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# Personnel Placement

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## POSITIONS WANTED

**Biologist/Generalist:** Ph.D. (ecology) 1977. Seeking academic position. Courses taught include biology, botany, ecology, vertebrate and invertebrate zoology, comparative anatomy, human anatomy and evolution. Research area: ecological energetics. Field course experience in United States, Mexico, and West Indies. Box 116, SCIENCE. X

**Ecologist/Geneticist.** Ph.D. Research experience in ecological and biochemical genetics of mosquitoes. Skills in electrophoresis spectrophotometry, insect rearing, biometry. Box 117, SCIENCE. X

**Endocrinologist/Reproductive Physiologist.** Ph.D. Five years of postdoctoral experience. Publications. Extensive research experience in radioimmunoassay (development), bioassays, protein isolation, and radioreceptor assays. Administrative experience. Teaching (neuroanatomy, physiology, endocrinology) at medical school and graduate level. Desires research-teaching position in Midwest/West. Box 119, SCIENCE. X

**Field Ecologist.** Experience: wildlife survey in Ecuadorian jungle, writing preliminary environmental assessments, and with wetland associated environmental problems. Seeking position in field ecology. Résumé and references upon request. Immediate availability. J.C.L., P.O. Box 349, Fox Lake, Illinois 60020. X

**Geochemist/Chemical Limnologist.** Ph.D. Experience in teaching, research management. Currently interested in geochemical studies of Lake Superior. Many publications. Seeks research/management or research/teaching. Box 120, SCIENCE. 4/6, 13

**Limnologist.** M.S. 1978. Broad background in biology and chemistry. Thesis work involving nutrient cycling. Seeks experience as technician in aquatic research involving sophisticated instrumentation and techniques. Box 121, SCIENCE. X

**Public Health Generalist** Ph.D., M.P.H. Research experience in vector biology, biochemistry, biometry, environmental health, epidemiology. Box 118, SCIENCE. X

## POSITIONS WANTED

**Protein Chemist/Biochemist/Organic Chemist:** Ph.D. 1973. Broad experience in plasma proteins and enzymes, immune complex receptors, IgG, platelets, coagulation, blood cells, radiolabeling, RIA, amino acid sequencing, protein isolation and characterization, reagent development, peptide synthesis, organic chemistry, clinical chemistry, enzymology, and immunochemistry. Seeks industrial, hospital, or academic position. Box 122, SCIENCE. X

## POSITIONS OPEN

### ANALYTICAL CHEMIST

Equine Drug Testing and Research Program, University of Kentucky, has an opening for a Ph.D. chemist. Principal responsibility for detection, identification, and confirmation of drugs in horses. Participation in R & D methods development. Training and experience in chromatographic and spectrophotometric methods of analysis required. Curriculum vitae and application letter to: **John T. Bryans, Chairman, Department of Veterinary Science, University of Kentucky, Lexington, Ky. 40546.** *Equal Opportunity/Affirmative Action Employer*

### ANALYTICAL CHEMIST

Litton Bionetics, Inc., is currently seeking an experienced chemist to direct, develop and supervise the analytical chemistry section of the Department of Chemistry. Individuals with Ph.D. and 5 years of experience, including a supervisory background, who are searching for a new challenge and career opportunity, should submit curriculum vitae to: **R. E. Hardisty, Employment Manager, Litton Bionetics, Inc., 5516 Nicholson Lane, Kensington, Md. 20795.** *An Equal Opportunity Employer, M/F.*

**SOUTHAMPTON COLLEGE OF LONG ISLAND UNIVERSITY.** Fall 1979 appointments in biochemistry/microbiology; computer specialist (nonfaculty); developmental psychology; director/coordinator, new environmental science program; environmental inventory, regional planning, environmental impact assessment; social psychology; physiological psychology; marine related semester courses, two 8-week cruises a year. Résumés to: **Dean W. T. Burke, Southampton College, Long Island University, Southampton, N.Y. 11968.** *Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT TO THE EDITOR.** *The Physical Review*—To assist the editors (primarily Physical Review A, general physics) in processing manuscripts for publication. Physics background at the B.S. to M.S. level or equivalent required. Address inquiries to: **Managing Editor, The Physical Review, Brookhaven National Laboratory, Upton, New York 11973.**

**ASSISTANT PROFESSOR, DEPARTMENT OF BIOCHEMISTRY, COLLEGE OF MEDICINE.** Applicants must have Ph.D. degree and postdoctoral training in molecular or cellular immunology, or biochemical genetics. Preference will be given to individuals whose research deals with immunologically important systems at the molecular level, especially structure, function, or control of lymphocyte genes, lymphocyte nonhistone chromosomal proteins, lymphocyte cell surface receptors or antigens, or structure-function properties of lymphocyte membranes. Applicants must be well trained in biochemistry and be able to teach medical and graduate students. Send curriculum vitae, summary of present and future research, and names, addresses, and telephone numbers of three people who may be contacted for reference to: **F. P. Inman, Chairman, East Tennessee State University, P.O. Box 19930A, Johnson City, Tenn. 37601.** *East Tennessee State University is an Affirmative Action/Equal Opportunity Employer, M/F.*

**BIOLOGY, ASSISTANT PROFESSOR.** The Department of Biology of Chatham College seeks a Ph.D. with a strong commitment to excellence in teaching. Primary responsibility is in the teaching of general biology with expertise to teach introductory and upper level courses in ecology or marine biology or nutrition. Other areas will be considered with the exception of botany, microbiology, genetics, and developmental biology. Position open for fall 1979. Interested candidates should send curriculum vitae and three letters of reference to: **Dr. Conrad M. Hess, Department of Biology, Chatham College, Pittsburgh, Pa. 15232.** *Equal Opportunity Employer.*

## POSITIONS OPEN

### ASSISTANT CURATOR OF EDUCATION

Duties include overseeing a portion of the present educational program, development and instruction of new programs, and maintenance of equipment and materials. Position is available immediately.

Educational offerings span a wide range of ages, are often interdisciplinary, and sometimes take place in the field. Requirements include a master's degree in aquatic science or education and teaching experience. Diving certification and previous curricular and science writing experience desirable.

Curriculum vitae and three references should be sent to:

**John G. Shedd Aquarium  
1200 South Lake Shore Drive  
Chicago, Illinois 60605**

**ASSISTANT PROFESSOR OF BIOCHEMISTRY.** A 12-month, tenure-track position is anticipated to be available 1 July, depending on funding, for someone in the general area of plant biochemistry. Responsibilities include participation in the undergraduate and graduate teaching program. The individual is expected to develop a vigorous, independent research program in plant biochemistry which would be compatible with a joint appointment in the College of Agriculture and Experiment Station. A Ph.D. in biochemistry with postdoctoral experience is required. Please send résumé, graduate transcripts, summary of research interests, and names of three references to: **R. P. Wilson, Head, Department of Biochemistry, P.O. Box BB, Mississippi State University, Mississippi State, Miss. 39762.** *An Affirmative Action Employer.*

**ASSISTANT PROFESSOR OF BIOCHEMISTRY.** Applications are invited for a tenure-track position in the Department of Biochemistry at the University of Arizona. Applicants should have postdoctoral training and research experience and interest in one of the following areas: metabolic and hormonal regulation, neurobiochemistry, or immunochemistry. Truly outstanding candidates in other areas of specialization will also be considered. An orientation toward biomedical research is desired since the candidate will be expected to interact with other scientists in medical school as well as teach in medical biochemistry. Applications consisting of curriculum vitae, brief research plan, and three letters of recommendation should be sent to: **Dr. Mark Haussler, Chairman, Faculty Search Committee, Department of Biochemistry, University of Arizona, Health Sciences Center, Tucson, Ariz. 85724.** Applications must be received in complete form by 15 June 1979. *An Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.*

**ASSISTANT PROFESSOR,** Ph.D. biology. Candidate responsible for teaching wildlife biology, aquatic ecology, biology for nonmajors, plus upper level course. Background in botany preferred. Teaching position with research encouraged. One-year appointment beginning August 1979, with possible renewal. Send application letter, résumé, and three letters of reference by 16 April 1979, to: **Dr. M. Denner, Professor of Biology, Indiana State University-Evansville, Evansville, Ind. 47712.** *Equal Opportunity/Affirmative Action Employer.*

### UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

Applications are solicited for faculty positions in the following departments: **MEDICINE (#155) ASSISTANT PROFESSOR (research)**—Responsible for conducting original research in cardiac electrophysiology techniques. Requirements: Ph.D. in physiology and postdoctoral training in cardiac electrophysiology.

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

**ASSISTANT PROFESSOR IN NUTRITION** to develop vigorous research program in some area of clinical or community nutrition, teach nutrition courses to students in dietetics, nutritional science, nursing, and related areas, and advise undergraduate students in dietetics. Ph.D. or M.D. with experience in clinical nutrition required. An R.D. will be helpful. Available 1 July 1979. Send résumé and arrange to have three letters of reference sent to: **Dr. Darrel E. Goll, Nutrition and Food Science, University of Arizona, Tucson, Arizona 85721.** *Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.*

## POSITIONS OPEN

### THE UNIVERSITY OF WESTERN ONTARIO LONDON—CANADA

Applications are invited for a 1-year, limited term position from 1 July 1979 to 30 June 1980 at the rank of **ASSISTANT PROFESSOR** to work with algae. Candidates will be expected to contribute to teaching in introductory biology in addition to teaching algology. Candidates will also be encouraged to pursue research in an area of algology of their choice. Postdoctoral experience would be an advantage. The salary will be not less than \$17,000 per annum, subject to the availability of funds. Please submit curriculum vitae and the names of three referees to:



**Chairman**  
Department of Plant Sciences  
Biological and Geological Building  
University of Western Ontario  
London, Ontario, Canada N6A 5B7

### ASSISTANT PROFESSOR OF PHARMACOLOGY

Applications are invited by the Department of Pharmacology of the Medical College of Virginia for the position of assistant professor. The applicant should possess the Ph.D. in pharmacology, and should have completed 2 years of postdoctoral research experience. He/she will be expected to develop an active research program and participate in the teaching of graduate and professional students. Preference will be given to candidates whose research interests focus on the broad areas of autonomic-cardiovascular pharmacology and/or neuropharmacology. Please send complete résumé and at least two letters of recommendation to: **Dr. R. P. Rubin, Department of Pharmacology, Medical College of Virginia, Richmond, Virginia 23298.**

### ASSOCIATE DEAN FOR GRADUATE STUDIES AND RESEARCH THE UNIVERSITY OF HOUSTON COLLEGE OF OPTOMETRY

We are seeking applications from individuals with proven research and administrative ability. Responsibilities will include directing an existing program leading to a Ph.D. in physiological optics, encouraging the continued development of clinical and basic science research within the college, as well as organizing and carrying out a sustained personal program of vision research.

Faculty rank, tenure, and salary will be awarded commensurate with experience.

Interested persons should direct their résumés and/or inquiries to:

**James W. Walters, O.D., Ph.D.**  
University of Houston  
College of Optometry  
Houston, Texas 77004  
Telephone: 713-749-4102

*The University of Houston is an Equal Opportunity Employer.*

**BIOENGINEER**—Ph.D. preferred; M.S. with 1 to 3 years of experience in development of laboratory instrumentation acceptable. Should have broad engineering background such as fluid dynamics, optical systems, microprocessors, and so forth. Basic knowledge of serology and immunology desirable. Will coordinate technical data and troubleshoot problems. Résumés to: **G. Barksdale, Department M-51, Ortho Diagnostics Inc., Route 202, Raritan, N.J. 08869.**

**BIOLOGIST.** Assistant professor, beginning August 1979. Emphasis will be in general biology and physiology. One-year replacement for faculty member on sabbatical leave. Candidate must have outstanding academic record at undergraduate and graduate levels. To apply, send: (i) copies of undergraduate and graduate transcripts, (ii) curriculum vitae, and (iii) list of three references. Send to: **Head, Division of Science, Northeast Missouri State University, Kirksville, Mo. 63501.** An Equal Opportunity/Affirmative Action Employer.

