical Center, 1753 West Congress Parkway, Chicago, Ill. 60612.** Respond before 1 December. *Rush is an Equal Opportunity/Affirmative Action Employer.*

MANAGER—Supervisor of tissue culture and virology facilities. Bachelor's or master's degree in biology or chemistry; five or more years of experience in tissue culture and virology. Will supervise five to seven technicians and be responsible for the total management and administration of the operation in the facilities. Position available immediately. Salary negotiable. Please contact: **Department of Microbiology, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—New Jersey Medical School, 100 Bergen Street, Newark, N.J. 07103; telephone: 201-456-4483.** *Equal Opportunity/Affirmative Action Employer, M/F.*

M.D. WITH STRONG BACKGROUND in clinical oncology and transplantation immunology for position at the assistant professor level. Applicants should be interested in basic research in the canine model with some experience in radiation biology and canine histocompatibility; 2 years in clinical oncology required. Address application materials to: **E. D. Thomas, M.D., Fred Hutchinson Cancer Research Center, 1124 Columbia Street, Seattle, Wash. 98104.** *An Equal Opportunity/Affirmative Action Employer, M/F.*

**DIRECTOR
DIVISION OF SPONSORED RESEARCH**

The University of South Florida, Tampa, Florida, is seeking applications for the position of Director, Division of Sponsored Research, with an expected starting date of 1 September 1980. South Florida is one of the three doctoral-level institutions in the Florida State University System, with 20,600 undergraduate and 2,400 graduate students and a faculty of 1,000.

The director of sponsored research reports directly to a senior vice president and works coordinately with the college deans. The title of assistant vice president would also be included. The salary is negotiable according to qualifications and experience, with a minimum beginning annual salary of \$38,500. Tenure-earning appointment in an appropriate academic department is available, subject to normal approval processes.

The director of sponsored research is the university's principal administrative officer regarding all grants and contracts for research and other scholarly projects. The incumbent should have had previous experience in the administration of grant- or contract-supported research and personal work experience involving contact with private funding sources and granting agencies at all levels of government, especially federal. The director provides informational and other support services to faculty members seeking support for their scholarly activities, administers a budget intended to stimulate faculty scholarly activity, chairs a faculty research council, and serves as a liaison between faculty members and administrative and support personnel during the actual performance of sponsored projects.

Apply and submit curriculum vitae to:

**Dr. David E. Stenmark, Chairman of Search
Committee, Department of Psychology
College of Social and Behavioral Sciences
SOC 107
University of South Florida
Tampa, Florida 33620**

Deadline for receipt of applications is 14 December 1979.

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

**STATE UNIVERSITY OF NEW YORK
AT BUFFALO
DEPARTMENT OF BIOLOGICAL SCIENCES**

The following positions are available beginning September 1980:

ENDOCRINOLOGY:

Beginning in September 1980, a tenure-track position will be available in the Department of Biological Sciences at the rank of assistant through full professor level.

We are seeking someone in the area of reproductive and/or neuroendocrinology. At the associate or full professor level, the candidate will be expected to have an on-going, well-defined, successful research program in addition to demonstrable teaching skills.

DEVELOPMENT BIOLOGY:

Beginning in September 1980, a tenure-track position will be available in the Department of Biological Sciences at the rank of assistant through full professor level.

We are seeking someone who has demonstrated his/her expertise in the field of developmental biology. At the associate or full professor level the candidate will be expected to have a well-defined, successful, on-going research program in addition to demonstrable teaching skills.

PLANT PHYSIOLOGY:

Beginning in September 1980, a tenure-track position will be available in the Department of Biological Sciences at the assistant professor level in the area of plant physiology. Applicants must have 2 to 3 years of postdoctoral experience in their area of expertise. Candidates must be able to demonstrate the potential for setting up an independent research program and demonstrate the potential for superior teaching.

To apply, submit curriculum vitae, including bibliography, statement of research interests, teaching background, and have at least four referees send references directly to: **Dr. Om P. Bahl, Chairman, Department of Biological Sciences, State University of New York at Buffalo, 109 Cooke Hall, Amherst, N.Y. 14260.**

Application deadline: 15 December 1979.

State University of New York at Buffalo is an Equal Opportunity/Affirmative Action Employer.

9 NOVEMBER 1979

THE RAND GRADUATE INSTITUTE (RGI)

Invites applications for its doctoral degree program in policy analysis. Deadline for submitting applications for 1980-1981 is March 1, 1980. RGI is an integral part of The Rand Corporation. Its curriculum consists of interdisciplinary study, combined with compensated work, leading to award of the Ph.D. in Policy Analysis. The Rand Graduate Institute is fully accredited by the Western Association of Schools and Colleges.

A master's degree, or equivalent post-bachelor's degree training and experience, is required for admission.

For more information concerning application procedures, write: The Rand Graduate Institute, 1700 Main Street, Santa Monica, California 90406, or telephone: 213/393-0411.

*The Rand Corporation is an Equal Opportunity/
Affirmative Action employer.*

**CONDENSED MATTER RESEARCH
BY NEUTRON SCATTERING
LOS ALAMOS SCIENTIFIC
LABORATORY**

We are developing a pulsed spallation neutron source at the Los Alamos Meson Physics Facility (LAMPF) to provide a world class neutron intensity for studies of condensed matter. We have openings for scientists with Ph.D.'s in the physics or chemistry of condensed matter to develop the experimental program. The research will include neutron scattering studies of solid state, liquid, metallurgical, polymer, and biological samples, as well as the development of neutron scattering instrumentation.

Candidates will be selected on the basis of their research ability. Previous experience in neutron scattering, while desirable, is not required.

The Laboratory is a multi-faceted national research and development facility operated by the University of California for the Department of Energy. We provide excellent working conditions and benefits, such as 24 days' annual vacation. Our location in the mountains of northern New Mexico offers a pleasing lifestyle in a setting of great natural beauty—a pollution-free environment; ample recreational activities; casual, uncrowded living; a superior public school system; and low taxes.

