

GORDON RESEARCH CONFERENCES

(Continued from page 369)

28 February. Animal collagenases; precursors, inhibitors and collagen type specificity (J. Jeffrey, discussion leader); J. J. Reynolds, G. Vaes (subject and speakers to be announced).

29 February. Cellular interactions with collagens (H. Kleinman, discussion leader); K. Yamada, L. Cunningham.

There will be poster sessions on program topics and applicants who plan to present posters should give title and outline of content on the application. Additional speakers will be chosen from poster presentations.

Thin Organic Films and Solid Surfaces

David Allara, chairman; Gottfried Haacke, vice chairman.

21-25 January. A. Czanderna, "Ion scattering spectroscopy studies of the degradation of polypropylene films on copper oxide using isotopic labeling"; J. Burkstrand, "Molecular interactions at polymer metal interfaces studied with x-ray photoemission"; E. Kay, "Plasma-surface interactions involving organic systems"; R. Thomas, "Electron mean free paths in polymers"; A. Dilks, "ES-CA and the modification of polymers surfaces"; W. Rabalais, "Secondary ion mass spectrometry of molecular and ionic solids"; A. Hoffman, "Biological interactions at characterized interfaces"; H. Yasuda, "Recent topics in plasma polymerization"; F. Kaufman, "Mechanisms of site-site electronic interactions and applications of new charge transfer polymers based on pendant to donors"; C. Duke, "Electronic structure of organic polymers, glass and crystals"; M. Sugy, "Electrical properties of Langmuir multilayer films with and/or without dye sensitizers"; E. Arnett, "The energetics of aggregation for chiral molecules and ions"; D. Whitten, "Photochemical and thermal reactions in monolayer films, supported multilayers and monolayer solution interfaces"; R. Van Duyne, "Surface enhanced raman spectroscopy of organic adsorbates"; P. Eisenberger and P. Citrin, "Problems and promises in the application of external x-ray absorption fine structure (EXAFS) to the study of surfaces"; R. Hoffmann, "Mechanical properties of thin polymer crystals"; J. Swalen, "Application of surface plasmons for characterization of organic surfaces and thin films"; J. Boerio, "Infrared spectroscopy of polymers and model compounds on metal mirrors."

19 OCTOBER 1979

BOOKS RECEIVED

(Continued from page 330)

Pili. David E. Bradley, Eileen Raizen, Paula Fives-Taylor, and Jonathan Ou, Eds. International Conferences on Pili, Washington, D.C., 1978 (available from Eileen Raizen, 2233 Chestertown Drive, Vienna, Virginia). vi, 372 pp., illus. Paper, \$33.

The Pineal. Vol. 3, 1978. Russel J. Reiter. Eden Press, St. Albans, Vt., 1979. x, 236 pp. \$24. Annual Research Reviews.

Plant Breeding for Pest and Disease Resistance. G. E. Russell. Butterworths, Boston, 1978. x, 486 pp., illus. \$64.95. Studies in the Agricultural and Food Sciences.

Psychological Acoustics. Earl D. Schubert, Ed. Dowden, Hutchinson and Ross, Stroudsburg, Pa., 1979 (distributor, Academic Press, New York). xvi, 392 pp., illus. \$34.50. Benchmark Papers in Acoustics, vol. 13.

Quantitative Organic Analysis via Functional Groups. Sidney Siggia and J. Gordon Hanna. Wiley-Interscience, New York, ed. 4, 1979. xii, 884 pp., illus. \$45.95.

Quantum Logic. Peter Mittelstaedt. Reidel, Boston, 1978. viii, 160 pp. \$29.50. Synthese Library, vol. 126.

A Question of Physics. Conversations in Physics and Biology. Conducted by Paul Buckley and F. David Peat. University of Toronto Press, Toronto, 1979. x, 160 pp. Cloth, \$15; paper, \$6.

Questions of Uniqueness and Resolution in Reconstruction from Projections. Myron Bernard Katz. Springer-Verlag, New York, 1978. x, 176 pp., illus. Paper, \$9.80. Lecture Notes in Biomathematics, vol. 26.

The Reception of Unconventional Science. Papers from an AAAS symposium. Seymour H. Mauskopf, Ed. Published for the American Association for the Advancement of Science by Westview Press, Boulder, Colo., 1979. xii, 138 pp. \$13.25. AAAS Selected Symposia Series, 25.

Renal Biopsy in Glomerular Diseases. Clinical, Histological, Immunohistological and Electron-Microscopic Studies. Edit Beregi and I. Varga with the cooperation of P. Gömöri. Translated from the Hungarian. Akadémiai Kiadó, Budapest, 1978. 336 pp., illus. \$30.

A Resident's Guide to Psychiatric Education. Michael G. G. Thompson, Ed. Plenum, New York, 1979. xviii, 274 pp. Spiral bound, \$14.95. Critical Issues in Psychiatry.

A Russian Childhood. Sofya Kovalevskaya. Translated from the Russian edition, edited, and introduced by Beatrice Stillman. With an analysis of Kovalevskaya's mathematics by P. Y. Kochina. Springer-Verlag, New York, 1978. xiv, 252 pp. \$14.80.

The Scientist's Thesaurus. A Treasury of the Stock Words of Sciences. George F. Stefanides. Published by the author, 66 Lourdes Drive, W.D., Fitchburg, Mass., ed. 4, 1978. vi, 156 pp. Paper, \$3.

The Search for the Self. Selected Writings of Heinz Kohut: 1950-1978. Paul H. Ornstein, Ed. International Universities Press, New York, 1979. Two volumes. xvi, 970 pp. \$35.

Using the Mathematical Literature. A Practical Guide. Barbara Kirsch Schaefer. Dekker, New York, 1979. xii, 142 pp. \$19.75. Books in Library and Information Science, vol. 25.

Water Management in the Yellow River Basin of China. Charles Greer. University of Texas Press, Austin, 1979. xviii, 174 pp., illus. \$10.

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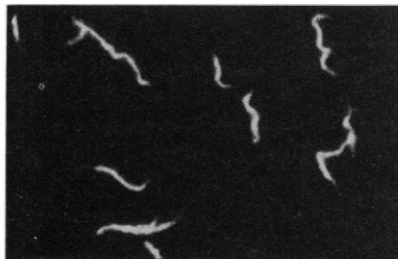
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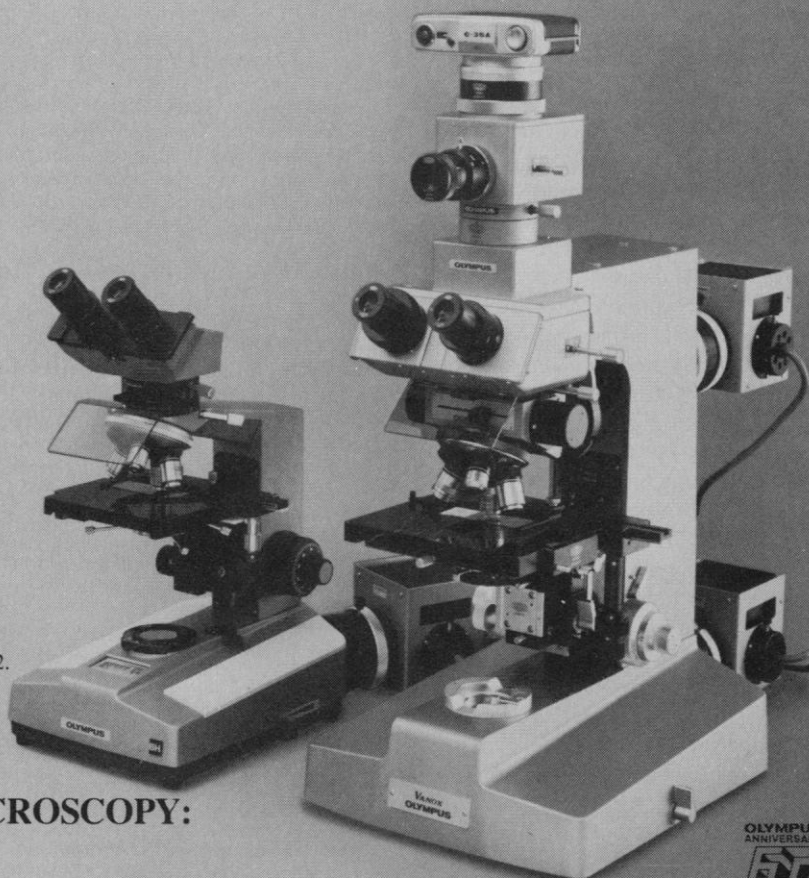
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Anatomist/Endocrinologist, physiology minor, broad background, Ph.D. 1970. Desires teaching/research position with emphasis on teaching, at assistant professor level. Experience in teaching anatomical disciplines. Expertise in ultrastructure. Publications. Box 209, SCIENCE. X

Innovative Aquatic Zoologist/Ecologist, Ph.D. seeks half-time teaching position. Experience in university instruction (8 years at a major institution) and research and water pollution consulting (7 years). Publications. Recently completed an academic year with a U.S. government environmental group (familiar with new approved methodologies, resources, and regulations). Wishes to teach biology, zoology, and/or environmental courses. Schedule can be flexible. Will be available January 1980. Box 283, SCIENCE. X

Biologist, Ph.D., 2 years of experience in computer services. Seeks biologically related data processing position. Box 291, SCIENCE. X

Electrophysiologist, Ph.D., with 10 years of experience recording human and animal evoked potentials and EEG desires interesting clinical or research positions; several publications. Box 285, SCIENCE. 10/19, 26; 11/2

Fishery Biologist, Ph.D. Six years of academic and private applied research; considerable biological and physical marine field experience; strong data processing background: DBM, statistics, graphics; editorial, funding, communication, project management skills; familiar with marine trades. Desires administrative or logistic support position at coastal research facility or marine trade school. Box 293, SCIENCE. X

Pharmacologist/Toxicologist, Ph.D. Semi-retired professor with extensive experience in drug screening, scientific writing, and prepublication editing. College laboratory facilities available. Desires position as consultant. J. F. Reinhard, 41 Bay View Road, Wellesley, Mass. 02181. Telephone: 617-237-1797 (home); 617-734-6700, extension 154 (office). 10/19, 26; 11/2, 9

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Cryobiologist/Immunologist, Ph.D. Experimental pathology. Two years of postdoctoral. Problems associated with freezing and freeze-drying of cells and tissues. Application of cellular immunology to various disease states and immunologic changes relating to freezing and freeze-drying of cells and tissues. Box 292, SCIENCE. X

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POSITIONS OPEN

ASSISTANT PROFESSOR POSITION

Department of Geological Sciences
The University of Texas at Austin

A tenure-track assistant professor position is now open in the field of sedimentary geology. This position is effective January 1980 or September 1980, depending on availability of successful applicant. Teaching responsibilities include undergraduate and graduate courses in depositional processes and facies and supervision of graduate research in the area of the person's special interest.

Applicants for this position must have completed all requirements for Ph.D. degree at the time of employment. Qualified persons should send a complete résumé, including names of three references, an abstract of the dissertation, statement of research interests, and planned research projects, to:

Dr. Robert E. Boyer, Chairman
Department of Geological Sciences
The University of Texas at Austin
P.O. Box 7909
Austin, Texas 78712

Deadline for applications: 31 December 1979

Equal Opportunity/Affirmative Action
Employer, M/F

ASSISTANT PROFESSOR. Faculty position in the Department of Radiology and Radiation Biology. Qualifications include a Ph.D. degree in physics, with a background in biochemistry, genetics, and cell biology. The position will involve supervising and coordinating the use and maintenance of a flow microfluorometer laboratory for the department and university. Therefore, expertise in the area of flow microfluorometry is necessary, including experience in computer and analysis techniques, and design and development of flow microfluorometer instrumentation. The position involves some teaching in the department and through the Cellular and Molecular Biology Graduate Program, so some teaching experience would be desirable. Applicants must supply at least half of their salary through their own research grant and perform active research in the field of radiation biology. Reply with curriculum vitae to: Dr. J. S. Bedford, Department of Radiology and Radiation Biology, Colorado State University, Fort Collins, Colorado 80523. Salary is negotiable. Deadline for applications is 31 October 1979. *Colorado State University is an Equal Opportunity/Title IX Employer. Equal Opportunity Office: 314 Student Services Building.*

ASSISTANT PROFESSOR. The Department of Chemistry, University of Virginia, invites application for full-time tenure-track appointments beginning September 1980. Candidates with research interests in any area of organic or biologically oriented chemistry are invited to apply. Applicants should submit curriculum vitae, an outline of proposed research, and at least two letters of recommendation to: R. J. Sundberg, Department of Chemistry, University of Virginia, Charlottesville, Virginia 22901. An Equal Opportunity Employer.

ASSISTANT PROFESSOR OF MICROBIOLOGY

The Department of Microbiology and Immunology, Washington University School of Medicine, invites applications from highly qualified individuals for an appointment as assistant professor. Applicants should have Ph.D. or M.D. degrees, 2 to 5 years of postdoctoral research experience, and a commitment to medical and graduate student teaching. Teaching competence should be in pathogenic microbiology; research interests should be in microbiology. Send curriculum vitae, brief description of research plans, and names of three referees to: Dr. Joseph M. Davie, Department of Microbiology and Immunology, Washington University School of Medicine, St. Louis, Mo. 63110 by 1 November 1979. *Equal Opportunity/Affirmative Action Employer, M/F/H.*

POSITIONS OPEN

ASSISTANT PROFESSOR position at Columbia University College of Physicians and Surgeons is available for an individual interested in research in the molecular biology of mammalian gametogenesis and fertilization. Applicants should have research experience in classic and molecular cytogenetics, developmental cell culture techniques, biochemical analysis of eukaryotic genomes, macromolecular synthesis, and electron microscopy. *Equal Opportunity Employer.* Send inquiries to: Dr. Georgiana Jaggiello, College of Physicians and Surgeons of Columbia University, 630 West 168 Street, New York, N.Y. 10032.