**SCIENCE EDUCATION.** Assistant professor, beginning August 1979. Emphasis will be in general education and science education. Must have demonstrated competency in science research as well as teaching. Candidate must have excellent teaching and outstanding academic records at both the undergraduate and graduate levels. To apply, send: (i) copies of undergraduate and graduate transcripts, (ii) curriculum vitae, and (iii) list of three references. Send to: **Head, Division of Science, Northeast Missouri State University, Kirksville, Mo. 63501.** An Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

### ASSOCIATE EXECUTIVE DIRECTOR NATIONAL RESEARCH COUNCIL UNIT

The Commission on Sociotechnical Systems (CSS), a major unit of the National Research Council, National Academy of Sciences, seeks candidates for the position of associate executive director. The commission is concerned with large-scale systems serving societal needs such as transportation; housing, building, and urban design and development; materials; hazards and disasters; feeding; and energy conservation. The person selected will assist the executive director in all phases of managing CSS. Applicants must have a Ph.D. or equivalent and a minimum of 10 years of experience in research management, resulting in broad knowledge of technology or social science and preferably both. A combination of academic, industrial, and government experience is desirable. Background must demonstrate managerial ability to plan, organize, and implement activities and monitor progress, and administrative ability to handle budgets, contracts, and personnel matters. High level of oral and written communication essential. Qualified individuals are invited to submit a résumé indicating current salary to: **Dr. Edward Epreman, Executive Director, Commission on Sociotechnical Systems, National Academy of Sciences, 2101 Constitution Avenue, NW, Washington, D.C. 20418.** An Equal Opportunity Employer.

### UNIVERSITY OF MICHIGAN MEDICAL SCHOOL PHYSIOLOGY DEPARTMENT

**ASSOCIATE PROFESSOR or PROFESSOR** position available. Duties include teaching physiology to health professional students and graduate students. Pursue a strong research program in neuroendocrinology. Must hold a Ph.D. or M.D. degree and have had postdoctoral research training. Have had previous experience teaching at the graduate and professional levels. Demonstrated research experience as evidenced by publications and a record of extramural funding for research. Reply to: **Box 112, SCIENCE.** Code 900D0.

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### ASSOCIATE RESEARCH NEUROLOGIST

A scientist is being sought to fill the above position. Applicants need to have a Ph.D. in biochemistry and to hold an academic position equivalent in rank to an assistant research neurologist or assistant professor. Applicants must have demonstrated ability in the discovery of potential biochemical defects in neurological disease, in studies on the pathophysiology of neurological disease, and expertise in each of the following: protein purification, gel electrophoresis and isoelectric focusing, lipid biochemistry, purification and assay of intermediary metabolites, subcellular fractionation, enzyme kinetics with both spectrophotometric and fluorometric techniques, tissue culture (including human tissues for studies of disease), electron microscopy, and intracellular electrical recording from muscles.

Please send curriculum vitae and bibliography to: **Dr. R. A. Pieter Kark, Reed Neurological Research Center, UCLA School of Medicine, Los Angeles, Calif. 90024.** UCLA is an Equal Opportunity Employer.

### ASSOCIATE VICE PRESIDENT FOR GRADUATE STUDIES AND RESEARCH

The Georgia Institute of Technology is seeking qualified candidates for the newly created position of associate vice president for graduate studies and research. Primary responsibility of the position is to exert leadership required to continue development of graduate programs and research at the institute.

Candidates should have experience with graduate programs of high quality, and with the development and management of research programs. Applications or nominations should include a résumé and the names of references, and should be sent to: **Dean William Fash, Chairman, Search Committee, College of Architecture, Georgia Institute of Technology, Atlanta, Georgia 30332,** preferably by 1 May 1979.

*An Equal Education and Equal Opportunity Institution*

**BIOCHEMICAL PHARMACOLOGIST.** Postdoctoral position available in June 1979 to engage in studies of the molecular biology of dopamine neuroreceptors. Research involves affinity labeling, kinetic and equilibrium binding studies. Background in receptor biochemistry desired. Send curriculum vitae with names of three references to: **Dr. Randall Murphy, Department of Chemistry, New York University, New York 10003.**

## POSITIONS OPEN

### Business Officer American Society of Biological Chemists

We seek an executive business officer to manage both the business affairs of the American Society of Biological Chemists (ASBC) and the business aspects of the Journal of Biological Chemistry, located in Bethesda, Maryland. Will be responsible for: management of operating funds; payment of bills; preparation of annual budget; record keeping; organization of annual meeting; record of council and committee meetings; liaison with other scientific societies and international scientific unions; and assisting journal editor in the business and regulatory aspects of publication. Requires experience in administration, financial management, and contract negotiation, and demands considerable tact in personal negotiations. Scientific background is desirable but not mandatory. Send résumé with three letters of recommendation, to:

**F. M. Richards, Chairman**  
ASBC Search Committee, Box 1937  
Yale Station, New Haven, Conn. 06520

*The Society encourages applications from women and minority groups.*

**DEAN,** College of Arts and Sciences, University of Michigan-Flint, an urban campus, offering bachelors' and one master's degrees. Responsibilities: programs, organization, and fiscal operations of the college. Qualifications: earned doctorate or equivalent, administrative or faculty leadership experience, and scholarly accomplishments at senior faculty level. Salary: highly competitive. Deadline: 15 April 1979. Reply to: **Professor Lawrence D. Kugler, Chairman, Search Committee for Dean of the College of Arts and Sciences, c/o Office of the Provost, The University of Michigan-Flint, Flint, Michigan 48503.** An Equal Opportunity/Affirmative Action Employer.

## IMMUNOLOGIST

Immediate opening for a PhD with interests in immunoregulation, humoral factors, mediator release and cell-cell interactions.

Research activities will include monitoring and coordinating ongoing immunopharmacology projects as well as developing innovative techniques for screening/profiling anti-asthma drugs utilizing various *IN VIVO/IN VITRO* immunologic and anti-inflammatory test systems.

USV Laboratories, located in Westchester County, has modern facilities and a well-trained technical staff. Position level and salary commensurate with experience and qualifications. Please send curriculum vitae with salary requirements to:

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## POSITIONS OPEN

**ASSOCIATE DEAN FOR ACADEMIC AFFAIRS**—University of Illinois College of Medicine at Urbana-Champaign. M.D. or M.D./Ph.D. Unique administrative opportunity in community-based medical school on campus of major university which emphasizes M.D./Ph.D. training. The successful candidate must have commitment to undergraduate medical education and must subscribe to the importance of research in both the basic sciences and health care delivery. The position is full-time with salary and starting date negotiable. In order to receive full consideration, applications should be submitted by 1 May 1979. Send curriculum vitae and names of five references to: **Daniel K. Bloomfield, M.D., Dean, Schools of Basic Medical Sciences and Clinical Medicine, University of Illinois, 190 Medical Sciences Building, Urbana, Illinois 61801; telephone: 217-333-9284. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.**

### BEHAVIORIST CORNELL UNIVERSITY

Cornell's Section of Neurobiology and Behavior seeks a **one-year replacement (1979-1980) for a field behaviorist**, to be appointed at an appropriate professorial rank. Salary competitive. Duties include supervision of 15 students in each of two courses, "Field Methods in Animal Behavior" and "Behavior of Tropical Animals," which have field segments in Florida and some tropical environment, respectively. A full description of duties and application procedures should be requested before application is made, but only those with extensive experience in field behavior and in supervision of student projects should apply. Address inquiries to: **Dr. Kraig Adler, 101 Langmuir Laboratory, Cornell University, Ithaca, New York 14850; telephone: 607-256-4517. Cornell is an Equal Opportunity/Affirmative Action Employer. Deadline for receipt of applications: 1 June 1979.**

### DEPARTMENT OF INTERNAL MEDICINE SCHOOL OF MEDICINE ST. LOUIS UNIVERSITY MEDICAL CENTER BIOCHEMICAL PARASITOLOGY

**Postdoctoral position** available 1 July 1979 to 30 June 1981, to study purine metabolism in hemoflagellates. Laboratory actively engaged in investigation of metabolism of *Leishmania sp.* and *T. cruzi*. Background in biochemistry essential; will consider person with cell biology as major field of study. Send curriculum vitae and three references to:

**Dr. J. Joseph Marr  
Department of Internal Medicine  
St. Louis University School of Medicine  
1325 South Gran Boulevard  
St. Louis, Mo. 63104**

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

**BIOCHEMIST—MOLECULAR BIOLOGY AND GENETICS OF CONNECTIVE TISSUE.** Joint appointment in Departments of Biochemistry and Obstetrics and Gynecology for an **ASSISTANT PROFESSOR**. Initial appointment for 4 years; renewable for 3 years; tenure-track and funded by institution. Research emphasis on genes for collagen and genetic diseases of collagen with cDNA and other techniques. Successful candidate must possess a Ph.D. in biochemistry; experience must include 2 to 4 years of work in appropriate areas of molecular biology. Salary dependent on background and experience. Please send curriculum vitae to: **Department of Biochemistry, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—Rutgers Medical School, P.O. Box 101, Piscataway, N.J. 08854. An Equal Opportunity/Affirmative Action Employer, M/F.**

**BIOLOGY.** Temporary (academic year 1979-1980 only) position at the instructor or assistant professor rank. Salary range: \$11,936 to \$14,500. Duties include teaching general biology/botany—with particular competence in field botany. Possible duties at a branch campus. M.S. in biology required. Doctorate and teaching experience preferred. Deadline for receipt of completed applications is 20 April 1979. Completed applications must include three letters of recommendation, transcripts of all college level work, and a résumé. For further information please telephone **Dr. Michael Kesner at 412-357-2309**. Send applications to: **Dr. Michael Kesner, Chairperson, Search Committee, Biology Department, Indiana University of Pennsylvania, Indiana, Pa. 15705.**

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## POSITIONS OPEN

### BIOLOGY FACULTY

1) Permanent, tenure-track position is open for a **physiological forest/plant ecologist** who holds Ph.D. or equivalent and has teaching experiences at college faculty level. Duties of position include directing pre-forestry program and teaching general biology, general botany, plant systematics, general ecology, environmental conservation, dendrology, plant autecology, plant physiology, and freshman/sophomore seminar.

2) A one-semester, **temporary** position (replacing a faculty member on sabbatical) is available for a **human/mammalian physiologist** to teach human anatomy and physiology and mammalian physiology.

Deadline for application is 4 May 1979. Candidates for either position should send curriculum vitae and three letters of reference to: **Dr. Preston Somers, Biology Department, Fort Lewis College, Durango, Colorado 81301.**

*Equal Opportunity/Affirmative Action Employer*

**BIOLOGY.** Temporary (academic year 1979-1980) position beginning September 1979 at the instructor or assistant professor rank. Salary range: \$11,936 to \$14,500. Duties include teaching general biology/human anatomy and physiology, possible duties at a branch campus. M.S. in biology required. Doctorate and teaching experience preferred. Deadline for receipt of completed applications is 20 April 1979. Completed applications must include three letters of recommendation, transcripts of all college level work, and a résumé. For further information please telephone **Dr. Michael Kesner at 412-357-2309**. Send applications to: **Dr. Michael Kesner, Chairperson, Search Committee, Biology Department, Indiana University of Pennsylvania, Indiana, Pa. 15705.**

*An Affirmative Action/Equal Opportunity Employer*

### BIOLOGIST

Assistant professor, beginning September 1979. Ph.D. preferred. Responsibilities include instruction in ecology, evolution (including population genetics), comparative anatomy, and general biology. The thrust of the college is toward effective teaching. Starting range: \$11,000 to \$14,500. Send application by 30 April to: **Dean of Arts and Sciences, Western New England College, 1215 Wilbraham Road, Springfield, Massachusetts 01119.**

*An Equal Opportunity/Affirmative Action Employer*

### BIOLOGY—TWO POSITIONS

Two 1-year appointments beginning 31 August 1979 to replace faculty on leave. One position in genetics; other may be filled by cytologist, immunologist, or quantitative ecologist. Send curriculum vitae and three references to: **Chairman, Search Committee, Biology Department, College of William and Mary, Williamsburg, Va. 23185. An Equal Opportunity/Affirmative Action Employer.**

**BIOLOGY (FISHERIES BIOLOGIST) INSTRUCTOR OR ASSISTANT PROFESSOR.** Area of specialization required: physiological and biochemical aspects of environmental biology of fishes. Teaching responsibilities include general biology of zoology and upper division specialty course. Successful candidate will be expected to participate in multidisciplinary environmental studies program and to develop research program focusing on environmental biology of fishes. Ph.D. Required. Teaching experience desirable. Send complete résumé, three letters of recommendation, and undergraduate and graduate transcripts to: **Dr. Robert Johnson, Chairperson, Department of Biology, Southeast Missouri State University, Cape Girardeau, Mo. 63701. Application deadline: 23 April 1979. An Equal Opportunity/Affirmative Action Employer.**

Applications are invited for a full-time position as **TECHNICIAN IN ELECTRON MICROSCOPY LABORATORY** opening 1 April 1979. Applicants should have, as a minimum, 2 years of experience working either as an EM or histology technician. This laboratory will have both transmission and scanning microscopes and will serve both basic medical sciences and clinical sciences research persons. Candidates will be evaluated on experience, training, past productivity, and potential for managing an EM laboratory. Salary negotiable.