Send complete resume, in confidence, to:

**Madeline Lucas
DIV 80-M
Los Alamos Scientific Laboratory
P.O. Box 1663
Los Alamos, New Mexico 87545**

**AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER; WOMEN, MINORITIES, HANDICAPPED,
AND VETERANS ARE URGED TO APPLY.**

University of California



LOS ALAMOS SCIENTIFIC LABORATORY

POSITIONS OPEN

MEDICAL BACTERIOLOGIST. Full-time, tenure-track position as assistant professor of microbiology to take part in teaching of pathogenic bacteriology to medical and graduate students and to develop a strong research program with focus on bacterial infection and pathogenesis. Application deadline: 31 December 1979; anticipated starting date: 1 September 1980. Send curriculum vitae and three letters of recommendation to: **Robert E. Marquis, Department of Microbiology, School of Medicine and Dentistry, University of Rochester, Rochester, New York 14642.** *The University of Rochester is an Equal Opportunity/Affirmative Action Employer.*

MICROBIAL GENETICIST. Tenure-track, assistant professorship available 1 July 1980. Ph.D. Postdoctoral experience and evidence of outstanding research accomplishment and/or potential required. Research in some aspect of microbial genetics and teaching in one undergraduate and one graduate course per year. Send curriculum vitae and names of three references to: **Chairman, Microbial Genetics Search Committee, Department of Microbiology and Public Health, Michigan State University, East Lansing, Mich. 48824.** *Equal Opportunity/Affirmative Action Employer.*

MOLECULAR GENETICIST

ASSISTANT PROFESSOR, Ph.D., molecular genetics, tenure-track, beginning 15 August 1980. Postdoctoral experience preferred. Research in animal systems, teaching in general genetics and area specialty. Send curriculum vitae, reprints, and three reference letters before 15 January 1980 to: **Professor W. W. Doane, Chairperson, Search Committee, Department of Zoology, Arizona State University, Tempe, Arizona 85281.**

Affirmative Action/Equal Opportunity Employer

NEUROPHYSIOLOGIST. Tenure-track faculty position in neurophysiology, Department of Physiology, University of Arizona Medical College, available 1 July 1980. Minimum qualifications for applicants include a doctorate and 2 years of postdoctoral or equivalent experience. The successful applicant will be expected to develop an independent research program broadly complementary to ongoing studies on segmental motor control and on neuromuscular mechanisms, contribute to the CNS teaching of medical and graduate students, and supervise Ph.D. candidates in physiology. Professorial rank, start-up funds, and salary negotiable. Applications, including complete curriculum vitae and names of at least three references, should be forwarded to: **Dr. Paul C. Johnson, Professor and Chairman, Department of Physiology, College of Medicine, University of Arizona Health Sciences Center, Tucson, Ariz. 85724.** *An Equal Opportunity/Affirmative Action Employer.*

The **DEPARTMENT OF PATHOLOGY** at the University of Pittsburgh School of Medicine wishes to recruit a member for its Division of Experimental Pathology. The position will entail research and teaching to medical students and to graduate students. There are ample clinical opportunities for research programs needing them. The major areas of interest in the division are immunology and tumor biology. The level of academic appointment will be commensurate with the candidate's qualifications. Reply with curriculum vitae to: **Thomas J. Gill, M.D., Department of Pathology, University of Pittsburgh School of Medicine, Room 716 Scaife Hall, Pittsburgh, Pa. 15261.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL ENVIRONMENTAL CHEMIST, available after 1 January to study bioaccumulation of organics from coal and oil shale conversion effluents in aquatic ecosystems. Ph.D. in chemistry or biological science required; experience with organic residue analysis and/or microbial metabolism desirable. Position contingent on funding approval. Send résumé, reprints, and three letters of reference to: **Dr. H. L. Bergman, University of Wyoming, Box 3166 University Station, Laramie, Wyoming 82071.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE to work on biochemical regulation of spermatogenesis in the male rat. Strong background in steroid receptors and/or spermatogenesis preferred; 3-year position open immediately; starting salary: \$12,000. Send curriculum vitae and names of four references to: **Dr. Arthur I. Frankel, Department of Biological Sciences, State University of New York at Binghamton, Binghamton, N.Y. 13901; telephone: 607-798-2777.**

POSITIONS OPEN

PHYSICAL CHEMISTRY

An academic research position is available for a person interested in the problem of describing the behavior of solutions in molecular terms. Duties include collaboration on experimental studies of the interaction of small organic molecules with lipid bilayers, supervision of an exceptionally well-equipped laboratory funded by three major research grants, and a limited amount of teaching. Applicant should have a Ph.D. in physical or surface chemistry or closely related fields and two or more years of postdoctoral training. Title, rank, and salary are dependent upon qualifications and experience. An appointment will be made no later than 1 July 1980. *Minorities and women are encouraged to apply.* Applicants should submit curriculum vitae, representative publications, and the names of three references to: **Professor Stephen H. White, Chairman, Department of Physiology, University of California, Irvine, California 92717.**

BERKELEY PHYSICS

The Physics Department of the University of California, Berkeley, expects during the next 2 years to be making one or two appointments at the assistant professor level. Preferred areas of experimental and theoretical research are astrophysics, atomic and plasma physics, condensed matter physics, nuclear physics, and particle physics.

Applicants should write, as soon as possible, and definitely before 1 January 1980, to: **Chairman of the Physics Department, University of California, Berkeley, Calif. 94720,** giving curriculum vitae, publication list, and references. *The University of California is an Affirmative Action Employer.*

PHYSIOLOGIST. Tenure-track position, assistant professor level, beginning September 1980. Teach undergraduate vertebrate physiology laboratory course and graduate course in research specialty. Independent research and postdoctoral experience required. Preference given to individuals with research experience in muscle, endocrine or neurophysiology. Send curriculum vitae, statement of research interests, and names of three references by 15 January 1980 to: **Physiology Selection Committee, Biology Department, Marquette University, Milwaukee, Wis. 53233.**

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL FELLOW

Laboratory with active program in the study of hormone receptor/antibody interactions has an opening for an individual holding a Ph.D. degree and with experience in hormone receptor separation and purification. Although funds for the position at the M.R.C. Canada Postdoctoral Fellowship rate are available, the successful candidate would be encouraged and assisted in applications for his/her own fellowship support. Applications should include curriculum vitae and previous research experience. The applicant should request three referees to send letters of support to: **Dr. N. R. Farid, Faculty of Medicine, Health Sciences Centre, 300 Prince Phillip Drive, St. John's, Newfoundland, Canada A1B 3V6.**