ASSISTANT PROFESSORS IN BOTANY

The Department of Biology of the University of South Carolina is seeking qualified applicants for **TWO** tenure-track positions at the level of assistant professor. Successful candidates will be expected to develop and maintain a vigorous program of research and teaching in **PLANT BIOLOGY**. Preference will be given to candidates in vascular plant ecology and experimental plant systematics. Final selections will be made upon the qualifications of the individual applicants, and highly qualified scientists in all areas of plant biology are encouraged to apply. The department will provide modern research facilities including a new research greenhouse. Sufficient funds will be provided for initiation of research, but the successful candidates will be expected to obtain outside grant support. Applicants should, prior to 26 November 1979, submit curriculum vitae, copies of recent research publications, a description of proposed research, and letters of reference to: Dr. Anthony Huang, Plant Biology Search Committee, Department of Biology, University of South Carolina, Columbia, S.C. 29208. *The University of South Carolina is an Equal Opportunity/Affirmative Action Employer. Applications from women and minority individuals are particularly encouraged.*

ASSISTANT PROFESSOR EVOLUTIONARY ECOLOGIST

The Biology Department of Pomona College anticipates making an appointment at the assistant professor level for September 1980. Primary requirements are the ability to combine theoretical and experimental approaches to ecology at the population and community level, and a strong commitment to undergraduate education. Preference will be given to those applicants with experience in a wide variety of ecological systems; strong background in plant ecology is necessary. Responsibilities include: (i) teaching an upper division undergraduate course in ecology, (ii) teaching in the ecology and evolution semester of our introductory three-semester core biology, and (iii) developing a research program involving undergraduates. Send letters of application, curriculum vitae, and names of three or more referees to: Biology Search Committee, Biology Department, Pomona College, Claremont, Calif. 91711. Application deadline is 15 November 1979.

Pomona College is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR, MOLECULAR BIOLOGY

Yale University, Department of Biology invites applications for an appointment beginning in academic year 1980-1981 as assistant professor (level I or II) in molecular aspects of genetics or development. The appointee will be expected to contribute to a strong program of research and scholarship in molecular biology, and to participate in undergraduate and graduate teaching. Send curriculum vitae, résumé of past and present research, and names of three referees by 1 January 1980 to:

Chairman
Department of Biology
Yale University
New Haven, Conn. 06520

Yale University is an Affirmative Action/Equal Opportunity Employer.

BIOCHEMIST. Applications invited for tenure-track teaching position starting September 1980. Superior teaching ability and experimental research experience in biochemistry are sought. Teaching responsibilities in the area of biochemistry, general chemistry, and possibly physical chemistry. Rank open, but assistant professor preferred. Ph.D. by 1 September 1980 required. Send résumé, transcripts, statement of research plans, and three letters of recommendation to: Dr. James H. Hammons, Chemistry Department, Swarthmore College, Swarthmore, Pa. 19081. Closing date for applications is 30 November 1979. *An Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF PLANT BIOLOGY

A well-equipped modern Department of Biological Sciences located outside Baltimore is seeking a plant biologist with postdoctoral experience, who has demonstrated an ability to initiate a vigorous research program and has a commitment to quality graduate and undergraduate teaching. Candidates should have a strong background in physiology and/or biochemistry of plant systems, specializing in areas such as morphogenesis, tissue culture, plant hormones, water relations, algology, or virology. Submit curriculum vitae, bibliography, names of suggested referees, and a description of research interests to: **Dr. Thomas F. Roth, Chairman, Faculty Search Committee, Department of Biological Sciences, University of Maryland Baltimore County, Catonsville, Maryland 21228.** An Equal Opportunity/Affirmative Action Employer.

ASSISTANT SCIENTIST to investigate dispersion of pollutants in groundwater. Ph.D. in engineering or physics with a solid background in fluid mechanics and applied mathematics. Applicant must have a strong desire to apply these fundamental skills to understanding the movement of pollutants in ground water and to devise strategies to minimize future pollution of groundwater. Equal emphasis will be placed on modeling and on field experiments. Send application to: **Dr. C. R. Frink, Chief, Department of Soil and Water, The Connecticut Agricultural Experiment Station, P.O. Box 1106, New Haven, Conn. 06504.** An Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST—Tenure-track position available beginning September 1980 at assistant professor level in Chemistry Department. Ph.D. required to teach two courses with laboratories each semester. Major responsibility to teach undergraduate biochemistry and guide development of program, plus sharing in responsibilities in introductory chemistry course or teaching advanced courses consistent with training and experience. Opportunities for research, particularly in conjunction with department Honors Program.

Send résumé, transcripts, and have three letters of recommendation sent to: **J. M. Pappenhage, Department of Chemistry, Kenyon College, Gambier, Ohio 43022.** An Equal Opportunity Employer. Deadline for completed application is 15 December.

BIOLOGY. Liberal arts college for women has two tenure-track positions at the assistant professor-level available August 1980. Ph.D. required and establishment of research program expected. Send transcripts, curriculum vitae, a statement of research and teaching goals, and three letters of recommendation by 15 November 1979. **INVERTEBRATE ZOOLOGIST** to teach one semester of an introductory biology course for nonscience majors and an upper level course for biology majors in speciality. Persons with experience given preference. Write to: General Biology Search Committee. **PHYSIOLOGIST** to teach a course in general physiology (plant and animal) for biology majors and a human physiology course for nursing majors. Write to: Physiology Search Committee, Department of Biology, Saint Mary's College, Notre Dame, Indiana 46556.

An Equal Opportunity/Affirmative Action Employer

BIOLOGIST, CELL BIOLOGIST, or PHARMACOLOGIST. Assistant or associate professor level for interdisciplinary research in regulation of mammalian organ growth and neoplasia. Solid scientific background and proved productivity essential. Must be capable of obtaining competitive grants after initial period of appointment. Biochemical orientation desirable, but primary experience should be in cellular function. Some teaching possible. Start: January to July 1980. Harvard Medical School hospital. *Minority groups and women encouraged to apply.* Box 279, SCIENCE.

Two positions teaching and undergraduate courses: (i) **COMPARATIVE PHYSIOLOGY, INVERTEBRATE ZOOLOGY**, with some teaching in introductory courses. (ii) **GENETICS** and possibly **EVOLUTION**, together with a major responsibility in introductory biology and zoology. Positions require continued research and begin September 1980. Assistant professor: salary appropriate to experience. Send résumé and have three letters of reference sent to: **John F. Kent, Chairman, Department of Zoology, Connecticut College, New London, Conn. 06320.** An Equal Opportunity Employer.

POSITIONS OPEN

BIOLOGY POSITION

The Department of Biology of Wake Forest University invites applications for a tenure-track position to begin August 1980. Candidates must have expertise in electron microscopy and significant research experience in cell biology-physiology and/or development biology. Responsibilities include undergraduate and graduate teaching and the maintenance of an active research program. Applicants should send curriculum vitae, statement of professional objectives, and three letters of recommendation to: **Dr. Peter D. Weigl, Chairman, Search Committee, Department of Biology, Wake Forest University, Winston-Salem, N.C. 27109.**

Deadline date is 28 December 1979.

Wake Forest is an Affirmative Action/Equal Opportunity Employer.

BIOLOGICAL SAFETY OFFICER UNIVERSITY OF FLORIDA

This position requires a master's degree in an area of biological or basic medical sciences with a minimum of 3 years of experience in biological safety. Experience should include basic scientific techniques and manipulations common to biomedical research. A technical knowledge in basic microbiology and biological safety techniques and practices, containment equipment, and engineering principles pertaining to the design and operation of biological and medical facility safeguards is also required.

Send complete résumé with salary requirements and salary history by 15 November 1979 to

**Robert L. Willits
Administrative Employment Manager
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University of Florida
Gainesville, Florida 32611**

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BIOPSYCHOLOGY

The Department of Psychology at The Johns Hopkins University expects to have a tenure-track position for an assistant professor in the fall of 1980. Suitable areas of interest include: animal behavior, behavior genetics, ecology, hormones and behavior, physiological psychology, and psychopharmacology. Candidates should send curriculum vitae, at least three letters of recommendation, and reprints of relevant articles to: **Biopsychology Search Committee, Department of Psychology, The Johns Hopkins University, Baltimore, Md 21218.** The Johns Hopkins University is an Equal Opportunity Employer.

BIostatistician—Immediate opening for Ph.D. level. Responsible for coordinating clinical and experimental research with other scientists. Use of DEC comp. Medical school faculty appointment commensurate with experience. Send résumé to: **Dr. Paul A. Watnir, North Shore University Hospital—Cornell Medical College, 300 Community Drive, Manhasset, N.Y. 11030.** An Equal Opportunity Employer.

CARDIORESPIRATORY PHYSIOLOGIST applications are invited for a tenure-track position as assistant professor. Applicants must have a doctoral degree in physiology, teaching experience in the area indicated and research experience in the area of alcohol metabolism. Candidates should send résumé and three letters of reference to: **Chairman, Department of Physiology, School of Medicine, University of Puerto Rico, Box 5067, San Juan, P.R. 00936.**

DEPARTMENT OF CITY AND REGIONAL PLANNING UNIVERSITY OF NORTH CAROLINA

Tenure-track faculty positions available for one assistant and one associate professor for fall 1980. Candidates should have strong backgrounds in one or more of the following applied areas: public investment planning, public project or program budgeting and management, basic economic/demographic/spatial analysis, or planning research methods. Applicants' teaching and research interests should focus on environmental planning (including environmental quality and natural resource planning) or socio-economic development (including community services or human services program planning). Ph.D. in planning or related field required. Professional experience highly desirable. *Minority and female candidates urged to apply.* Send résumé by 1 December 1979 to: **David Godschalk, Chairman, Department of City and Regional Planning, University of North Carolina, Chapel Hill, N.C. 27514.** An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

CELL BIOLOGISTS. Position available immediately for the study of the effect of cytoactive principles on cultured mammalian cells and the development of cellular assay systems. Cell culture experience desirable. Send résumé and three letters of recommendation to: **Professor David Lynn, Department of Chemistry, University of Virginia, Charlottesville, Va. 22901.** For information, telephone: 804-924-3100. An Equal Opportunity Employer.

CHAIRPERSON DEPARTMENT OF BIOLOGY UNIVERSITY OF HOUSTON

Applications are invited for the position of chairperson, Department of Biology, University of Houston College of Natural Sciences and Mathematics. We seek a candidate with a distinguished record of research and teaching whose credentials would qualify that individual for appointment as full professor of biology. Preference will be given to an individual having demonstrated excellence in providing leadership necessary for the development of both research and training programs. Curriculum vitae, selected reprints, and names of three references should be sent to:

**Joseph P. Buckely, Ph.D., Chairman
Biology Chair Search Committee
141 SR2—University of Houston
Houston, Texas 77004**

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

CHAIRPERSON, DEPARTMENT OF OPHTHALMOLOGY, University of South Florida College of Medicine, invites applications or nominations for position of professor and chairperson, Department of Ophthalmology. Candidates must have demonstrated skills in teaching, administration, research, and clinical ophthalmology. Please send recommendations and curriculum vitae to: **Arthur D. Graham, M.D., Professor and Chairman, Department of Radiology, University of South Florida, Box 17, 12901 North 30 Street, Tampa, Fla. 33612.** An Affirmative Action/Equal Opportunity Employer. *Certain veterans and spouses of veterans receive preference in employment.*

DEAN OF THE COLLEGE SOUTHERN METHODIST UNIVERSITY DALLAS, TEXAS

Nominations and applications are invited for the position of Dean of the College. The college is the newly created academic unit which provides a common experience in general education for all students of the university, serves as the administrative base for the faculties in the humanities, the natural sciences, and the social sciences, offers the B.A., B.S., M.A., M.S., and Ph.D. degrees, and embodies the university's commitment to excellence in the undergraduate as well as the graduate and professional areas.

Desirable qualifications include the degree of doctor of philosophy, significant achievement as teacher and scholarly accomplishments appropriate to the rank of full professor, and demonstrated ability in administration.

Nominations and applications should be sent to: **The Advisory Selection Committee, Office of the Provost, Southern Methodist University, Dallas, Texas 75275.** Southern Methodist University is an Affirmative Action/Equal Opportunity Employer.

EUKARYOTIC GENETICIST

The Department of Biological Sciences at Purdue is considering making a faculty appointment at the assistant professor level. Candidates with outstanding potential for teaching and research in any area of eukaryotic genetics will be considered but preference may be given to *Drosophila* or mouse geneticists who would complement existing programs in genetic dissection of the visual system. The successful candidate will be expected to initiate and maintain a program of high quality research and to contribute to the teaching of undergraduate biology majors. Applications, including curriculum vitae, list of publications, statement of research interests, and the names of at least three referees, should be submitted before 31 October to: **Professor Struther Arnett, Department of Biological Sciences, Purdue University, West Lafayette, Ind. 47907.** Purdue University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

University of Missouri—
St. Louis
Dean
School of Optometry



The University of Missouri-St. Louis (UMSL) seeks nominations and applications for the position of dean of the proposed School of Optometry of the University of Missouri-St. Louis. Operations relating to optometry will begin immediately looking toward the first class of 40 students in fall 1980.