Candidates will be interviewed by **James M. Giliam, Ph.D., director of electron microscopy.**

Send curriculum vitae to: **Business and Finance Officer, Northeastern Ohio Universities College of Medicine, Rootstown, Ohio 44272. An Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

**CARDIOVASCULAR PHYSIOLOGIST/CLINICAL PHARMACOLOGIST.** Department of Anesthesia, Georgetown University at The National Institutes of Health, seeks applicants to participate in ongoing clinical research programs with physician investigators. Candidates will be expected to initiate clinical research projects and participate in teaching programs. Ph.D. or equivalent required. Send curriculum vitae to: **T. E. Macnamara, M.B., Ch.B., Clinical Center, The National Institutes of Health, Bethesda, Maryland 20205. An Equal Opportunity/Affirmative Action Employer.**

### UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

The Departments of Neurology and Physical Medicine and Rehabilitation are seeking a **CLINICAL NEUROLOGIST** with interest and expertise in neuromuscular and muscular diseases and training in electromyography. Interested individuals are invited to submit curriculum vitae. Reply to: **Box 110, SCIENCE. A nondiscriminatory, Affirmative Action Employer.**

### UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

The Department of Neurology has academic positions for **CLINICAL NEUROLOGISTS**, Board-eligible or Board-certified, in neurology and/or electroencephalography. Interested individuals are invited to submit curriculum vitae. Reply to: **Box 111, SCIENCE. A nondiscriminatory, Affirmative Action Employer.**

### DIRECTOR INSTITUTE OF MARINE SCIENCE UNIVERSITY OF ALASKA

The University of Alaska, Fairbanks, invites applications for the position of director, Institute of Marine Science and Division of Marine Sciences. Qualifications sought are a doctoral degree, leadership in interdisciplinary research management, experience in dealing with funding sources, and a knowledge of budgetary operations. A distinguished research record is expected. Experience in teaching and the supervision of thesis projects of graduate students is desirable. Marine sciences at the university have a full-time faculty of 23 and a graduate student enrollment of about 40.

Applications or nominations with biographical and other pertinent information should be received before 1 July 1979 by the chairman of the search committee:

**Dr. Gunter E. Weller  
Geophysical Institute  
University of Alaska  
Fairbanks, Alaska 99701**

*The University of Alaska offers Equal Educational and Employment Opportunities.*

A search is announced for a **DIRECTOR, PROGRAM IN MEDICAL SCIENCES**, Florida State University. This innovative program integrates undergraduate curricula at Florida State University and Florida A&M University in Tallahassee, Florida, with the first year medical curriculum after which students transfer to the University of Florida College of Medicine in Gainesville for completion of their M.D. degree. Qualifications desired in the director include an M.D. or Ph.D. degree, experience in medical education, some administrative experience, strong leadership ability, and sufficient evidence of scholarship to qualify for an appointment in an appropriate academic department at Florida State University. Salary range up to \$40,000, commensurate with qualifications and experience.

Send letters of application or nomination, curriculum vitae, and letters of recommendation to: **Dr. Lloyd M. Beidler, Chairman, Search Committee for Director, Program in Medical Sciences, Room 239, Biology Unit I, Florida State University, Tallahassee, Florida 32306. Application deadline: 30 April 1979. An Affirmative Action/Equal Opportunity Employer.**

**DIRECTOR** of Center for Research on Utilization of Scientific Knowledge at the University of Michigan's Institute for Social Research. Senior researcher and administrator in the social sciences with extensive skills in evaluation research as well as knowledge utilization in multiple disciplines. Qualifications include access to funding sources and ability to attract competent staff in a variety of social science research areas. Résumés and nominations should be forwarded to: **Dr. Angus Campbell, P.O. Box 1248, Ann Arbor, Michigan 48109. A nondiscriminatory, Affirmative Action Employer.**

## ENVIRONMENTAL SCIENCES

Our growing consulting firm has the following environmental positions available in HOUSTON:

### AQUATIC ECOLOGIST

MS or Ph.D. with 2-5 years' experience in consulting work. Need self-starter with broad experience in environmental sciences including terrestrial ecology, chemistry, geology. Experience should include client contact, supervision of multi-discipline group and technical writing ability.

### HYDROGEOLOGIST

MS level geologist with 2-5 years' experience in analysis of groundwater systems. Prior field experience with Aquifer testing required. Computer modeling, geophysical interpretation and well field design experience desirable. Good experience in preparation of technical reports required.

If you qualify for one of these positions, please send your resume and salary requirements, in confidence, to:  
Dr. David L. Steed.

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## associate director for statistical standards and methodology

The Bureau of the Census is recruiting for an Associate Director for Statistical Standards and Methodology. This is the principal scientific position in the Bureau, the Federal government's major statistical agency. The Associate Director participates in policy planning and has Bureau-wide responsibility for direction of the research and development program for all aspects of survey and census methodology. Additionally, statistical standards, and the application of research findings are the responsibility of the Associate Director.

This position requires expertise in mathematical statistics, preferably related to survey design and conduct, processing and analysis of survey data, or evaluation of surveys. Interest in measurement of errors in survey data and their impact on data uses is essential.

The current salary is \$47,500 per year.

Applicants should submit a complete vitae (including bibliography) or SF-171, and the names of up to four references. Submission of a copy of principal publications is desirable. Send material by 1 May, 1979 to:

Mr. Robert L. Hagan, Chairman  
Search Committee  
Bureau of the Census  
Washington, D.C. 20233

bureau of the census U.S. Department of Commerce

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Los Angeles, California 90007  
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## Plant Physiologist

Rapid expansion at Pfizer's Central Research Division has generated an immediate opening for challenging work in a new multi-discipline research group. Supported by state-of-the-art R & D facilities in Groton, Conn., you'll participate in a research effort to identify natural variants in plants or cell cultures with improved agronomic properties.

Ph.D. in plant physiology (or a related area) required. Post-doctoral experience or training in plant development and anatomy, tissue cultures, biochemistry, and genetics also desired.

In addition to an exceptional opportunity for professional recognition and growth, we offer an unusually comprehensive benefits package, and attractive Connecticut shore living. Please send resume and salary history, in confidence, to: Mr. F. G. Ziegler, Pfizer Central Research, 444 Eastern Point Road, Groton, CT 06340.



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## POSITIONS OPEN

### DIRECTOR OF ENDOCRINOLOGY

Strong research background. Responsible for training subspecialists, teaching endocrinology to house staff and students, and care of appropriate patients and cooperation with Departments of Radiology and Surgery. Send curriculum vitae to: **T. G. Regan, M.D., Department of Medicine, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—New Jersey Medical School, 100 Bergen Street, Newark, N.J. 07103. Equal Opportunity/Affirmative Action Employer, M/F.**

### DIRECTOR INSTITUTE OF WATER RESEARCH

Applications are invited for the position of Director of the Institute of Water Research at Michigan State University. The director is principally an administrator responsible for the Michigan Office of Water Research and Technology Programs, Michigan State University participation in the Sea Grant Program, operation of a field scale wastewater recycling facility, and supervision of four faculty members plus support staff. Appointment will be associate professor or professor, depending on qualifications. The candidate should be an established professional with a Ph.D., published evidence of scholarly activity in water resources, and a proven record of research funding and administrative ability. Applicants should send résumé, including names and addresses of at least three references, to: **Dr. Niles R. Kevern, Chairman, Search Committee, Department of Fisheries and Wildlife, Michigan State University, East Lansing, Michigan 48824, before 15 May 1979.**

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

**DIRECTOR, RESEARCH.** Pacific Gamefish Foundation (PGF), an international nonprofit research organization based in Honolulu, Hawaii, invites applicants for post of scientific director and general manager. Incumbent expected to develop and carry out research program on big game fish, keep members and others informed of research and marine affairs developments, and promote Pacific-wide cooperation in these activities. Must have experience in securing grants for research and managing an office and must be able to relate to the business and scientific community in the Pacific. Applicants send curriculum vitae and references to: **PGF, 2923 Makalei Place, Honolulu, Hawaii 96815.**

**ECOLOGIST**, in undergraduate biology department. Tenure-track position beginning September 1979. Recent Ph.D. required, rank dependent on experience. To teach ecology, participate in team-taught general biology course and an advanced course in own specialty. Primary consideration given to teaching excellence; research encouraged. *Applications from women particularly welcome.* Send curriculum vitae and three letters of recommendation to: **Dr. Bruce B. Criley, Head, Biology Department, Illinois Wesleyan University, Bloomington, Ill. 61701. Equal Opportunity Employer.**

### FACULTY POSITIONS COLLEGE OF OSTEOPATHIC MEDICINE OF THE PACIFIC 309 Pomona Mall East, Pomona, Calif. 91766

The expanding College of Osteopathic Medicine of the Pacific in Pomona, California, now in its second year, invites applications from qualified men and women beginning in the 1979-1980 academic year in the following areas:

- 1) Biochemistry with a strong background in human metabolism and nutrition.
- 2) Human physiology.
- 3) Pharmacology and therapeutics.
- 4) Microbiology and virology.
- 5) Gross anatomy with a strong background in histology, and
- 6) Gross anatomy with a strong background in embryology.

Ph.D., D.O., or M.D. required.  
Salary competitive, with many fringe benefits.  
Applicants should submit curriculum vitae, including list of publications and names of three references, to:

**Chairman, Faculty Search Committee  
College of Osteopathic Medicine of the Pacific  
309 Pomona Mall East  
Pomona, California 91766**

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## POSITIONS OPEN

**ENTOMOLOGIST.** Reannouncement for position as assistant professor or, if especially qualified, associate professor. Teach an undergraduate course in economic entomology, team-teach an upper division graduate course in insect transmission of plant diseases. Undergraduate and graduate advising. Research preferred in the control of insect-vectored diseases of agricultural crops. Send résumé, transcript, and three letters of recommendation to: **Dr. Milton W. Weller, Head, Department of Entomology, Fisheries, and Wildlife, University of Minnesota, 219 Hodson Hall, 1980 Folwell Avenue, St. Paul, Minn. 55108, by 15 May 1979. Position available 1 July 1979. Equal Opportunity/Affirmative Action Employer.**

### FACULTY POSITION AVAILABLE IN RETINAL HEMODYNAMICS AND BLOOD FLOW STUDIES

**University of Illinois Eye and Ear Infirmary and Abraham Lincoln School of Medicine, The University of Illinois at the Medical Center, Chicago.**

Applications are invited for a faculty position at the assistant or associate professor level. The major responsibility will be supervision of research on vascular flow in the retina, utilizing a unique noninvasive computerized ophthalmoscopy system. Active interchange with engineers and clinical ophthalmologists will be fostered. An advanced degree (Ph.D. or M.D.) is a prerequisite.