POSTDOCTORAL POSITION available to Ph.D. for research in psychophysical studies of humans with retina and optic nerve disease. Opportunities available to do clinical research in glaucoma and neuroophthalmology using measurements of contrast sensitivity and automated testing of visual fields. A strong background in visual psychophysics and an interest in its application to clinical problems are essential. Salary: \$10,000 to \$12,000, plus fringe benefits. Send curriculum vitae to: **Samuel Sokol, Ph.D., Department of Ophthalmology, Tufts-New England Medical Center, 171 Harrison Avenue, Boston, Mass. 02111.** *Equal Opportunity Employer, M/F. U.S. citizen or permanent resident.*

POSTDOCTORAL POSITION

A 3-year position is available immediately for a Ph.D. biochemist or molecular biologist to pursue research on the purification and characterization of sperm enzymes. Special consideration will be given to applicants with experience in proteinase chemistry. Salary commensurate with relevant research experience. Send curriculum vitae and names of two references to: **Dr. L. J. D. Zaneveld, Department of Physiology and Biophysics, University of Illinois Medical Center, P.O. Box 6998, Chicago, Ill. 60680.**

The University of Illinois is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

POSITIONS OPEN

POSTDOCTORAL FELLOW—RESEARCH ASSOCIATE position in cell biology to work on reproductive mechanisms in mammalian species. Research is directed to surface receptors, enzyme cytochemistry, and fine structure of spermatozoa. EM experience helpful. Available from January to September 1980. Salary open. Send inquiries to: **Professor M. Gordon, School for Biomedical Education, The City College, 138th Street and Convent Avenue, New York, N.Y. 10031.**

POSTDOCTORAL POSITION IN STEROID BIOCHEMISTRY

A position is available for a NIH-sponsored research on metabolism, receptor binding, and pharmacological evaluation of new antiinflammatory steroids. Send curriculum vitae and references to: **Dr. H. J. Lee, School of Pharmacy, Florida A and M University, Tallahassee, Florida 32312.**

POSTDOCTORAL POSITION at Emory University School of Medicine is available immediately for research on cell surface properties and membrane turnover in retinal photoreceptors and pigment epithelial cells. Applicants with a strong background in cell biology, including electron microscopic techniques and/or chromatographic techniques for purification of proteins, preferred. Salary negotiable, depending on experience. Deadline for receipt of applications is 15 December 1979. Send curriculum vitae, reprints, and three letters of reference to: **Dr. Joseph C. Besharse, Department of Anatomy, Emory University School of Medicine, Atlanta, Ga. 30322.** *Emory University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available to work on cellular mechanisms of epithelial water transport. Research will involve applying the developing techniques in electrophysiology, use of microelectrodes, mass spectrometry, and tracer kinetics. Candidates with experience in membrane physiology and strong backgrounds in physics are welcome. Please send curriculum vitae and references to: **Dr. A. Essig, Department of Physiology, Boston University Medical Center, 80 East Concord Street, Boston, Mass. 02118.**

POSTDOCTORAL POSITIONS (two). Available within the next 12 months, for 2 to 3 years. Research activity devoted to study of drugs of abuse in a multidisciplinary program. Background in neuropharmacology, neurophysiology, medicinal chemistry, or behavioral science is required. Send curriculum vitae and names of references to: **Dr. Louis S. Harris, Chairman, Department of Pharmacology, Box 27, Medical College of Virginia, Virginia Commonwealth University, Richmond, Virginia 23298.**

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION (Postgraduate Research Psychobiologist, Level I) available immediately for research concerning ultrastructural alterations in brain as a function of synaptic activation. Extensive experience with the electron microscopy to mammalian CNS is required; background in synaptic plasticity is desirable. Send curriculum vitae and three letters of recommendation to: **Dr. Gary Lynch, Chairman, Department of Psychobiology, University of California, Irvine, Irvine, California 92717.** *All qualified candidates welcome: women and minorities are encouraged to apply.*

POSTDOCTORAL POSITION in electron microscopy of the heart. Project involves examination of the effects of cardiac surgery on the coronary microcirculation. Ultrastructural probes will be used to study changes in capillary endothelial transport. Collaboration with Department of Cellular Biology and Pathology. Starting date flexible. Send curriculum vitae and three letters of reference to: **Hillel Laks, M.D., Department of Cardiothoracic Surgery, Yale University School of Medicine, 333 Cedar Street, New Haven, Connecticut 06510.**

POSTDOCTORAL RESEARCH ASSOCIATE CELLULAR IMMUNOLOGY/ IMMUNOPHARMACOLOGY

Position available immediately for research in several areas, including immunotherapy employing chemically modified, tumor-localizing drugs; drug- and ligand-induced changes in cell surface antigens; immunobiology of tumor cell metastases; and radionuclides as cell labels. Please send curriculum vitae, a statement of current research interests, and the names of three references to: **Rolf F. Barth, M.D., Department of Pathology, The Ohio State University, 333 West 10 Avenue, Columbus, Ohio 43210.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION IN PHYSICAL OR BIOLOGICAL CHEMISTRY. Available immediately for research on cell surface chemistry and cell separations based on membrane properties in two-phase polymer systems. Salary: \$15,000 to start, with increments in subsequent years. Apply with résumé to: Dr. G. V. F. Seaman, Department of Neurology, University of Oregon Health Sciences Center, Portland, Oregon 97201.

POSTDOCTORAL POSITION available immediately to study the effects of food processing and diet composition on iron and zinc bioavailabilities. Background in nutrition, food science, and/or analytical chemistry desirable. One- or 2-year appointment. Salary: \$11,000 to \$12,000 per year. Send inquiries and curriculum vitae to: Dr. Dennis D. Miller, Department of Food Science, Stocking Hall, Cornell University, Ithaca, N.Y. 14853.

TWO POSTDOCTORAL RESEARCH ASSOCIATE positions available immediately to work on physical and biochemical aspects of ribosome assembly, ribosome-membrane interaction, and carcinogenesis. Please send curriculum vitae and two letters of recommendation to: Dr. Kin-Ping Wong, Department of Biochemistry, University of Kansas Medical Center, Kansas City, Kansas 66103.

