

about the physiological functions of carbonic anhydrase has been deduced from experiments in which its activity was reduced or abolished by specific inhibitors such as acetazolamide. The physiological significance of carbonic anhydrase differs somewhat in different tissues, but the general statement can be made that carbonic anhydrase is important in any situation where the formation or dissolution of HCO_3^- is a potentially rate-limiting step in the transfer of HCO_3^- (and often of other ions as well) across cell membranes.

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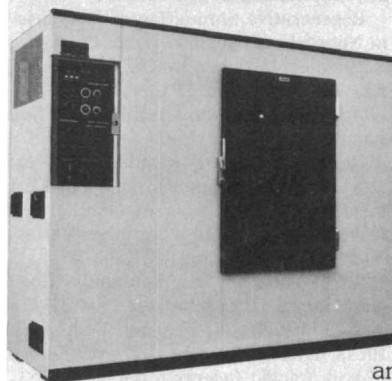
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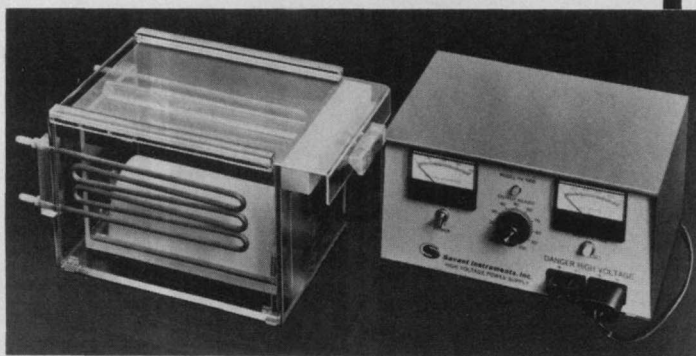
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The Program in Anatomical Sciences and School of Basic Medical Sciences seek an individual to teach in the anatomy curriculum to medical students and in the graduate programs within the School of Life Sciences. Candidates must have a Ph.D. and/or M.D. degree with formal training in gross anatomy and postdoctoral experience. Quality and potential of research program are more important than the specific area, but interests in developmental and cellular neurobiology are preferred. The successful candidate will also be expected to participate in a campus-wide Neural and Behavioral Biology Program. The position is available 21 August 1981 and is a permanent full-time faculty appointment. To ensure full consideration, applicants should submit curriculum vitae, a summary of future research plans, and at least three letters of reference by 15 January 1981 to:

Dr. James A. Weyhenmeyer
Chairperson, Search Committee
190 Medical Sciences Building
University of Illinois
Urbana, Illinois 61801
Telephone: 217-333-2434

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

ANATOMY FACULTY POSITION. There will be an opening for a gross anatomist in the Department of Anatomy, Oral Roberts University Schools of Medicine and Dentistry, in summer 1981. Applicants must have a Ph.D. or M.D. and are expected to conduct an active research program. Rank and salary commensurate with qualifications and experience. A challenging opportunity to participate in new schools in dynamic Christian environment. Send curriculum vitae and names of three references to: Dr. John E. Norvell, Chairman, Department of Anatomy, Oral Roberts University, Tulsa, Oklahoma 74171. Oral Roberts University is an Equal Opportunity/Affirmative Action Employer.

ANATOMIST

The Program in Medical Sciences at Florida State University is seeking a qualified anatomist at the assistant professor level to teach gross anatomy to first-year medical students. The Program in Medical Sciences is a first-year medical program at Florida State and Florida A & M Universities. Students in the program complete their basic medical sciences and then transfer to the University of Florida College of Medicine in Gainesville for the final 3 years of medical school.

Qualifications for the position include a Ph.D. or M.D. degree and experience in teaching gross anatomy. Applicants should have sufficient evidence of scholarship and research potential to qualify for a tenure-track appointment in an appropriate academic department (for example, Biological Science) at Florida State University. Send letters of application along with curriculum vitae and three letters of recommendation to: Dr. Robert H. Reeves, Director, Program in Medical Sciences, Florida State University, Tallahassee, Florida 32306. Application deadline is 31 December 1980.

An Affirmative Action/Equal Opportunity Employer

ASSISTANT PROFESSOR OF ENVIRONMENTAL STUDIES AND GEOGRAPHY

Position available at the University of California, Santa Barbara, effective 1 July 1981. Applications are sought for tenure-track joint appointment between the Department of Geography and Environmental Studies Program. Teaching responsibilities will include environmental impact analysis and a selection from the following areas: soils, biogeography, or land planning. Evidence of research skills and experience in one of these areas is required. Ph.D. required. Research publications and practical experience with environmental impact statements desirable.

Applications with curriculum vitae and names of three references should be sent to: Dr. E. A. Keller, Environmental Studies Program, University of California, Santa Barbara, Calif. 93106. Letters of reference should not be sent until requested. Applications must be postmarked no later than 15 February 1981. The University of California is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

Temporary faculty position. **ANIMAL PHYSIOLOGIST.** A temporary, academic year appointment at the assistant-associate professor level is available starting 1 September 1981. Duties include participation in team teaching of undergraduate/graduate courses in animal physiology and human physiology. Expertise in cardiovascular or renal physiology desirable but not essential. Opportunities to conduct research are available. Candidates with Ph.D. or equivalent degree and with teaching experience will be given preference. Send curriculum vitae and inquiries, and arrange to have three letters of evaluation from those well acquainted with your talents sent to: **Professor Norman T. Davis, Physiology Section, U-42, Biological Sciences Group, The University of Connecticut, Storrs, Connecticut 06268.** Closing date: December 1980.

Equal Opportunity Employer.

ANIMAL PHYSIOLOGY/CELL BIOLOGY. Tenure-track position requiring ability to teach animal physiology, cell biology, nonmajors biology course, and an advanced course in your specialty. Ph.D. and some teaching experience required. Simon's Rock is a selective, early entrance, 4-year liberal arts college, with strong emphasis on high-quality teaching and interdisciplinary programs. Send curriculum vitae, transcripts, three letters of reference, and a brief statement of teaching philosophy by 15 January 1981 to: **Dr. E. T. Handelman, Dean of the College, Simon's Rock of Bard College, Great Barrington, Mass. 01230.**

ASSISTANT PROFESSOR (anticipated) tenure-track, with a major background in radiation physics is being sought to serve within the expanding interdisciplinary areas of radiation biophysics, radiation therapy, and associated programs in the biological and physical sciences. Expertise for teaching dosimetry, shielding, and medical physics at the graduate level is required. Research expertise and interest must be in radiation physics. A Ph.D. is required. Starting date is 16 August 1981 (fall academic term). More details will be sent upon request. Send applications, including complete résumé, list of publications, statement of research interests, and three supporting letters, by 15 December 1980 to: **Dr. Ben Friesen, Radiation Biophysics, University of Kansas, 140 NRC, West 15 Street, Lawrence, Kans. 66045.** An Equal Opportunity Employer.

ASSISTANT PROFESSOR IN MICROBIOLOGY AND IMMUNOLOGY at the University of Illinois at the Medical Center. Person with M.D. or Ph.D. having demonstrated research excellence in recombinant DNA/plasmids to help develop programs in areas of environmental pollution and/or bacterial pathogenesis. Selected person must have potential to develop independent research programs in these areas and help teach graduate courses. Send curriculum vitae, bibliography, and names of references by 15 January 1981 to: **Dr. Newton Khoobyarian, Professor and Acting Head, Department of Micro/Immunology, University of Illinois at the Medical Center, P.O. Box 6998, Chicago, Ill. 60680.** An Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR, PHYSICS. Four-year state college stressing undergraduate teaching excellence. Ability to teach beginning and advanced physics courses. Some research facilities available, research encouraged. Preference given to candidates able to teach or with commitment to learn to teach computer sciences. Ph.D. or A.B.D. in physics required. Some college teaching experience desirable. Salary: \$16,606 to \$18,267, 10 months, starting January 1981. Send résumés by 8 December 1980 to: **Affirmative Action Office, Ramapo College of New Jersey, 505 Ramapo Valley Road, Mahwah, N.J. 07430.** An Affirmative Action/Equal Opportunity/Disabled Employer. Barrier free.

PROFESSOR OF PUBLIC HEALTH (applied behavioral sciences). Doctoral degree in an appropriate behavioral science area. Concern with understanding social and behavioral factors which influence the health of population groups and upon which maintenance and restorative health interventions and programs must be based; theory relevant to planned change; evaluation efforts and policy decisions for health programs; contribution to basic related research. Ability to offer courses and seminars for masters and doctoral students. *The University of California is an Affirmative Action Employer.* Submit curriculum vitae and publications by 15 January 1981 to: **Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.**

POSITIONS OPEN

ASSISTANT PROFESSOR OF PHYSIOLOGY

This is a tenure-track position in a department that presently consists of one adjunct and five full-time faculty members. The position can be filled any time after 1 December 1980.

The Quillen-Dishner College of Medicine will start its fourth class of medical students in fall 1981. The presently authorized class size is 48 and future plans are projected for a class size of 72 students. The Graduate School offers the degrees of M.S. and Ph.D. in the biomedical sciences.

Candidates must have the Ph.D. or M.D. degrees and be capable of teaching medical students in areas outside of their own research interests. They will be expected to develop and pursue independent research programs. The research interests of candidates are not critical.

Interested persons should send their curriculum vitae and the names of three references to:

**Robert W. Rasch, M.D., Ph.D.
Professor and Chairman of Physiology
Quillen-Dishner College of Medicine, Box 19, 780A
East Tennessee State University
Johnson City, Tenn. 37614**

East Tennessee State University is an Equal Opportunity/Affirmative Action Employer.

The Civil Engineering Department and the Division of Environmental Studies at the University of California, Davis, seek applications for a regular faculty position at the **ASSISTANT PROFESSOR** level in **POLICY ANALYSIS.** Requirements include Ph.D. degree (or equivalent qualifications) and evidence of scholarly experience and promise in the analysis and evaluation of public policy, with emphasis on any area related to transportation such as energy, environmental quality, or natural resources. Teaching duties will include transportation systems and policy analysis, and may include courses in methods of policy analysis, energy policy analysis, or related areas. The deadline for applications is 15 January 1981. Applicants should submit curriculum vitae, transcripts, the names and addresses (only) of three references, and copies of relevant publications. For further information, contact: **Dr. James E. Wilen, Chair of the Search Committee, Division of Environmental Studies, University of California, Davis, California 95616.**

The University of California is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.

The **Department of Psychology**, University of Georgia, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level beginning in September 1981. A candidate should have a Ph.D. degree in psychology, postdoctoral research experience, a fundable program of research, and demonstrated teaching ability in the areas of physiological and experimental sensory neuropsychology, sensory psychophysiology, and neurobiology. Competence in intra- and extracellular recording techniques as well as psychophysical methods is expected.

Applicants are invited to send, by 1 February 1981, curriculum vitae, names and addresses of three references, and a letter describing research and teaching interest to: **L. J. Peacock, Ph.D., Chairman, Biopsychology Search Committee, Department of Psychology, University of Georgia, Athens, Georgia 30602.** An Equal Opportunity/Affirmative Action Institution.

ASSOCIATE PROFESSOR OF PUBLIC HEALTH (applied behavioral sciences). Doctoral degree in a relevant behavioral science area. Concern with the type and extent of medical and social problems created by substance abuse; social theory that seeks to explain these phenomena; social programs and policies designed to prevent or mitigate problems associated with substance abuse. Ability to offer courses and seminars for masters and doctoral students. *The University of California is an Affirmative Action Employer.* Submit curriculum vitae and publications by 15 January 1981 to: **Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.**

BIOCHEMIST POSTDOCTORAL POSITION in endocrinology research. Studies on hormone receptors and the mechanism of action of steroid hormones. Send application to: **Dr. David O. Toft, Department of Cell Biology, Mayo Medical School, Rochester, Minn. 55901.**

Mayo is an Equal Opportunity/Affirmative Action Institution.