Candidates should have experience in administration including planning and development. They should also have demonstrated leadership and communication skills necessary to obtain effective cooperation and support of both the university community and optometric profession. UMSL prefers candidates with records of excellence in optometric education and/or research, or the equivalent accomplishments in the profession. Ability to obtain external funding for research projects and program development is highly desirable.

Date of appointment is negotiable; salary is competitive. Letters of application with current resumes, including names of three references and letters of nomination, should be submitted no later than 31 October 1979, to:

Dr. A. Nancy Avakian
Assistant Vice Chancellor for Academic Affairs
University of Missouri—St. Louis
8001 Natural Bridge Road
St. Louis, Missouri 63121

The University of Missouri is an Equal Employment and Educational Opportunity Institution.

DIRECTOR, Institute of Marine Resources, PROFESSOR, Scripps Institution of Oceanography. Senior scientist with experience in innovative investigations related to marine resources and management thereof, to lead research groups at Scripps and University California, Davis; prepare budgets for university funds and assist in obtaining extramural funds; administer statewide Sea Grant College Program; and teach graduate students. Appointed by the president, University of California. Salary (state funded) to \$50,000 for 11 months, depending on qualifications. Send curriculum vitae and names of references by 31 December 1979 to: M. M. Mullin, A-008, IMR Search, University of California, San Diego, La Jolla, Calif. 92093. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

Department of Pathology seeks an **ELECTRON MICROSCOPIST** (M.D. or Ph.D.) to supervise EM facility. Experience with TEM, SEM, and freeze-fracture is essential. Interest in applications of ultrastructural analysis to the study of disease is desirable. Candidates should write: David Lagunoff, M.D., Department of Pathology, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, Mo. 63104, and include curriculum vitae with bibliography and two references.

LABORATORY ANALYST INORGANIC CHEMISTRY

Environmental Data, Incorporated is an analytical services firm providing analytical services to a variety of clients including industrial, governmental and private concerns. We have an immediate opening for a full-time analyst with a minimum of a B.S. degree in chemistry with 2 years of laboratory experience in the analysis of wastewater, metals, and treatability studies. Our laboratories are located at 611 Cascade West Parkway, SE, Grand Rapids, Michigan 49506. To apply send a detailed resume in confidence prior to 9 November to: M. M. Chambers, Environmental Data, Incorporated is an Equal Opportunity Employer, M/F. Members of minority groups are encouraged to apply.

MASS SPECTROSCOPIST—RICE UNIVERSITY

The Department of Biochemistry of Rice University announces the availability of a staff position for an experienced bioorganic mass spectroscopist to operate GC-MS unit and to participate in research on sterol biosynthesis and chemistry of complex lipids. Additional experience in IR and NMR desired but not essential. Salary dependent on qualifications and experience. Position available immediately. Interested persons should send resume and the names of three references to: G. J. Schroepfer, Jr., Biochemistry Department, Rice University, Houston, Texas 77001. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ENVIRONMENTAL SCIENTISTS

CHEMISTS—Syracuse Research Corporation (SRC) has several opportunities for M.S. or Ph.D. physical-organic, organic, or analytical chemists to work on an EPA-funded grant to develop an environmental fate data base and on other environmental literature reviews. Experience in environmental monitoring, environmental chemistry of pesticides, toxic substances, detergents, and so forth, and computer programming desirable. These nonlaboratory positions require strong skills in technical writing and will require proposal writing and customer contact. These positions provide the opportunity for the successful candidates to develop their own area of interest including laboratory research.

TOXICOLOGISTS—These nonlaboratory positions will involve the preparation of health risk assessment reports from published experimental data. Strong skills in technical writing and a diverse background in toxicology-related disciplines including carcinogenesis, mutagenesis, and pharmacology are required. The successful applicants will possess a M.S./Ph.D. or equivalent, and have the capability to assume major responsibility for timely completion of assigned projects and supervision of day-to-day activities.

SRC is a multidisciplinary not-for-profit research organization located on the south campus of Syracuse University. SRC offers a competitive salary, excellent benefits, and a stimulating research environment. Send resume, including salary history and references, to: Personnel Manager, Syracuse Research Corporation, Merrill Lane, Syracuse, New York 13210.

Affirmative Action Employer, M/F/H

GENETICIST—TO WORK WITH GRAPES

The Department of Viticulture and Enology, University of California, Davis, needs a recent Ph.D. to teach viticulture (25 percent) and conduct research on the improvement of grapes (75 percent) starting at the assistant professor level 1 July 1980. The candidate should have a strong background in genetics (especially molecular), biochemistry and plant physiology; should be prepared to both develop a field of basic research and to apply the findings to practical viticulture; should be prepared to teach in own fields of expertise, to guide the research of graduate students, and, after a suitable development period, to teach viticulture. The appointee will assist in introducing new grape varieties from the older breeding project, and will be in charge of grape breeding in the department.

Interested qualified candidates should send curriculum vitae, statement of research and teaching interests and background in each, graduate and undergraduate transcripts, copies of reprints, manuscripts submitted and/or in press, and a summary of abstract of the dissertation, and names and addresses of at least three references to: Professor A. D. Webb, Department of Viticulture and Enology, University of California, Davis, Calif. 95616. Applications must be received by 1 March 1980.

In compliance with federal and state laws and University policy, the University of California does not discriminate on the basis of race, color, national origin, religion, sex, handicap, age, or against disabled veterans or veterans of the Vietnam era. The University of California is an Affirmative Action/Equal Opportunity Employer.

UNIVERSITY OF MICHIGAN

Position available immediately for **INSTRUCTOR THROUGH PROFESSOR** and **CO-DIRECTOR**, Mott Radiology. The physician will take part in the program of patient care, teaching and research carried on in the Department of Radiology, will administer Mott Radiology, and will supervise the activities of the resident staff and aid in the teaching of residents and medical students. Must be Board-certified. Entering level commensurate with qualifications and experience. Reply to: Box 288, SCIENCE. Code 700B0. A nondiscriminatory, Affirmative Action Employer.

UNIVERSITY OF MICHIGAN

Position available immediately for **INSTRUCTOR THROUGH PROFESSOR** in the Department of Radiology. The physician will take part in the program of patient care, teaching, and research carried on in the Department of Radiology, supervise the activities of the resident staff, and aid in the teaching of residents and medical students. Must be Board-certified. Entering level commensurate with qualifications and experience. Reply to: Box 289, SCIENCE. Code 100F0. A nondiscriminatory, Affirmative Action Employer.

POSITIONS OPEN

ECOLOGY AND ANIMAL BEHAVIOUR

The Biology Department of McGill University offers two positions with a diverse and active group of terrestrial and aquatic ecologists at the level of assistant professor (both tenure-stream), beginning in September 1980. Send curriculum vitae, a statement of research and teaching interests, and the names, addresses, and telephone numbers of three potential referees to: Dr. F. H. Rigler, Chairman, Department of Biology, McGill University, 1205 Avenue Docteur Penfield, Montreal, Quebec, Canada H3A 1B1. Competition closes on 15 December 1979.

UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER, CHICAGO COLLEGE OF DENTISTRY

The Department of Oral Anatomy is seeking two candidates for tenure-track faculty positions available August 1980, rank to be commensurate with experience. Candidates must have D.D.S./Ph.D. or Ph.D., and a strong research program preferably, but not necessarily, in one of the following areas: developmental biology, neurobiology, neuromuscular physiology, and oral biology. The department teaches gross anatomy, neuroanatomy, and oral biology (dental anatomy) in the D.D.S. program (candidates should have experience in two of these areas) and participates in interdisciplinary teaching in professional, specialty, and graduate programs, including a program in evolutionary and functional morphology. Applicants should submit curriculum vitae including names of three referees and a statement of research interests and plans by 1 December 1979 to: Dr. Karen Hilemae, Head, Department of Oral Anatomy, College of Dentistry, 801 South Paulina Street, Chicago, Ill. 60612.

The University of Illinois is an Equal Opportunity Employer.

KANSAS STATE UNIVERSITY—The Department of Chemical Engineering which includes materials science is accepting applications for a full-time **FACULTY POSITION** available 1 September 1980. Applicants at the assistant professor level will receive preference. The position requires an individual qualified to teach materials science at the undergraduate and graduate levels. Background, training, or experience in chemical engineering would be desirable. The ability to develop a research program is essential, as is the Ph.D. Applications will be considered through 15 February 1980. Applicants should send resumes to: Dr. L. T. Fan, Department of Chemical Engineering, Durland Hall, Kansas State University, Manhattan, Kans. 66506. *An Equal Opportunity/Affirmative Action Employer.*

GROSS ANATOMY. Applications are invited from individuals interested in a position as assistant or associate professor at Ohio University in the College of Osteopathic Medicine and the Department of Zoology and Microbiology. This teaching-research position involves the instruction of osteopathic medical students in gross anatomy and graduate students at the M.S. and Ph.D. levels in the area of the candidate's speciality. The successful candidate will be expected to develop a strong independent research program. Research area is open. Minimum qualifications include a Ph.D. degree or equivalent; prior medical or dental school teaching is highly desirable.

Interested individuals should submit curriculum vitae and a summary of research plans by 21 November 1979 to:

Biomedical Science Search Committee
Ohio University
College of Osteopathic Medicine
Grosvenor Hall
Athens, Ohio 45701

Ohio University is an Affirmative Action/Equal Opportunity Employer.

PHARMACOLOGY. Tenure-track position for fall 1980 for assistant or associate professor. Ph.D. with strong academic and research background required. The applicant is expected to develop a rigorous independent research program and participate in the teaching of medical students. Research area is open, but preference will be given to candidates with an interest in cardiovascular or neuropharmacology. Send curriculum vitae and references by 21 November 1979 to:

Biomedical Science Search Committee
Ohio University
College of Osteopathic Medicine
Grosvenor Hall
Athens, Ohio 45701

Ohio University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

FOOD BIOCHEMIST. Applications are invited for a tenured position of assistant professor in the Food Science and Human Nutrition Department, University of Florida. Responsibilities will include both teaching and research. Teaching will be at the undergraduate and graduate levels in areas of carbohydrate biochemistry and enzymology. Research will be directed toward developing technology for converting food wastes and other carbohydrate materials into fuel. Applications with curriculum vitae, statement of research interests, official transcripts, and three letters of reference should be sent to: **Dr. W. B. Wheeler, Chairman, Search and Screen Committee, Pesticide Research Laboratory, University of Florida, Gainesville, Fla. 32611.** Applications must be received by 15 November 1979. *The University of Florida is an 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.*

MEDIATOR OFFICE OF ENVIRONMENTAL MEDIATION

The Office of Environmental Mediation, established with funds from the Ford and Rockefeller Foundations to offer mediation services in environmental conflicts, is seeking a person to serve on a mediation team which assists in the resolution of environmental disputes. The applicant should have a strong background in the private or governmental sector and broad contact and acceptance with the various groups and interests involved in environmental conflict. A working knowledge of economic and environmental issues and experience with the political structure in the western United States is essential. Applications, which should include a résumé and three personal references, must be received by 15 November 1979. For additional information, contact: **Leah K. Patton, Office of Environmental Mediation FM-12, University of Washington, Seattle, Washington 98195; telephone: 206-543-6713.** *An Equal Opportunity/Affirmative Action Employer.*

MICROBIOLOGY—BIOCHEMISTRY. Postdoctoral positions are available immediately in the areas of cell and molecular biology, genetics, and immunology. Specific areas of research include immune tolerance and antigen structure (D. C. Benjamin); membrane proteins of transformed cells (J. C. Brown); RNA tumor virus expression (C. J. Collins); genetics and regulation of viral RNA synthesis (S. U. Emerson); histocompatibility antigens and cytotoxic T lymphocytes (V. Engelhard); genetics of bacterial membrane systems (R. J. Kadner); immunoglobulin synthesis and B-cell differentiation (W. M. Kuehl); RNA tumor virus integration (J. T. Parsons); proteins of bacterial outer membranes (C. A. Schnaitman); and molecular biology of enveloped viruses (R. R. Wagner). Stipends range from \$12,000 to \$15,000. Send résumé and two letters of recommendation to: **Dr. R. R. Wagner, Program Director, Department of Microbiology, University of Virginia School of Medicine, Charlottesville, Va. 22908.**

An Equal Opportunity/Affirmative Action Employer

NEUROPHYSIOLOGIST. An anticipated tenure-track position for a broadly trained and animal physiologist with research interests in neurophysiology. Duties include teaching a course in general physiology and one in neurophysiology and directing a tutorial for one semester at the senior level. An active research program is expected. Ph.D. required. Completed application, containing résumé, description of research interests, and three letters of recommendation, must be received by 15 December. Send to: **Dr. W. DeWitt, Chairman, Biology Department, Williams College, Williamstown, Mass. 01267.** *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

METAMORPHIC PETROLOGIST Department of Geological Sciences The University of Texas at Austin

A tenure-track faculty position is now open in metamorphic petrology, effective September 1980. The candidates must be field-oriented and able to use modern laboratory instruments for research and teaching. An interest in mineral resources is desirable. Teaching responsibilities will include graduate and undergraduate metamorphic petrology, undergraduate mineralogy and field instruction, and supervision of graduate research.