Those interested should direct inquiries, together with curriculum vitae and bibliography, to: **Morton F. Goldberg, M.D., Professor and Head, Department of Ophthalmology, University of Illinois Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Illinois 60612; telephone: 312-996-6590.**

*Equal Opportunity/Affirmative Action Employer*

**FACULTY POSITION** in growing group in the **BIOLOGICAL SCIENCES** to teach biology and conduct research in related area. Ph.D. and evidence of research activity required. Send résumé and three letters of recommendation no later than 20 April 1979 to:

**Biology Search Committee  
Department of Chemistry and Chemical Engineering  
Stevens Institute of Technology  
Hoboken, N.J. 07030**

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**FACULTY POSITION.** M.D. or Ph.D. degree with experience and interest in the chemistry and biology of oncogenic viruses, to establish independent research studies in department with active programs in immunobiology and cell biology. Participate in medical and graduate school teaching. Tenure-track. Position available 1 July 1979. Send résumé and names of three references to: **Stephen I. Morse, M.D., Professor and Chairman, Department of Microbiology and Immunology, State University of New York, Downstate Medical Center, 450 Clarkson Avenue, Box #44, Brooklyn, New York 11203. An Equal Opportunity/Affirmative Action Employer.**

### DEPARTMENT OF PATHOLOGY UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE

Applications are solicited for faculty positions in the following areas:

**CHIEF OF PATHOLOGY** at the Veterans Administration Medical Center, Tucson, Arizona, with major commitment to laboratory management and research/teaching program development. Minimum requirements are certification in anatomic pathology or clinical pathology (APCP desirable) with 3 years of teaching experience. Research and special professional interests in anatomic pathology or clinical pathology areas are desirable and encouraged. The position will carry appropriate academic status at the University requiring daily medical student and house officer contact.

**ASSISTANT (OR ASSOCIATE) PROFESSOR**, anatomic or clinical, with major commitment to service, research, and teaching in broad professional areas of pathology. Minimum requirements are certification in anatomic pathology or clinical pathology (APCP desirable) with prior teaching experience desirable. The position entails some supervisory activities and substantial commitment to medical student and house officer teaching.

Applicants should send curriculum vitae to: **Jack M. Layton, M.D., Head, Department of Pathology, The University of Arizona College of Medicine, Tucson, Arizona 85724. An Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.**

## POSITIONS OPEN

### FACULTY POSITION FOR PESTICIDE CHEMIST

**Division of Entomology and Parasitology  
College of Natural Resources  
University of California, Berkeley**

The Division of Entomology and Parasitology, University of California, Berkeley, invites applications for an assistant or associate research chemist position. Candidates with a Ph.D. degree in organic or agricultural chemistry or related area and post-doctoral experience are preferred. Position involves cooperative research on pesticide degradation and action, maintenance and operation of analytical instruments (MS and NMR) and programmatic responsibilities in coordinating activities of the Pesticide Chemistry and Toxicology Laboratory. Appointment is in the nontenure series, full-time, and regularly budgeted. Send curriculum vitae, publication list, and names of at least three references to: **Dr. John E. Casida, Chairman of Search Committee, 114 Wellman Hall, Pesticide Chemistry and Toxicology Laboratory, Division of Entomology and Parasitology, University of California, Berkeley, Calif. 94720.** Applications must be received before 1 June 1979. *The University of California is an Equal Opportunity Employer.*

**GENERAL BIOLOGY.** Two assistant professor positions available in interdepartmental teaching program starting August 1979. Duties will include lecturing in large classes and other assigned duties in multisection introductory biology courses. Applicants must have Ph.D. in biology or closely related field and prior teaching experience. A broad background in biology, demonstrated interest in quality undergraduate teaching, and ability to work effectively in a coordinated instructional team are essential. Send curriculum vitae, graduate and undergraduate transcripts, and three letters of recommendation before 15 April to: **Dr. C. F. Lytle, Coordinator, Biological Sciences Program, North Carolina State University, Box 5577, Raleigh, N.C. 27650.**

*Equal Opportunity/Affirmative Action Employer*

**GENETICIST**—12-month tenure-track position for an assistant or associate professor of genetics available 1 September 1979. Appointee will be expected to participate in instruction at both undergraduate and graduate levels, conduct a productive research program, and supervise M.S. and Ph.D. students in genetics.

Minimum qualifications for an assistant professor would be a Ph.D. degree in genetics, postdoctoral experience, and a strong research orientation. Teaching experience is desired. Salary is open and will be commensurate with the qualifications and experience of the appointee.

Curriculum vitae including publications and statements of teaching and research interests, and three letters of recommendation should be sent before 1 May 1979 to: **Dr. J. D. Smith, Genetics Section, Department of Plant Sciences, Texas A & M University, College Station, Texas 77843. Texas A & M University is an Equal Opportunity/Affirmative Action Employer.**

### DEPARTMENT HEAD BOTANY AND MICROBIOLOGY

Auburn University invites applications for the position of head of the Department of Botany and Microbiology, starting 1 October 1979 or later. Applicant must hold the Ph.D. degree in botany, plant pathology, microbiology, or some closely related discipline, and have experience in undergraduate and graduate teaching and in research. Final date for applications is 1 May. Contact: **Dr. G. A. Buchanan, Chairman, Search Committee, Department of Agronomy and Soils, Auburn University, Auburn, Ala. 36830. Auburn University is an Equal Opportunity/Affirmative Action Employer.**

### UNIVERSITY OF MICHIGAN

Two full-time positions at the **INSTRUCTOR** or **ASSISTANT PROFESSOR** level for Children's Psychiatric Hospital, Department of Psychiatry, University of Michigan, available 1 July 1979. Ability to teach medical students, psychology interns, and child fellows important. Must have an interest in pursuing an academic career. Research skills and interests an advantage. Please reply to: **Box 114, SCIENCE. Code 600H0 and 2900I0. A nondiscriminatory, Affirmative Action Employer.**

## OPPORTUNITIES FOR NUCLEAR INDUSTRY EXECUTIVES

The Nuclear Regulatory Commission is seeking qualified candidates to fill the following executive level technical management positions.

### OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS

#### Deputy Director, Office of Nuclear Materials Safety and Safeguards

GS-18, \$47,500 per annum. Location: Silver Spring, Maryland. Assists the director who is responsible for the licensing and regulation of facilities and materials licensed under the Atomic Energy Act of 1954, as it pertains to the processing, handling, and transport of nuclear materials. Assistance includes the development of plans and programs for the intermediate and long-range resource industry.

#### Deputy Director, Division of Waste Management

GS-17, \$47,500 per annum. Location: Silver Spring, Maryland. Assists in planning and implementation of Division licensing activities, determination of resource requirements to meet the needs of the waste management program, and the development of standards, guides, and criteria. Assists the director in the implementation of non-case activities (that is, development of policies, procedures, guides, and criteria related to fuel cycle and radioactive materials licensing).

#### Deputy Director, Division of Safeguards

GS-17, \$47,500 per annum. Location: Silver Spring, Maryland. Assists the director in the administration and direction of the division's responsibility for developing, implementing and evaluating nuclear safeguards programs including monitoring, testing and physical protection of nuclear facilities and materials, and for nuclear accounting systems; developing continuous plans dealing with theft, threats, and sabotage of nuclear materials.

A broad knowledge of engineering, chemistry, physics, health physics, radiological biology and industrial hygiene related to atomic energy materials is required for the three above positions. Depending upon the position, applicants should possess specialized knowledge of isotopes, process technology or waste management technology sufficient to develop and evaluate radiation protection criteria. Progressive experience in these functional areas should be evidenced.

### OFFICE OF NUCLEAR REACTOR REGULATION

**Chief, Geosciences Branch, Division of Site Safety and Environmental Analysis**  
GS-15 to GS-16, \$38,160 to \$47,500 per annum. Location: Bethesda, Maryland. Supervises, directs, and coordinates the technical review and evaluation of sites for seismological, geological, and geotechnical engineering aspects. Utilizes the analytical assistance of consultants and assesses their input in evaluation reports. Identifies areas needing further earth science research and development.

Requires comprehensive scientific and technical expertise in areas of nuclear facility siting and the impact of natural phenomena on the safety of facilities, and detailed knowledge of earth sciences evidenced by educational background in geophysics and soil mechanics.

### OFFICE OF NUCLEAR REGULATORY RESEARCH

#### Director, Probabilistic Analysis Staff

GS-17, \$47,500 per annum. Location: Silver Spring, Maryland. Directs programs involving quantitative risk assessments of nuclear power reactors of various types (LWR, HTGR, Fast Breeder, and so forth) and of other nuclear fuel cycle facilities (reprocessing plants, high-level waste disposal facilities, transportation); monitors the continued development of risk assessments and probabilistic analysis techniques.

Requires a thorough knowledge of theory and design of all types of nuclear reactors and their operating characteristics with emphasis on reliability and statistical techniques as they apply to the nuclear fuel cycle.

Depth of knowledge in theory and practices in the fields of mathematics, physics, and reactor theory to permit authoritative technical judgments on concepts, proposals, and experiments is required.

### OFFICE OF POLICY EVALUATION

#### Director, Office of Policy Evaluation

GS-18, \$47,500 per annum. Location: Washington, D.C. Provides overall planning, management, and leadership in the conduct of independent reviews and technical evaluations for the commission, that is, review of positions developed by the Regulatory Staff which require policy determination by the commission, technical evaluation of program policy objectives and of selected cases presented to the commission for adjudication, special projects at the request of the commission in areas with agency long-range policy implications and studies for the commission.

Requires extensive knowledge of the legislative and public policy background of the basic charter and responsibilities of the NRC (Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974); knowledge of the issues and processes involved in licensing and regulating the areas under NRC jurisdiction, and demonstrated ability in the direction of program planning and analysis of complex programs.

### OFFICE OF EXECUTIVE DIRECTOR FOR OPERATIONS

#### Technical Advisor, Office of Executive Director for Operations

STS to \$47,500 per annum. Location: Bethesda, Maryland. Serves as principal advisor on all scientific and technical matters. Reviews and evaluates scientific aspects of all major staff actions. Identifies and researches special nuclear safety problems.

Requires general engineering background with specific knowledge of nuclear engineering and design of nuclear power plants. Requires broad knowledge of the commission's technical programs and policies in the areas of nuclear safety, facility design, safety research and development, and regulation.

Send government application (Standard Form 171, available at most federal offices) or résumé with salary history to:

### U.S. NUCLEAR REGULATORY COMMISSION

#### Division of Organization and Personnel

#### Recruitment Branch

Washington, D.C. 20555

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U.S. Citizenship Required

## CSIRO CHIEF OF DIVISION INSTITUTE OF ANIMAL AND FOOD SCIENCES SYDNEY, NEW SOUTH WALES

**Applications:** applications are invited for the position of chief, Division of Food Research, from scientists who have an established record of personal research achievement and leadership in food science or related disciplines. The position has become vacant on the appointment of the former chief, M. V. Tracey, to the position of director of the Institute of Biological Resources, CSIRO.

**General:** CSIRO is Australia's largest and most comprehensive research organization, having approximately 7,000 employees of whom 2,400 are research and professional scientists. Its broad charter covers research into problems of primary and secondary industries and also such fields of community interest as human nutrition, the environment and the development and use of natural resources. The organization has recently grouped its research activities in five institutes and one bureau, and the Division of Food Research is one of the divisions within the Institute of Animal and Food Sciences.

The components of the institute are the Divisions of Animal Health, Animal Production, Food Research, Human Nutrition, the Molecular and Cellular Biology Unit, the Wheat Research Unit and the Centre for Animal Research and Development in Indonesia.

The Division of Food Research has three main laboratories: the Food Research Laboratory in Sydney, New South Wales, the Meat Research Laboratory in Brisbane, Queensland, and the Dairy Research Laboratory in Melbourne, Victoria. There is also a Food Research Unit in Hobart, Tasmania. The headquarters of the division are located in the Food Research Laboratory. The total staff of 336 includes 162 professional scientists.

The Division of Food Research conducts research programs in food science and technology directed generally toward improvements of the quality of fresh and processed foods both for Australian consumers and for export markets. Specific programs are concerned with the microbiological status and safety of foods, the nutritional status, quality, and structure of foods, the minor components of foods of sensory and physiological significance, and the development of improved procedures for the handling, storage transport, and processing of foods in the commodity groups: meat, dairy products, seafoods, poultry, eggs, fruits, and vegetables.

A chief of a division is responsible for the leadership, development, scientific direction, and integration of the research programs of the division, and is encouraged to promote active collaboration with other divisions, industry and research bodies working in associated areas. A recent review of the work of the division of food research recommended the strengthening of relations with the Australian food industry.