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR OF PUBLIC HEALTH (health and medical care organization and administration). Doctoral degree in an academic or professional area relevant to health and medical care, and at least 2 years either in direct administrative experience or applicable research. Emphasis on analysis and policy formulation for improvement of public sector role. Ability to offer courses and seminars for masters and doctoral students. *The University of California is an Affirmative Action Employer.* Submit curriculum vitae and publications by 15 January 1981 to: **Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.**

ASSISTANT PROFESSOR OF PUBLIC HEALTH (health policy and law). Doctoral degree, preferably in law; may consider those in political science, public administration, public policy, or equivalent. Concern with bridging the fields of health law and administration, planning and policy as related to public sector programs. Ability to offer courses and seminars for masters and doctoral students. *The University of California is an Affirmative Action Employer.* Submit curriculum vitae and publications by 15 January 1981 to: **Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.**

ASSISTANT OR ASSOCIATE PROFESSOR OF PUBLIC HEALTH (health economics). Doctoral degree in economics, business administration, or a closely related field, and interest and qualifications for joint appointment (primary in School of Public Health, secondary in School of Business Administration). As a complement to existing faculty strength in macroeconomics of health, specialist in microeconomics of health service programs and institutions will be concerned with planning, administration, and evaluation of health programs and with related health policy and decision-making. Ability to offer courses and seminars for masters and doctoral students. *The University of California is an Affirmative Action Employer.* Submit curriculum vitae and publications by 15 January 1981 to: **Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.**

ASSISTANT OR ASSOCIATE PROFESSOR OF PUBLIC HEALTH (systems analysis for health services planning and operations). Doctoral degree, preferably in management science, operations research, or systems analysis, and interest and qualifications for joint appointment (primary in School of Public Health, secondary in School of Business Administration). Application of quantitative analysis to health policy decision-making and to the planning, administration, and evaluation of health programs and services in a manner relevant to significant public health issues. Ability to offer courses and seminars for masters and doctoral students. *The University of California is an Affirmative Action Employer.* Submit curriculum vitae and publications by 15 January 1981 to: **Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.**

ASSISTANT PROFESSOR OF PUBLIC HEALTH (public health education). Doctoral degree in health education or related field. M.P.H. desirable. Concern with an interdisciplinary teaching approach relating social and behavioral theory relevant to the practice of health education to a variety of health care settings and with a focus on diverse population groups. Contribute to research upon which policy and program decisions in the social and administrative health sciences can be based. Ability to offer courses and seminars for masters and doctoral students. *The University of California is an Affirmative Action Employer.* Submit curriculum vitae and publications by 15 January 1981 to: **Chairman, Department of Social and Administrative Health Sciences, 517 Warren Hall, School of Public Health, University of California, Berkeley, California 94720.**

Ph.D. BIOLOGY. Competence to teach in the areas of molecular biology, microbiology, development biology, and vertebrate physiology, with specialization in one of these. Submit a letter of application with curriculum vitae to: **Dr. Harold Heie, Vice President for Academic Affairs, Northwestern College, Orange City, Iowa 51041.** Northwestern is an undergraduate Christian liberal arts college affiliated with the Reformed Church in America. *An Equal Opportunity Employer.*

POSITIONS OPEN

ASSOCIATE DIRECTOR COLLEGE OF AGRICULTURE EXPERIMENT STATIONS UNIVERSITY OF IDAHO

The University of Idaho serves the research needs of Idaho through a system of Research and Extension Centers. The associate director and the dean and director of the Agricultural Experiment Stations are responsible for coordinating and administering these statewide research programs. An earned Ph.D. and evidence of success as a scientist are required. Candidates should also have a demonstrated ability to work effectively with both scientists and representatives of the agricultural public. Complete applications, curriculum vitae, and three letters of reference must be postmarked by 15 January 1981. Send applications and inquiries to: **Dr. S. L. Davis, College of Agriculture, University of Idaho, Moscow, Idaho 83843. The University of Idaho is an Equal Opportunity Employer.**

The Department of Ophthalmology, Emory University School of Medicine, seeks one **Ph.D.—BIOCHEMIST/ENZYMOLOGIST** and one **TECHNICIAN** with experience in inflammatory mediators, cell culture, protein purification, and connective tissue to work on mechanisms of corneal destruction (begin 1 February 1981). Appointments and salaries commensurate with experience. Please send curriculum vitae and names of three references to: **Dr. M. Berman, c/o Eye Research Institute of Retina Foundation, 20 Staniford Street, Boston, Mass. 02114** (December 1980 and January 1981); or **c/o Emory University School of Medicine, Department of Ophthalmology, 1339 Clifton Road, NE, Atlanta, Ga. 30322** (February 1981 and beyond). *Emory University is an Equal Opportunity Employer.*

BIOLOGICAL CHEMISTRY/ORGANIC CHEMISTRY—ASSISTANT PROFESSOR

The Division of Nuclear Medicine, UCLA School of Medicine, invites applications from outstanding individuals with research interests in bioorganic chemistry. Position available beginning January 1981. Applicants should submit curriculum vitae, list of publications, three letters of recommendation, and an outline of research interests to: **Chairman, Search Committee, Laboratory of Nuclear Medicine and Radiation Biology, Personnel Division, 900 Veteran Avenue, Los Angeles, California 90024. An Equal Opportunity/Affirmative Action Employer.**

BOTANIST. A tenure-track position at the assistant professor level will be available beginning September 1981. Applicants should have research expertise with higher plants and have the background to teach elementary botany and either microbiology or genetics. Please submit curriculum vitae, a statement of research and teaching experience, transcripts, and three letters of recommendation by 1 January 1981 to: **Dr. Emil Bernstein, Chairperson, Department of Biology, Allegheny College, Meadville, Pa. 16335. Equal Opportunity Employer.**

CHAIRPERSON DEPARTMENT OF BIOCHEMISTRY WEST VIRGINIA UNIVERSITY

West Virginia University School of Medicine is seeking a biochemist with an established record of scholarly achievement, excellence in teaching, and preferably some administrative experience, to chair the Department of Biochemistry. Candidates must have an active research program and a demonstrated ability to generate extramural research support. A strong commitment to excellence in teaching and research within the context of a university medical center is essential. Closing date for applications is 1 January 1981. Qualified applicants should submit their curriculum vitae and the names and addresses of three references to: **Dr. Robert S. McCuskey, Professor and Chairman of Anatomy, West Virginia University Medical Center, Morgantown, West Virginia 26506. West Virginia University is an Affirmative Action/Equal Opportunity Employer.**

PHYSIOLOGIST/ANATOMIST. A tenure-track position at the assistant professor level will be available beginning September 1981. Applicants should have research expertise in systems physiology and be able to teach courses in human anatomy and physiology, comparative anatomy, zoology, and introductory biology. Please submit curriculum vitae, a statement of research and teaching experience, transcripts, and three letters of recommendation by 1 January 1981 to: **Dr. Emil Bernstein, Chairperson, Department of Biology, Allegheny College, Meadville, Pa. 16335. Equal Opportunity Employer.**

POSITIONS OPEN

KENNEDY INSTITUTE OF RHEUMATOLOGY CELL BIOLOGIST

Applications are invited from suitably qualified and experienced scientists with a broad interest in problems of cellular interactions, for a new post at the Kennedy Institute.

This will be an established post at senior level and the successful applicant will be required to set up and lead a new group, reporting to the director, Dr. Helen Muir. The formation of this group will complete the current reorganisation of the Institute, and it will carry out a research programme into aspects, both fundamental and applied, of cell biology relevant to the rheumatic diseases. The post offers excellent opportunities for independent work and for collaboration with the existing Cellular Biology, Clinical Immunology, Biochemistry, and Experimental Pathology Divisions, and with the Immunogenetics Laboratory.

Remuneration will be within ranges III or IV of the Research and Analogous Staff scales of the University of London.

Further details can be obtained from: **The General Secretary, Mathilda and Terence Kennedy Institute of Rheumatology, 6 Bute Gardens, London, W6 7DW, England (telephone: 01-748-9966)**, to whom letters of application, including curriculum vitae and the names of three referees, should be sent by 22 December 1980.

Interviews will be conducted in the new year with a view to filling the post by 1 October 1981 or earlier.

CELL BIOLOGIST—Salary: \$25,620. Work in dynamics of cytoskeletal proteins. Experience molecular biology/cell-free protein synthesis/monoclonal antibodies/protein chemistry preferred. Bachelor's plus 4, master's plus 3, Ph.D. plus 2 years of experience. Send résumé and references to: **Personnel, Position Number 193, New York State Institute for Basic Research, 1050 Forest Hill Road, Staten Island, N.Y. 10314. Affirmative Action/Equal Opportunity Employer, M/F.**

CHAIRPERSON. Department of Biochemistry—Candidates must have substantial background in academic medicine evidenced by a record of excellence in teaching, research, and leadership in medical and graduate education. Interested persons are encouraged to submit their credentials and curriculum vitae to: **Dr. Donald E. Hill, Chairman, Biochemistry Search Committee, Slot 512, University of Arkansas College of Medicine, University of Arkansas for Medical Sciences, 4301 West Markham Street, Little Rock, Arkansas 72201. Affirmative Action/Equal Opportunity Employer.**

CLINICAL CHEMIST

The Department of Laboratories at the Long Beach Veterans Administration Medical Center, a 1250-bed facility, is currently seeking a Board-certified pathologist with expertise in clinical biochemistry to direct the Biochemistry Section of the clinical laboratories. A joint appointment with the associated University of California, Irvine, will be provided commensurate with academic accomplishments. Excellent opportunities for research and teaching are available. *An Affirmative Action Employer.* Send curriculum vitae and references to: **S. T. Nerenberg, M.D., Ph.D., Chief of Laboratory Service, VA Medical Center, 5901 East 7 Street, Long Beach, Calif. 90822, by 29 December 1980.**

DIRECTOR REHABILITATIVE ENGINEERING R & D VETERANS ADMINISTRATION

The Veterans Administration seeks qualified candidates for the position of director, Rehabilitative Engineering Research and Development Service (RER & DS). Director is responsible for nationwide program of R & D in devices, techniques, and concepts of rehabilitation encompassing areas of prosthetics, orthotics, orthopedics, spinal cord injury, sensory and mobility aids. RER & DS supports over 70 research projects budgeted at \$9 million in FY 81. Experience in rehabilitative engineering and in management of R & D programs are both essential. Applicants must be licensed to practice medicine. U.S. citizenship required. This is an excepted service position with base salary to \$50,112 per annum and bonus pay to \$27,500. Initial appointment is for 4 years, subject to extension. Submit curriculum vitae to: **Richard J. Greene, Ph.D., M.D., Chairman, Search Committee (153), Veterans Administration, 810 Vermont Avenue, NW, Washington, D.C. 20420, or telephone: 202-389-2666. Application deadline: 31 December 1980. The Veterans Administration is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

Carnegie-Mellon University invites applications for a tenure-track faculty position in **CHEMICAL PHYSICS**. Outstanding candidates active in any area of fundamental physical **magnetic resonance** spectroscopy related to chemical or molecular science are encouraged to apply. *Carnegie-Mellon University is an Equal Opportunity Employer and adheres to Affirmative Action hiring policies. Applications from women and minority candidates are most welcome.* Please write, submitting curriculum vitae, list of publications, reprints of representative papers, and at least two letters of reference, to:

**Professor Miguel Llinás
Chairman, Search Committee
Department of Chemistry
Carnegie-Mellon University
Pittsburgh, Pa. 15213**

Carnegie-Mellon University invites applications for a tenure-track faculty position in **PHYSICAL CHEMISTRY**. Outstanding candidates active in any area of fundamental physical research related to chemical or molecular science are encouraged to apply. *Carnegie-Mellon University is an Equal Opportunity Employer and adheres to Affirmative Action hiring policies. Applications from women and minority candidates are most welcome.* Please write, submitting curriculum vitae, list of publications, reprints of representative papers, and at least two letters of reference, to:

**Professor Miguel Llinás
Chairman, Search Committee
Department of Chemistry
Carnegie-Mellon University
Pittsburgh, Pa. 15213**