Applicants for this position must have completed all requirements for the Ph.D. degree at the time of employment. Please send complete résumé, including names of three references, an abstract of the dissertation, statement of research interests and planned research projects, to:

**Dr. Robert E. Boyer, Chairman
Department of Geological Sciences
The University of Texas at Austin
P.O. Box 7909
Austin, Texas 78712**

Deadline for applications: 15 January 1980.

*Equal Opportunity/Affirmative Action Employer,
M/F*

MICROBIOLOGIST—The United States Army Medical Research Institute of Infectious Diseases has a career-conditional research position for a microbiologist with a Ph.D. or equivalent training and experience in the area of bacteriology. A strong research background, including publications, in bacterial physiology, biochemistry, genetics, or pathogenesis is required. Experience in analytical and molecular techniques is desirable. Salary range: (GS-12) \$23,087 to \$30,017.

Interested persons should submit curriculum vitae or SF-171 bibliography, and names and addresses of three references to:

**Joseph Hise
Civilian Personnel Office
Fort Detrick
Frederick, Maryland 21701**
Equal Opportunity Employer

MICROBIOLOGY

A regular tenure-track position as an assistant or associate professor is available commencing as soon as possible for an M.D. or a Ph.D. with a minimum of 2 years of postdoctoral training in microbial physiology or in infectious disease. Send curriculum vitae and names of three referees to: **Dr. David Eidinger, Head, Department of Microbiology, University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N 0W0.** Closing date for receipt of applications is 30 November 1979.

NEUROBIOLOGIST

Applications invited for two fully funded, tenure-track faculty positions, currently available in a newly organized interdisciplinary Neurobiology Program in the Department of Anatomy. Preference given to neurobiologists whose research interests concern aspects of neurodevelopment or cytochemistry and with some prior training in anatomical sciences. Support available for individuals at assistant or associate professor level. Applicants should have Ph.D. and/or M.D. degree and some postdoctoral training with evidence of research productivity. Successful candidates expected to establish a strong independent research program meritorious of extramural support within a few years and teach at undergraduate and graduate levels. Department responsible for courses in neuroscience, histology, and gross anatomy to undergraduate allied health students and medical students. Send curriculum vitae and brief description of research interests, teaching experience, and career objectives with names of three references by 30 November 1979 to: **Dr. Rodney Parsons, Department of Anatomy, University of Vermont College of Medicine, Burlington, Vermont 05405.**

An Affirmative Action Employer

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE to work on molecular aspects of DNA repair in eukaryotes including enzymology, chromatin structure, and genetics. Strong background in nucleic acids, enzymology, or chromatin required. Flexible starting date. Send curriculum vitae and names of two references to: **Michael W. Lieberman, M.D., Ph.D., Department of Pathology (Box 8118), Washington University School of Medicine, St. Louis, Missouri 63110.**

POSITIONS OPEN

NEUROBIOLOGIST EMORY UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF ANATOMY

Applications are invited for a position as assistant or associate professor of anatomy, depending upon qualifications and experience. Applicants should have at least 2 years of postdoctoral research training and experience in teaching neuroanatomy at both the professional and graduate student levels. Candidates must have an active research program that can be broadly categorized as cell biology of brain, neuroendocrinology, or developmental neurobiology. Deadline for receipt of applications is 1 December 1979. Send curriculum vitae, names of four referees, and description of current research interests to: **Dr. Jerome Sutin, Chairman, Department of Anatomy, Emory University School of Medicine, Atlanta, Georgia 30322.**

Emory University is an Equal Opportunity/Affirmative Action Employer.

NEUROBIOLOGY RESEARCH ASSOCIATE. To participate in studies of cellular events in the formation, maintenance, and elimination of nerve-muscle synapses, using primarily electrophysiological and EM techniques. Reply to: **Dr. W. J. Betz, Department of Physiology, University of Colorado School of Medicine, Denver, Colo. 80262.**

An Equal Opportunity/Affirmative Action Employer

NEUROSCIENCE POSTDOCTORAL POSITIONS in the following areas: cellular neurophysiology (with W. H. Calvin, Ph.D., or P. A. Schwartzkroin, Ph.D.), epileptic neuron physiology and motor control (A. R. Wyler, M.D., A. A. Ward, Jr., M.D.), neuroanatomical mechanisms of epilepsy and deafferentation (A. B. Harris, M.D., L. E. Westrum, M.D., Ph.D.), physiology of human language and memory (G. A. Ojemann, M.D.), behavioral effects and mechanisms of action of anticonvulsants (J. S. Lockard, Ph.D.), and neurophysiology of peripheral nerve disorders (J. D. Loewer, M.D., and W. H. Calvin, Ph.D.). NRSA stipends for U.S. citizens or permanent residents with Ph.D. or M.D. and relevant research experience. Write individual faculty or:

**Dr. William H. Calvin
Chairman, Selection Committee
Neurological Sciences Training Program
Department of Neurological Surgery RI-20
University of Washington
Seattle, Washington 98195**

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

NEUROSCIENTISTS

The Long Island Research Institute (LIRI) is initiating a program in chronopsychiatry and will be hiring two or three investigators who study cyclic changes in neurobehavioral function. Both psychiatrists and basic scientists trained in neurochemistry/neuropharmacology or psychopharmacology are encouraged to apply. Clinical as well as basic research facilities are available, and the Institute works in close collaboration with the Department of Psychiatry and Behavioral Science. Preference will be given to younger investigators, although senior scientists are also encouraged to apply. Send a statement of research interests and plans with curriculum vitae to: **R. E. Whalen, LIRI, Health Sciences Center 10T, State University of New York, Stony Brook, N.Y. 11794.** *We are an Equal Opportunity Employer.*

PHYSICAL CHEMIST/CHEMICAL PHYSICIST

Applications are invited for a faculty position in the Department of Chemistry, Washington University, St. Louis. Preference will be given to applicants at the assistant professor level, but appointment as associate or full professor will be considered for candidates with demonstrated distinguished research and teaching abilities. While applicants whose research interests reside in any field of physical chemistry/chemical physics will be considered, the department admits to strong preference for individuals with interest and proficiency in what might be characterized broadly as application of modern spectroscopic techniques, for example, short-pulse laser excitation, to the study of such dynamical processes as intramolecular energy transfer, multiphoton excitation, and reaction kinetics. Applicants are requested to submit, by 31 January 1980, curriculum vitae and a statement of research interests, and to arrange to have three letters of recommendation sent to: **Professor William D. Phillips, Chairman, Department of Chemistry, Washington University, St. Louis, Mo. 63130.** *Washington University is an Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF ILLINOIS
DEAN
PEORIA SCHOOL OF MEDICINE

Nominations and applications are invited for the position of dean at the Peoria School of Medicine, one of the four clinical schools of the University of Illinois College of Medicine. The school is a developing, community-based medical school dedicated to working closely with practitioners and hospitals in educating medical students and other health professionals.

QUALIFICATIONS: An M.D. degree with eligibility for licensure in Illinois, preferably with Board-certification or a second terminal degree; a record of professional scholarly achievement leading to qualification for professorial rank; involvement in teaching, research, and patient care activities; previous academic administrative experience; and familiarity with major issues in medical education, research, and health care delivery.

RESPONSIBILITIES: The dean reports to the executive dean of the College of Medicine and is responsible for implementing college-wide policies in undergraduate, graduate, and continuing medical education programs. The dean must also foster cooperative clinical education programs with community institutions, nurture investigation by the faculty, and encourage public service activities within the school.

Full consideration will be given to applications received by 15 November 1979. Position available immediately. Salary: negotiable.

Applicants should submit a letter of application, curriculum vitae, and three or more names of references. Nominations should include addresses and telephone numbers. Send all materials to:

E. Dorinda Loeffel, M.D., Chair
Peoria Dean Search Committee
Peoria School of Medicine
123 S.W. Glendale Avenue
Peoria, Illinois 61605

The University of Illinois is an Affirmative Action/Equal Opportunity Employer and welcomes applications from women and members of minority groups.

SUPERVISORY PHYSICAL SCIENTISTS or SUPERVISORY ECOLOGIST: The U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), Office of Marine Pollution Assessment (OMPA) in Washington, D.C., is seeking a senior level scientist to serve as the OMPA Associate Director for Program Planning and Evaluation. The incumbent will have lead responsibility for developing long-range plans for marine pollution research and development/monitoring programs and activities in OMPA, and for evaluating the responsiveness of NOAA programs and activities to national needs and priorities. This position is in the Competitive Civil Service. The grade of the position is GS-15 with further promotion potential. The entrance salary is \$38,160 per annum which is subject to the 1 October 1979, pay comparability increase. **QUALIFICATIONS:** B.S. or higher degree in marine ecology or the marine disciplines of the physical sciences. In addition, 3 years of professional experience which has equipped the candidate with the knowledge necessary to perform the above duties. **SELECTIVE FACTORS:** applicants must have experience in the long-range planning of marine pollution programs, the preparation of budget/program initiatives, and the evaluation of research proposals and programs. **TO APPLY:** current or former federal employees should submit SF-171; two Employee Appraisals (CD-332) completed in full by the first and second level supervisors; and a transcript. Form CD-331 may be obtained by telephoning: 303-499-1000, extension 6332 or FTS 323-6332. Applicants not employed by the federal government should submit a complete application package for "Physical Science Positions-1300" if applying for the supervisory physical scientist option or an application package for "Senior Level Positions, Number 408" if applying for the supervisory ecologist option. These forms may be obtained from the nearest Office of Personnel Management (formerly U.S. Civil Service Commission). All applications should be submitted to: NOAA/NTIA, Personnel Services Division (R566), Attention: C. Straight, Boulder, Colorado 80303. Reference Vacancy Number NOAA/ERL 79-331(1). Applications must be postmarked no later than 16 November 1979, to receive consideration. An Equal Opportunity Employer.

National Research Council Canada
Conseil national de recherches Canada

1980
RESEARCH
ASSOCIATESHIPS

For research in science and engineering in the following laboratories of the NATIONAL RESEARCH COUNCIL OF CANADA:

Division of Biological Sciences
Division of Building Research
Division of Chemistry
Division of Electrical Engineering
Herzberg Institute of Astrophysics
Industrial Materials Research Institute
Division of Mechanical Engineering
National Aeronautics Establishment
Division of Physics
Prairie Regional Laboratory

Applicants should possess at least a Ph.D. in natural science or a master's degree in an engineering field or expect to obtain the degree before taking up the associateship.

Associateships are open to nationals of all countries, although preference will be given to Canadians.

Research associates will be offered appointments to the staff of the National Research Council on a term basis and will be offered salaries and benefits currently available to members of the continuing staff.

The initial appointment will be for a 1-year term and may be renewed, subject to the associate's performance and subject to the requirements of the division. Renewals are considered annually. The term as a research associate will vary by division, but will not exceed 5 years.

An allowance will be provided towards the cost of travel.

Applications may be obtained from: Research Associates Office, National Research Council of Canada, Ottawa, Canada K1A 0R6.

Closing date: 15 January 1980.

RESPIRATORY PHYSIOLOGIST/
HEALTH SCIENTIST
ADMINISTRATOR

Division of Lung Diseases

The National Heart, Lung, and Blood Institute, National Institutes of Health, Public Health Service, is seeking applicants for a career Civil Service position in the Structure and Function Branch of the Institute's Division of Lung Diseases. The Structure and Function Branch is responsible for the planning, direction, and evaluation of basic and applied, clinical and nonclinical research on the lung and respiratory system. This includes programs on respiratory and nonrespiratory functions, and growth and development. The incumbent will assist in planning, conducting and evaluating extramural research on respiratory functions.

An applicant must have a doctoral degree or equivalent experience with significant training and research experience in respiratory physiology. Applicant's background should include familiarity with research approaches relative to control of breathing, gas exchange and pulmonary mechanics.

Salary range GS-12 to GS-13, \$23,087-\$27,453, dependent upon qualifications. Interested persons should submit Curriculum Vitae, Bibliography and a completed form SF-171 (Personal Qualifications Statement) by December 15, 1979 to Mr. Herbert Jones, NHLBI Personnel Office, NATIONAL INSTITUTES OF HEALTH, Public Health Service, 9000 Rockville Pike, Building 31, Room 5A-32, Bethesda, MD 20205. For additional information, please call (301) 496-6477. Equal Opportunity Employer.

NATIONAL INSTITUTES OF HEALTH

The National Science Foundation is seeking a qualified candidate for the position of **HEAD, ASTRONOMY RESEARCH SECTION** on a permanent or temporary (rotational) basis. The incumbent is responsible for the overall planning and management of the Astronomy Research Section. Also coordinates and supervises the work of program directors and support staff in galactic and extragalactic astronomy, stars, and stellar evolution, stellar systems and motions, solar system astronomy, and astronomical instrumentation and development. This position is in the Senior Executive Service. Essential qualification requirements are: (i) experience in the planning of scientific programs, (ii) experience in evaluating and balancing available resources between on-going programs and new programs, (iii) managerial and supervisory experience, (iv) Ph.D. or equivalent experience in the physical sciences, and (v) substantial experience in conducting research in astronomy/astrophysics. Desirable qualifications include experience in: long and short range planning, management of large-scale scientific research involving several disciplines, and substantial record of publication. The salary ranges from \$44,756 to \$50,100 per annum. Competitive status is not required; veterans preference does not apply; and there are no time-in-grade restrictions. New appointees are required to serve a 1-year probationary period. The individual selected will be required to file a "Financial Disclosure Report" in accordance with The Ethics in Government Act of 1978.