**Salary:** the salary for the position is negotiable but will not be less than A\$34,374 per annum.

**Tenure:** the terms of the appointment will be discussed with the short-listed applicants at an interview. The appointee would be eligible to contribute to the Commonwealth Superannuation Scheme.

**Further information:** further information on the division is in a booklet available on request from the Secretary, CSIRO, at the address below.

Dr. K. A. Ferguson, Director of the Institute of Animal and Food Sciences, and Chairman of the Appointment Committee, will be visiting North America in April and May 1979 and the United Kingdom in May and June 1979 and will be available for discussions concerning the appointment with applicants and other interested parties. Those interested should contact either: **The Minister (Scientific), Australian Scientific Liaison Office, Canberra House, 10-16 Maltravers Street, London, WC 2R 3EH, England, or The Counsellor (Scientific), Australian Embassy, 1601 Massachusetts Avenue, NW, Washington, D.C. 20036.** It may be possible to arrange such discussions at a number of points in the United Kingdom and the United States. Interested scientists should ensure that the appropriate overseas office is contacted in ample time to enable suitable arrangements to be made.

Applications stating full personal and professional details and names of at least two professional referees and quoting reference number 300/729 should reach:

The Secretary

CSIRO

P.O. Box 225

Dickson, A.C.T. 2602, Australia

by 27 April 1979.

## POSITIONS OPEN

**LABORATORY TECHNICIAN.** Position in Mechanisms of Nitrosamine Carcinogenesis Section open immediately. Quantitative and qualitative nitrosamine analyses using thermal energy analyses in conjunction with appropriate chromatographic techniques. Also, training or experience in gas/liquid chromatography and high performance liquid chromatography. Send résumé and names of three references to: **Dr. George M. Singer, Carcinogenesis Research Program, Frederick Cancer Research Center, P.O. Box B, Frederick, Maryland 21701.**

**MAMMALOGIST.** Assistant professor. Position available August 1979 to teach mammalogy and ornithology and to assist in introductory biology program. Ph.D. required. Submit curriculum vitae and names of three references by 25 April 1979 to: **Dr. Harold G. Marshall, Chairman, Department of Biological Science, Old Dominion University, Norfolk, Va. 23508. An Affirmative Action/Equal Opportunity Employer.**

## MARINE CHEMIST

The Department of Oceanography, University of Hawaii, anticipates an opening for a marine chemist at the assistant researcher level, starting 1 September 1979 pending availability of tenure-track position and funds. The position will be equally split between the Department of Oceanography for graduate teaching and the Hawaii Institute of Geophysics, where research is emphasized. The appointee will be expected to explore his/her own field of specialization and to interact extensively with faculty and students in other fields. Applicants should solicit three letters of reference, and submit curriculum vitae and a brief description of their future research plans to: **Dr. Keith E. Chave, Department of Oceanography, University of Hawaii, Honolulu, Hawaii 96822.** All materials must be received by 1 May 1979.

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

**MEDICAL EDUCATION—BASIC SCIENCE.** Experienced instructors are needed to share the development of an integrated program for 200 students. Interest in natural holistic medicine and desire for challenge are essential. Subjects include **pathology, microbiology, immunology, laboratory and physical diagnosis, anatomy, physiology, biochemistry.** Send letter of application, curriculum vitae, and references to: **Academic Dean, The National College of Naturopathic Medicine, 510 Southwest 3rd Avenue, Portland, Oregon 97204.**

**NEUROPHARMACOLOGIST.** A position is available in the Geriatric Research, Education, and Clinical Center (GRECC) of the Seattle Veterans Administration (VA) Medical Center. Applicants must have a Ph.D. plus postdoctoral experience and qualify for a joint junior faculty level appointment in the Departments of Medicine and Pharmacology at the University of Washington. A research interest in the general area of brain peptides and aging, and specific background in brain peptide immunology and/or receptor assay is required. This is a Civil Service position, GS 11/12 level. For further information contact: **Jeffrey B. Halter, M.D., Associate Director, GRECC, Assistant Professor of Medicine, Seattle VA Medical Center, Seattle, Washington 98108. Affirmative Action/Equal Opportunity Employer.**

**NEUROSCIENTISTS (two), VISUAL PHYSIOLOGIST** experienced in single unit recording and neurochemical pharmacologist wanted for interdisciplinary program stressing cellular and functional synaptic pharmacology and development of the brain. Both positions can carry assistant professor appointments at the University of Southern California (USC), depending upon qualifications, and start fall 1979. Applications, including curriculum vitae and names and addresses of three references, should be addressed to: **George N. Donnell, M.D., Professor and Chairman, Department of Pediatrics, USC School of Medicine at Childrens Hospital of Los Angeles, P.O. Box 54700, Terminal Annex, Los Angeles, California 90054.**

*USC and Childrens Hospital are Equal Opportunity/Affirmative Action Employers.*

**ORGANIC CHEMIST—Ph.D.** required. Background with polymers and some knowledge of biological systems. Should have experience in developing and standardizing chemical reactions associated with the attachment of proteins and carbohydrates to solid surfaces. Résumés to: **G. Barksdale, Department M-51, Ortho Diagnostics Inc., Route 202, Raritan, N.J. 08869.**

## POSITIONS OPEN

### NEUROPHYSIOLOGIST/ ASSISTANT PROFESSOR

The Department of Neurosurgery, Rush Medical College, is seeking a full-time neurophysiologist to study human motor disabilities and neuroprosthetic devices. Interest in basic and applied clinical research is necessary. The position will be conjoint with the Department of Physiology and will entail some teaching responsibilities. Send résumé to:

**Richard D. Penn, M.D.  
Department of Neurosurgery  
Rush-Presbyterian-St. Luke's Medical Center  
1753 West Congress Parkway  
Chicago Ill. 60612**

*Rush-Presbyterian-St. Luke's Medical Center is an Equal Opportunity/Affirmative Action Employer.*

### ORGANIC CHEMISTRY POSTDOCTORAL RESEARCH ASSOCIATE

Position available now for research in vinyl monomer carcinogenesis study. This is a temporary, full-time position and may be renewable. State-of-art instrumentation (HPLA, FT-NMR, and so forth) available. Close interaction with medical school cancer research groups. Salary competitive. Send résumé, salary history, and transcripts to: **Professor John L. Wong, Department of Chemistry, University of Louisville, Louisville, Ky. 40208** by 30 July 1979. Also, two letters of recommendation should be sent directly from persons who will write for you. *An Equal Opportunity/Affirmative Action Employer.*

**PARASITOLOGIST—**Position open for parasitologist with strong background in veterinary and medical entomology, including mosquito and tick borne diseases and epidemiology. Must have experience in international health. Work will include research and teaching in a new veterinary school with opportunities for cooperative studies with (human) tropical medicine unit. This is a senior faculty position. Salary commensurate with background and experience. Reply to: **Dr. Leonard Marcus, Tufts University School of Veterinary Medicine, 193 Harrison Avenue, Boston, Massachusetts 02111. Tufts is an Equal Opportunity/Affirmative Action Employer.**

### PLANT PHYSIOLOGIST

Applications are invited for a tenure-track teaching/research position at the assistant professor level from individuals with active research programs in plant physiology.

Responsibilities include teaching plant physiology and supervision of master's degree candidates. Send curriculum vitae, representative reprints, statement of research interests, and three letters of recommendation to: **Search Committee, Department of Biology, University of Missouri-St. Louis, 8001 Natural Bridge, St. Louis, Mo. 63121.** Applications close 2 weeks after the date of this advertisement. *An Equal Opportunity/Affirmative Action Employer.*

**THE AUSTRALIAN NATIONAL UNIVERSITY** invites applications from suitably qualified persons for appointment as **POSTDOCTORAL FELLOW, RESEARCH FELLOW, or SENIOR RESEARCH FELLOW** in the Department of Theoretical Physics, Research School of Physical Sciences (one appointment). The department would prefer to make an appointment in the research areas of elementary particle physics or field theory, but applications from theoretical physicists with research interests in other areas will be considered. The department's main current interests are in fundamental aspects of particles and fields, statistical mechanics, solid-state physics, plasma physics, and nuclear physics. A substantial part of the work is related to the experimental interests of the Research School. Appointment as postdoctoral fellow is for a period of 1 to 2 years, and as research fellow/senior research fellow for 3 years with the possibility of a further period up to 5 years. Applications are welcomed from persons on leave for limited periods from their institutions. Salary will be according to qualifications and experience within the range: research fellow: \$A15,786 to \$A20,606 per annum; senior research fellow: \$A22,049 to \$A26,301 per annum; postdoctoral fellow, a fixed point between \$A15,786 to \$A20,606 per annum. Current exchange rates are \$A1:U.S. \$1.13:CS\$1.34. Reasonable travel expenses are paid. Prospective applicants should write to: **Registrar, Australian National University, P.O. Box 4, Canberra ACT 2600, Australia** for further particulars before submitting applications, which close on 18 May 1979.

## POSITIONS OPEN

### POPULATION ECOLOGIST

The Johns Hopkins University's Chesapeake Bay Institute is seeking a population ecologist to join a multidisciplinary program relating to the siting of energy facilities on the Chesapeake Bay and its tributaries. A field-orientated individual with an interest in the distributional ecology of fishes is preferred. An interest in applied problems and experiences in impact assessment are desired.

The minimum requirement is the Ph.D. The appointment is at the level of assistant research scientist. Exceptional or more experienced candidates will be considered for higher ranks. Interested persons should send curriculum vitae and the names of three references to: **Search Committee-Ecologist, Chesapeake Bay Institute, The Johns Hopkins University, Baltimore, Maryland 21218. An Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL ASSOCIATE POSITION

Available immediately for a recent Ph.D. experienced in eukaryotic mRNA isolation and in vitro translation to join a research group studying the structure, function and hormonal regulation of plasminogen activators in normal and tumor-derived human cells. Send curriculum vitae and names of three references to: **Dr. Richard Roblin, Cancer Biology Program, Frederick Cancer Research Center, Frederick, Maryland 21701. An Equal Opportunity Employer, M/F.**

**POSTDOCTORAL AND RESEARCH ASSOCIATE POSITIONS** available immediately to study: (i) the metabolic regulation of ketone body metabolism in the rat brain and in vitro brain cell cultures, (ii) the in vivo turnover of ketone bodies in the rat by investigating the rates of production from various substrates and the rates of utilization as influenced by hormonal perturbations, and (iii) the regulation of glutamine metabolism by mammalian cells in culture. The latter research will focus on the interaction of glycolysis and the TCA cycle, CO<sub>2</sub> fixation reactions, and the malate-aspartate shuttle. A strong background in biochemistry is essential. Experience in enzymology or tissue culture is desirable for studies (i) and (iii). Salary commensurate with experience. Send curriculum vitae and names of three references to: **Dr. H. Ronald Zielke, Pediatric Research, University of Maryland School of Medicine, Baltimore, Md. 21201.**

**NIHA POSTDOCTORAL FELLOW** in clinical immunology available 1 July 1979 in a highly multidisciplinary department with a unique patient load. Applicant must have a minimum of 2 years of residency in internal medicine and an interest in an academic career, as fellowship program includes 50 percent time for research in any of 21 funded areas in the first year and 75 percent time the second year. Department is located in a charming seacoast city with unsurpassed year-round recreation, unbelievably low housing costs, and excellent cultural facilities. \$15,000 per year. Send curriculum vitae and bibliography to: **H. H. Fudenberg, M.D., Professor and Chairman, Basic and Clinical Immunology, 171 Ashley Avenue, Charleston, S.C. 29403.**

*An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

**POSTDOCTORAL FELLOW.** Available immediately. Preference given to biochemist with interest in the functional aspects of protein methylation. Send curriculum vitae and two references to: **L-30, P.O. Box 2068, Philadelphia, Pa. 19103. Equal Opportunity Employer.**

**POSTDOCTORAL POSITION IN COMPARATIVE BIOCHEMISTRY** available 1 June 1979. Background preparation in enzymology and cell fractionation techniques. Interest in invertebrate and vertebrate biochemistry. Send résumé and names of three references to: **Dr. James W. Campbell, Department of Biology, Rice University, Houston, Texas 77001. Equal Opportunity/Affirmative Action Employer.**