CLINICAL RESEARCH COORDINATOR—The Ophthalmology Department of the School of Medicine at Emory University is seeking a coordinator for funded national, multicenter, university-based trial of eye surgery. Individual must be able to work independently and coordinate well with physicians and biostatistical colleagues. Minimum requirements: master's degree in public health, Ph.D. in clinical epidemiology or equivalent experience in coordination of clinical trials, including project design with randomization and control patients, population maintenance, and monitoring of accurate long-term data collection. Position requires 5-year commitment and travel. To apply, send letter of application, résumé, and names and addresses of three professional references to: **Emory University, Employment Center, Trimble Hall, Atlanta, Ga. 30322. An Equal Opportunity/Affirmative Action Employer**

CANCER CENTER DIRECTOR. Medical scientist with experience in research, teaching, administration, and patient care to head diversified group of medical school faculty members with a common interest in oncology. NCI-funded center. Applicant should have at least 15 years of postdoctoral experience, an established reputation in the field, and presently be at senior academic rank. *Affirmative Action/Equal Opportunity Employer.* Send credentials to: **R. W. Prichard, M.D., Wake Forest University, Bowman Gray School of Medicine, Winston-Salem, N.C. 27103.**

ELECTRON MICROSCOPIST, Ph.D., with diagnostic or research experience in anatomy or pathology, technically expert in electron microscopy, wanted for private medical school affiliated hospital. Primary duty in diagnostic surgical pathology and cytology, with opportunity for teaching and clinical research. Salary open, excellent benefits. Submit inquiries with curriculum vitae to: **W. H. Kern, M.D., Director, Department of Pathology, Hospital of the Good Samaritan, 616 South Witmer Street, Los Angeles, Calif. 90017.**

ENVIRONMENTAL STUDIES—Acting director of interdisciplinary program in a liberal arts college for women, academic year 1981-1982 only. Responsibilities include coordination of a team-taught core course in the fall semester, its sequel in the spring, another course (applicants should specify preference) in the fall, and the senior seminar in the spring. In addition to classroom teaching, the acting director will supervise a student-managed water quality surveillance project; this latter duty will commence 1 July 1981. Doctorate preferred but not required. Rank and salary open. Address letter and résumé to: **Director, Environmental Studies Program, Drawer Z, Sweet Briar College, Sweet Briar, Va. 24595. Sweet Briar College is an Equal Opportunity Employer.**

POSITIONS OPEN

ECOLOGIST

The Department of Biology at West Virginia University invites applications for a tenure-track appointment at the rank of assistant professor in the area of ecology. This appointment is contingent upon funding and would be available 16 August 1981. The applicant must: (i) be able to teach an undergraduate core course in modern ecology and population biology, and a graduate course in his/her area of specialization, (ii) participate in graduate education and training, and (iii) demonstrate potential for establishing a strong research program. Postdoctoral experience preferred. Please submit, before 1 February 1981, curriculum vitae, copies of recent publications, names of three references, and a description of future research plans to: **Ecologist Search Committee, Department of Biology, West Virginia University, Morgantown, West Virginia 26506. An Equal Opportunity/Affirmative Action Employer.**

EXECUTIVE DIRECTOR OF PROFESSIONAL ASSOCIATION. The American Water Resources Association (AWRA) solicits applications for the position of executive director. With headquarters in Minneapolis, at the St. Anthony Falls Hydraulic Laboratory, University of Minnesota, AWRA is a multidisciplinary professional organization dedicated to the advancement of water resources research, planning, development, management, and education. Its bimonthly publication, the *Water Resources Bulletin*, is recognized as a leading technical journal in the field and provides an outlet for papers in all aspects of water resources. Applicants should have administrative or managerial abilities and experience. Training and background in a water related field are desirable. Salary is commensurate with qualifications and experience. Send résumé and names of three references, no later than 15 January 1981, to: **William R. Boggess, General Secretary AWRA, Laboratory of Tree-Ring Research, University of Arizona, Tucson, Arizona 85721. An Equal Opportunity Employer.**

FACULTY APPOINTMENT. The Department of Microbiology, College of Medicine, has an opening for an assistant professor. Responsibilities include teaching graduate and medical students. Preference will be given to candidates who will develop a strong research program in the control of gene expression or gene organization in prokaryotes, eukaryotes, or viruses. Use of recombinant DNA techniques is especially desirable. Postdoctoral experience is required. Send curriculum vitae and three references to: **Dr. Paul S. Sypherd, Department of Microbiology, University of California, Irvine, College of Medicine, Irvine, Calif. 92717. An Affirmative Action Employer.**

FACULTY POSITION in physical chemistry or chemical physics. Applications or nominations are invited for an opening in the Department of Chemistry at Massachusetts Institute of Technology (MIT). Applicants should have demonstrated ability to do outstanding independent research in chemistry and show promise of excellence in teaching. Appointment will probably be at the assistant professor level, but applications and nominations for other levels will be considered. Candidates should submit curriculum vitae, a publications list, a description of research interests, and have three letters of recommendation sent not later than 15 February 1981 to: **Professor J. L. Kinsey, Room 18-399, MIT, Cambridge, Mass. 02139. MIT is an Equal Opportunity/Affirmative Action Employer.**

The Department of Electrical Engineering of Stanford University invites applications for a **FACULTY POSITION** for research and teaching in the combined area of radioscience and either information systems or computer systems. Research in radioscience currently includes ionospheric and magnetospheric radio, radio and radar astronomy, planetary radioscience, radar oceanography, communication satellite systems, tropospheric propagation, and solar-terrestrial relationships. Applicants should have background in radio and space science and also in one or more other areas such as signal processing, communication systems, computer systems, analog and digital instrumentation, and analytical and computational techniques. All faculty levels will be considered for a position beginning with the fall quarter 1981.

Stanford University is an Affirmative Action/Equal Opportunity Employer, and welcomes applications from women and minority groups.

Please submit as soon as possible detailed résumés, including names of references, to: **Professor Robert A. Helliwell, Department of Electrical Engineering, Stanford University, Stanford, Calif. 94305.**

POSITIONS OPEN

FACULTY POSITION, IMMUNOLOGY. The Department of Microbiology, College of Medicine, has an opening at the assistant or associate professor level. Responsibilities include teaching graduate and medical students. Candidates would be expected to develop a strong research program involving fundamental biochemical or genetic studies in an area of immunology. Applicants with substantial training or research experience in biochemistry and molecular biology are preferred. Postdoctoral experience is required. Send curriculum vitae and references to: **Dr. Paul S. Sypherd, Department of Microbiology, University of California, Irvine, College of Medicine, Irvine, Calif. 92717. An Affirmative Action Employer.**

FACULTY POSITION CORNELL UNIVERSITY

Assistant professor of natural resources, available July 1981. Research and teaching with resource policy and planning emphasis. Prefer forestry background. Tenure-track Ph.D. required. (Assistant professors with one or more years experience are encouraged to apply as well as those expecting to receive a Ph.D. before 1 July 1981.) Closing date for applications: 15 January 1981. Contact: **Dr. B. J. Wilkins, Chairman, Search Committee, Department of Natural Resources, New York State College of Agriculture and Life Sciences, Ithaca, N.Y. 14853.**

Cornell University is an Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

Applicants are solicited for a faculty position in the following department:

MICROBIOLOGY (Number 265)—Medical microbiologist; adjunct assistant or associate professor. A temporary 12- to 18-month position beginning 1 January 1981. Ph.D. with teaching experience essential. Postdoctoral experience desirable. Primary responsibilities: graduate, medical, and dental student instruction. Research opportunities available. Salary and rank commensurate with ability and experience. Applications accepted until 1 January 1981.

Applicants should send curriculum vitae, identifying vacancy number for which they are applying, to: **Thomas N. Lynn, M.D., Dean, College of Medicine, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Okla. 73190. We are an Equal Opportunity Employer.**

The Biology Department, Southwest Texas State University, announces a **FACULTY POSITION** in mammalian or environmental physiology and toxicology open for the 1981 fall semester. This is a tenure-track position at the assistant professor rank and requires the Ph.D. degree. Responsibilities of the position include coordinating human anatomy and physiology laboratories; teaching human anatomy and physiology, toxicology, and general biology; thesis supervision on the M.S. level; and individual research in the field of toxicology. Applicants forward curriculum vitae, official transcripts, and at least three letters of recommendation prior to 5 January 1981 to: **Dr. H. H. Hannan, Chairman, Biology Department, Southwest Texas State University, San Marcos, Texas 78666. An Equal Opportunity/Affirmative Action Employer.**

THE UNIVERSITY OF IOWA

FACULTY POSITION IN BIOCHEMISTRY—The department invites applications and nominations for a faculty position that will become available 1 July 1981, at the level of assistant, associate, or full professor. Responsibilities will include participation in the department's teaching programs for undergraduate, graduate, and professional students and the development of a vigorous independent program of scholarly research. Applicants must hold a doctoral degree and preferably should have postdoctoral or previous faculty experience. Outstanding applicants with expertise in any area of biochemistry or closely related disciplines will be considered, and we expect that the new appointee will complement the expertise of our current faculty. *Women and minority candidates are especially encouraged to apply.* Applicants should indicate the rank for which they wish to be considered and send curriculum vitae, including a list of publications and summary of future research plans, as well as the names and addresses of three individuals who may be contacted for letters of reference, to: **Dr. Bryce V. Plapp, Chairman, Faculty Search Committee, Department of Biochemistry, The University of Iowa, Iowa City, Iowa 52242. The University of Iowa is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

FOOD MICROBIOLOGIST. The Department of Food Science, North Carolina State University, is inviting applications for a tenure-track assistant professor position in food microbiology. This research (80 percent) and teaching (20 percent) position is available as soon as a qualified applicant is secured. Salary will be commensurate with qualifications and experience. Applicants should possess a Ph.D. in microbiology or food science with a demonstrated interest in food microbiology. Responsibilities include establishment of a research program in the general area of spores and microbial physiology and their relationship to food processing. Applicants should send résumé, transcripts, and have three letters of reference sent to:

**Dr. Harold E. Swaisgood
Department of Food Science
North Carolina State University
Raleigh, N.C. 27650**

Application deadline is 31 December 1980.

An Equal Opportunity/Affirmative Action Employer

IMMUNOLOGIST. Postdoctoral position available immediately for in vivo and in vitro studies of the immunologically active hormone-like peptide, tuftsin. Background in cellular or tumor immunology preferred. Send résumé and the names of three references to: **Dr. Kenji Nishioka, Surgical Research Laboratory, BF-426, The University of Texas System Cancer Center M. D. Anderson Hospital and Tumor Institute, Houston, Texas 77030. An Equal Opportunity Employer.**

NEUROIMMUNOLOGY POSTDOCTORAL

Intensive and basic research training related to biochemical, genetic, and immunopathologic determinants of experimental neuroautoimmunologic disorders with extension to the MS patient. Position available 1 July 1981. Send application to:

**Dr. Philip Y. Paterson
Microbiology-Immunology Department
Northwestern University Medical Center
303 East Chicago Avenue
Chicago, Illinois 60611**

DEANSHIP

COLLEGE OF AGRICULTURE UNIVERSITY OF WISCONSIN-RIVER FALLS

POSITION: Dean, College of Agriculture. Twelve-month appointment with a 1 July 1981 starting date.

RESPONSIBILITIES: Administration and responsibility for all academic, extension, and research programs within the College of Agriculture.

QUALIFICATIONS: Earned doctorate in agriculture related field, college teaching experience, administrative experience, experience in research and/or extension, as well as interest in statewide agricultural programs.

SALARY: \$45,000 to \$50,000, depending upon qualifications.

The University of Wisconsin-River Falls is a non-land grant institution located in west central Wisconsin, 28 miles from St. Paul, Minnesota. It consists of a College of Arts and Sciences, College of Education, College of Agriculture, Division of Student Affairs, and a Graduate School. The 1980-1981 university enrollment is 5300 with 325 faculty members.

The College of Agriculture is divided into five academic departments: Agricultural Economics, Agricultural Education, Agricultural Engineering Technology and Industrial Education, Animal and Food Science, and Plant and Earth Science. In recent years, student enrollment in the College of Agriculture has been increasing at a rate of about 12.5 percent per year, with a current total of 1865 majors and 53 faculty members and academic staff.