HOW TO APPLY: Those interested in a noncareer or temporary (rotational) appointment should apply to announcement EMPB 79-35. Those interested in a career or permanent appointment should apply to announcement EMPB 79-25. Applicants must submit a Standard Form 171, Personal Qualifications Statement. The application must clearly state the announcement for which you are applying. The announcement number should be clearly marked on the application and any attachments. A supplemental qualifications narrative should also be submitted addressing to what extent the applicant's skills, knowledge, and abilities satisfy the qualification requirements.

Applications should be submitted to: Executive and Managerial Personnel Branch, Division of Personnel and Management (to the attention of the announcement number), National Science Foundation, Washington, D.C. 20550. Applications must be received by 5 p.m., 31 December 1979. For additional information, contact: Teddy Haessig-Dyer, telephone: 202-632-4124.

POSITIONS OPEN

NEUROSCIENCES PROGRAM UNIVERSITY OF OREGON

The University of Oregon intends to make an appointment in the area of developmental, cellular, or molecular neuroscience in its new interdisciplinary program. Although a junior position is envisaged, applications from more senior candidates will be considered. Applicants should have an active research program as well as an interest in training students. Qualified persons should contact: **Michael Menaker, Director, Department of Biology, University of Oregon, Eugene, Oregon 97403.** Application deadline is 15 December 1979. *The University of Oregon is an Equal Opportunity/Affirmative Action Employer.*

PHARMACOLOGY

A faculty position is available in the Department of Pharmacology at the assistant professor level. The applicant should have 1 to 2 years of postdoctoral experience and have the expertise to establish and carry out an independent research program in the general area of cardiovascular pharmacology. Other duties include participation in teaching pharmacology to undergraduate pharmacy students and advanced pharmacology courses to graduate students. Please submit an application letter with career goals, curriculum vitae, and the names of three references to:

Dr. George J. Grega
Acting Chairman
Department of Pharmacology
University of Houston
Houston, Texas 77004

An Equal Opportunity Employer

DEPARTMENT OF PHARMACOLOGY SCHOOL OF MEDICINE ST. LOUIS UNIVERSITY MEDICAL CENTER

Applications are invited for two faculty positions at the assistant or associate professor level in the Department of Pharmacology, St. Louis University School of Medicine. Candidates should be dedicated to independent research and will be expected to develop externally fundable research programs. Applicants should be enthusiastic teachers and are expected to participate in graduate and medical school teaching programs in the department. Nominations or curriculum vitae, selected reprints, statement of teaching and research goals, and the names of three references should be sent to:

Dr. Thomas C. Westfall
Department of Pharmacology
St. Louis University School of Medicine
3556 Caroline Street
St. Louis, Mo. 63104

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

The Department of Biology at Georgia State University invites applications for two anticipated positions in **PHYSIOLOGY** at the assistant professor level. Applicants should have exceptional promise in research and teaching at the graduate and undergraduate levels (including Allied Health Sciences students). Postdoctoral experience preferred. Curriculum vitae, reprints, and a concise statement of research interests should be sent by 1 January 1980 to: **Faculty Search Committee, Department of Biology, Georgia State University, University Plaza, Atlanta Georgia 30303.** *Georgia State University is an Equal Educational Opportunity Institution and is an Equal Opportunity/Affirmative Action Employer in compliance with Title IX and other Civil Rights laws.*

PLANT ECOLOGIST

Assistant professor, tenure-track, 9 months per year; responsible for teaching lower level and advanced plant ecology courses, continuing an already established research program, advising graduate students, and becoming involved in scholarly service. Requires a Ph.D. degree, teaching and research experience, and a sound publication record. Salary: \$17,500 to \$20,000 commensurate with qualifications. Starts autumn 1980. Apply before 15 December 1979 by sending curriculum vitae and publications, and having at least three letters of recommendation sent to: **Dr. Emanuel D. Rudolph, Chairman, Department of Botany, Ohio State University, 1735 Neil Avenue, Columbus, Ohio 43210.** *The Ohio State University is an Equal Opportunity/Affirmative Action Employer. All qualified persons, including women, members of minority groups, and the handicapped are encouraged to apply.*

POSITIONS OPEN

PHYSICAL OCEANOGRAPHER

A postdoctoral position is open for a scientist interested in the physical oceanography of deep ocean currents, eddies, and fronts. The candidate should have experience in experimental techniques and oceanographic data analysis. The position offers the opportunity to participate in the analysis and interpretation of velocity profiles and collaborative measurements obtained in the POLYMODE field program and in the planning and execution of future experiments focusing on oceanic fronts, air-sea interaction, and mid-ocean eddies. The research program emphasizes the development and use of innovative instrumentation. Training in physical oceanography is preferred but an applicant could have a doctorate in mathematics, physics, or engineering. Candidates will be considered for a joint appointment in the Applied Physics Laboratory and in the Department of Oceanography as a research associate (postdoctoral). Applicants are requested to submit a résumé and four letters of recommendation to: **Dr. T. B. Sanford, Ocean Physics Department, Applied Physics Laboratory, University of Washington, 1013 Northeast 40 Street, Seattle, Washington 98105.** *The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

PHYSICAL THERAPY PROGRAM DIRECTOR

Faculty position available after 2 January 1980 to design, develop, implement, and direct a new 2-year program leading to the bachelor of science degree in physical therapy. Doctorate preferred. Master's degree, experience in the practice of physical therapy, physical therapy education, and program/curricular design and development required. Rank and salary open. Send résumé and three references to: **Dr. Warren E. Schaller, Chairman, Department of Physiology and Health Science, Ball State University, Muncie, Indiana 47306.** Telephone: 317-285-5961. Application deadline: 15 November 1979.

Ball State University practices Equal Opportunity in Education and Employment.

PHYSIOLOGY/ZOOLOGY

Tenure-track position starting winter quarter (26 November) in a Catholic college for the liberal arts and professions. Duties include teaching upper-division courses in physiology, histology, embryology, and comparative anatomy. Ph.D. preferred, but will consider master's with substantial experience. Apply with curriculum vitae, including transcripts and names of three or four referees to: **Dr. Richard J. Welland, Vice President for Academic Affairs, College of Saint Teresa, Winona, Minnesota 55937.** Rank and salary dependent upon background. *The College of Saint Teresa is an Equal Opportunity/Affirmative Action Employer that encourages women applicants.*

PHYSIOLOGIST—Tenure-track appointment at rank of assistant or associate professor is immediately available. Appointee will be responsible for developing an independent research program and will participate in teaching medical and graduate students. Candidates must have completed a 1- or 2-year postdoctoral program, and preference will be given to individuals with appropriate experience in systemic cardiovascular physiology. Send curriculum vitae and names of three references to: **Dr. Eugene Aserinsky, Professor and Chairman, Department of Physiology, School of Medicine, Marshall University, Huntington, W. Va. 25701.** *Marshall University is an Equal Opportunity/Affirmative Action Employer.*

George Washington University School of Medicine, Department of Biochemistry. POSTDOCTORATE ASSOCIATE/RESEARCH ASSISTANT PROFESSOR. To work in the areas of prostaglandin metabolism or cultured cell-lipoprotein interactions. Salary will be in the range of \$14,000 to \$19,000 per annum, according to experience. Applications consisting of curriculum vitae and names of two referees should be sent to: **Director, Postgraduate Appointments, Biochemistry Department, George Washington University School of Medicine, 2300 Eye Street, NW, Washington, D.C. 20037.** *An Equal Opportunity Employer.*

POSITIONS OPEN

PHYSICAL OCEANOGRAPHER

The Chesapeake Bay Institute of The Johns Hopkins University has a position available for a physical oceanographer with interests in shelf and estuarine circulation dynamics. Applicant should have a Ph.D. or equivalent plus 1 or 2 years as postdoctorate. Experience in one or more of the large, international oceanographic research programs desirable. Appointment will be made at the intermediate or senior level. Rank and salary will be commensurate with qualifications. Send curriculum vitae, bibliography, and names of three professional references to: **W. R. Taylor, Acting Director, Chesapeake Bay Institute, The Johns Hopkins University, 4800 Atwell Road, Shady Side, Md. 20867.** *The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.*

PHYSIOLOGIST

Qualified physiologist to teach all phases of physiology including laboratory. Require M.S. and/or Ph.D. Salary and benefits negotiable. Send résumé and two letters of recommendation to: **Personnel, Los Angeles College of Chiropractic, Box 1479, Glendale, Calif. 91209.** Deadline: 15 November 1979. *An Equal Opportunity 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, Milwaukee 53233.**

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL PHYSIOLOGIST/BIOENGINEER

Position available immediately. Research associate with Ph.D. to participate in broad research program of normal and pathological microvascular function. Background in transcapillary exchange and experience with large and small animal surgery desirable. Send curriculum vitae and names of three references to: **Dr. J. J. Friedman, Department of Physiology, Indiana University School of Medicine, Indianapolis, Ind. 46223.** *An Affirmative Action/Equal Opportunity Employer.*

Two **POSTDOCTORAL POSITIONS** are available immediately in a laboratory specializing in quasi-elastic light scattering and hydrodynamic study of biological macromolecules and viruses. One project deals with physical characterization of human bronchial glycoproteins and viscoelastic gels, the other with structure and assembly of plant and bacterial viruses. Positions require Ph.D. with experience in physical biochemistry or macromolecular chemistry. Salaries: \$12,500. The initial appointments are for 1 year, but may be extended up to 3 years. Send curriculum vitae and names of three references to: **Professor Victor Bloomfield, Department of Biochemistry, University of Minnesota, 1479 Gortner Avenue, St. Paul, Minn. 55108.**

POSTDOCTORAL POSITION available to Ph.D. or M.D. immediately for research on the biochemical interactions between malaria parasites and host erythrocytes. Send curriculum vitae and names of three references to: **Dr. Coy D. Fitch, Department of Internal Medicine, St. Louis University School of Medicine, 1402 South Grand, St. Louis, Missouri 63104.** *An Equal Opportunity/Affirmative Action Employer, M/F/H.*

POSTDOCTORAL POSITION. Immediately available for recent Ph.D. to study antigens (particularly glycoproteins) of human ovarian tumor and cell lines. Experience in immunochemistry and/or biochemistry desirable. Send curriculum vitae bibliography, and three references to: **Kenneth O. Lloyd, Ph.D., MEMORIAL SLOAN-KETTERING CANCER CENTER, 1275 York Avenue, New York, N.Y. 10021.** *An Equal Opportunity Employer, M/F.*

POSTDOCTORAL POSITION available immediately to study transcription of cauliflower mosaic virus DNA in infected plant cells. Experience in nucleic acids biochemistry desirable. Starting salary: \$12,000 per year. Send résumé, summary of research experience, and names of two references to: **Dr. Tom J. Guilfoyle, Department of Botany, 220 Bioscience Center, University of Minnesota, St. Paul, Minn. 55108.**

RESEARCH SCIENTISTS

CETUS CORPORATION, the leader in the application of modern biological technology to the solution of real-world problems over the last seven years, continues to grow. We are looking for postdoctoral scientists of the highest caliber with the following expertise:

Microbial Physiology. An in-depth appreciation of the interactions between biochemistry, genetics and controls will be the most sought-after requirement in this area. Experience preferred in eukaryotic organisms, or non-*E. coli* prokaryotes.

Fermentation Microbiology. An appreciation of physiological interactions will be most important. Biochemical engineers will be considered if they have acquired a high level of understanding in microbial physiology.

Process Enzymology. Polymer chemists with experience in protein chemistry and catalysis may fill this position. Practical experience with a variety of techniques and their reasons for choice will be an absolute need.

Scientists with the above experience are required to join our project teams working toward the development of new biological processes from instigation through the laboratory to pilot scale operation. These are research positions, but scientists with aspirations toward management in the future can look to Project Leader positions as a route into scientific management.

Interested candidates should send a resume, along with a detailed qualifying letter and salary history, in confidence to: Cetus Corporation, Box S, 600 Bancroft Way, Berkeley, CA 94710.

cetus

An equal opportunity employer

RESEARCH SCIENTIST

The Upjohn Company currently has an opening available for a Research Scientist in the area of cellular immunology and immunopharmacology. He or she will be responsible for developing an independent research program employing IN VITRO and IN VIVO models to discover and develop new drugs affecting cell immuno-regulatory and immuno-modulation mechanisms. Qualified candidates must have a Ph.D. in immunology, pathology, pharmacology, or microbiology with post-doctoral experience and a minimum of two years' related experience in cellular immunology and/or the isolation and immunological characterization of biologic macromolecules.

Living in Kalamazoo, a mid-sized Southwestern Michigan community, means no commuting, immediate access to an excellent mix of cultural recreational pursuits including lakes, nearby colleges, a four-season climate, and moderate cost of living and an attractive housing market. Excellent compensation and benefits.

Upjohn

Send resume to: Kent Morgan
The Upjohn Company
7171 Portage Road
Kalamazoo, Michigan 49001

An Equal Opportunity Employer M/F

UNIVERSITY OF CALIFORNIA LOS ANGELES

The Department of Biology invites application for appointment in the regular professorial series in the following areas:

VASCULAR PLANT SYSTEMATICS
GENETICS
ANIMAL PHYSIOLOGY
POPULATION GENETICS
ICHTHYOLOGY

While the specific area of research for each position is open, the candidates are expected to be committed to excellence in undergraduate and graduate education and to possess an outstanding research record. Appointment will be made at the professorial rank consistent with the individual's background and experience.