### UNIVERSITY OF MICHIGAN MEDICAL SCHOOL PHYSIOLOGY DEPARTMENT

**POSTDOCTORAL POSITION** available July 1979 to study the structure-activity relationships of pituitary growth hormone. Please send curriculum vitae and the names of three references to: **Box 113, SCIENCE. A nondiscriminatory, Affirmative Action Employer.**



## POSITIONS OPEN

**POSTDOCTORAL POSITION** available immediately; starting stipend: \$12,000; 2-year appointment. Position involves study of tropical grain legume/*Rhizobium* interactions. Serology experience desirable. Send curriculum vitae and three references to: **Allan Eaglesham, Ph.D., Boyce Thompson Institute for Plant Research, Tower Road, Ithaca, N.Y. 14853.** *Boyce Thompson Institute is an Equal Opportunity/Affirmative Action Employer.*

Two **POSTDOCTORAL POSITIONS** funded from research or training grants: (i) in vitro transcription studies of native and chemically modified superhelical DNAs using biochemical and DNA sequence analysis, and (ii) development of new techniques for the analysis of specific protein-DNA associations utilizing new biophysical approaches. Both research areas are complementary, leading to a challenging environment that seeks applicants with experience in nucleic acid biochemistry and biophysical chemistry. A research associate opening also exists for a candidate with an M.S. degree and a demonstrated capacity for independent research. Salary: NIH Guidelines. Send résumé and names of three references to: **Dr. Jacob Lebowitz, Department of Microbiology, Box 11 DB, University of Alabama in Birmingham, Birmingham, Alabama 35294.**

**POSTDOCTORAL POSITION** available immediately to study the roles of prostaglandins and cyclic nucleotides in stimulus-secretion coupling. Experience in cell isolation and/or radioimmunoassay is helpful. Please send résumés and names of references to: **Dr. R. P. Rubin, Department of Pharmacology, Medical College of Virginia, Richmond, Va. 23298.**

**POSTDOCTORAL RESEARCH ASSOCIATES.** Two positions are available starting 1 December 1979 (grant funding) for study of neurogenesis of respiratory rhythm in the mammal. Electrophysiological expertise, such as knowledge of microelectrode recording techniques, as well as familiarity with computer data analysis methods, are required. Write to: **Dr. Morton I. Cohen, Department of Physiology, Albert Einstein College of Medicine, Bronx, N.Y. 10461.** *An Equal Opportunity Employer.*

## POSITIONS OPEN

### POSTDOCTORAL POSITION

The Department of Biochemistry, Rice University, announces the immediate availability of a postdoctoral position. Previous experience in enzymology, particularly of membrane bound and/or electron transfer enzymes, physical approaches to bioenergetics, will be advantageous.

Prospective candidates should submit résumés together with the names of three individuals familiar with their research accomplishments to: **Dr. G. Palmer, Department of Biochemistry, Rice University, Houston, Texas 77001.**

*Rice University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** in protein crystallography available 1 July 1979. Major research area is the structure determination of b-type cytochromes and related flavoenzymes. Research facilities include an MMS-X molecular graphics system, oscillation camera, computer controlled micro-densitometer and 4-circle diffractometer. Send curriculum vitae and the names of three references to: **Dr. F. Scott Mathews, Department of Physiology and Biophysics, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, Mo. 63110.**

*Affirmative Action/Equal Opportunity Employer*

**POSTDOCTORAL POSITION** available immediately to conduct metabolic and transport studies on red cells. Send résumé and names of three references to: **Dr. H. D. Kim, Department of Physiology, College of Medicine, University of Arizona, Tucson, Arizona 85724.** *An Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.*

**POSTDOCTORAL POSITION** available around 1 July 1979 for research on effects of environmental pollutants as agents predisposing fish to infection with microbial pathogens. Experience in fish disease work and in heavy metal toxicology desirable. Send curriculum vitae and names of three references to: **Dr. Frank M. Hetrick, Department of Microbiology, University of Maryland, College Park, Maryland 20742.** *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available immediately for individual with background in medical microbiology. Studies involve interactions of host factors and inhaled environmental agents on pulmonary defenses against microbial infection. Stipend: \$10,000 to \$12,000 depending on experience. Send curriculum vitae, statement of research interests, and three letters of recommendation to: **Dr. George J. Jakab, Department of Environmental Health Sciences, Johns Hopkins School of Hygiene, 615 North Wolfe Street, Baltimore, Maryland 21205.** *Equal Opportunity Employer, M/F.*

**POSTDOCTORAL POSITION** available immediately. Prefer background in bioengineering and computer programming. Project involves analysis of systolic and diastolic mechanics in patients before, during, and after cardiac surgery. Two-dimensional ultrasound and innovative analytical techniques are also under development in experimental and animal laboratory for patient studies. Two-year position. Rank and salary commensurate with experience. Send curriculum vitae and two letters of recommendation to: **Henry M. Spotnitz, M.D., Director, Cardiovascular Surgery Research Laboratory, Columbia University College of Physicians and Surgeons, 630 West 168 Street, New York, New York 10032.** *Columbia University is an Affirmative Action/Equal Opportunity Employer.*

**RESEARCH ASSOCIATE IN CLINICAL CARDIOLOGY.** Emphasis on 2D sector scanning in patients undergoing cardiac surgery for ischemic, valvular, and congenital lesions. Opportunities for studies of cardiac mechanics intraoperatively and in the animal research laboratory. Computer analysis of accumulated data and participation in clinical and basic science conferences featured. Qualifications: cardiology training and experience with sector scanning preferred. Positions available July 1979 and 1980. Send curriculum vitae and two letters of recommendation to: **Henry M. Spotnitz, M.D., Director, Cardiovascular Surgery Research Laboratory, Columbia University College of Physicians and Surgeons, 630 West 168 Street, New York, New York 10032.** *Columbia University is an Affirmative Action/Equal Opportunity Employer.*

## DIRECTOR INSTITUTE FOR ENERGY ANALYSIS

Oak Ridge Associated Universities (ORAU) is seeking a director for the Institute for Energy Analysis. The institute was established in 1974 to address broad questions of energy policy such as energy supply and demand projections, nuclear siting, biological risks of various energy technologies, and the consequences of alternative energy systems. The multidisciplinary staff, about 30, has been recruited from universities and scientific institutions throughout the world. The position requires an individual of recognized scientific distinction. Although responsible for the operation and management of the institute, the director's key role is to provide scientific leadership, coordinate multidisciplinary research studies, and develop major staff projects. Candidates should possess a Ph.D. in a relevant field of science; have a broad understanding of, and commitment to, energy analyses; be experienced in directing multidisciplinary team projects; and knowledgeable of federal funding procedures.

Send curriculum vitae and bibliography to: **Dr. Philip L. Johnson, Executive Director, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, Tenn. 37830.**

ORAU is a private, not-for-profit association of 45 colleges and universities, conducting programs of research, education, and training for government and private organizations. It has particular interest in the fields of energy, health, and the environment. ORAU is noted for its cooperative programs and for its contributions to the development of science and human resources in the South.

*An Equal Opportunity Employer.*

## Scientist

### Pharmacology/Biochemistry

Our expanding Pharmacology Department is currently in need of a scientist to perform analytical research in ocular pharmacology and chemistry.

#### Minimum requirements are:

- ☐ M.S. in pharmacology or in analytical biochemistry.
- ☐ 1 or 2 years of work experience to include:
  - 1) Conducting animal experimentation (in vitro and in vivo), and
  - 2) Familiarity with advanced instrumental analysis, that is, spectrophotometry, radioisotope methodology, radioimmunoassay, HPLC, and GC.
- ☐ Autonomic pharmacology related to the eye is highly desirable.

Our package for the qualified professional includes a competitive starting salary, comprehensive insurance coverage, including dental, and an excellent profit sharing trust plan.

If you meet our qualifications and are interested in a meaningful personal and professional growth opportunity, please send your detailed résumé in confidence to:

Sara J. Christman, Staff Recruiter

**Alcon**

**ALCON LABORATORIES,  
INCORPORATED**

P.O. Box 1959, Fort Worth, Texas 76101  
*an equal opportunity employer m/f*

## POSITIONS OPEN

**POSTDOCTORAL POSITION**—Division of Dermatology, Department of Medicine, Duke University Medical Center. Cell biology with interest in epithelial cell culture, immunocytology, mechanisms of phagocytosis and secretion of proteinase metabolism. Reply to: **Gerald S. Lazarus, M.D., Chairman, Division of Dermatology, Box 2987, Duke University Medical Center, Durham, North Carolina 27710.** *Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION

Available 1 September 1979. Recent Ph.D. in microbiology and biochemistry with strong background in microbiological techniques, and good publication record, to continue study on new respiratory mutants of *Azotobacter vinelandii* in relation to energy conservation. One-year appointment, renewable. Stipend: \$12,000 for first year. Send curriculum vitae and three references to: **Dr. Daniel V. DerVaratianian, Boyd Graduate Studies Research Center, University of Georgia, Athens, Georgia 30602.**

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

**POSTGRADUATE RESEARCH PHYSIOLOGIST/BIOENGINEER.** An immediate opening for a position to participate in research in cardiovascular physiology. Position is affiliated with the Bioengineering Group of the Departments of Applied Mechanics and Engineering Science and of Surgery. Candidate should be a recent or imminent Ph.D. in physiology or bioengineering, have experience with small and large animals. Salary commensurate with qualifications. Send curriculum vitae to: **Arnold Fronek, M.D., Professor, Surgery and Bioengineering, Basic Science Building, M-005, University of California, San Diego, La Jolla, California 92093.** *University of California is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL RESEARCH IN EPITHELIAL TRANSPORT

Institutional National Research Service Award has two or three openings for postdoctoral training in epithelial transport. Current emphasis on cellular mechanisms of ion transport in isolated epithelia and single epithelial cells, with opportunities for training in the study of isolated urinary and gastrointestinal epithelia. One of these positions must be filled prior to 30 June 1979. Send curriculum vitae and names of three references to: **Dr. David C. Dawson, Department of Physiology and Biophysics, University of Iowa College of Medicine, Iowa City, Iowa 52242.** *An Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL SCHOLAR

Position available beginning September 1979 for biochemist with interest in the metabolism of glycosaminoglycans. Appointment is for a minimum of 2 years. Experience desirable in gas liquid chromatography and/or high pressure liquid chromatography. This program involves the structure of lung in health and disease. Minimum stipend of \$10,000 will be supplemented commensurate with experience. Send résumé and three letters of recommendation to: **Dr. Jack Distler, Rackham Arthritis Research Unit, Department of Internal Medicine, University of Michigan, Ann Arbor, Michigan 48109.**

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### RESEARCH ASSISTANT BIOCHEMISTRY

Opportunity to do basic research in biochemistry investigating mechanisms of enzymatic processing of natural and unnatural substrates and in vivo consequences of inhibition of specific biochemical pathways.

Applicants should have a bachelor's or master's degree with emphasis in chemistry and biochemistry plus 2 years of laboratory experience after graduation, or be a recent graduate with a strong academic background and a desire to learn modern biochemical techniques.

Salary commensurate with experience. Send curriculum vitae, names of three references, and salary history in strict confidence to:

**Employment Manager  
MERRELL-NATIONAL LABORATORIES  
A Division of Richardson-Merrell, Inc.  
2110 East Galbraith Road  
Cincinnati, Ohio 45215  
*An Equal Opportunity Employer, M/F***

## POSITIONS OPEN

**THE AUSTRALIAN NATIONAL UNIVERSITY** invites applications for a position of **PROFESSORIAL FELLOW** in the Department of Immunology, John Curtin School of Medical Research. An appointment will be made to undertake research either in the field of cancer biology or in an area of developmental and reproductive immunology. Applicants interested in research into cancer should have a comprehensive background in cellular immunology, particularly in relation to the response of the immune system to cellular antigens. Applicants who have worked in reproductive physiology or developmental biology should have an interest in fetal-maternal interactions and in the developmental aspects of the immune system. Appointment as professorial fellow is to age 65 with the option of retiring at any time after age 60. Salary is A\$30,713; current exchange rates are A\$1 : U.S.\$1.13 : C\$1.34. Reasonable travel expenses are paid. Prospective applicants should write to: **Registrar, Australian National University, P.O. Box 4, Canberra ACT 2600, Australia** for further particulars before submitting applications, which close on 31 May 1979.