Send letter of application, curriculum vitae, and three current letters of recommendation to:

**Dr. Vern Elefson
Chairman, Search and Screen Committee
College of Agriculture
University of Wisconsin-River Falls
River Falls, Wisconsin 54022**

Deadline for application is 1 January 1981.

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

Two full-time tenure-track positions open in Department of Zoology: **GENETICIST** and **VERTEBRATE MORPHOLOGIST**. Positions open beginning August 1981. Ph.D. required. Teaching experience desirable. Applicants must have a strong commitment to teaching in a small liberal arts college environment. The courses to be taught by the successful applicants will include genetics, biochemistry, human anatomy (primarily for nursing students), comparative vertebrate anatomy, and embryology. Applicants must be broadly trained in zoology because they will also be expected to participate in the introductory courses. Send résumé, transcripts, and three letters of recommendation to: **Dr. Charles E. Mays, Chairman, Search Committee, Department of Zoology, DePauw University, Greencastle, Indiana 46135**. Applications received by 15 January 1981 will receive fullest consideration.

An Equal Opportunity/Affirmative Action Employer

IMMUNOLOGIST—IMMUNOCHEMIST BIOLOGICAL CHEMISTRY

Immediate opening for recent Ph.D. graduate as postdoctoral research associate/instructor to participate in challenging research on the regulation and control of the antibody response, at modern urban research center. A competitive stipend will be offered. Send curriculum vitae and names and addresses of three references to: **Dr. Bernard Friedenson, Department of Biological Chemistry, University of Illinois at the Medical Center, 1853 West Polk Street, Chicago, Illinois 60612**.

Equal Opportunity/Affirmative Action Employer

University of Michigan Medical School, Department of Internal Medicine, Division of Gastroenterology, has a position available at the **INSTRUCTOR THROUGH PROFESSOR** level. Applicant must have a commitment to full-time academic medicine in either the clinical or research track at the University of Michigan Hospital. Board-certified and/or -eligible in internal medicine and gastroenterology. Record of productivity in creative scholarly research, evidence of capacity to initiate an independent research program, dedication to teaching and the care of patients, and independent patient care activities. Applicants should reply to: **Keith Henley, M.D., Division of Gastroenterology, R6592 Kresge I, Box 022, University Hospital, Ann Arbor, Mich. 48109**. A nondiscriminatory, Affirmative Action Employer. Code 116BO.

MAMMALOGIST—Applications are invited for a curatorial position in the Division of Mammals of Field Museum of Natural History. The position involves both research and curatorial responsibilities, is full-time and on a 12-month basis, and is scheduled to begin in early 1981. Applicants must have a Ph.D. with primary interest in and commitment to systematic mammalogy in the broadest sense and to the curation of a major mammal collection. Other duties may involve participation in exhibition and education functions of Field Museum. Opportunities exist for work with graduate students. The conditions of appointment, including salary and rank, are dependent on qualifications and experience. Curriculum vitae, description of research experience and future plans, reprints of publications, and letters from three referees must be sent by 15 January 1981 to: **Dr. Robert K. Johnson, Chairman, Search Committee, Department of Zoology, Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, Illinois 60605**.

An Equal Opportunity Employer

VERTEBRATE NEUROBIOLOGIST. Tenure-track position as assistant/associate professor rank available September 1981 in CNS neurology. The appointee will be expected to develop an independent research program in such areas of neuroscience as integration of motor sensory activity, locomotor control, or development of the vertebrate CNS. Evidence of strong research activity and productivity is essential. Other responsibilities include participation in team-taught courses in neurobiology and animal physiology (graduate and undergraduate). A Ph.D. degree or equivalent is required. Preference will be given those with teaching, postdoctoral experience, or the demonstrated ability to obtain extramural support. Faculty rank and salary will be commensurate with experience. Send curriculum vitae, a statement of research plans, and include at least three names of references by 5 December 1980 to: **Professor G. R. Pilar, Physiology Section, U-42, Biological Sciences Group, The University of Connecticut, Storrs, Connecticut 06268**.

Equal Opportunity Employer

POSITIONS OPEN

MICROBIAL GENETICS/BIOCHEMISTRY postdoctoral position available early 1981 for enzymologist interested in molecular biology to work on transposon mutagenesis and regulation of isoleucine biosynthesis in *E. coli* and *S. typhimurium*. Salary: \$13,000. Send curriculum vitae and names of references to: **Dr. Claire M. Berg, Box U-131, Biological Sciences, University of Connecticut, Storrs, Connecticut 06268**.

Equal Opportunity Employer

MICROBIOLOGIST

The Department of Laboratories at the Long Beach Veterans Administration Medical Center, a 1250-bed facility, is currently seeking a Board-certified pathologist with expertise in clinical microbiology to direct the Microbiology Section of the clinical laboratories. A joint appointment with the associated University of California, Irvine, will be provided commensurate with academic accomplishments. Excellent opportunities for research and teaching are available. *An Affirmative Action Employer*. Send curriculum vitae and references to: **S. T. Nerenberg, M.D., Ph.D., Chief of Laboratory Service, VA Medical Center, 5901 East 7 Street, Long Beach, Calif. 90822** by 29 December 1980.

DEPARTMENT OF MOLECULAR BIOLOGY VANDERBILT UNIVERSITY

A tenured faculty position is available for a productive investigator in the biophysical aspects of molecular biology. The rank is dependent on qualifications. Candidates should have a noteworthy research program. Please send informal inquiries or curriculum vitae, list of publications, and letter about research and teaching interests to: **Dr. Oscar Touster, Chairman, Department of Molecular Biology, Box 1820, Station B, Vanderbilt University, Nashville, Tenn. 37235**. *An Affirmative Action/Equal Opportunity Employer*.

THE DEPARTMENT OF ZOOLOGY

of the
University of California, Davis
announces the opening
of a faculty position of
NEUROBIOLOGIST

The Department of Zoology, University of California, Davis, currently has a tenure-track opening for a neurobiologist with interests in cellular approaches to understanding the functions and organization of nervous systems. Level of appointment dependent on qualifications. Teaching duties will include an upper division course in neurobiology and an introductory biology course. Send curriculum vitae, a description of research programs and future plans, a summary of teaching experience and capabilities, the names and addresses of three referees, and copies of publications to: **Dr. John H. Crowe, Chair, Search Committee, Department of Zoology, University of California, Davis, Calif. 95616**. Screening of applications will begin 2 January 1981; closing date for receipt of applications is 15 January 1981. *The University of California is an Equal Opportunity/Affirmative Action Employer*.

POSTDOCTORAL POSITION to study the pathogenesis of *Treponema pallidum* disease including surface characteristics of the spirochete and biochemical-molecular properties of the host-parasite interaction. Send curriculum vitae and letters of reference to: **Joel B. Baseman, Department of Microbiology, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, Texas 78284**. *An Affirmative Action/Equal Opportunity Employer*.

POSTDOCTORAL and/or TECHNICAL. Two positions in visual psychophysics/computer image processing available immediately. Qualifications include programming and hardware skills in both pixel and vector computer graphics systems, sophistication in spatial and temporal frequency analysis, and interest in higher-order perception in humans. Please send résumé and three references to: **Dr. Naomi Weisstein, State University of New York at Buffalo, 4230 Ridge Lea Road, Buffalo, N.Y. 14226**.

POSTDOCTORAL POSITION available after 1 January 1981 to study aspects of genetic recombination in *E. coli* and bacteriophages. Analysis of dependence of enzymatic requirements on particular parental structures used, and development of in vitro assays. Analysis of cellular functions involved in transposition. Send curriculum vitae and names of references to: **K. B. Low, Radiobiology Laboratories, Yale University School of Medicine, New Haven, Connecticut 06510**.

POSITIONS OPEN

NEUROLOGIST—IMMUNOLOGIST, assistant/associate professor with background in basic immunology to interact with established virology-immunology group beginning July 1981. Candidate should be interested in M.S., ALS, and myasthenia gravis patients. Please send curriculum vitae and two letters of recommendation to: **Dr. Leslie P. Weiner, Chairman and Professor, Neurology, University of Southern California School of Medicine, McKibben Annex, Room 142, 2025 Zonal Avenue, Los Angeles, Calif. 90033**. *An Affirmative Action/Equal Opportunity Employer*.

NEUROPATHOLOGISTS

The Pathology Department of the University of California, Irvine, and the Long Beach Veterans Administration Medical Center are jointly seeking the services of two Board-certified neuropathologists for their conjoined programs in neuropathology. Assigned academic rank will be commensurate with experience and academic accomplishments. Excellent opportunities for scholarly activities, service, and research are available. *An Affirmative Action Employer*. Send curriculum vitae and references to: **S. T. Nerenberg, M.D., Ph.D., Chief of Laboratory Service, Long Beach VA Medical Center, 5901 East 7 Street, Long Beach, Calif. 90822** by 29 December 1980.

NUTRITIONISTS

Nutritional biochemists—one established scientist and two postdoctoral positions available 1 March 1981. Unique opportunity for experimental nutritionists with interest in the chemical senses (taste and olfaction). All positions require a Ph.D. in nutritional biochemistry, nutrition, or public health. Candidate for senior level position must have postdoctoral experience and/or demonstrated research record. Applicants with training in the areas of trace minerals, hypertension, prostaglandins, or cephalic phases of digestion are of special interest. Other areas of basic or clinical research will also be considered. Potential for postdoctoral to develop into permanent staff position. The Center offers new laboratory facilities in a multidisciplinary research environment. Competitive salary commensurate with experience. Send curriculum vitae, a recent publication relevant to area of interest, and three letters of reference to:

**Chairman of Search Committee
Monell Chemical Senses Center
3500 Market Street
Philadelphia, Pa. 19104**
Equal Opportunity Employer

PATHOLOGY FACULTY POSITIONS—Faculty positions available immediately at associate, instructor, assistant professor, associate professor, and professor level.

Qualifications: must have a M.D. degree, Board-eligibility or equivalent. Must be eligible for Iowa medical license. Responsibilities will be in teaching, research, and service. All areas of academic pathology may apply; however, specific areas of interest are surgical pathology, clinical chemistry, clinical microbiology, transfusion service, and autopsy pathology. Salary is commensurate with training and experience. Excellent fringe benefits.

Qualified applicants send letter referring to this announcement and specify rank at which consideration is requested along with areas of interest; curriculum vitae, and three letters of recommendation to:

**Richard Lynch, M.D.
c/o Department of Pathology
Room 144, Medical Laboratories Building
University of Iowa
College of Medicine
Iowa City, Iowa 52242**

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

RESEARCH SCIENTIST, SG-25

Research scientist needed for program on alcohol research with women. Experience in human behavioral and alcohol laboratory research required. Proven writing and data analysis skills necessary. Graduate degree plus minimum of 3 years of experience in the field. Permanent position. Salary: \$25,420. Send curriculum vitae to:

**Personnel Office
Research Institute on Alcoholism
1021 Main Street
Buffalo, New York 14203
Attention: Dr. Marcia Russell**

Affirmative Action/Equal Opportunity Employer

SENIOR RESEARCH CHEMIST

Expansion of our Drug Metabolism Department has created an industrial career opportunity at the Ph.D. level for a professional in analytical chemistry. The ideal candidate will have at least 2 years of experience beyond the doctoral level dealing with pharmacokinetics and the determination of drugs in biological fluids in addition to a sound background in instrumentation technology.

If you would like to be considered for this professionally challenging responsibility in a growth-oriented company offering excellent salary and benefits and located in a southern metropolitan environment, send résumé and salary requirements in confidence to:

Manager of Personnel Placement
A. H. Robins Company
1407 Cummings Drive
Richmond, Virginia 23220

An Equal Opportunity Employer, M/F

A-H-ROBINS

Scientists for Molecular and Cell Biology Research

The Molecular and Cell Biology Research division of Lilly Research Laboratories has immediate need for individuals to participate in the development of research programs in molecular genetics, with a strong emphasis on recombinant DNA technology.