MICHIGAN STATE UNIVERSITY POSTDOCTORAL RESEARCH POSITIONS IN ENVIRONMENTAL CARCINOGENESIS- MUTAGENESIS

Openings for research associates with strong background in molecular biology, biochemistry, microbiology, or biophysics to study the relationship between DNA repair, mutagenesis, and oncogenic transformation of human cells in culture by physical and chemical carcinogenic agents. One year with option for renewal for additional years with mutual agreement. Send application, including curriculum vitae, reprints, and letters of recommendation to: Dr. Veronica M. Maher or Dr. J. Justin McCormick, Co-Directors, Carcinogenesis Laboratory-Fee Hall, Michigan State University, East Lansing, Mich. 48824.

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DEPARTMENT OF ANESTHESIOLOGY WASHINGTON UNIVERSITY SCHOOL OF MEDICINE (BARNES HOSPITAL, ST. LOUIS)

Searching for **PROFESSOR AND HEAD** of Department of Anesthesiology at Washington University School of Medicine and **ANESTHESIOLOGIST-IN-CHIEF** at Barnes Hospital. Research accomplishments particularly important. Submit curriculum vitae with complete bibliography to:

M. K. King, Dean
Washington University School of Medicine
Box 8106
660 South Euclid Avenue
St. Louis, Missouri 63110

PROFESSOR OF ZOOLOGY

The Department of Zoology at the University of Florida announces a position, starting September 1980, for a creative and productive scholar to be appointed as **PROFESSOR OF ZOOLOGY**. The responsibilities of this position will be to bring an active research program to the university, to teach a graduate course in his/her field, and to make a limited, but quality, contribution to undergraduate teaching. It is expected that the research interests of the successful candidate will fall within **comparative, ecological, or evolutionary zoology**. There is a preference for an appointment in the fields of the genetic aspects of evolution or the physiological ecology of aquatic invertebrates, but above all the appointment must meet the primal consideration of quality.

The salary will be commensurate with the rank, experience, and reputation of the successful candidate. Direct inquiries and submit curriculum vitae, a statement of research interests, and the names of three referees to:

Brian K. McNab
Chairman, Professor Search Committee
Department of Zoology
University of Florida
Gainesville, Florida 32611
Telephone: 904-392-1178

The deadline for applications is 1 January 1980.
An Equal Opportunity/Affirmative Action Employer

9 NOVEMBER 1979

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN BIOCHEMICAL PHARMACOLOGY-TOXICOLOGY. Expanding, well-equipped training facility. Research in regulation of heme biosynthetic and drug metabolizing enzymes in hepatic, brain, and endocrine tissues by drugs, toxicants, and hormones. Send curriculum vitae to: Dr. W. N. Piper, Department of Pharmacology, University of Nebraska Medical Center, Omaha, Nebraska 68105. *The University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately for study of: (i) self assembly of microtubule and (ii) effects of ligands on enzyme structures. Experience in protein isolation and ligand/protein interactions desirable but not essential. Salary starting at \$11,000, commensurate with experience. Send curriculum vitae and two letters of reference to: Dr. James C. Lee, Department of Biochemistry, St. Louis University, 1402 South Grand Boulevard, St. Louis, Mo. 63104.

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately. Project: detection and characterization of immune complexes in human cancer. Background in immunochemistry and cell culture; \$13,000 to \$15,000 per year. Send résumé to: L. D. Papsidero, Ph.D., Department of Diagnostic Immunology Research, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, N.Y. 14263. *An Equal Opportunity/Affirmative Action Employer, M/F.*

POSTDOCTORAL POSITION

A postdoctoral position is available for a biochemist with a strong background in chemistry. Research is in enzyme mechanisms and protein characterization. Minimum salary: \$12,000. Send curriculum vitae and names of three references to:

Dr. J. Ayling
Division of Allied Health and Life Sciences
THE UNIVERSITY OF TEXAS AT SAN ANTONIO
San Antonio, Texas 78285

Program in Science, Technology, and Society RESEARCH FELLOWSHIPS

The MIT Program in Science, Technology, and Society, with the support of the Exxon Education Foundation, invites applications for several one-year research fellowships on the relationships of science, technology, and society. Selection criteria include:

- a record of outstanding performance in a particular field of science, engineering, social science or the humanities;
- evidence of a commitment to research involving the interaction of science, medicine, or engineering with society;
- a proposal of study and research for the fellowship year related to the Program's areas of research and teaching, which include:

Social and Historical Studies of Science and Technology

Technology and the Distribution of Power in Industrial Society

Cultural Dimensions (e.g., ideological, aesthetic, ethical) of Science and Technology

Policy Studies involving Science and Technology

Preference will be given to proposals involving substantial work in a field or area beyond the candidate's educational background. Application should be made in a letter consisting of no more than five double-spaced typed pages and a curriculum vitae. Additional material will be requested if necessary. PhD degree or equivalent desirable. PhD's at all levels of professional career are eligible. Partial or full stipend available. Appointments will commence in September, 1980. Address application to:

Donald L.M. Blackmer, Director,
STS Program, Building 20D-213,
Massachusetts Institute of Technology,
Cambridge, MA 02139.

Deadline for receipt of applications: January 15, 1980.

MIT is an Equal Opportunity/Affirmative Action Employer.

MIT

POSITIONS OPEN

Research position: **POSTDOCTORAL/RESEARCH ASSOCIATE** position immediately available to work in area of vitamin B₁₂ metabolism in Northeast. Background in both biochemistry and physiology required. Send résumé and letters of recommendation to: **Box 312, SCIENCE.**

POSTDOCTORAL RESEARCH POSITIONS available 1 January 1980 for 1 to 2 years, to study developmental biochemical, behavioral, neurophysiological, hormonal, or teratological aspects of prenatal drug exposure. Salary is in accordance with current NIH postdoctoral stipends which are based upon qualifications and years of prior, relevant postdoctoral experience. Background experience in animal research in one or more of the above areas necessary. Send curriculum vitae and names of three references to: **Dr. William Boggan, Department of Biochemistry, Medical University of South Carolina, 171 Ashley Avenue, Charleston, South Carolina 29403.**