A curriculum vitae, including the names of three sources of recommendations, should be sent before 1 December 1979 to:

Chair
Department of Biology
University of California
Los Angeles, CA 90024

THE UNIVERSITY OF CALIFORNIA IS AN
EQUAL OPPORTUNITY/AFFIRMATIVE ACTION
EMPLOYER

PHARMACOLOGISTS and BIOCHEMICAL PHARMACOLOGISTS

Present areas under intensive study in Wilmington: 1) diseases of the central nervous system, including depression, schizophrenia and anxiety; 2) pulmonary diseases such as emphysema and asthma; and 3) gastrointestinal diseases, principally peptic ulcers. In addition, new research programs in arthritis and hypertension/renal disorders are also underway.

Gastrointestinal (Ph.D. and MS level)

Training in pharmacology and/or biochemistry. Prefer Ph.D. to have additional academic post-doctoral work and MS to have one or two years lab experience. Demonstrated competence in receptor biochemistry, radioligand binding methodology, and isolated tissue work a distinct advantage.

CNS (MS or BS level)

Psychopharmacologist to evaluate anti-anxiety drugs. Lab experience should include handling animals, especially primates, and knowledge of operant behavioral techniques (electro-mechanical/solidstate programming). Familiarity with computer operations essential.

Renal (Ph.D. and MS/BS level)

Training in renal or cardiovascular pharmacology or physiology, to join active program seeking novel diuretics. Preference given those with experience in evaluation of diuretic and/or hypertensive agents. Knowledge of clearance techniques in canines advantageous.

Laboratory expansion now completed adds 160,000 sq. ft. research space, doubling our capacity to develop drugs and treat disease. Campus setting, 25 miles south of Philadelphia, in choice residential neighborhood. Competitive salaries/benefits. Unique investment program.

Please submit detailed CV stating position interest. Principals only.

C.T. Brodigan, Employee Relations



ICI Americas Inc.

Wilmington, Delaware 19897

An Equal Opportunity Employer M/F

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to study biochemical mechanisms associated with the initiation of odor sensing. Ph.D. in biochemistry with experience in subcellular fractionation and membrane enzyme isolation and characterization desirable. Salary: \$13,300 per year (12 months). The initial appointment is for 1 year, but may be extended up to 3 years. Send curriculum vitae and three references to: **Dr. Robert B. Koch, Department of Biochemistry, Drawer BB, Mississippi State, Miss. 39762.**

POSTDOCTORAL POSITION available immediately to study the interaction of human blood clotting factors VIII, IX, and X with platelets. A strong background in protein biochemistry is desirable. This is an MRC-funded 3-year appointment with a team working in a large newly equipped facility sited in Hampstead. Starting stipend: £5,332 sterling. Send résumé and names of three referees to: **Dr. E. G. D. Tuddenham, Haemophilia Centre, Royal Free Hospital, Pond Street, London NW3 2QG, England.**

POSTDOCTORAL POSITION available for biophysical-biochemical studies of DNA promoter regions and synthetic DNA's. Conformation of DNA and protein-DNA interactions are studied. Experience in Raman and UV-visible spectroscopy, and/or nucleic acid biochemistry desirable. Send résumé with desired starting date and three references to: **Dr. Roger M. Wartell, School of Physics, Georgia Institute of Technology, Atlanta, Ga. 30332. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately for Ph.D. in pharmacology or biochemistry to participate with an interdisciplinary group in the rational development of new diagnostic myocardial imaging agents. Project will involve both in vitro and in vivo examination of drug-receptor interactions, cyclic nucleotide activity and potential new radiopharmaceutical products. Position offers joint appointment with Harvard Medical School Joint Program in Nuclear Medicine and Northeastern University College of Pharmacy and Allied Health Professions. Applicant with experience in receptor binding studies preferred. Send curriculum vitae and names of three references to: **Dr. Jeffrey Blumberg, Section in Pharmacology, College of Pharmacy and Allied Health Professions, Northeastern University, Boston, Mass. 02115. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately. Work will involve studies of heavy metals on biochemistry of developing brain. A background in biochemistry and experience in subcellular fractionation, enzyme assay and/or binding proteins would be an advantage. Inquiries with curriculum vitae to: **L. A. O'Tuama, M.D., Department of Neurology, University of North Carolina School of Medicine, Chapel Hill, N.C. 27514. The University of North Carolina is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION available now for studies on hormonal regulation of gene function in lymphoid cells. Background in cell culture, RNA/DNA isolation and hybridization or hormone receptor technology helpful. Salary: \$11,000 for up to 3 years. Send curriculum vitae to: **Dr. John A. Cidlowski, Department of Biochemistry, University of Vermont, School of Medicine, Burlington, Vermont 05405. Telephone: 802-656-2220.**

POSTDOCTORAL POSITION. Available immediately for one or more years of research on nutritional, metabolic, and endocrinologic aspects of aging. Background in physiology and biochemistry desirable. Salary: \$11,000 to \$14,000 per year, depending upon credentials. Send letter of inquiry, curriculum vitae, and three references to: **E. J. Masoro, Ph.D., Department of Physiology, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, Texas 78284. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available to Ph.D. for research in psychological studies of humans with retina and optic nerve disease. Opportunities available to do clinical research in glaucoma and neuro-ophthalmology 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.**

POSITIONS OPEN

POSTDOCTORAL POSITION

Applications are invited for recent Ph.D.'s in cell biology and biochemistry for a postdoctoral research position working on problems related to the biochemical mechanisms of epithelial differentiation, the regulation of the differentiated states of epithelial cells, and the molecular basis of various epithelial diseases. Previous experience in protein chemistry and cell culture work desirable but not required. For background reading, see *Nature* 269:489 (1977); *J. Biol. Chem.* 253:2053 (1978); *Cell* 14:469 (1978); *PNAS* 76:2813 (1979). Please send curriculum vitae, undergraduate and graduate transcripts, and names of three references to:

**Dr. Tung-Tien Sun
Blalock 926
Departments of Dermatology and of
Cell Biology and Anatomy
Johns Hopkins Medical School
Baltimore, Maryland 21205**

POSTDOCTORAL POSITION BEHAVIORAL ECOLOGY AND PHYSIOLOGY

Research on effects of microwave radiation on the behavioral ecology and physiology of birds. A 2-year position begins 1 January 1980; \$13,000 per year. Send curriculum vitae and three letters of recommendation to: **Dr. Thomas H. Kunz, Department of Biology, Boston University, Boston, Mass. 02215 by 30 November 1979. Boston University is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL/RESEARCH ASSOCIATE

Research directed toward the isolation, identification, and synthesis of organic compounds in human physiological fluids. One-year appointment with a second year available. Send curriculum vitae to: **Dr. P. V. Fennessey, Department of Pediatrics, University of Colorado Health Sciences Center, Denver, Colorado 80262.**

An Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.

POSTDOCTORAL RESEARCH FELLOW IN GEOPHYSICS

The Division of Geological and Planetary Sciences at the California Institute of Technology expects to offer a research fellow appointment in the area of solid-state high-pressure geophysics and/or descriptions of the high-pressure phenomena associated with impact cratering on planetary surfaces.

Research fellowships in geology, general geophysics, geochemistry, geobiology, and planetary science are also available from time to time. Interested persons are asked to contact: **Dr. Barclay Kamb, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, California 91125. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL TRAINEE. Available immediately, multidisciplinary studies on hypertension and renin. Background in biochemistry, pharmacology, cell biology, and/or neurobiology. U.S. citizen or permanent resident. Send résumé and two letters of reference to: **Tadashi Inagami, Ph.D., Director, Specialized Center of Research in Hypertension, Department of Biochemistry, Vanderbilt University School of Medicine, Nashville, Tennessee 37232. Vanderbilt is an Equal Opportunity Organization.**

RESEARCH ASSOCIATE. Positions available immediately in multidisciplinary studies on hypertension. Background in protein chemistry, pharmacology, neurobiology, cell biology, and/or molecular protein. U.S. citizen or permanent resident. Send résumé and two letters of reference to: **Tadashi Inagami, Ph.D., Director, Specialized Center of Research in Hypertension, Department of Biochemistry, Vanderbilt University School of Medicine, Nashville, Tennessee 37232. Vanderbilt is an Equal Opportunity Organization.**

RESEARCH OR ASSISTANT PROFESSOR. Position available immediately in multidisciplinary studies on renin-angiotensin in hypertension. Background in protein structure studies, enzymology, neurobiology, or cell biology. U.S. citizen or permanent resident. Send résumé and letters of reference to: **Tadashi Inagami, Ph.D., Director, Specialized Center of Research in Hypertension, Department of Biochemistry, Vanderbilt University School of Medicine, Nashville, Tennessee 37232. Vanderbilt is an Equal Opportunity Organization.**

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately for Ph.D. in biochemistry, biochemical pharmacology, or related area to study neurotransmitter receptors in smooth muscle. Salary: \$11,000 to \$14,000 commensurate with experience. Send curriculum vitae to: **Dr. Salvador Fernandez, Department of Physiology, University of Connecticut Health Center, Farmington, Connecticut 06032.**

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately, for 2 to 3 years, to collaborate in studies of dorsal horn organization. Experience with electro-physiological techniques and computer programming essential. Salary starting at \$11,000, commensurate with experience. Send curriculum vitae and three letters of recommendation before 15 November 1979 to: **Dr. Paul B. Brown, Department of Physiology and Biophysics, West Virginia University Medical Center, Morgantown, W. Va. 26506. West Virginia University is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE—IMMUNOBIOLOGY

Available immediately to study the role of suppressor cells in tumor immunity and immunology maturation in mice. Knowledge of tissue culture techniques preferred.

Salary: \$11,000 to \$12,000 for at least 2 years.

Send curriculum vitae and two references to:

**Dr. Bertie F. Argyris
Department of Microbiology
Upstate Medical Center
Syracuse, N.Y. 13210**

Equal Opportunity/Affirmative Action Employer

REPRODUCTIVE ENDOCRINOLOGY

Senior investigator-teacher to join a large Division of Reproductive Endocrinology and Fertility. Tenure-track or tenured position, depending on previous experience. To establish a research training program for fellows and residents and participate in teaching. Must be interested in collaborative research with clinical colleagues. Excellent laboratory facilities and environment. Joint basic science appointment possible. *Equal Opportunity/Affirmative Action Employer.* Contact: **Charles H. Hendricks, M.D., Chairman, Department of Obstetrics and Gynecology, University of North Carolina School of Medicine, Chapel Hill, North Carolina 27514.**

The University of Kansas at Parsons State Hospital is seeking a **RESEARCH ASSISTANT/ELECTRONICS**, \$18,000 to \$20,000. Duties include supervising electronics shop. Must be able to design, construct, and modify electronic equipment for behavioral research, specifically audio equipment, solid state logic, and microcomputers. Bachelor's degree in electrical engineering or appropriate experience required. Prefer master's degree in electrical engineering. Mail résumé with two references to: **Henry Heffner, Ph.D., Parsons Research Center, P.O. Box 738, Parsons, Kans. 67357. Equal Opportunity/Affirmative Action Employer. Application deadline: 1 November. Position available 15 November 1979.**

RESEARCH ASSOCIATE (Postdoctoral). Cellular or molecular immunologist to participate in collaborative and independent research in broad areas of genetic control of the immune response in mice using synthetic polymers of amino acids. Studies concentrate on: T cell receptors, factors, idiotype (antidiotypic), and hybridomas. Contact: **Dr. Paul H. Maurer, Department of Biochemistry, Jefferson Medical College, Thomas Jefferson University, 1020 Locust Street, Philadelphia, Pa. 19107. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE

POSTDOCTORAL POSITION available immediately for studies on the structure and interactions of fibrinogen and plasma fibronectin (cold-insoluble globulin). The position requires a solid background in biophysics and protein chemistry with laboratory training in sequence analysis. This is a challenging opportunity for an individual with leadership qualities who is capable of independent investigation. Starting salary: \$15,000 plus, depending on experience. Opportunity for graduate school teaching and advancement to faculty rank. Send curriculum vitae, reprints, three personal references, plus statement of background and interests to: **Michael W. Moseson, M.D., Professor of Medicine and Biochemistry, State University of New York, Downstate Medical Center, Brooklyn, New York 11203.**

Vice President **Scientific Affairs**

HEALTH CARE ASSOCIATION

An excellent opportunity for a Vice President of Scientific Affairs is available in our Association Headquarters located in Washington, D.C. Successful candidate will prepare scientific papers, articles and other information pieces relative to association interests; establish professional communications with scientists in our industry, government and universities; evaluate findings and conclusions of scientific articles; participate in scientific meetings as the association representative.

Position requires an individual with strong scientific background and advanced degrees in the sciences, plus demonstrated professional and scientific competence in the health care industry or in an administrative positions in academic research or government service. Consideration will be given to qualified candidates with part time or adjunct faculty appointments at universities in the Washington, D.C. area. Send curriculum vitae to:

Box 298, SCIENCE

An equal opportunity employer M/F

RESEARCH SCIENTIST

The Upjohn Company currently has an opening for a Ph.D. in pathology, anatomy, or related area to study the morphological changes of diabetes by light and electron microscopy and to evaluate the effects of therapy. Qualified candidates must have a minimum of two years postdoctoral experience in studies on the morphological changes in various tissues in diabetes. Experience specifically related to study of diabetic islets is desirable. Also desired is experience with immunocytochemistry, atherosclerosis, and platelet morphology. Must have demonstrated ability in oral and written communications and/or independent research.