### UNIVERSITY OF MICHIGAN MEDICAL SCHOOL PSYCHIATRIST—CLINICAL RESEARCH UNIT

Full-time psychiatrist position for a clinical investigator with the Clinical Studies Unit, Department of Psychiatry, University of Michigan, Ann Arbor. Responsibility for clinical supervision and research direction of outpatient depression research clinic; close interaction with inpatient and day hospital research programs. Clinical experience with affective disorders, and research experience in psychobiology/psychopharmacology are required. Faculty appointment and salary commensurate with experience. Reply to: **Box 115, SCIENCE.** Code 300F0. *A nondiscriminatory, Affirmative Action Employer.*

The Department of Medicine of the University of South Carolina School of Medicine invites applications for a **RESEARCH ASSISTANT PROFESSOR** position. Applicants must hold the Ph.D. Primary responsibility will be research in the area of molecular pharmacology of agents used in cancer chemotherapy. Position will begin 1 July 1979, and approximate annual salary will be \$18,000. Letters of application must include curriculum vitae and should be addressed to: **William E. Lynch, Department of Medicine, University of South Carolina School of Medicine, Veterans Administration Hospital, Columbia, S.C. 29201.** *An Affirmative Action/Equal Opportunity Employer.*

**RESEARCH ASSOCIATES.** Ph.D. biochemistry or cell biology are immediately available for a minimum of 3 years. The research will involve studies of multi-enzyme systems in respiratory and tumor tissues which regulate the composition, synthesis, and secretion of cell surface antigens and mucin glycoproteins in these tissues. A second position is available to study the role of phosphorylation of soluble enzymes and membrane proteins in the mechanism of hormone action in kidney. Salaries for these positions range from \$12,500 to \$15,000, commensurate with experience. Send résumé and names of references to:

**Dr. Joseph Mendicino  
Department of Biochemistry  
University of Georgia  
Athens, Georgia 30602**

**RESEARCH ASSOCIATE**—Immediate opening for Ph.D. with strong background in virology and cell culture for research on inflammatory bowel disease. Salary up to \$25,000 (negotiable), depending on experience. Send curriculum vitae and names of three references to: **Dr. E. D. Kilbourne, Chairman, Department of Microbiology, THE MOUNT SINAI SCHOOL OF MEDICINE, One Gustave L. Levy Place, New York, N.Y. 10029.** *An Equal Opportunity Employer.*

**RESEARCH ASSOCIATE or POSTDOCTORAL POSITION** available immediately to study regulation of collagen metabolism in cultured human diploid fibroblasts. Experience in collagen biochemistry and/or somatic cell genetics desirable. Send curriculum vitae, summary of research experience and interest, and three letters of reference to: **Dr. James D. Russell, Division of Genetics and Molecular Medicine, Meharry Medical College, Nashville, Tenn. 37208.** *An Affirmative Action/Equal Opportunity Employer*

## POSITIONS OPEN

**RESEARCH ASSOCIATE,** Ph.D. or M.D. degree. Interest and training in bacteriology and immunology to join in studies on the nature and properties of biologically active components of *Bordetella pertussis*. Position available immediately. Send résumé and names of three references to: **Stephen I. Morse, M.D., Department of Microbiology and Immunology, State University of New York, Downstate Medical Center, 450 Clarkson Avenue, Box #44, Brooklyn, New York 11203.** *An Equal Opportunity/Affirmative Action Employer.*

### THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON

**RESEARCH ASSOCIATE.** Immediate opening for individual to work in all techniques dealing with TEM including thin sectioning and routine electron microscope maintenance. Experience with SEM, x-ray microanalysis, and/or freeze fracture is highly desirable. Requires degree and 5 years of related experience or equivalent. Inquiries should be directed to: **Dr. Ruth Bulger, Department of Pathology and Laboratory Medicine, The University of Texas Health Science Center at Houston, 6431 Fannin, Houston, Texas 77030; telephone: 713-792-5200.**

**RESEARCH ASSOCIATE,** Ph.D. in physiology or biophysics, is needed to study the mechanisms and control of pancreatic exocrine electrolyte secretion. Experience in micropuncture and microanalysis of ions extremely helpful. Full-time, nontenured, grant-supported position. Salary: \$10,000 to \$13,000 on 12-month basis. Apply to: **Dr. William R. Galey, Department of Physiology, University of New Mexico, School of Medicine, Albuquerque, New Mexico 87131.** *An Affirmative Action/Equal Opportunity Employer.*

Division of Dermatology, Duke University Medical Center. **RESEARCH ASSOCIATE POSITION**—proteinase metabolism, protein purification, enzyme kinetics, immunochemistry, mechanisms of proteinase action. Two years of postdoctoral experience necessary; \$16,000 per year; 5 years of support which includes technician. Reply to: **Gerald S. Lazarus, M.D., Chairman, Division of Dermatology, Box 2987, Duke University Medical Center, Durham, North Carolina 27710.** *Equal Opportunity/Affirmative Action Employer.*

The Department of Biochemistry, Rice University, announces the availability of **RESEARCH POSITIONS** for programs of research in the areas of cholesterol biosynthesis, sphingolipid chemistry and metabolism, and stereochemistry of enzymatic reactions. Interested candidates should send résumé, transcripts, and names of three references to:

**Dr. G. J. Schroepfer, Jr.  
Department of Biochemistry  
Rice University  
Houston, Texas 77001**

*Rice University is an Equal Opportunity/Affirmative Action Employer.*

Third, fourth or fifth year **RESEARCH RESIDENCY or FELLOWSHIP** position in clinical psychopharmacology. Clinical and laboratory research in psychopharmacology. Approved residency program. Candidates should have M.D. from U.S. or Canadian medical school, have completed at least 2 years of psychiatric residency in medical school affiliated residency program, and be eligible for medical license in Texas. Stipend: \$17,000 to \$22,000, depending on level and training. Send curriculum vitae and letter describing experience and interests to: **Robert C. Smith, M.D., Ph.D., Chief, Behavioral Neurochemistry, Texas Research Institute of Mental Sciences, 1300 Moursund Avenue, Houston, Texas 77030.**

The University of San Diego, an independent Catholic university, is seeking a **TECHNICAL ASSISTANT**, preferably with a master's in biology, who has an aptitude for the care of laboratory instruments and is capable of supervising work-study students and ordering equipment and supplies. Applicants should submit their curriculum vitae and have three letters of reference forwarded to: **Chairman, Department of Biology, University of San Diego, Alcalá Park, San Diego, Calif. 92110.** Starting date for employment is 2 July 1979; applications will be accepted until the position is filled. *The University of San Diego is an Equal Opportunity Employer.*

# TOXICOLOGISTS

*In anticipation of the completion of expanded laboratory facilities and program activities the Life Sciences Division of IIT Research Institute, a leading research and development organization, has several staff positions to be filled within the next 3 to 6 months.*

**SENIOR TOXICOLOGIST** to assume the responsibilities of program director for acute, subacute and chronic toxicologic studies involving 15 professional and preprofessional staff. The responsibilities will include participation in design of experiments, preparation of protocols, scheduling of studies, interpretation and evaluation of results, and preparation of reports.

Candidates for this position must have a PhD in toxicology or in a related field with experience and demonstrated ability to plan, conduct and administer toxicological research.

**INHALATION TOXICOLOGIST** to initially provide technical guidance in the design, testing and operation of inhalation toxicology exposure facilities. Subsequently to plan, conduct and supervise contract inhalation toxicology studies.

Candidates should have a PhD in toxicology or an equivalent academic background and several years of professional experience.

**RESEARCH TOXICOLOGIST** to participate in general toxicology and carcinogenicity studies.

Candidates should have a PhD in toxicology, pharmacology or an appropriate discipline and one or more years of post-doctoral experience. Experience in general toxicology and the ability to design, supervise and evaluate large-scale, long-term toxicity studies, is desirable.

*In all positions the opportunity is available to develop research programs in own areas of interest.*

*IITRI is an Equal Opportunity/Affirmative Action Employer and welcomes applications from women and minority group members.*

Please send resumes in confidence, including salary history to:



C. Jablonski  
Professional Staffing

**IIT RESEARCH INSTITUTE**  
10 West 35th Street Chicago, Illinois 60616

Medical

## Vice President for Medical Affairs

Stanford University is searching for a Vice President for Medical Affairs who will be responsible for operation of the Stanford University Medical Center (including Clinics, Hospital, and School of Medicine). A Dean of the School of Medicine and Director of the Hospital, each to be appointed after the Vice President is named, will both report to this Vice President.

Desired qualifications include substantial academic accomplishment and administrative capabilities in addition to keen sensitivity to local, state, and federal issues of biomedical education and policy, and the capacity to define and articulate the institution's position on them.

Interested persons are asked to send a complete curriculum vitae including names and addresses of references to: G. Robert Hamrdla, Assistant to the President for Trustee Affairs and Coordinator, Search Committee for Vice President for Medical Affairs, Building Ten, Stanford University, Stanford, California 94305. Stanford is an equal opportunity employer and welcomes nominations of women and members of minority groups and applications from them.

**STANFORD UNIVERSITY**



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☐ \$110 Air-surface delivery via Holland

☐ Payment enclosed ☐ Bill me later

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City State Zip

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## POSITIONS OPEN

### SCIENTIFIC DIVING COORDINATOR FLORIDA STATE UNIVERSITY MARINE LABORATORY

The laboratory is seeking a scientist to coordinate the activities of an active scientific diving program; to teach courses in scientific diving; and to be responsible for the operation of the dive locker, including maintenance of equipment and certification of divers. A modest research program should be possible, and would be encouraged. The position is not tenure-earning and is meant to provide a temporary academic experience (3 to 6 years) for someone at the beginning of his or her career. The title is instructor, and the salary range is \$12,000 to \$13,200. **Qualifications** are: a master's degree in one of the natural sciences; certification as a diving instructor by a recognized national agency (for example, NAUI); thorough familiarity with the maintenance and repair of high pressure equipment; excellent health. Starting date: September 1979. Send curriculum vitae and the names of three references by 16 April to: Dr. Michael J. Greenberg, Director, The Marine Laboratory, Biology Unit I, Florida State University, Tallahassee, Fla. 32306. *Florida State University is an Equal Opportunity/Affirmative Action Employer.*

### TEACH SCIENCE IN AN INDEPENDENT SCHOOL

A number of excellent opportunities at middle and secondary school levels in independent (private) schools throughout the United States. Positions in chemistry, physics, biology, earth sciences, and general science (as well as math). Please write, if possible enclosing résumé, to: Independent Educational Services, 80 Nassau Street, Princeton, N.J. 08540. (A nonprofit corporation.)

**TEMPORARY POSITION** available for academic year 1979-1980 beginning 13 August 1979, to teach general biology, developmental biology, and experimental embryology (if demand warrants). Salary and visiting rank commensurate with training and experience: Ph.D. required. Candidates should submit curriculum vitae and three letters of recommendation by 14 April 1979 to: Chairman, Department of Zoology, University of Arkansas, Fayetteville, Ark. 72701. *Affirmative Action/Equal Opportunity Employer.*

**WILDLIFE ECOLOGIST**, Michigan State University, assistant professor, 12-month, tenure-track. Major responsibilities include undergraduate advising, teaching two senior-level courses in wildlife habitat analysis and wildlife biology and management each year, and alternating between years with an introductory service course and a graduate specialty course. The applicant will be expected to conduct research and publish results and to participate in work with graduate students.

Candidate must possess a Ph.D. in a biological science with major training in wildlife ecology/management. Experience with a management agency or private consulting firm desirable. The applicant must have a commitment to teaching, research, and public service.