The University of California, Irvine, College of Medicine, has **POSTDOCTORAL RESEARCH POSITIONS** available in the Department of Microbiology in the areas of immunology, regulation of mammalian cell growth, enzyme regulation in bacteria and mammalian cells, and development, genetics, and nucleic acid metabolism of microorganisms. Applicants must have a Ph.D. and a background in the quantitative aspects of biochemistry, microbiology, or genetics. Stipends are provided from several sources, including research and training grants. Interested individuals should write: **Chairman, Department of Microbiology, College of Medicine, University of California, Irvine, California 92717. An Affirmative Action Employer.**

PROFESSOR/ASSOCIATE PROFESSOR IN PHYSIOLOGICAL/COMPARATIVE PSYCHOLOGY. The Department of Psychology at the University of Florida seeks a faculty member with an active research program, teaching capabilities in the physiological/comparative area, and strong interests in interacting with other members of our active and extensive neurobiological science community. The position is available immediately; salary is highly competitive. Applicants should send curriculum vitae, a summary of research plans, and three letters of reference to: **Dr. Carol Van Hartesveldt, Psychology Department, University of Florida, Gainesville, Florida 32611. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE: PLANETARY GEOLOGY. The Lunar and Planetary Laboratory of the University of Arizona has an opening for a research associate. The applicant must have a Ph.D. and familiarity with studies of geologic surface processes on the terrestrial planets. Current research activities include crater statistics, martian subsurface volatiles, and Galilean satellites. Send résumé and names of three references to: **Robert Strom, Lunar and Planetary Laboratory, University of Arizona, Tucson, Ariz. 85721. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH NEUROPHYSIOLOGIST-NEUROPHARMACOLOGIST. Full-time faculty position requiring research interests in the autonomic nervous system and experience in CNS and/or PNS recording in awake mammals. Postdoctoral experience essential. Salary dependent on qualifications. Send curriculum vitae and three letters of reference to: **B. H. Natelson, M.D., Department of Neuroscience, College of Medicine and Dentistry of New Jersey-New Jersey Medical School, 88 Ross Street, East Orange, N.J. 07018. Equal Opportunity/Affirmative Action Employer, M/F.**

UNIVERSITY OF MINNESOTA STRATIGRAPHER/ SEDIMENTARY PETROLOGIST

Permanent, tenure-track position starting fall 1980 at the assistant professor level. The candidate must have a Ph.D. with interest in stratigraphy of sedimentary petrology, and is expected to teach in those fields at the undergraduate and graduate level. Submit résumé, academic records, and three letters of recommendation by 30 January 1980 to: **Dr. Thomas C. Johnson, Department of Geology and Geophysics, 108 Pillsbury Hall, University of Minnesota, Minneapolis, Minn. 55455; telephone: 612-376-1167. The University is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

RESEARCH ASSOCIATE for clinical pulmonary epidemiologic study; experience in survey research, questionnaire design and testing, data processing and analysis, and basic statistics required. Salary commensurate with experience. **Lynn M. Taussig, M.D., Department of Pediatrics, Arizona Health Sciences Center, Tucson, Arizona 85724; telephone: 602-626-6754. Equal Opportunity/Affirmative Action Employer.**

THE AUSTRALIAN NATIONAL UNIVERSITY invites applications for appointment as **RESEARCH FELLOW (LASER-PRODUCED PLASMAS)** in the Department of Engineering Physics, Research School of Physical Sciences. Applicants should have a background of research into laser-produced plasmas and would be expected to participate in the existing experimental programmes as well as developing ongoing research projects in this field. Research within the laboratory is supported by two single-beam Neodymium laser systems with peak powers of several hundred gigawatts. The main research areas are the spectroscopy of laser-produced plasmas and laser-matter interactions including self-focusing, field-gradient force effects, absorption and reflectance mechanisms, wavelength scaling effects, and ionization processes. Extensive diagnostic systems, computing facilities, and electronic and mechanical engineering workshops are available to support the research. Appointment is for 3 years with possible extension to 5 years. Salary: A\$16,291 to A\$21,265 per annum. (Present exchange rate: A\$1:U.S.\$1.12.) Reasonable appointment costs; superannuation; housing assistance. Applicants should write to: **Registrar, Australian National University, P.O. Box 4, Canberra ACT 2600, Australia** for further particulars before submitting applications, which close on 31 January 1980.

RESEARCH POSITION, postdoctoral or permanent at university hospital in Midwest. Biochemist with carbohydrate chemistry background and skill. Doctorate required. Work on cell-surface glycoconjugates in relation to human cancer. Excellent benefits and salary. **Box 311, SCIENCE.**

RESEARCH POSITION AVAILABLE—Research associate in vertebrate biology working to determine cost-effective pest control procedures for orchardists to reduce pine and meadow vole damage to apple trees. Closing date for applications 1 January 1980. Contact: **Dr. Ted Hullar, Chairman Search Committee, Department of Natural Resources, New York State College of Agriculture and Life Sciences, Ithaca, New York 14853. Cornell University is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH TECHNICIAN—Several positions available. Bachelor's degree in biology or chemistry and a minimum of one or more years of experience in tissue culture and animal virology. Salary negotiable, dependent upon qualifications and experience. Please contact: **Department of Microbiology, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—New Jersey Medical School, 100 Bergen Street, Newark, N.J. 07103; telephone: 201-456-4483. Equal Opportunity/Affirmative Action Employer, M/F.**

THEORETICAL COMPUTATIONAL PHYSICIST

We plan to offer a staff appointment to an experienced theoretical computational physicist to do research on two- and three-dimensional nonlinear hydromagnetics and its application to control fusion experiments and fusion reactor design. Computational work at PPPL utilizes a Cyber 176, CDC 7600, or CRAY 1 computer as appropriate. Applicants should have 2 years of experience beyond the Ph.D. degree (or its equivalent), notable research accomplishments, and a strong record of publications. Experienced in plasma physics or nonlinear hydro-magnetics is highly desirable.