1. Senior Molecular Biologist (Ph.D.) with postdoctoral experience in nucleic acid enzymology. This position requires experience in enzyme purification and reaction mechanisms.
2. Senior Molecular Biologist (Ph.D.) with postdoctoral experience in DNA cloning in yeasts and/or fungi.
3. Senior Molecular Biologist (Ph.D.) with postdoctoral experience in DNA cloning in prokaryotic species.
4. Associate Biologists (M.S. or B.S.) with experience in nucleic acid biochemistry, molecular genetics, or nucleotide chemistry.

Send résumé with salary requirements to:

Peter D. Cullen
Senior Personnel Representative
Eli Lilly and Company
307 East McCarty Street
Indianapolis, IN 46285



Lilly Research Laboratories
A Division of Eli Lilly and Company
An Equal Opportunity Employer M/F

INTERNATIONAL CROPS RESEARCH INSTITUTE FOR THE SEMIARID TROPICS (ICRISAT)

near Hyderabad, India
needs the following personnel

SOIL AND WATER ENGINEERS (TWO)

(to be based in West Africa and at ICRISAT Center, Hyderabad, India)

Responsible for collection, analysis, and interpretation of research information in management of natural resources and for evaluation of representative farming systems for the region. Qualifications: doctorate with an excellent academic record in soil and water engineering, soil physics, or agricultural engineering, with substantial formal training in hydrology; proven ability for teamwork with other scientists in interdisciplinary research programs. Experience in agricultural research relevant to less-developed countries of the semiarid tropics and at least 7 years of postdoctoral research experience. Ability to speak and write French would be advantageous for the West African post. Fluency in English desirable for the post in India.

PLANT BREEDER (GROUNDNUTS)

(to be based in eastern/central Africa)

Responsible for planning and conducting research to develop varieties and advanced breeding materials in cooperation with a team of international scientists. Qualifications: Ph.D. in plant breeding, with excellent academic record; research experience in plant breeding, preferably of groundnuts, as evidenced by publications/reports. Experience in organization and coordination of research. Knowledge of modern techniques in crop improvement and experience in semiarid tropics would be advantageous. Bilingual ability in English and French preferred.

PLANT PATHOLOGISTS (TWO)

(to be based in East and West Africa)

One each for groundnuts and pearl millets. Responsible to plan and conduct research in cooperation with a multidisciplinary team of international scientists. Research will be problem-solving and field-oriented but requires knowledge of modern laboratory techniques. Qualifications: a doctorate with excellent academic record, demonstrated scientific ability through formal publications, and relevant work experience after postgraduation. Fluency in French desirable for West African post.

SOIL SCIENTIST

(to be based in West Africa)

Responsible to initiate and conduct a research program to elucidate the water and nutrient (especially nitrogen) interactions in soils of the West African Southern-Sahel and Sudanian bioclimatic zones (75 to 90 and 90 to 165 days growing period, respectively) with particular emphasis on studying water and nutrient movement in the soil in relation to cropping systems, soil type, climate, and seasonal weather. Qualifications: a doctorate with excellent academic record and a sound understanding of physical and chemical processes in soil; 7 years of postdoctoral research experience. Fluency in French desirable.

ENTOMOLOGIST (GROUNDNUTS)

(to be based at ICRISAT Center, Hyderabad, India)

Responsible to identify the insect problem in SAT and to determine the approaches whereby short- and medium-term research is likely to be most fruitful. Expected to conduct pest surveys and loss assessment and formulate programs of work leading to control of pests on groundnut crops. Will work in close association with national agricultural research programs and have an important input, particularly in host-plant resistance studies, to the ICRISAT Center program. Research experience in tropical or developing countries desirable. Qualifications: Ph.D. in entomology with an excellent academic record evidenced through formal publications and scientific papers. Should have experience in research in insect ecology and integrated pest management, experience in research work on legumes in a tropical country, and an interest in host-plant resistance and virus/vector relationships.

PLANT PATHOLOGIST (CHICK-PEA)

(to be based at ICARDA, Aleppo, Syria)

Responsible to work, in cooperation with other scientists, on diseases of chick-pea which are important in reducing yields. The research effort will be directed principally at the identification and utilization of stable host-plant resistance and the pathologist will collaborate closely in breeding work. Both laboratory and field research will be involved and the scientist will be expected to travel regionally and conduct off-station trials. Qualifications: Ph.D. in plant pathology with an excellent academic record and specialization in the pathology of legumes. Sound knowledge of the principles of plant breeding, preferably with practical experience in a breeding team. Significant experience, as evidenced by scientific publications and reports, and evidence of the ability to identify resistance to disease and utilize these in crop improvement. Experience in plant pathological problems in a developing country, preferably in the tropics desirable.

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

Send résumé within 90 days of publication to: **Director General, ICRISAT, Patancheru P.O., Andhra Pradesh 502 324, India.**

POSITIONS OPEN

OCEAN SCIENCES CENTER has positions open at all academic levels in physical oceanography and other oceanographic disciplines. We are especially interested in experimental physical oceanographers. A demonstrated capacity for outstanding research in either theoretical or experimental oceanography is essential. Project support from contracts and grants is required of all faculty members. Send curriculum vitae and names of three academic references to: **Dr. Julian P. McCreary, c/o Personnel Department, Nova University, College Avenue, Fort Lauderdale, Florida 33314.** Affirmative Action/Equal Opportunity Employer.

PHARMACOLOGIST—TOXICOLOGIST

Applications are invited from qualified individuals for a unique position of **research assistant professor** in the Department of Biochemical Pharmacology and Toxicology, University of Utah. The primary responsibility of the appointee will be to teach a course entitled "Common Medicines" to undergraduate students in the university. This course, which is offered three times a year, provides the nonhealth science student with an appreciation of the appropriate use of prescription and nonprescription drugs. Opportunities will also be provided the appointee to instruct in the graduate program that is funded by an NIH training grant in pharmacology and toxicology and to carry out independent research. Interested applicants should send curriculum vitae and the names of three references to:

Dr. James W. Gibb, Chairman
Department of Biochemical Pharmacology
and Toxicology
University of Utah
Salt Lake City, Utah 84112

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

PHYSIOLOGIST (research)—Associate (salary dependent on experience). Required to work on the development of a computerized system of single breath tests to measure pulmonary function during weightlessness. Applicant should have a good training in pulmonary physiology, experience with computers and data processing, experience in the aerospace industry, and familiarity with processing forms for government research. Please send curriculum vitae and three confidential reference letters. *The University of California is an Equal Opportunity/Affirmative Action Employer.* **Dr. John B. West, Department of Medicine, M-023, University of California, San Diego, La Jolla, Calif. 92093.**

PLANT SCIENTIST. Applications are invited for a tenure-track teaching position in biology to begin 15 August 1981. Candidates should have broad training in cells through organisms to populations and teaching skills in electron microscopy, both TEM and SEM. Send letter of application, curriculum vitae, transcripts, and three letters of reference by 15 January 1981 to: **Dr. Dean Dillery, Biology Department, Albion College, Albion, Mich. 49224.** An Equal Opportunity Employer.

POSTDOCTORAL POSITION available January 1981 for studies of the regulatory control of transformation and tumorigenicity in human cells. Research will include chromosome and DNA-mediated gene transfer. Experience in molecular genetics and/or cytogenetics preferred. Please send curriculum vitae and names of three references to: **Dr. Eric Stanbridge, Department of Microbiology, University of California, Irvine, Calif. 92717.**

Affirmative Action Employer

POSTDOCTORAL POSITION to study the immunology of leprosy. Expertise in cellular immunology and biochemical techniques required. Send curriculum vitae and three references. Reply to:

Box 275, SCIENCE

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION. Available 1 January 1981 for research in the molecular and cell biology of the mitosis to G₁ transition in synchronized HeLa and adeno2 transformed cells. Studies include survival and fate of cytoplasmic mRNP particles and reassembly of the nucleus and of the nuclear envelope. Salary range: \$11,000 to \$14,000 annually, for a 2-year position. Send curriculum vitae and names of three references to: **Dr. L. D. Hodge, Department of Cell and Molecular Biology, Medical College of Georgia, Augusta, Ga. 30912.** An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POLAR OCEANOGRAPHER/ SEA ICE DYNAMICIST

A position is available under the Intergovernmental Personnel Act of 1970 for persons now employed in state/local government or in colleges and universities. This position is located within the Oceanic Processes Branch of the Environmental Observation Division of the Office of Space and Terrestrial Applications, NASA Headquarters. The position is for 1 year, with the possibility for renewal for an additional year. Pay will be at a level commensurate with experience, and will be established after a review of qualifications.

Candidates must have been employed by the university in a permanent position for at least 90 days or be a career employee of a state or local government. Candidates must also meet the federal qualification standards for the position. These are as follows: a degree in an appropriate field of science, plus 3 years of progressively responsible experience in duties related to the position.

This individual will be responsible for planning, developing, and implementing a scientific research program in satellite remote sensing of oceanic processes in polar regions. A background in polar oceanography, sea ice dynamics, or a closely related field is required; experience in remote sensing, although desirable, is not essential. A Ph.D. or equivalent training and experience is mandatory.

Interested parties should send a current résumé to: **NASA Headquarters, attention: Sarah Keegan, Code EPM-3, Washington, D.C. 20546.**

Selection for this position will be made from otherwise eligible candidates without discrimination for any nonmerit reason such as race, color, religion, sex, national origin, politics, marital status, physical handicap, age, membership or nonmembership in an employee organization, or personal favoritism.

NATIONAL RESEARCH COUNCIL POSTDOCTORAL AWARDS CHEMICAL SYSTEMS LABORATORY

Basic and applied research opportunities exist in areas of: conformational analysis, stereochemistry, oxidation and hydrolysis mechanisms, reactions of radical ions, interfacial aspects of decontamination, penetration mechanisms through membranes, synthesis of reactive liquid crystals, spectroscopy of oriented molecules, chemical reactions on surfaces, ion-hydrate properties, characterization and optical properties of aerosols, dynamics of aerosol clouds, and aerosolization processes. Details on research programs may be obtained from: **Dr. Edward J. Pozniomek, telephone: 301-671-4144.** Chemical Systems Laboratory is located at Aberdeen Proving Ground, Maryland, at the head of the beautiful Chesapeake Bay within easy driving distance of Philadelphia, Baltimore, and Washington. Completed applications must be postmarked not later than 15 January 1981. For application materials and a descriptive brochure write:

Associateship Office (JH 608-E7)
National Research Council
2101 Constitution Avenue, NW
Washington, D.C. 20418

POSTDOCTORAL RESEARCH ASSOCIATE—Position available immediately for an individual to work on immunology and ultrastructure of the human malaria parasite *Plasmodium falciparum*. Candidate must have experience in microbiology, cell biology, or immunology. Salary from \$15,000 to \$17,000 per year, depending upon experience. Send curriculum vitae, reprints, and names of three references as soon as possible to: **Dr. Susan G. Langreth, Department of Microbiology, c/o Personnel/Manpower Division, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Md. 20014.** The Uniformed Services University is an Equal Opportunity/Affirmative Action Employer.