Living in Kalamazoo, a mid-sized Southwestern Michigan community, means no commuting, immediate access to an excellent mix of cultural-recreational pursuits including lakes, nearby colleges, a four-season climate, and moderate cost of living and an attractive housing market. Excellent compensation and benefits.

Upjohn

Send resume to: Kent Morgan
The Upjohn Company
7171 Portage Road
Kalamazoo, Michigan 49001

An Equal Opportunity Employer M/F

INTERNATIONAL OPPORTUNITIES

TECHNICAL EDITOR & LIBRARIAN—B.S. & 5 years experience in nuclear data analysis & editing

CHIEF OPERATOR CYCLOTRON—B.S. 7-15 years experience

MACHINIST/MODEL OPERATOR—10 years experience as machinist. 5 of those years in production of unique, one-of-a-kind devices.

CYCLOTRON OPERATOR I—B.S. 5-7 years experience

DOSIMETRIST I—B.S. + 5-7 years of radiation therapy experience

HEALTH PHYSICS III—B.S. + 5 years of research or analytical laboratory experience.

ASSOCIATE SCIENTIST—M.S. or Ph.D. + 5-7 years experience in applications of radiation in various fields, such as entomology, pharmacy, agronomy, radiation biology or food technology.

GAMMA FACILITY OPERATOR—B.S. in science or engineering + 2-5 years scientific experience is required or 7-15 years of scientific experience without degree.

The cancer research and radioisotope production facility is being completed at the King Faisal Specialist Hospital and Research Centre in Riyadh, Saudi Arabia. The salary and benefits for the above positions are exceptional. The 24-month commitment includes housing, transportation, 30-day annual vacation and more.

The King Faisal Specialist Hospital and Research Centre in Riyadh, Saudi Arabia, is seeking highly qualified individuals for the above positions. For further information, send resume and salary history to:

Richard L. Gann (Y)
Senior International Representative
Hospital Corporation International
One Park Plaza
Nashville, Tennessee 37203

BIOSTATISTICIAN

The Upjohn Company has an unusual opportunity for research on important applied problems in animal and plant planned experimentation.

Applicants should have PhD in biostatistics or statistics. Agricultural background highly desirable. Innovation in methodology is expected, as well as communication of ideas and publications. Excellent hardware and software support.

Kalamazoo is a medium-sized, southwestern Michigan community with access to an excellent mix of cultural, educational, and recreational pursuits.

Submit resume in confidence to:

Upjohn

Judy Matousek
The Upjohn Company
7000 Portage Rd.
Kalamazoo, MI. 49001

An Equal Opportunity Employer M/F

POSITIONS OPEN

PROFESSOR AND HEAD DEPARTMENT OF PATHOLOGY

Responsibilities to be fulfilled: Direct the education, research, and service programs of the Pathology Department in the College of Medicine, University of Iowa.

Qualifications desired: M.D. degree, Board-certification or equivalent, and demonstrated scholarship and leadership in pathology.

Salary: Appropriate for qualifications and responsibilities for a professor and head of pathology. Excellent fringe benefits.

Employer: The University of Iowa, Iowa City, Iowa 52242. *An Equal Opportunity/Affirmative Action Employer.*

Application: Interested persons are invited to direct inquiries and submit curriculum vitae to:

Dr. John Strauss
Chairman, Pathology Search Committee
Professor and Head
Department of Dermatology
2045 General Hospital NT
University of Iowa
Iowa City, Iowa 52242

RESEARCH ASSISTANT-NUTRITIONIST. To isolate and characterize the different electrophoretic forms of trypsin and chemotrypsin inhibitors from different varieties of soybean seeds. M.S. degree in biochemistry or nutrition with progressively responsible experience involving the performance of biochemical analysis. **Salary:** \$12,000 to \$15,000 annually, depending on qualifications and experience. Send complete résumé with names of three references to: Dr. Y. S. Hafez, Nutrition Laboratories, University of Maryland, Eastern Shore, Princess Anne, Md. 21853. *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE (assistant specialist) position available 1 January 1980 in the area of genetics and biochemistry of phytoalexin biosynthesis. Advanced degree with training and/or experience in microbial genetics, plant pathology, biochemistry, and plant physiology. The position is for 18 months and salary will be commensurate with experience. Send résumé and names of references to: Dr. N. J. Panopoulos, Department of Plant Pathology, University of California, 147 Hilgard Hall, Berkeley, Calif. 94720, by 15 November 1979.

The University of California is an Affirmative Action Employer.

RESEARCH ASSOCIATE/RESEARCHER—Minimum qualifications: master's degree in microbiology or immunology or related field (Ph.D. preferred). Position involves study of the mechanisms of acquired immunity to experimental histoplasmosis including roles of lymphocytes, macrophages, and their products. Position is funded from a NIH grant which has been approved through August 1982. Salary depends on qualifications. Please send curriculum vitae by 1 November 1979 to: Ram P. Tewari, Department of Medical Microbiology and Immunology, Southern Illinois University School of Medicine, P.O. Box 3926, Springfield, Illinois 62708. *An Equal Opportunity/Affirmative Action Employer.*

TOXICOLOGIST EXPERIENCE IN INHALATION

The Chemical Hygiene Fellowship Laboratory of the Carnegie-Mellon Institute of Research is located 25 miles east of Pittsburgh in beautiful, rolling countryside. This university laboratory performing industry-sponsored research, is currently seeking an individual with a recent Ph.D. or equivalent in toxicology or a related discipline in biological sciences and, preferably, with experience in inhalation toxicology.

Primary responsibilities will include the design, implementation, interpretation, and technical supervision of inhalation toxicology studies. Additional functions include developing new inhalation testing capabilities and participation in research projects with other professionals in toxicology, pathology, biochemistry, metabolism, and cell biology. Please submit curriculum vitae and references to: Dr. William M. Snellings, Carnegie-Mellon Institute of Research, R.D. 4, Box 60, Export, Pennsylvania 15632.

An Equal Opportunity/Affirmative Action Employer

A Division of Carnegie-Mellon University

POSITIONS OPEN

POSTDOCTORAL POSITION available 19 December 1979 or anytime thereafter for either recent Ph.D. or candidate about to receive Ph.D. in biochemistry or related area with training and interest in enzymology and protein fractionation to isolate and characterize various glycosidic enzymes so that they may be used to modify the red cell surface. Starting salary: \$16,500. Send résumé to: Dr. Jack Goldstein, Lindsley F. Kimball Institute, New York Blood Center, 310 East 67 Street, New York, N.Y. 10021. *An Equal Opportunity Employer.*

RESEARCH ASSOCIATE/Ph.D.—Position available immediately in well-equipped protein laboratory in the following research areas: sequencing methodology and structure function mechanisms of immunological and orthopedics proteins. Salary competitive. Send résumés in confidence, and names of three professional references to: Dr. Clyde Zalut, Department of Immunology, CHILDREN'S HOSPITAL MEDICAL CENTER, 300 Longwood Avenue, Boston, Mass. 02115. *An Affirmative Action/Equal Opportunity Employer.*

RESEARCH ASSOCIATE. Application of NMR to enzyme structure and mechanism studies. Research centers on pepsin and other acid proteases; 270-MHz FT instrument for ^1H , ^{13}C , ^{19}F and ^{31}P is used exclusively by one group; will be upgraded to 360 MHz, February 1980. Experience in protein chemistry and/or NMR preferred. Send curriculum vitae to: Dr. Paul G. Schmidt, Oklahoma Medical Research Foundation, 825 North East 13, Oklahoma City, Oklahoma 73104. *Equal Opportunity/Affirmative Action Employer.*

RESEARCH POSITION IN DRUG METABOLISM for a recent postdoctorate with background in chemistry, biochemistry, or biochemical pharmacology. Studies seek to characterize the reductive metabolism of the 5-nitroimidazoles in order to understand their antiparasitic, bacteriocidal, and mutagenic activities. Salary minimum: \$12,000. Send résumé and names of two references to: Dr. Peter Goldman, Department of Pharmacology, Harvard Medical School, Beth Israel Hospital, Boston, Mass. 02215. *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH SPECIALIST (Analytical or Biochemical)

Immediate opening for a Ph.D. analytical or biochemist to work on an interdisciplinary project on water chlorination toxicity studies. Must be familiar with modern electrochemical research techniques. Interests in mechanisms of toxic action desirable. Send résumé and three letters of reference by 15 November 1979 to: Dr. A. S. Brooks, Center for Great Lakes Studies, P.O. Box 413, University of Wisconsin-Milwaukee, Milwaukee, Wis. 53201. *An Equal Opportunity/Affirmative Action Employer.*

VETERINARY PATHOLOGIST

The Medical Research Center of Brookhaven National Laboratory has an immediate opening for a veterinary pathologist interested in inhalation toxicology research. Opportunity exists to play a major role in a developing research program, and to initiate independent research as well as collaborate in other scientific research projects. Applicants must have a Ph.D. in veterinary pathology.

Résumé and three references should be addressed to:

Donald C. Borg
Chairman, Medical Department

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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.

GRADUATE STUDY

Graduate Training in Basic Medical Sciences. The College of Medicine, University of South Alabama, invites applications from qualified individuals interested in pursuing the Ph.D. degree in basic medical sciences. Applications are now being accepted for June 1980 entrance into the graduate program leading to the doctorate with specialization in either anatomy, biochemistry, microbiology/immunology, pharmacology, or physiology. This is a unique program designed to accept both qualified nondegree holding students after only 3 years of appropriate undergraduate study as well as applicants holding degrees. Fellowships are available which provide tuition and stipends. Applications are accepted at any time but must be completed by 1 March for admission.

For further information write:

Edwin R. Hughes, M.D.
Director of Graduate Program in
Basic Medical Sciences
Medical Sciences Building, Room 2152
University of South Alabama
Mobile, Alabama 36688

TRAINEESHIPS

POSTDOCTORAL TRAINEESHIP in auditory pharmacology-biochemistry, auditory physiology, anatomy, psychophysics research areas; transmitter identification and mechanisms in auditory periphery; mechanism of chemical ototoxicity. Courses available in neuropharmacology, anatomy, neurophysiology, auditory physiology, and biochemistry.

Trainees supported by NIH postdoctoral training grant at standard stipend levels. Research activities at both Tulane University, Department of Pharmacology, and Louisiana State University, Department of Otorhinolaryngology, Kresge Hearing Research Laboratory of the South. Send curriculum vitae and letters of reference to:

Charles I. Berlin, Ph.D.
Professor, Otorhinolaryngology and Physiology
Director, Kresge Hearing Research Laboratory
1100 Florida Avenue—Building 147
New Orleans, La. 70119

ASSISTANTSHIPS

GRADUATE STUDENT ASSISTANTSHIPS

Applications are invited from suitably qualified students to study for doctoral degrees in the following fields in the biological sciences:

Developmental Biology and Physiology
Molecular Biology and Genetics
Microbiology and Immunology
Systematics and Ecology
Virology and Oncology

Graduate assistantships will be awarded to successful applicants.

Application materials can be obtained by writing to: Dr. Terry C. Johnson, Professor and Director, Division of Biology, Kansas State University, Manhattan, Kans. 66506.

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STAFF SCIENTIST

(Instrumentation for Materials Characterization)

Assume operational responsibility for electron optical instrumentation, e.g. AMR 1000 SEM, EM 400 STEM, PHI 390 SAM. The responsibilities will include training of users, assisting users in the interpretation of results, supervision of maintenance, and operation of instruments for special projects. A BS or MS in Physical Science and at least five years experience in electron optical instrumentation, especially scanning electron microscopy, are prerequisites. Experience with energy dispersive analysis of x-ray emission and electron microprobe instrumentation is preferred. Salary level (range \$1485-\$2855/Mo.) commensurate with education and experience. Please send two copies of resume to Employment Office, # 1 Cyclotron Road, Lawrence Berkeley Laboratory, University of California Berkeley, CA 94720.



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PRESIDENT

University Corporation for Atmospheric Research (UCAR) Boulder, Colorado

The Search Committee of the UCAR Board of Trustees invites nominations and applications for the President and Chief Executive Officer of UCAR. The Board of Trustees expects to fill the position promptly and seeks to have the individual in office no later than 1 July 1980.

UCAR is a private, nonprofit consortium of 44 U.S. and 2 Canadian institutions with graduate programs in the atmospheric sciences and related fields. UCAR's major activities consist of overseeing the programs of the National Center for Atmospheric Research (NCAR) in Boulder, Colorado and managing its operation; where appropriate, advocacy of the atmospheric sciences; the planning and conduct of special, cooperative atmospheric research programs; and fostering atmospheric research in the national interest.

To be considered for the UCAR presidency, a person should have demonstrated imaginative scientific leadership and sound management ability. A complete description of the duties and responsibilities of the President and qualifications for the candidates may be obtained by writing to Dr. Gordon (address listed below). Applications and nominations, which must be postmarked no later than 1 November 1979, should be addressed to:

Dr. William E. Gordon
Chairman, Search Committee
UCAR
P.O. Box 3618
Boulder, Colorado 80307

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Committee on Scholarly Communication with the People's Republic of China
(CSCPRC)

Announces

TRAINING AND RESEARCH OPPORTUNITIES FOR NATURAL SCIENTISTS, ENGINEERS, SOCIAL SCIENTISTS, AND HUMANISTS IN THE PEOPLE'S REPUBLIC OF CHINA (1980-1981)

Deadline for applications: postmarked no later than 2 November 1979.