We offer excellent benefits package. Qualified candidates should send their résumés to: **PROJECT MSR.**

Personnel Department/Administration

PRINCETON UNIVERSITY

**PLASMA PHYSICS
LABORATORY**

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Princeton, N.J. 08544**

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POSITIONS OPEN

INSTITUT NATIONAL DE LA RECHERCHE SCIENTIFIQUE UNIVERSITE DU QUEBEC RESEARCH IN OCEANOGRAPHY

Candidatures are invited for a permanent position as research collaborator with a young and dynamic team to study the planktonic food chain in the Estuary and Gulf of St. Lawrence. Ph.D. required in a discipline related to planktonology. A maximum of 20 percent of the time may involve teaching and supervising of graduate students. Demonstration should be made by the candidate of a potential to attract grant funds and research contracts. Minimum salary: C\$23,271. The Institut national de la recherche scientifique holds a university status at the graduate level, as a campus of the University of Québec. Its Research Center in Oceanography is located in Rimouski, Québec, and its normal language of communication is French. We hope to fill this position soon after 1 January 1980. Send curriculum vitae and names of three references to: **Director of Personnel, INRS, 2700 rue Einstein, Ste-Foy, Canada G1V 4C7. Refer to competition number SP 79-20.**

COLUMBIA UNIVERSITY. Tenure-track **SENIOR AND JUNIOR FACULTY POSITIONS**, including a chaired professorship, are open in Chemical Engineering and Applied Chemistry. Qualified candidates are invited to apply to: **Search Committee, Department of Chemical Engineering and Applied Chemistry, Columbia University, New York, N.Y. 10027** by 1 February 1980. *Columbia University encourages the application of women and minorities.*

SYSTEMATIC ENTOMOLOGIST. Assistant or associate curator. A 12-month, full-time appointment, with both research and curatorial responsibilities, to start 1 October 1980. Open only to persons with primary interest in and commitment to active research in systematic entomology and curation and operation of a major collection of insects and related groups. Candidates must have Ph.D. Experience must include active systematic research. Salary and level of appointment dependent on qualifications and experience. Send curriculum vitae, including transcripts of undergraduate and graduate study, employment and grant histories, description of research experience and future research plans, reprints of all publications, and list of three references by 31 June 1980 to: **Dr. David H. Kavanaugh, Chairman, Department of Entomology, California Academy of Sciences, Golden Gate Park, San Francisco, California 94118. An Equal Opportunity Employer.**

WETLAND ECOLOGIST. Tenure-track, open spring 1980; assistant professor, salary dependent on experience and scholarly record. Duties include: teaching wildlife biology, general zoology, specialty courses, graduate and undergraduate student adviser, contributing to active wildlife research program. Excellent facilities available. Candidate should have publication record and interest in seeking outside research funding. Submit résumé to: **Dr. Roy Heidinger, Department of Zoology, Southern Illinois University, Carbondale, Ill. 62901. An Equal Opportunity/Affirmative Action Employer.**

Deadline for applications: 30 November 1979.

X-RAY OR NEUTRON DIFFRACTION

Position available for a scientist with Ph.D. trained in low-angle x-ray or neutron diffraction to collaborate on a project involving neutron diffraction studies of interactions between small molecules and lipid bilayers. The appointment will be made at the postdoctoral or assistant research scientist level depending upon training and experience of candidate. Position must be filled by 1 July 1980, earlier if possible. *Minorities and women are encouraged to apply.* Applications should include curriculum vitae, representative publications, and the names of three references. Reply to: **Professor Stephen H. White, Chairman, Department of Physiology, University of California, Irvine, Calif. 92717.**

CONGRESS

VI International Histo- and Cytochemistry Congress and International Microscope Exhibition, England, 17 to 22 August 1980. Further details from the organizers: **Royal Microscopical Society (ref H and C I) 37/38 St. Clements, Oxford OX4 1AJ, United Kingdom.**

Research Associate

We seek a PhD with background in biochemistry, pharmacology or pharmacokinetics of drugs (preferably anti-cancer). Position will include working with group developing new compounds with specifically radiosensitize hypoxic tumor cells, and collaborating in combined radiation-chemotherapy research project. Familiarity with HPLC techniques an advantage. \$20,196 per year.

Please send curriculum vitae and names of three references to: Dr. J. Martin Brown, Department of Radiology, Stanford, CA 94305. An Equal Opportunity Employer Through Affirmative Action.

**STANFORD
UNIVERSITY**

Department Head Position

Nominations and applications are invited for the position of Head, Electrical Engineering Department, Carnegie-Mellon University. Qualifications sought include earned doctorate, established reputation in Electrical Engineering, experience in teaching and education, leadership and administrative abilities. Candidates should qualify for the rank of Full Professor. Applications, including resume, list of publications and references should be received prior to November 15, 1979.

Contact:

Dr. M.H. Kryder
Chairman, Search Committee
Electrical Engineering
Department
Carnegie-Mellon University
Pittsburgh, PA 15213

Carnegie-Mellon University is an Equal Opportunity Employer.

Research Immunologist

The Research & Development Division of G. D. Searle & Co. has an immediate opportunity in Immunological Research.

Qualifications include BS/ MS in immunology or biology and minimum of one year experience in immunological research in an industrial or academic laboratory environment. Familiarity with immunological assays, tissue culture techniques, protein purification, chromatography, radioisotope techniques and immunization of small animals are highly desirable.

Please submit resume with salary requirements to:

Peter J. Vozas

*Research & Development
Division*

G. D. Searle & Co.
P.O. Box 5110
Chicago, IL 60680

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SEARLE

POSTDOCTORAL RESEARCH AWARDS

The National Research Council will make over 200 new awards in 1980 for research in federal laboratories throughout the United States. The NRC Research Associateship Programs provide awardees with opportunities to conduct experimental or theoretical research as visiting scientists and engineers in fields of

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ENGINEERING
LIFE SCIENCES
PHYSICS • CHEMISTRY
ENVIRONMENTAL SCIENCES
MATHEMATICS
SPACE SCIENCES**

Some of the 16 programs are open to non-U.S. nationals; some are open to senior investigators as well as recent doctorates.

For application materials and details on specific research opportunities and laboratory locations, write promptly, giving research areas of interest, to

Associateship Office (JH 608-S3)
NATIONAL RESEARCH COUNCIL
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

Postmark deadline for applications is January 15.

**National
Research Council**

POSTDOCTORAL RESEARCH APPOINTMENTS LOS ALAMOS SCIENTIFIC LABORATORY (LASL)

We are seeking candidates for our Postdoctoral Research Program. This program is designed to provide basic research opportunities to recent recipients of doctoral degrees in science and engineering and to expose them to the Laboratory's expertise, facilities, and research programs. It is intended that each appointee derive significant professional accomplishment from his or her tenure at LASL.