RESEARCH POSITION AVAILABLE

University of California at Santa Barbara. Postdoctoral position to study resuspension and deposition of cohesive sediments in lake and oceanic environments. Knowledge of fluid mechanics essential. Experience in measuring flow velocities, sediment concentrations, and sediment mineralogy is desirable. Salary dependent upon experience. Candidates should send curriculum vitae, publications, and names of three references to: **Wilbert Lick, Department of Mechanical and Environmental Engineering, University of California, Santa Barbara, Calif. 93106.** Position open until filled. An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

PLANT SYSTEMATICS

The Department of Biology, Virginia Polytechnic Institute and State University (VPI & SU), invites applications for a tenure-track position at the assistant professor level. Applicants should have the Ph.D. degree. The candidate will be expected to develop an upper level or graduate course in higher plant biosystematics, participate in the botany teaching program, and maintain an active research program with graduate students pursuing M.S. and Ph.D. degrees in botany. Salary is competitive and commensurate with experience and productivity. Letters of application, curriculum vitae, a list of three to five references, a brief description of career goals and proposed research, and selected pertinent reprints must be received by 15 December 1980. Address to: **Dr. Bruce C. Parker, Chairman, Search Committee, Department of Biology, VPI & SU, Blacksburg, Va. 24061.**

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITIONS ENDOCRINE-REPRODUCTIVE BIOLOGY

The Endocrine-Reproductive Biology Group at the Worcester Foundation for Experimental Biology announces the availability of postdoctoral fellowships. These are for 1 year with possible renewal; the initial stipend is \$12,500. Applicants should submit, in duplicate, their curriculum vitae, a brief summary of research interests, a synopsis of the Ph.D. thesis research, and the names of three persons from whom references may be requested. Candidates should indicate the research areas in which they wish to work if a fellowship is awarded. Applications should be sent to:

Chairman, Search Committee
ENDOCRINE-REPRODUCTIVE
BIOLOGY FELLOWSHIP PROGRAM
c/o Personnel Office
Worcester Foundation for Experimental Biology
222 Maple Avenue
Shrewsbury, Mass. 01545

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION in U.S. Department of Agriculture (USDA) Laboratory is available now for research on the mechanisms of water transport in reverse osmosis (RO) membranes. Experience in the synthesis, treatment, and testing of RO membranes is required. The incumbent will work with two physical chemists who are investigating the molecular properties of RO membranes. Salary: \$22,486. Send résumé or U.S. Office of Personnel Management forms to: **Dr. J. R. Scherer, Western Regional Research Center, USDA, Berkeley, Calif. 94710.** Telephone: 415-486-3407, for details. An Equal Opportunity Employer.

POSTDOCTORAL POSITION

There is an opening for a postdoctoral fellow to join an ongoing research program in biochemical endocrinology of gonadotropins or opioid peptides. The project could involve mechanistic or physicochemical approaches, or both. Candidates with substantial postdoctoral experience may be considered for a nontenure-track faculty appointment at the level of research instructor. Please submit curriculum vitae and three letters of recommendation to: **Dr. J. David Puett, Department of Biochemistry, Vanderbilt University, Nashville, Tenn. 37232.** An Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF ARIZONA PROFESSOR AND CHAIRMAN OF COMMITTEE ON APPLIED MATHEMATICS

This program is that of director of an established interdisciplinary graduate program in applied mathematics, who also serves to encourage and oversee interdisciplinary mathematical scholarship at the university. The program presently has 26 superior graduate students. Many are engaged in research projects under the guidance of professors in departments including Aerospace and Mechanical Engineering, Astronomy, Atmospheric Sciences, Electrical Engineering, Hydrology, Management Information Systems, Mathematics, and Optical Sciences.

Applications for the position are solicited. Excellent research credentials are required. Prior administrative experience is desirable but not essential. The salary is negotiable. Send curriculum vitae and copies of a few important publications by 10 January 1981 to: **Paul C. Fife, Chairman of Search Committee, Building 89, University of Arizona, Tucson, Arizona 85721.** For further information, telephone: 602-626-4664.

An Equal Opportunity/Affirmative Action Employer

Ph.D Biochemist

New England Nuclear is a world leader in the manufacture of radioactive chemical for medical research and diagnosis.

Working in our Biochemistry lab, you will conduct research and development in designing novel approaches for production and analysis of labeled nucleotides. Duties include synthesizing and characterizing labeled nucleotide photo-affinity probes, investigation of techniques to enhance stability and assessment of research pertaining to new product development. Qualified applicants will have a Ph.D in Biochemistry/Molecular Biology and 0-4 years postdoctoral experience with technical expertise in synthesis and purification of nucleotides and nucleotide analogues.

We offer competitive salaries as well as a comprehensive benefits package, including profit sharing and relocation expenses.

Interested applicants should submit a resume to Ann Magno, New England Nuclear, 549 Albany Street, Boston, MA 02118.

NEN New England Nuclear
A BETTER WORLD
an equal opportunity employer

Neurobiologist

Bell Laboratories is currently seeking a professional with advanced degrees in Neurobiology or closely related disciplines. A PhD degree plus a minimum of 2 years of independent research experience or postdoctoral experience is required.

Candidates should have an orientation toward molecular mechanisms and strong research interest in such areas as neuroanatomy, signalling in small systems of neurons and CNS mapping. The position provides opportunity for interaction with other scientists engaged in research spanning diverse areas from CNS modelling and psychophysics to the physiology of hearing.

Please send resume and list of publications to:
**W. A. Blinn, Director, Technical Employment,
Bell Laboratories, Center 831-174, 600 Mountain Ave.,
Murray Hill, N.J. 07974.**



Bell Laboratories

An Equal Opportunity Employer

FILMS IN THE SCIENCES

Reviews and Recommendations

Compiled and edited by
Michele M. Newman and
Madelyn A. McRae

This indispensable reference reviews nearly 1,000 films from all areas of science. It provides detailed summaries, evaluations and complete ordering information for films appropriate to students, teachers, professionals and general audiences. The reviews are grouped by Dewey decimal category and subject/title and film distributor indexes make it easy to use. A must for the librarian, the science teacher, or the curious browser.

182 pages 1980
Cloth: ISBN 87168-304-7 \$14.00

American Association for the Advancement of Science, Box FL4, 1515 Massachusetts Avenue, N.W., Washington, D.C. 20005

Conference on the ENVIRONMENTAL PROTECTION AGENCY's (EPA) GENE-TOX PROGRAM: Review and Evaluation of Selected in vitro and in vivo methods for the Detection of Chemical Mutagens and Genotoxic Agents

3 to 5 December 1980

Sponsored by: Office of Pesticides and Toxic Substances
Place: National Academy of Sciences Auditorium
2101 Constitution Avenue, NW, Washington, D.C.

The purpose of this conference is to present the results of Phase I of the EPA's Gene-Tox Program. Phase I is a review and evaluation of 23 in vitro and in vivo assays for gene mutation, chromosomal aberrations, DNA damage and repair, and oncogenic transformation. Each assay will be discussed in regard to its ability to discriminate between mutagens and nonmutagens and/or carcinogens and noncarcinogens; its utility in a mutagenicity screening program; and its likely role in hazard identification and/or risk estimation.

Assays To Be Discussed:

Gene Mutation

- Bacteria
- Yeast
- Fungi
- Plants
- Mammalian Cells in Culture
- *Drosophila* Sex-Linked Recessive Lethal Test
- Mouse Spot Test
- Mouse Specific Locus Test

Chromosomal Aberrations

- In Vitro and In Vivo Cytogenetics
- Plant Cytogenetics
- Sister Chromatid Exchange
- Yeast
- *Drosophila*
- Dominant Lethal Assay
- Micronucleus Test
- Heritable Translocation Test in Mice

DNA Damage and Repair

- Bacteria
- Human and Rodent Cells in Culture
- In Vivo

Oncogenic Transformation of Cells in Culture

Sperm Morphology

Host Mediated Assay and Body Fluid Analysis

Registration

There will be no registration fee. Preregistration is required, however, and is limited to the first 450 applicants. Please telephone:

Karen Whitby-Logan, 202-755-4863

Angela Auletta, 202-472-3095

POSITIONS OPEN

The Medical College of Georgia is seeking **PHYSICIANS** interested in academic careers in **clinical nutrition**. Postgraduate training may be in internal medicine, pediatrics, family practice, or surgery. Subspecialty training in gastroenterology or metabolism is helpful. Clinical investigation will accompany nutrition care of patients. Clinical Nutrition Research Unit Core laboratories are well staffed. Send résumé and references to: **Elaine B. Feldman, M.D., Chief, Section of Nutrition, Medical College of Georgia, Augusta, Georgia 30912. The Medical College of Georgia is an Equal Opportunity Employer.**

POSTDOCTORAL POSITION available immediately for studies of the mechanism of androgen action. Emphasis on regulatory factors, hormone-hormone interactions, and genetics using *in vivo* and *in vitro* studies. Ph.D. in biochemistry preferred but not necessary. Send curriculum vitae and names of three references to: **Dr. Leslie P. Bullock, Division of Endocrinology, Milton S. Hershey Medical Center, The Pennsylvania State University, Hershey, Pa. 17033. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION available immediately for studies on the molecular biology of the regulation of membrane proteins in transformed animal cells. Experience or training in protein chemistry, membrane biochemistry, and/or molecular biology is desirable. Salary is NIH scale, depending on experience and qualifications. Send inquiries and curriculum vitae to: **Dr. Michael J. Weber, Department of Microbiology, University of Illinois, Urbana, Illinois 61801. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.**

POSTGRADUATE RESEARCH POSITION is available for a pharmacologist or biochemist interested in investigating the interaction between drugs and alcohol. A doctorate in pharmacology or biochemistry is required, with preference given to applicants having experience in intermediate metabolism. Available immediately for a period of 2 years. Salary commensurate with experience. Send résumé and three letters of reference to: **Dr. Charles Lieber, Alcohol Research and Treatment Center, Veterans Administration Hospital, 130 West Kingsbridge Road, Bronx, N.Y. 10468.**

POSTDOCTORAL RESEARCH POSITION IN THE BIOCHEMISTRY OF MAMMALIAN FERTILIZATION

NIH grant-funded position is available for a 2-year term (with the possibility of a third year) beginning anytime between 1 January 1981 and 1 July 1981. Salary is approximately \$15,000 for the first year.

Research will be concerned with the molecular mechanisms involved in the stimulation by catecholamines of sperm membrane fusion events (the acrosome reaction) essential for fertilization.

Applicants must possess (by 1 July 1981) a Ph.D. degree in biochemistry, or related field (for example, cell biology, molecular endocrinology, and so forth) and preferably should not have more than 1 year of postdoctoral training. Send curriculum vitae and the names of three references to: **Dr. Stanley Meizel, Department of Human Anatomy, School of Medicine, University of California, Davis, California 95616. The University of California is an Equal Opportunity/Affirmative Action Employer.**

Position available for **PROFESSOR OF RADIOLOGY** (radiation oncology); **DIRECTOR**, Division of Radiation Oncology. Should be eligible for tenure appointment at professional rank within Department of Radiology; should have proven ability in research and have national and international reputation which will support an appointment as principal investigator on basic or clinical cancer research projects. Send applications to: **Robert Moseley, Jr., M.D., Radiology Department, School of Medicine, University of New Mexico, Albuquerque, N.M. 87131. Affirmative Action/Equal Opportunity Employer.**

TOXICOLOGIST

Bioassay Systems Corporation, a 40-member testing laboratory near Boston, is seeking a toxicologist to supervise subchronic and chronic animal studies. Ph.D. with at least 2 years of experience required. Send résumé and list of references to:

**F. Howard Schneider
President
Bioassay Systems Corporation
225 Wildwood Avenue
Woburn, Mass. 01801
Equal Opportunity Employer**

POSITIONS OPEN

Research Associate, Ph.D. in physiology or biophysics with experience in cardiac electrophysiology. Must also have demonstrated skills in the construction and use of Na and Ca selective microelectrodes for intracellular recording. Salary and rank related to experience and productivity. Send curriculum vitae, two references, and supporting material to: **Dr. H. A. Fozzard, Hospital Box 423, The University of Chicago, 950 East 59 Street, Chicago, Ill. 60637. Affirmative Action/Equal Opportunity Employer.**

RESEARCH ASSOCIATE—AGRONOMY. Irrigated Agriculture Research and Extension Center seeks a Ph.D. in agronomy or closely related area to conduct research in plant breeding and culture of improved hop selections. Funding from grant sources for 1 year, renewable for 2 years with potential for permanent funding. Salary: \$18,000 per year minimum. Send résumé, transcripts, and names and addresses of three persons who have been asked to submit letters of reference by 15 December 1980 to: **Dr. L. R. Faulkner, Superintendent, Irrigated Agriculture Research and Extension Center, Prosser, Wash. 99350. An Equal Opportunity/Affirmative Action Employer. Women, minorities, and handicapped persons are encouraged to apply and identify themselves as such in their applications.**

RESEARCH ASSOCIATE/POSTDOCTORAL FELLOWSHIP available January 1981 for individual 3 to 5 years beyond doctorate to study metabolism of motor neurons. Background in biochemistry (protein purification, carbohydrate metabolism, cyclic nucleotides, and cell culture) highly desirable. Orientation is toward molecular approaches to the human disease amyotrophic lateral sclerosis (ALS; Lou Gehrig's disease) as well as to CNS regeneration. Appointment as research assistant professor possible. Stipend: \$18,000 to \$22,000 for 2 years, depending on qualifications. Submit curriculum vitae and request three letters of reference be sent to: **Dr. Barry W. Festoff, Neurobiology Laboratory, Room 101B, University of Kansas Medical Center, 39th and Rainbow Boulevard, Kansas City, Kans. 66103. An Equal Opportunity/Affirmative Action Employer.**

SCIENCE RESEARCH ASSOCIATE

A membrane-enzyme biochemistry Ph.D. is sought to pursue collaborative research in our Laboratory of Molecular Neurobiology. We are pursuing enzymes causing identified alterations in plasma membrane-associated protein kinases. ATPases, glycerating neuroblastoma transport mutants grown in cell culture. We will emphasize the fractionation and quantitation of lysosomal, Golgi, and plasma membrane associated protein kinases, ATPases, glycosidases, and glycosyltransferases. An outstanding person would be offered a long-term position leading potentially to a **faculty appointment**. We have an outstanding group of scientists in our laboratory and offer an immediate opportunity for career development in molecular neurobiology.