Submit curriculum vitae, undergraduate and graduate transcripts, publications, three letters of recommendation, and statement of research and teaching interests by 30 April 1979 to: Dr. Harold H. Prince, Search Committee Chairman, Department of Fisheries and Wildlife, Michigan State University, East Lansing, Michigan 48824. *Equal Opportunity/Affirmative Action Employer.*

### THE PENNSYLVANIA STATE UNIVERSITY

**ZOOLOGIST.** Continuing appointment in the Department of Biology, The Pennsylvania State University, Beaver Campus, Monaca, Pa. Position available September 1979; appointment is expected to be at rank of assistant professor. Preferred areas: cell biology, genetics, anatomy, or physiology. Duties include teaching general zoology and introductory courses in one or more of the above subject areas. Continuing scholarly activity, including research and publication, will be required. Candidates must have Ph.D. degree. Salary commensurate with qualifications. Application deadline: 15 May 1979. Send curriculum vitae, transcripts, and three letters of reference to: Dr. William H. Neff, Box G, 208 Mueller Building, University Park, Pa. 16802. *The Pennsylvania State University is an Affirmative Action/Equal Opportunity Employer.*

## ANNOUNCEMENT

### FUTURE GLOBAL ATMOSPHERIC CHEMISTRY PROGRAM

A group made up of university and government researchers has recently been formed to actively explore the possibility of redirecting the on-going project GAMETAG (Global Atmospheric Measurements Experiment on Tropospheric Aerosols and Gases). This new program, involving a highly expanded format, would be labeled "GAMETAG Phase II."

It is now anticipated that a "selected" global field sampling operation involving both aircraft and oceanographic sampling platforms will be utilized in Phase II. The operational philosophy of making simultaneous measurements involving as many as 70 chemical and meteorological variables will again receive maximum attention in the program. The ultimate objective of this effort will be that of providing answers to numerous scientific questions related to global atmospheric chemical sources and sinks, chemical transformations, and global atmospheric chemical distributions. In this context, both in-situ concentration measurements as well as flux measurements will be emphasized. Tentative planning by the steering committee would call for the submission of a well integrated proposal to NSF by the end of August 1979. The possibility of other government agency support for this project is also being explored. Interested persons should plan to contact Dr. Douglas Davis no later than 1 May 1979. Address: Chairman, GAMETAG Steering Committee, School of Geophysical Sciences, Georgia Institute of Technology, Atlanta, Ga. 30332. Telephone: 404-894-3894.

## SUMMER SEMINAR

### INTENSIVE SUMMER SEMINAR: INTRODUCTION TO TECHNIQUES IN ELECTRON MICROSCOPY

4 to 15 June 1979

Preparing biological tissues for viewings in transmission electron microscope via fixation, dehydration, embedding, ultra-thin sectioning, heavy metal staining, use of TEM, SEM, and dark room. Instruments available: Sorvall MT2 and MT1 ultra microtomes, Reichert and LKB microtomes, Zeiss EM9S, AMR—Scanning EM, Denton Vacuum Evaporator, Critical Point Drier, and dark room. Tuition: \$450.

Limited to 16 students for individual instruction. Contact: Jean Keene, Orange County Community College, Middletown, New York 10940. Telephone: 914-343-1121, extension 303.

## INSTITUTE

### RADIATIONLESS PROCESSES IN MOLECULES AND CRYSTALS

A NATO Advanced Study Institute  
18 November to 1 December 1979; Erice, Italy

For information, write to: Professor B. Di Bartolo, Department of Physics, Boston College, Chestnut Hill, Mass. 02167.

## TRAINING PROGRAM

**PRE- AND POSTDOCTORAL TRAINING IN TOXICOLOGY.** Candidates are invited to apply for study in the following areas: neurochemical, behavioral, immunological, reproductive, in vitro, and analytical toxicology. This multidisciplinary training program is being sponsored by the NIEHS. Participating departments include microbiology, pathology, and pharmacology at the Medical College of Virginia (MCV). All correspondence should be directed to:

Dr. R. A. Carchman  
Division of Toxicology  
Medical College of Virginia/  
Virginia Commonwealth University  
Department of Pharmacology  
Box 726  
Richmond, Virginia 23298

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## TRAINEESHIPS

**POSTDOCTORAL TRAINEESHIPS** in basic virology, molecular, and cellular biology are available in NCI-supported program. Research interests of participating faculty include: viral and cellular gene regulation; transformation and productive infection by DNA viruses; comparative biochemistry and genetics of insect and vertebrate cells; RNA and DNA structure; phylogenetic aspects of RNA sequence and modification; basic studies on adeno-, toga-, poxviruses, bacteriophages, fungal plasmids, immunotherapy of melanoma. Submit résumé to: R. Walter Schlesinger, M.D., Professor and Chairman, Department of Microbiology, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—Rutgers Medical School, P.O. Box 101, Piscataway, New Jersey 08854. *An Equal Opportunity/Affirmative Action Employer, M/F.*

## FELLOWSHIPS

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Interdisciplinary Programs in Health (IPH) invites applications from promising graduates of advanced degree programs in the natural or social sciences interested in turning to research and training in environmental health problems, particularly chemicals in the environment. The program focuses on both scientific and public policy questions.

Fellows will be appointed for terms of 1 or 2 years, possibly renewable. Stipends will be \$16,000 the first year.

*Expression of interest is particularly invited from qualified women and minority candidates.*

For information, write to:

Professor Donald Hornig  
Director, IPH  
Harvard School of Public Health  
665 Huntington Avenue  
Boston, Massachusetts 02115

### PREDOCTORAL AND POSTDOCTORAL TRAINING IN BASIC NEUROSCIENCES

The Department of Physiology of the University of Colorado Medical School offers predoctoral and postdoctoral training fellowships in the basic neurosciences to individuals planning research and teaching careers. Address inquiries to:

Dr. A. R. Martin  
Department of Physiology  
University of Colorado Medical School  
4200 East Ninth Avenue  
Denver, Colorado 80262

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**POSTDOCTORAL FELLOWSHIPS** are available in **CARDIOVASCULAR BIOENGINEERING** (NRS Awards from NIH) for training to begin 1 July 1979 at stipends of \$10,000 to \$13,200. The program is designed to provide a broad spectrum of training for medical scientists preparing for investigative, clinically related, academic careers. A strong background in basic sciences is desirable. Write: James B. Bassingthwaite, M.D., Ph.D., Director, Center for Bioengineering RF-52, University of Washington, Seattle, Wash. 98195.

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### FELLOWSHIPS IN IMMUNOLOGY

Postdoctoral positions are available under NRSA training program for U.S. citizens or permanent residents who hold the M.D. or Ph.D. degree. The major areas of research training are: immunogenetics, developmental immunobiology, complement biochemistry and biology, immunoglobulin structure and function, regulation of the immune response, and secretory immunity. Send curriculum vitae and the names of three references to: John E. Volanakis, M.D., Division of Clinical Immunology and Rheumatology, University of Alabama in Birmingham, Birmingham, Ala. 35294. *Equal Opportunity/Affirmative Action Employer.*

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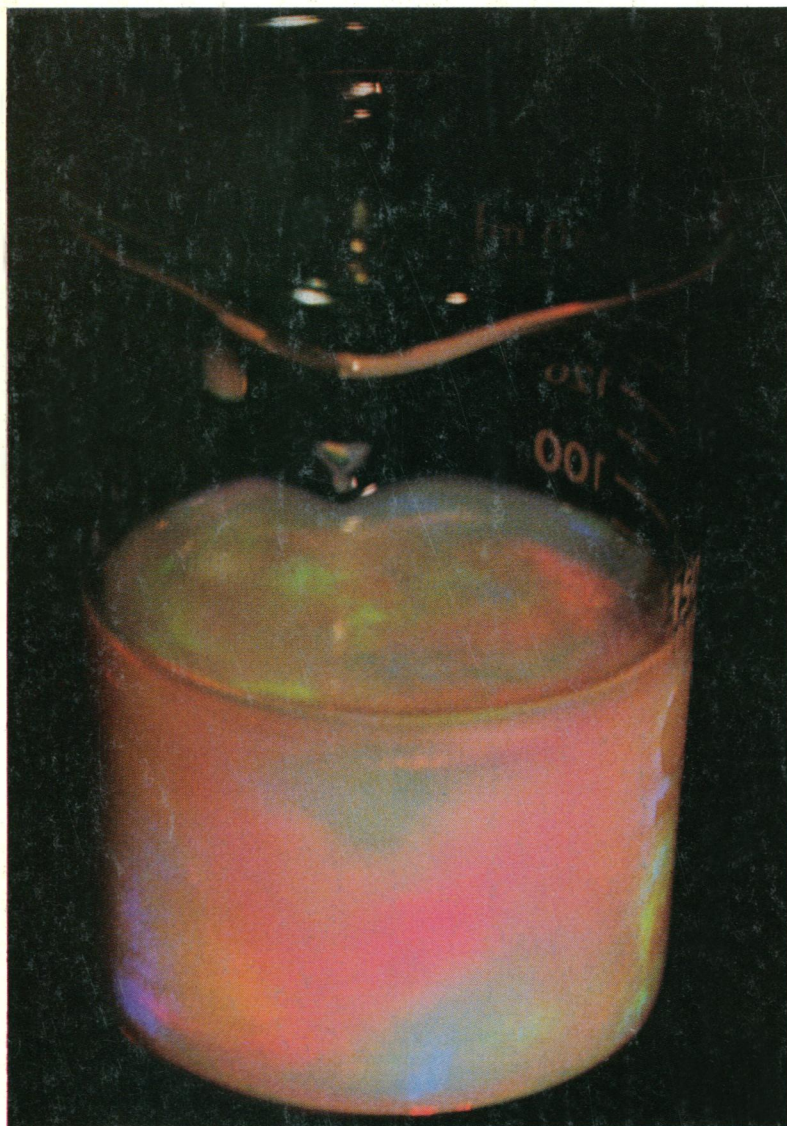
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## Bragg diffraction in the visible

After all the millenia of inquiry and meditation on the nature of life, Bragg diffraction of x-rays spotted and streaked some photographic film and soon we hardly needed to be told what the initials DNA stand for.

The Bragg diffraction principle is not confined to x-rays. The phenomenon of critical opalescence occurs with visible light when particles of a very uniform size pass from a gas-like state of Brownian dance to a state where, even at very moderate concentration, isotropic repulsive forces impose three-dimensional order.



A company that lives by silver halide emulsions (actually dispersions) dye coupler dispersions in color film and paper (actually emulsions), and dye and pigment dispersions in man-made polymers for fibers and plastics needs people like Pranab Bagchi.

But it also ought to share with other scientists as much of Dr. Bagchi's thought (on matters short of the nature of life) and work as interests them, yet without dissipating the stockholders' assets to the four winds.

For a reprint of any of the papers at right on the characteristics of colloidal systems, write to Pranab Bagchi, Research Laboratories, Eastman Kodak Company, Rochester, N.Y. 14650.

"Differences Between Fact and Theory in the Stability of Carbon Suspensions in Heptane," P. Bagchi and R. D. Vold, *Journal of Colloid and Interface Science* **33**, 405 (1970).

"Entropic Repulsion Between Two Identical Spherical Particles Coated with a Polymeric Adsorption Layer in an Athermal Solvent," P. Bagchi, and R. D. Vold, *ibid* **38**, 652 (1972).

"Enthalpic Repulsion Between Two Identical Spherical Particles Coated with a Polymeric Adsorption Layer," P. Bagchi, *ibid* **41**, 380 (1972).

"Theory of Stabilization of Spherical Colloidal Particles by Nonionic Polymers," P. Bagchi, *ibid* **47**, 86 (1974).

"Nonionic Denting and Mixing Potentials Between Two Flat Plates," P. Bagchi, *ibid* **47**, 100 (1974).

"On the Assumption of a Step Function for the Adsorption-Layer Thickness in the Nonionic Stabilization of Dispersions," P. Bagchi, *ibid* **50**, 115 (1975).

"Kinetic Theory for the Slow Flocculation at the Secondary Minimum," P. Bagchi, *ACS Symposium Series "Colloidal Dispersions and Micellar Behavior"* **9**, 145 (1975).

"Test for Particle Size Dependence in the Theory of Slow Flocculation at a Secondary Minimum," P. Bagchi, *Colloid and Polymer Science* **254**, 890 (1976).

"A Simple Method for Determination of the Average Particle Size of Coarse Suspensions from Measurements of Apparent Specific Turbidity," P. Bagchi and R. D. Vold, *Journal of Colloid and Interface Science* **53**, 194 (1975).

"Preparation of Model Poly(vinyl toluene) Latices and Characterization of Their Surface Charge by Titration and Electrophoresis," P. Bagchi, B. V. Gray, and S. M. Birnbaum, *ibid* in press.



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