RESEARCH AREAS Appointments are considered in many areas of theoretical and experimental physics, chemistry, mathematics, computer science, biology, materials science, environmental health, geoscience, and engineering.

DURATION One year, renewable for a second year.
STIPEND \$19,200-\$20,400 per year to start. Fringe benefits and moving expenses are provided.

ELIGIBILITY Candidates will be those who have received their Ph.D. degree in the three years prior to appointment.

THE LABORATORY Operated by the University of California for the Department of Energy, the Laboratory provides excellent working conditions and opportunities for advanced research. Our location in the mountains of northern New Mexico offers a pleasing lifestyle in a setting of great natural beauty.

Send resume and supporting documents to, or request application from:

Madeline Lucas
DIV 80-H
Los Alamos Scientific Laboratory
P.O. Box 1663
Los Alamos, New Mexico 87545

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University of California



LOS ALAMOS SCIENTIFIC LABORATORY

PROGRAMS

DOCTORAL PROGRAM—PHARMACOLOGY

Medical University of South Carolina, Department of Pharmacology, seeks qualified candidates for Ph.D. program. Interdisciplinary environment with research capabilities ranging from gas chromatography-mass spectrometry through cell cultures and animal studies to clinical studies of patients with disease. Research training is available in biochemical pharmacology, cardiovascular pharmacology, drug metabolism, toxicology, analytical chemistry, clinical pharmacology. Stipends available. Contact: **Graduate Training Director, Department of Pharmacology, Medical University of South Carolina, Charleston, S.C. 29403.**

ANATOMICAL SCIENCES. Predoctoral training. Graduate programs leading to the Ph.D. degree are available in the areas of cell, developmental, and reproductive biology, neurosciences, molecular evolution, and others. A limited number of teaching and research assistantships are available for qualified applicants. Beginning stipends range up to \$5100 plus tuition. In exceptional cases a housing allowance may be available. For further information and application forms, write: **Dr. Harry G. Goshgarian, Department of Anatomy, Wayne State University School of Medicine, 540 East Canfield, Detroit, Michigan 48201.**

PHYSIOLOGY GRADUATE AND POSTDOCTORAL TRAINING. The Department of Physiology, University of Arizona, College of Medicine, invites applications from qualified individuals interested in pursuing the Ph.D. degree in physiology. Applications are now being accepted for July 1980 entrance into the graduate programs. In addition, postdoctoral positions are available from time to time. Fellowships (U.S. citizens only) and predoctoral teaching assistantships are available for individuals accepted into the training programs of the department. The department provides facilities for study at both pre- and postdoctoral levels in cardiovascular, neural, renal, muscle, endocrine, pulmonary, gastrointestinal, and cellular physiology. For further information write: **D. G. Stuart, Graduate Admissions Coordinator, Department of Physiology, University of Arizona, College of Medicine, Tucson, Arizona 85724. The University of Arizona is an Equal Opportunity/Affirmative Action Employer.**

JOINT Ph.D. PROGRAM IN THE BIOMEDICAL SCIENCES

Applications are being accepted from exceptional students interested in obtaining a Ph.D. degree in the biomedical sciences. Clark University, Worcester Polytechnic Institute, University of Massachusetts Medical School (Worcester), and the Worcester Foundation for Experimental Biology participate in a joint Ph.D. program in the biomedical sciences for the exceptional, self-motivated student, who is capable of accelerated study. This novel Ph.D. program accords special consideration to those who have a clearly defined research objective and have exhibited evidence of prior research achievement. It is expected that all applicants will have a substantial background in the natural sciences so as to enable the initiation of full-fledged research immediately. Only candidates with documented research experience need apply. Specific areas of research include: (i) cellular and molecular biology, (ii) cell senescence, (iii) metabolism, endocrinology, and immunology, (iv) pharmacology and experimental pathology, (v) reproductive biology, neurobiology, and behavioral sciences, (vi) biological engineering, related to nitrogen fixation and development of new symbiotic systems with blue-green algae, and (vii) biomass and bio-energy (silvicultural and fermentation technologies). A limited number of assistantships are available for the program. For additional information write: **Ph.D. Admissions Committee, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Massachusetts 01545.**

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The Mount Desert Island Biological Laboratory Salsbury Cove, Maine

Announces 15 February 1980 as the deadline for applications for research space for the summer season of 1980. Facilities for 30 research groups during the summer, and additional groups in fall and spring are available. Research is limited to flora and fauna of the region. For further information about facilities and fees, write:

**Jonathan S. Gormley
Executive Secretary
Mount Desert Island Biological Laboratory
Salsbury Cove, Maine 04672
or telephone: 207-288-3605.**

PROGRAMS

LUNG PHARMACOLOGY AND PATHOPHYSIOLOGY TRAINING PROGRAM. Funded by NHLBI. Postdoctoral (Ph.D. or M.D.) research traineeships available July 1980 for 1 or 2 years in the following areas: airway and pulmonary vascular smooth muscle pharmacology (J. S. Douglas, Ph.D.); pathophysiology of the cardiopulmonary system (S. E. Downing, M.D.); nonrespiratory lung pharmacology (C. N. Gillis, Ph.D.); pharmacology of lung response to injury (M. Hitchcock, Ph.D.); biochemical pharmacology of lung (J. Lazo, Ph.D.); respiratory tract immunology (H. Y. Reynolds, M.D.); pharmacological and biochemical aspects of lung lipids (S. A. Rooney, Ph.D.). Send applications to: **C. N. Gillis, Ph.D., Department of Pharmacology, Yale University School of Medicine, 333 Cedar Street, New Haven, Connecticut 06510. Yale University is an Affirmative Action/Equal Opportunity Employer.**

FELLOWSHIPS

POSTDOCTORAL POSITIONS

The Graduate Program in Craniofacial Biology of the University of Southern California announces the availability of five **POSTDOCTORAL FELLOWSHIPS**. The members of the group are: Samuel Alerton, Isaac Bekhor, Anna Brownell, Paul Denny, Michael Melnick, Barbara Mills, Cedric Minkin, Gregory Moser, Steven Schonfeld, Michael Schner, Harold Slavkin, Nino Sorgente, John Weiner, and Margarita Zeichner-David. These are 3-year appointments; the salary range is from \$10,000 to \$14,000, dependent upon previous experience. Applicants should submit curriculum vitae, a brief synopsis of their Ph.D. research (physicians and dentists should send résumés of their research experience), and at least three letters of recommendation. Candidates should indicate the faculty member(s) with whom they would wish to work if a fellowship is awarded.