Telephone: (collect) 214-688-3356, or send curriculum vitae to: **Fred Baskin, Ph.D., Department of Neurology, University of Texas Health Science Center, 5323 Harry Hines Boulevard, Dallas, Texas 75235.**

The University of Texas is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.

Genentech, Inc., a rapidly growing research-oriented company, seeks a highly qualified individual as a **SENIOR SCIENTIST** in the Molecular Biology Division. Candidates should have a Ph.D. and at least 5 years of postdoctoral research experience. Research focus should be in recombinant DNA with a minimum of 2 years in the pharmaceutical industry. Thorough knowledge of recent molecular biology technique is essential.

Genentech is located in the San Francisco peninsula and offers excellent working conditions, salaries, and benefits.

Please send a résumé and a list of three references to:

**Human Resources
Genentech, Inc.
460 Point San Bruno Boulevard
South San Francisco, Calif. 94080**

VISUAL ELECTROPHYSIOLOGIST

Private retina foundation in Dallas, Texas, offers independent research position for Ph.D. with background in visual electrophysiology. Salary competitive and commensurate with experience and demonstrated productivity. Send curriculum vitae to: **Refina Foundation of the Southwest, 5641 Yale Boulevard, Suite 126, Dallas, Texas 75206. Telephone: 214-363-3911.**

POSITIONS OPEN

The University of Nebraska Medical Center, Department of Radiology, is seeking a **RADIATION PHYSICIST**, preferably with a Ph.D. and certification by the American Board of Radiology. The closing date for applications would be 31 January 1981. Rank and salary commensurate with education and experience. Candidates should be qualified in therapy and diagnostic radiology and have research interest. The University of Nebraska Equal Employment Opportunity and Affirmative Action Guidelines place responsibility for evaluating the appropriateness of qualifications on administrative officers; deans, directors, department chairs, and so forth, shall determine whether such standards and criteria are relevant to the duties of the particular position in question. Send curriculum vitae to: **Harold A. Baltaxe, M.D., Chairman, Department of Radiology, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, Nebraska 68105.**

An Equal Opportunity/Affirmative Action Employer

Position available for Ph.D. with interest in **REPRODUCTIVE ENDOCRINOLOGY** to direct Fetal Medicine Clinical and Research Laboratory. Administrative and funding experience desirable. Send curriculum vitae, salary history, and references to:

**Personnel Department
St. Francis Hospital and Medical Center
114 Woodland Street
Hartford, Conn. 06105**

SCIENTIFIC DIRECTOR FOR CANCER RESEARCH

AMC Cancer Research Center and Hospital seeks a director to administer and lead its clinical and basic science research programs. Responsibilities will include preparation and administration of budget, and personnel and facility planning. The successful candidate, who may be either an M.D. or Ph.D., should have recent or current experience in his/her own active research program and should have experience in managing such projects. Experience in federal grantsmanship is highly desirable. The successful candidate will have discretion for the development of new projects and termination of current ones.

Interested candidates will provide curriculum vitae and three confidential references and will document a successful research career including laboratory-based, clinically relevant research. The candidate must provide clear evidence of leadership capability and must meet the qualifications for a senior faculty appointment at the University of Colorado Health Sciences Center.

AMC offers a salary competitive to a medical school senior faculty member, housing assistance, competitive perquisites (insurance, pension, vacation, sabbatical leave, moving expense, a negotiable initial contract, and an annual salary review keyed to performance). Initial support for the research of the candidate is negotiable.

The position will be open 1 July 1981 and applications will be reviewed 15 January 1981. Please submit requisite information to: **President, AMC Cancer Research Center and Hospital, 6401 West Colfax Avenue, Lakewood, Colorado 80214. An Equal Opportunity Employer.**

SEDIMENTARY GEOCHEMIST

Princeton University seeks applicants for an assistant professorship within the general fields of the chemistry of sedimentary systems or the genesis/diagenesis of sedimentary rocks. Further information may be obtained from: **Professor David Crerar, telephone: 609-452-4123.**

Submit applications, including curriculum vitae, statement of research and teaching interests, and names of three references to

**Professor Sheldon Judson, Chairman
Department of Geological and Geophysical Sciences
Princeton University
Princeton, N.J. 08544**

Princeton University is an Equal Opportunity/Affirmative Action Employer.

VISITOR APPOINTMENTS are available for new and established Ph.D.'s for up to 1-year periods to carry out research in solar physics, solar-terrestrial physics, and related subjects. Applicants should provide curriculum vitae, including education, work experience, publications, the names of three scientists familiar with their work, and a statement of their research plans. Applications must be received by 15 January 1981 and they should be sent to: **Visitor Committee, High Altitude Observatory, National Center for Atmospheric Research (NCAR), P.O. Box 3000, Boulder, Colorado 80307. NCAR is an Equal Opportunity/Affirmative Action Employer.**

SYMPOSIUM GENOTOXIC EFFECTS OF AIRBORNE AGENTS

**Brookhaven National Laboratory
Associated Universities, Inc.
Upton, Long Island, New York
February 9-11, 1981**

Inhalation is the major route of exposure to genotoxic agents in the workplace, and to a lesser extent in the home. This Symposium will provide a forum for leaders in the fields of Biochemical, Genetic and Inhalation Toxicology to focus on specific airborne agents and current in vitro/in vivo techniques used for assessing their genotoxic potential. Technical difficulties inherent to the generation of vapors and particulates, the extrapolation of experimental data to human populations for genotoxic damage, and regulatory risk policy will also be presented.

Organizing Committee:

Raymond R. Tice, Brookhaven National Laboratory (Chairman);
Robert T. Drew, Brookhaven National Laboratory;
Michael Waters, U.S. Environmental Protection Agency;
Frederick de Serres, U.S. National Institute of Environmental Health Sciences

Registration Fee:

\$US150.00 (includes accommodations)

For details, contact: **Raymond R. Tice, Ph.D., Medical Department, Brookhaven National Laboratory; Upton, N.Y. 11973. Telephone (516) 345-3624**

**BROOKHAVEN
NATIONAL
LABORATORY**



COLLEGE / UNIVERSITY FACULTY AND STUDENT PROGRAMS

Argonne National Laboratory, one of the U.S. Department of Energy's major research and development centers, announces College/University Faculty and Student Research Participation Programs for summer 1981. Opportunities exist for faculty, graduate students, and undergraduates to participate in Argonne's extensive program of basic and applied energy-related research. Financial assistance is available to research participants, and is provided by the U.S. Department of Energy. Additional information and application forms may be obtained from: **ARGONNE DIVISION OF EDUCATIONAL PROGRAMS, 9700 So. Cass Ave. Avenue, Argonne, IL 60439. Or Call: (312) 972-3365.**

An Affirmative Action/Equal Opportunity Employer, Women, Minorities, the Handicapped, and Veterans Urged to Apply



SENIOR RESEARCH ASSOCIATE

Travenol Laboratories, a leading corporation in the manufacture of sophisticated, medical care products, seeks an individual with demonstrated ability to work independently on challenging research assignments.

Your qualifications should include:

- An MS or PhD in Physiology or Pharmacology;
- Ideally, 2-4 years scientific working background in industry;
- Excellent communication skills.

As a member of our innovative research team, you'll enjoy a stimulating professional environment. In addition, Travenol offers an attractive salary and full benefits package including profit sharing and a stock purchase plan. For consideration, send resume including salary history, in confidence to:

Carrie Clanton



6301 Lincoln Ave.
Morton Grove, IL 60053

Equal Opportunity Employer

THE ELECTRIC POWER RESEARCH INSTITUTE Conference on ENVIRONMENTAL RISK ASSESSMENT: HOW NEW REGULATIONS WILL AFFECT THE UTILITY INDUSTRY

**The Monteleone Hotel, New Orleans, LA
10 and 11 December, 1980**

A conference to address questions such as "What will the new directives say about carcinogens and toxic substances?" and "How will they affect State Implementation Plans?" Conference chairman is Dr. Ronald Wyzga of EPRI; keynote speaker will be Dr. Roy Albert of the New York University Cancer Assessment Group. A partial list of other invited speakers includes:

Dr. J. Stara, EPA, Water Quality Criteria
Dr. J. A. Cotruvo, EPA, Safe Drinking Water Act
Dr. J. Padgett, EPA, Clean Air Act
Dr. B. Walker, OSHA, OSHA Regulations and Risk Assessment
Dr. M. Schneiderman, NCI, Epidemiology
Dr. D. Hoel, NIEHS, Extrapolation Models of Animal Toxicology Data to Man

The conference is intended primarily for those with responsibilities to the electric utility industry and state regulatory agencies. There are no conference fees; however, space is limited and advance registration is required. To attend, contact

**Conference Coordinator
Mrs. Phyllis Kemper
Sigma Research, Inc.
2950 George Washington Way
Richland, WA 99352
(509) 375-0663**

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|---|--|---------------------------------------|
| <input type="checkbox"/> \$76 USA | <input type="checkbox"/> \$90 Canada, PUAS | <input type="checkbox"/> \$93 Foreign |
| <input type="checkbox"/> \$121 Air-surface delivery via Holland | | |

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POSITIONS OPEN

RESEARCH SPECIALIST: Massachusetts Institute of Technology (MIT), Energy Laboratory, is seeking a research specialist who, as a member of the International Energy Studies group, will do economic modeling and perform political analyses on international energy trade. Requires master's degree in political science or economics, with experience in the other area. Must have research experience with both international oil markets and uranium trade and be able to perform both economic modeling and political analyses. Ability to work in group projects with faculty and staff and to allocate effort between several projects essential. To apply, please submit résumé (referring to Job Number R80-308) to: MIT Personnel Office, E19-239, 77 Massachusetts Avenue, Cambridge, Mass. 02139. MIT is an Equal Opportunity/Affirmative Action Employer.

STAFF TOXICOLOGIST. Position available in California Department of Food and Agriculture's Pesticide Program. Additional openings possibly later in other departments of state government. Requirements: a doctoral degree in toxicology, biochemistry, pharmacology, or closely related specialty and 3 years of postdoctoral experience in development of toxicological findings relative to hazards to animals and/or man. Salary: \$2848 to \$3443 per month. Contact: Dr. Keith Maddy, CDFA, 1220 N Street, Sacramento, Calif. 95814 (telephone: 445-8400), by 15 January 1981. The state of California is an Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF FLORIDA

The Department of Geology invites applications from **STRUCTURAL GEOLOGISTS** for a tenure-track position beginning in fall 1981. Applicants must have a Ph.D. degree in structural geology or a closely related field, for example, tectonophysics, and be able to show major accomplishments in research and teaching, both graduate and undergraduate, or potential for such achievement. The successful candidate's qualifications will determine the rank and salary of the position.