ADVANCED TRAINING PROGRAM—

Fellowships of ten months duration, beginning September 1980, are available for individuals beyond the bachelor's level, with preference given to those working at the predoctoral level, for coursework and language study in China. Most applicants will be placed in Chinese universities and institutions requiring advanced Chinese language skills. A small number of fellowships for language study at Beijing Language Institute will be awarded to non-China specialists concentrating on Chinese language study. Basic eligibility includes U.S. citizenship, receipt of bachelor's degree, 3 years of modern Chinese (except for non-China specialists where somewhat less competence will be considered). Individuals with doctoral degrees or equivalent will not be considered for this program. All applicants will be tested for language level as part of the application process.

RESEARCH PROGRAM

Research grants are available primarily for scholars who have received the Ph.D., but also for a limited number of especially well-qualified advanced doctoral candidates. U.S. citizenship is required. Applicants must present carefully formulated research proposals expected to bring successful results within the present Chinese academic and research context. Grant tenure will normally be three months to one year in the natural sciences and engineering and six months to one year in social sciences and humanities. Grant tenure will fall between June 1980 and September 1981.

The Advanced Training and Research Programs are administered by the CSCPRC as federally funded programs on behalf of the U.S. government.

SENIOR SCHOLAR PROGRAM—

The CSCPRC may continue a Senior Scholar Research Program in academic year 1980-1981. Application to the program is limited to researchers at the associate professor level or above. The Senior Scholar Research Program may not be applied to independently of the Research Program.

Applications for all programs are available from:

Committee on Scholarly Communication with the People's Republic of China
National Academy of Sciences
2101 Constitution Avenue, NW
Washington, D.C. 20418
Telephone: 202-389-6136

RESEARCH INVESTIGATOR

The National Institute of Environmental Health Sciences, National Institutes of Health, Public Health Service, invites applications for a position in the Laboratory of Animal Genetics. The incumbent will plan and conduct original/independent and collaborative research studies of the structure, organization, and regulation of genes in eukaryotic organisms. He/she will have primary responsibility for research projects designed to clone specific genes of *Drosophila* as recombinant DNA sequences.

This position requires a Ph.D. or equivalent experience in Genetics, Biochemistry, Molecular Biology, or a closely related field, and post-doctoral experience in molecular or biochemical genetics (e.g., recombinant DNA techniques, nucleic acid hybridization, electron microscopy of nucleic acid molecules, etc.). This position will be filled through Federal Civil Service, or PHS Staff Fellowship, appointment. Salary is \$15,800 to \$31,000 depending on qualifications. Send letter of application, curriculum vitae, and names and addresses of references by November 23, 1979 to:

Dr. Burke H. Judd
NATIONAL INSTITUTE OF
ENVIRONMENTAL HEALTH
SCIENCES
P.O. Box 12233
Research Triangle Park, NC 27709
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FELLOWSHIPS

—Unique Opportunity— Stanford University NSF Postdoctoral Fellowship in Molecular Biology and Computer Science \$14,000 per annum

Applicants should be familiar with the techniques of modern molecular biology and be interested in entering the field of computer science. Previous programming experience is useful but not essential. Responsibilities will include development and maintenance of a knowledge base of current laboratory techniques for use with an advanced model of automated experimental planning. One goal of this program is to train an individual for a career in computer science as applied to molecular biology and genetics. While the fellowship will be awarded through the Department of Computer Science, the fellow will interact regularly with research groups in the Departments of Biochemistry and Medicine.

Send résumé and the names of three references to either:

Dr. Douglas Brutlag
Department of Biochemistry

or
Dr. L. H. Kedes
Department of Medicine
Stanford University
School of Medicine
Stanford, California 94305

Equal Opportunity through Affirmative Action

POSTDOCTORAL FELLOWSHIPS MISSOURI INSTITUTE OF PSYCHIATRY

Postdoctoral research fellowships for M.D.'s and Ph.D.'s are immediately available at the Missouri Institute of Psychiatry (MIP), Saint Louis, Missouri. Special research emphases are available in mental health computer application, neurochemistry, social or urban studies, and some areas of clinical research. Although the program is conceptualized as a 2-year fellowship, consideration of 1-year appointments is possible. MIP is a St. Louis segment of the University of Missouri-Columbia, School of Medicine, with faculty members holding academic appointments in the Department of Psychiatry and Biochemistry. All fellows will receive academic appointments in appropriate departments. For further information, applicants should send a résumé and a brief description of their objectives as a postdoctoral fellow to:

Office of Graduate Education
Missouri Institute of Psychiatry
5400 Arsenal Street
St. Louis, Missouri 63139

The University of Missouri is an Equal Opportunity Employment Institution.

POSTDOCTORAL FELLOWSHIP

Position available in area of development neurobiology, with research focused on morphological studies of abnormal brain development. Experience in electron microscopy desirable. Send curriculum vitae and names of three references to:

Dr. Ian S. Zagon
Department of Anatomy
The Milton S. Hershey Medical Center
The Pennsylvania State University
Hershey, Pa. 17033

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 Alpert, Isaac Bekhor, Anna Brownell, Paul Denny, Michael Melnick, Barbara Mills, Cedric Minkin, Gregory Mosser, Steven Schonfeld, Michael Schneir, 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.**

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FELLOWSHIPS

RESEARCH FELLOWSHIP

Imperial Cancer Research Fund, Mill Hill Laboratories, London NW7 1AD, England.

A postdoctoral fellow is sought to join a group working on the control of differentiation of stalk and spore cells in *Dictyostelium discoideum*. The fellow would be expected to employ genetical and biochemical techniques to analyze the cell interactions involved in differentiation in this organism.

Appointment will be for 3 years. Salary with entry according to qualifications and experience within range £5,823. to £7,129.

Further information from: **Dr. J. Gross; telephone 01-959-3236**. Application, with curriculum vitae and names of two referees, should be sent to: **The Secretary, Imperial Cancer Research Fund, Lincoln's Inn Fields, London WC2A 3PX, England, quoting reference 345/79.**

POSTDOCTORAL FELLOWSHIPS FOR RESEARCH TRAINING IN HYPERTENSION AND CARDIOVASCULAR DISEASE

Two-year postdoctoral fellowships starting in 1980 are available for qualified applicants with the M.D. or Ph.D. degree as part of a multidisciplinary training program. Possible areas for intensive research experience include biochemical, physiological, pathological, and epidemiological studies on the cardiac, renal, adrenal, and neural components of vascular regulation. For further information write to: **Dr. R. L. Soffer, Departments of Biochemistry and Medicine, Cornell University Medical College, 1300 York Avenue, New York, New York 10021.**

POSTDOCTORAL FELLOWSHIP available for recent Ph.D. in biochemistry, pharmacology, or toxicology to work in the general area of drug metabolism. Special areas of interest include isolation of cytochrome P-450, enzymatic dehalogenation, and mechanisms of toxicity of halogenated hydrocarbons. Send curriculum vitae and arrange for three letters of reference to be sent to: **Dr. Russell Van Dyke, Mayo Clinic, Rochester, Minnesota 55901.**

Mayo Foundation is an Equal Opportunity/Affirmative Action Institution.

POSTDOCTORAL POSITION

Available for research on preimplantation mammalian embryos. Studies are on micromanipulation of the embryo as well as on biochemistry of development. Apply with curriculum vitae to: **R. L. Brinster, Laboratory of Reproductive Physiology, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, Pennsylvania 19104.**

POSTDOCTORAL FELLOWSHIPS IN PATHOBIOLOGY UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE

Research opportunities are offered to candidates interested in a variety of fields of biomedical research. In order to maximize the interdisciplinary nature of the research projects, a trainee will work jointly with a member of the Department of Pathology and with a member of the Departments of Anatomy and Cell Biology, Biochemistry, Microbiology or Physiology. Some of the major areas of research include: (i) immunogenetics, (ii) immunology and genetics of reproduction, (iii) regulation of DNA synthesis in malignant and normal cells, (iv) somatic cell genetics, (v) metabolism of carbohydrates in normal and transformed cells, (vi) chemical carcinogens, (vii) temperature sensitive virus mutants in neurological infection, (viii) pathogenesis of *Haemophilus influenzae* infections and the genetics of susceptibility, (ix) intestinal ion transport and its alteration by hormones and bile salts, (x) pathogenesis and physiology of inflammatory bowel disease, (xi) biochemistry of carbohydrates in congenital storage diseases, and (xii) biochemical, ultrastructural, and immunological studies on cell membranes with particular emphasis on cell surface antigens.

The program is administered by a committee composed of **R. E. Basford (biochemistry)**, **Thomas J. Gill, III (pathology) (chairman)**, **Christopher C. Widnell (anatomy and cell biology)**, and **Julius S. Youngner (microbiology)**. Stipends, travel, and supplies will be provided by an NIH training grant in pathobiology. Applications indicating the area of research interest should be sent to: **Dr. Thomas J. Gill, III, Department of Pathology, University of Pittsburgh School of Medicine, Pittsburgh, Pa. 15261.** The decisions will be made as soon as possible for the academic year beginning 1 July 1980. An Equal Opportunity/Affirmative Action Employer.

MARKET PLACE

FOR SALE

Used Zeiss EM9S transmittance Electron Microscope with Porter Blum MT-2 ultramicrotome and K.L.B. model 7800 knifemaker, to be sold as a complete unit in place. Successful bidder to disassemble and remove equipment within seven days. Payment by cashier's or certified check before removal. Available for inspection Monday through Friday from 8 a.m. until 5 p.m. at the **Department of Biology, University of South Alabama**. Contact: **R. J. Beyers or E. E. Jones at 205-460-6331**. Sealed bids accepted at **University Purchasing Office, 285 Administration Building, Mobile, Alabama 36688**, until 4 p.m., 9 November 1979.

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Statement required by the Act of 12 August 1970: Section 3685, Title 39, United States Code showing the ownership, management, and circulation of:

SCIENCE published weekly on Friday except the last week in December, at 1515 Massachusetts Avenue, NW, Washington, D.C. 20005. Date of filing: 25 September 1979. This is also the address of the publisher, the editor, and the managing editor, who are, respectively, William D. Carey, Philip H. Abelson, and Robert V. Ormes.

The owner is American Association for the Advancement of Science, 1515 Massachusetts Avenue, NW, Washington, D.C. 20005. Stockholders: None.

Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities: None.

The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during the preceding 12 months.

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I certify that the statements made by me above are correct and complete. (signed) **ROBERT V. ORMES, Managing Editor**

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

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J. ROBERT OPPENHEIMER RESEARCH FELLOWSHIPS

The Los Alamos Scientific Laboratory announces the competition for the 1980 J. Robert Oppenheimer Postdoctoral Fellowship to become available about mid-year. Named in honor of the first Director of the Los Alamos Scientific Laboratory, the appointments are designed to foster continuing contacts between the Laboratory and recent recipients of doctoral degrees who show clear and definite promise of becoming outstanding leaders in scientific research.

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

DURATION One or two years, with possibility of renewal for a third year.

STIPEND \$27,000 per year (12 months). Fringe benefits and incoming travel and moving expenses are provided.

ELIGIBILITY Candidates may be persons just completing their doctoral work, as well as those finishing a current postdoctoral appointment, or junior faculty members seeking support for a period of concentrated research.

PROCEDURES Applications for these fellowships must be submitted by December 31, 1979. Following a preliminary review, candidates whose professional qualifications are judged to be superior will be notified and asked to collaborate with appropriate Laboratory Staff Members in preparing a research proposal primarily reflecting the candidates' ideas and interests. Final selection of a fellowship recipient is based on the merits of the proposed research and the ability and accomplishments of the candidates.

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Madeline Lucas
DIV—79-XX
Los Alamos Scientific Laboratory
P. O. Box 1663
Los Alamos, New Mexico 87545

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(A FIELD ACTIVITY OF THE OFFICE OF NAVAL RESEARCH)
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The **ASSOCIATE TECHNICAL DIRECTOR AND DIRECTOR, OCEAN SCIENCE AND TECHNOLOGY LABORATORY** is responsible for the technical and scientific leadership of a growing marine research laboratory comprised of five technical divisions with currently approximately 175 scientific, professional and technical personnel engaged in basic, applied and exploratory research and development. **Qualifications** required are, as a minimum, 10 years of progressively responsible experience (preferably with professional education at the doctoral level) in research and development in one or more fields of the marine-oriented sciences such as oceanography, geophysics, underwater acoustics and/or ocean technology. At least 3 years of this experience must have involved management of R&D programs, and supervision of professional, scientific and technical personnel at the second or higher level.

The **ASSOCIATE TECHNICAL DIRECTOR AND DIRECTOR, OCEAN PROGRAMS MANAGEMENT OFFICE** is responsible for fostering, managing, reviewing, and coordinating contract research and development programs accomplished by Navy laboratories, research institutions, universities, and industry. The R&D programs range from basic research to exploratory and advanced development in all areas of the marine environment. **Qualifications** required are, as a minimum, 10 years of progressively responsible experience (preferably with professional education at the doctoral level) in research and development in one or more fields of the marine-oriented sciences such as oceanography, geophysics, underwater acoustics and/or ocean technology. At least 5 years of this experience must have involved line management of R&D programs, and supervision of professional, scientific and technical personnel at the second or higher supervisory level.

Interested candidates should submit Standard Form 171, Personal Qualifications Statement, and any additional qualifications material to:

DR. RALPH R. GOODMAN
TECHNICAL DIRECTOR
NAVAL OCEAN RESEARCH AND DEVELOPMENT ACTIVITY
NSTL STATION, MISSISSIPPI 39529

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