Application materials should be sent to: **Dr. Harold C. Slavkin, Program Director, Graduate Program in Craniofacial Biology, Gerontology Center Room 317, University of Southern California, Los Angeles, California 90007.**

An Equal Opportunity/Affirmative Action Employer

Congressional Science Fellowships in Child Development, sponsored by the American Association for the Advancement of Science and the Society for Research in Child Development, are being offered to postdoctoral scientists or postdoctoral professionals from the social, behavioral, and health-related sciences to spend 1 year on a congressional staff. Mid-career applicants are especially encouraged to apply. Fellows should be exceptionally competent in their field and strongly committed to applying scientific knowledge to the solution of social problems. The stipend is \$18,000 for 1 year, starting 1 September 1980, with \$1,500 available for relocation. For application information contact: **Society for Research in Child Development, 815 15th Street, Washington, D.C. 20005.** Application deadline is 1 January 1980.

POSTDOCTORAL FELLOWSHIP IN CANCER RESEARCH. Organic chemist with an interest in chemical carcinogenesis for research on the metabolism and binding to cellular macromolecules of environmental carcinogens. A 2-year fellowship is offered, with starting salary of \$14,000 and possible advancement to permanent staff position. Send résumé to: **Dr. S. Hecht, Head, Section of Organic Chemistry, American Health Foundation, Valhalla, New York 10595.**

POSTDOCTORAL RESEARCH FELLOWSHIPS

Available in respiratory physiology beginning July 1980. Send résumé plus the names of two references to:

**Dr. S. M. Tenney
Department of Physiology
Dartmouth Medical School
Hanover, N.H. 03755**

RESEARCH FELLOWSHIP/POSTDOCTORAL—Grant-supported research position (2 to 3 years) with Dr. Hans Brockerhoff, dealing with model membranes and action of anticonvulsant drugs. Experience in lipid biochemistry, organic synthesis, or pharmacokinetics, neurochemistry, NMR preferred. Salary: \$16,620 per annum. Send résumé to: **Personnel, Position Number 115, Institute for Basic Research in Mental Retardation, 1050 Forest Hill Road, Staten Island, N.Y. 10314. Affirmative Action/Equal Opportunity Employer.**

FELLOWSHIPS

FELLOWSHIP IN EYE RESEARCH—Position available July 1980 for a 2- or 3-year program of multidisciplinary training in research related to eye disease. Areas of training available include biochemistry, biophysics, immunology, pharmacology, and neurophysiology (control of eye movement). Applications are invited from all qualified persons who have M.D., Ph.D., or equivalent degree. For further information, please contact: **Walter N. Scott, M.D., Department of Ophthalmology, THE MOUNT SINAI SCHOOL OF MEDICINE, One Gustave L. Levy Place, New York, New York 10029. An Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP

Postdoctoral fellowship available immediately in the Department of Microbiology to participate in research in detection and assay of environmental mutagens in air, water, soil sediments, and food chains. Biochemical experience in Ames assays, cell culture, and other short term in vitro mutagenicity assays desirable. Send résumés and three references to: **Gerard J. McGarrity, Ph.D., Head, Department of Microbiology, Institute for Medical Research, Copewood Street, Camden, New Jersey 08103.**

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TRAINEESHIPS

POSTDOCTORAL TRAINEESHIPS NEUROBIOLOGY AND BEHAVIOR

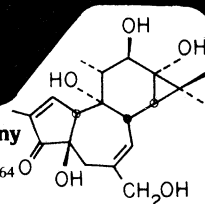
The Section of Neurobiology and Behavior at Cornell University has received an NIMH institution award to foster integrative and interdisciplinary research in neurobiology and behavior. Areas of program focus are: (i) development of neural systems and ontogeny of behavior, (ii) neural bases of behavior, and (iii) social, ecological, and evolutionary bases of behavior. Two postdoctoral traineeships are available for activation by 1 July 1980. Prospective applicants should request further information from: **Dr. Glenn Hausfater, Langmuir Laboratory, Cornell University, Ithaca, New York 14850.**

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10

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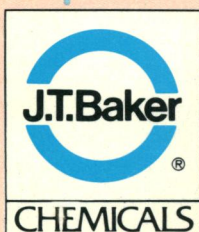
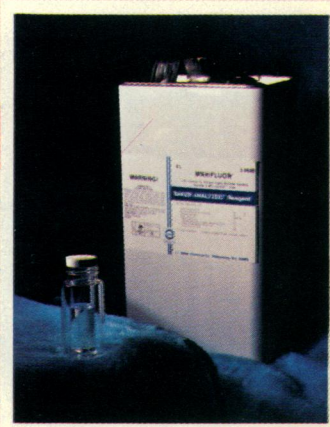
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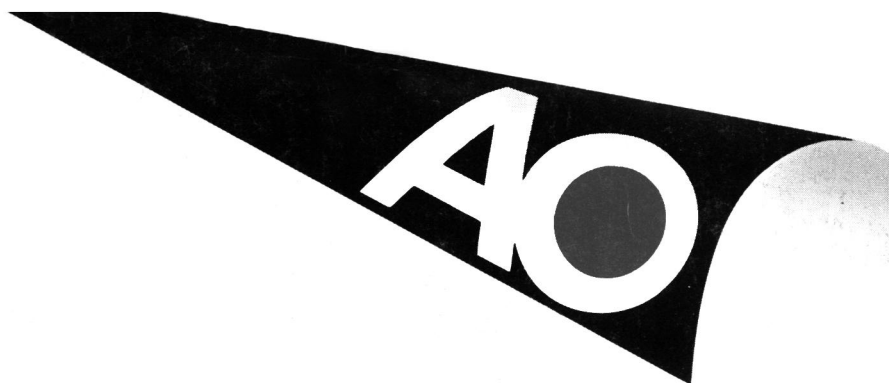
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