The university's proximity to the Caribbean region and the presence of a fully operational paleomagnetism laboratory offers an especially wide variety of opportunities for teaching and research. The University of Florida has embarked upon a broad effort to improve both the scope and quality of its program in geology, at both the graduate and undergraduate levels. A new chairman has been appointed and will take office in September 1981; additional appointments will follow.

The University of Florida is an Equal Opportunity/Affirmative Action Employer, and applications are encouraged from all qualified persons. An applicant should submit current curriculum vitae with her or his letter of application and should arrange for the prompt submission of three letters of reference, before 15 December 1980, to:

Professor John D. Ridge, Acting Chairman
Department of Geology
1112 GPA
University of Florida
Gainesville, Fla. 32611

SURFACE/GROUNDWATER CHEMICAL ANALYST. B.S.-Ph.D. Atomic absorption, spectrophotometrist—M.S.-Ph.D. Familiarity with Varian equipment desired.

LIMNOLOGIST—M.S. level.

Send copies of transcripts, curriculum vitae, and three references to: Applied Environmental Services, Charles M. Courtney, Director, 990 North Barfield Drive, Marco Island, Florida 33937. Telephone: 813-394-2795.

TOXICOLOGY

University of Guelph, Veterinary Toxicologist/Pharmacologist. A tenure-track position is available January 1981, at the rank of assistant or associate professor, depending on qualifications and experience, with commensurate salary. Applicants should have a Ph.D. in pharmacology and/or toxicology with teaching and research experience. Preference may be given to candidates with a degree in veterinary medicine.

Responsibilities will include teaching pharmacology and toxicology in undergraduate D.V.M. and B.Sc. programs and also in various graduate courses. The incumbent is expected to develop a strong animal health-oriented research program which is currently funded in part by the Ontario Ministry of Agriculture and Food. (Position subject to final budgetary approval.) Enquiries and application should be made to: Dr. P. Eyre, Chairman, Department of Biomedical Sciences, University of Guelph, Guelph, Ontario, Canada N1G 2W1.

WORKSHOP

International Workshop on Herpesviruses
27 to 31 July 1981—Bologna, Italy

This workshop will cover topics related to herpesvirus genome structure, function and replication, cell transformation, latency, immunology, and chemotherapy. Individuals interested in participating in the workshop should write to: Dr. Fred Rapp, Department of Microbiology, The Pennsylvania State University, Hershey, Pa. 17033. Telephone: 717-534-8253.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP position in clinical pharmacology at Southwestern Medical School. Adrenergic receptors, prostaglandins, hypertension, and renal and cardiovascular pharmacology. Send résumé to: Dr. William Pettinger, 5323 Harry Hines Boulevard, Dallas, Texas 75235.

Fill a staff position on Capitol Hill. Two American Chemical Society **CONGRESSIONAL FELLOWSHIPS** to begin fall 1981. For further information, write: Amanda B. Huston, American Chemical Society, 1155 16th Street, NW, Washington, D.C. 20036. Telephone: 202-872-4384.

POSTDOCTORAL RESEARCH FELLOWSHIPS available in respiratory physiology beginning July 1981. Send résumé plus the names of two references to:

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

Dartmouth Medical School is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL AND GRADUATE FELLOWSHIPS, MS TECHNICIAN for FERMENTATION RESEARCH

Isolation, characterization, mode of action, molecular genetics of hormonal effectors regulating differentiation in streptomycetes and embryos. NIH stipend levels. Send curriculum vitae and references to:

Dr. Burton M. Pogell
Department of Medicinal Chemistry/Pharmacognosy
University of Maryland
636 West Lombard Street
Baltimore, Maryland 21201

The Program in Developmental Psychology at the University of Illinois at Urbana-Champaign has three **NICHD POSTDOCTORAL FELLOWSHIPS** for a 1- or 2-year period. Appointments could begin any time between January and June 1981. Salary is \$13,380 at beginning level, with adjustments for years since Ph.D. to \$17,040. To ensure equal consideration, please mail application and three letters of recommendation by 15 January 1981 to:

Professor Ross D. Parke
Department of Psychology
University of Illinois
Champaign, Illinois 61820

The University of Illinois is an Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIPS, NCI-SPONSORED. Applicants with backgrounds and/or interest in membrane biochemistry, DNA damage and repair, cytogenetics, and immunology are sought for research training in the following areas: (i) soluble factors and immune cell regulation (Dr. K. A. Smith); (ii) tumor biology of small cell carcinoma of the lung (Dr. G. D. Sorenson); and (iii) chemical carcinogenesis in liver and pancreas (Dr. J. D. Yager and Dr. D. S. Longnecker). For information, write: Dr. S. Longnecker, M.D., Norris Cotton Cancer Center, Dartmouth Medical School, Hanover, N.H. 03755.

Affirmative Action/Equal Opportunity Employer

POSTDOCTORAL FELLOWSHIP REQUEST

Positions are available for recently graduated Ph.D.'s for research in the following areas: (i) biology and therapy of multiple myeloma, (ii) cellular and biochemical actions of anticancer agents both alone and in combination, (iii) cellular radiation biology, and (iv) the biology and treatment of hormone-responsive tumors. Please send curriculum vitae to: Dr. Frederick A. Valeriote, 4511 Forest Park Boulevard, Suite 405, St. Louis, Missouri 63108. Equal Opportunity/Affirmative Action Employer, M/F/H.

GRADUATE STUDY

PHYSIOLOGY DOCTORAL PROGRAM. The Department of Physiology, Medical University of South Carolina, seeks qualified applicants for a Ph.D. program. The department is committed to graduate education and provides research training in the areas of membrane physiology; pathophysiology of endotoxic shock; CNS neurophysiology; neuroendocrinology; reproductive physiology; respiratory physiology; temperature regulation; and cardiovascular physiology. Stipends available. Contact: Dr. J. S. Graves, Department of Physiology, Medical University of South Carolina, Charleston, S.C. 29403.

BIOPHYSICS AT THE MEDICAL COLLEGE OF WISCONSIN

An **Interdisciplinary Biophysics Program** is offered at the Medical College of Wisconsin for students interested in advanced study leading to the M.S. or Ph.D. in biophysics. The faculty in the program are derived from both the clinical and basic science departments, and share a common interest in the biophysical investigation of biological and medical phenomena. The major goals of the program are to promote collaborative research and to maximize the interdisciplinary nature of the student's education. Information on application procedures, research opportunities, and program curriculum may be obtained from:

Neil S. Mandel, Ph.D.
Biophysics Graduate Program
The Medical College of Wisconsin
8701 Watertown Plank Road
Milwaukee, Wisconsin 53226

GRADUATE STUDIES IN GENETICS

Research and teaching assistantships are available in the Biology Department of Wesleyan University for qualified applicants with interests in prokaryotic or eukaryotic molecular genetics and in cellular, developmental, or quantitative genetics. Research interests include genome organization (transposable elements, Y-chromosome organization), regulation of gene expression (myogenesis, collagen synthesis, spermatogenesis, inductive cellular interactions), and the genetic basis of behavior (thermoregulation, maternal behavior). The assistantship stipend for 1981-1982 is expected to be approximately \$5500 in addition to full tuition remission and dependency allowance (if applicable). For further information, write: Director of Graduate Admissions, Biology Department, Wesleyan University, Middletown, Conn. 06457.

TRAINEESHIPS

PREDOCTORAL TRAINEESHIPS IN ENVIRONMENTAL PATHOBIOLOGY—NIH-sponsored program for training in research concerning adverse effects of environmental substances on eukaryotic cells and mammalian tissues. Active research programs include chemical carcinogenesis, mutagenesis, DNA repair, xenobiotic metabolism, heavy metal toxicity, atherosclerosis, and neurotoxicity.

Predoctoral traineeships are available to support training leading to the Ph.D. degree in experimental pathology. Appointments are open to qualified candidates with an appropriate baccalaureate degree or with a previous doctoral degree (M.D., D.V.M., Ph.D.).

Send curriculum vitae and names of three referees to: Dr. J. W. Grisham, Department of Pathology, University of North Carolina School of Medicine, Chapel Hill, N.C. 27514. The University of North Carolina is an Equal Opportunity/Affirmative Action Employer.

MARKETPLACE

FOR SALE: Used Aminco Chance dual-wavelength split-beam recording spectrophotometers.

Dr. D. R. Sanadi
Cell Physiology Department
BOSTON BIOMEDICAL
RESEARCH INSTITUTE
20 Staniford Street
Boston, Mass. 02114

COAL DEPOSITS. If you are financing, planning, exploring, drilling, or digging in connection with any form of energy, you need this 590-page, up-to-date book about the world's coal deposits. \$156. Tatsch Associates, 120 Thunder Road, Sudbury, Mass. 01776.

**National Cancer Institute
National Institutes of Health
Public Health Service
Department of Health and Human Services**

**Opening Date: November 17, 1980
Closing Date: December 17, 1980
All applications must be received by closing date.**

DEPUTY DIRECTOR National Cancer Institute

The National Cancer Institute (NCI) develops the overall national strategy against cancer, coordinates all Federal Government and non-Federal Government cancer programs, and supports international programs of cancer research. The Institute's efforts cover the entire spectrum of basic, applied, and developmental research. It encompasses the research thrusts of cause and prevention of cancer, detection and diagnosis, treatment and rehabilitation, and cancer biology. It also encompasses control interventions in prevention; detection, diagnosis, and pretreatment evaluation; and treatment, rehabilitation, and continuing care.

As Deputy Director, NCI, the incumbent will serve as a full Deputy to the Director in the coordination and direction of all programs and activities for the Institute. The Office of the Director, NCI, serves as the focal point for the National Cancer Program; develops and provides policy guidance and staff direction to the Institute's programs in areas of program coordination, program planning, clinical care and administrative management. The Deputy Director will assist in the management of an annual budget of approximately \$1.0 billion, and will provide leadership to a workforce of approximately 2300 employees.

This is a Civil Service position in the Senior Executive Service (SES), with a salary range from \$47,889 to \$50,112.50 per annum depending on qualifications. Candidates may be eligible for Physicians Comparability Pay up to \$10,000 per year. Alternately, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service. The SES individual selected, if not presently in the SES, must serve a one-year probationary period.

The mandatory professional/technical qualifications for the position require that candidates: a) meet the minimum educational requirements for Medical Officer, or Health Scientist (or equivalent combination of experience and training, as defined by the U.S. Office of Personnel Management Handbook X-118, Qualification Standards for Positions under the General Schedule; and b) have experience in research and/or experience and knowledge

of extramural research programs in one or more areas related to cancer biology, causation, prevention, detection, diagnosis, treatment or rehabilitation. The managerial/executive qualifications are: experience in the leadership/management of a research program, demonstrating competence to assume leadership responsibilities in: assuring that national and agency goals and priorities are considered in carrying out the functions and responsibilities of the organization; establishing and maintaining relationships with key individuals and groups outside the organization; directing and guiding programs and projects, including long-term and short-term planning, and establishing objectives and priorities; establishing procedures for the development and defense of the organization's budget, and allocating fiscal and personnel resources to support program implementation; developing processes and overseeing activities to assure the fair and equitable employment of qualified persons, and implementing EEO objectives; and developing and implementing procedures for monitoring program performance including periodic analysis and evaluation.

Candidates who meet the mandatory requirements will be further evaluated by the Search Committee on the following factors: Communication skills (oral and written), peer recognition (honors, awards, membership in societies, advisory or consultant appointments, etc.). Additional information may be obtained from Mr. Sherman Hatchett, Personnel Management Specialist, NCI, (301) 496-6864.

Applications (Personal Qualifications Statement, SF-171) are to be sent to the above individual at this address: National Cancer Institute, Building 31, Room 3A27, 9000 Rockville Pike, Bethesda, Maryland 20205. A current curriculum vitae, bibliography and references and/or appraisals of performance must accompany all applications. Applications of women and/or minority group members are especially solicited.

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