

**Glossary of Chemical Terms.** Clifford A. Hampel and Gessner G. Hawley. Van Nostrand Reinhold, New York, 1976. vi, 282 pp. \$14.95.

**Gravity and Levity.** Alan McGlashan. Houghton Mifflin, Boston, 1976. 140 pp. \$6.95.

**Growth in America.** Chester L. Cooper, Ed. Greenwood, Westport, Conn., 1976. x, 262 pp., illus. \$15. Contributions to American Studies, No. 21.

**Key Papers on Surface-Acoustic-Wave Passive Interdigital Devices.** David P. Morgan, Ed. Published for the Institution of Electrical Engineers by Peregrinus, Stevenage, England, 1976 (U.S. distributor, International Scholarly Book Services, Forest Grove, Ore.). xii, 372 pp., illus. Paper, \$27.50. IEE Reprint Series 2.

**Killer Animals.** Edward R. Ricciuti. Walker, New York, 1976. xii, 320 pp., illus. \$12.50.

**Mathematical Ideas, Modeling and Application.** Z. A. Melzak. Wiley-Interscience, New York, 1976. xviii, 414 pp., illus. \$29.95. Companion to Concrete Mathematics, vol. 2. Pure and Applied Mathematics.

**Mathematics for Engineers.** L. J. Nicolescu and M. I. Stoka. Translated from the Romanian edition (Bucharest, 1969). Abacus Press, Tunbridge Wells, Kent, England, 1976 (U.S. distributor, International Scholarly Book Services, Forest Grove, Ore.). Two volumes. 460 pp. and 412 pp. \$40.

**Method and Appraisal in the Physical Sciences.** The Critical Background to Modern Science, 1800-1905. Colin Howson, Ed. Cambridge University Press, New York, 1976. viii, 344 pp. \$24.50.

**Morphology and Mechanisms of Chemoreceptors.** Proceedings of a symposium, Srinagar, India, October 1974. A. S. Paintal, Ed. Vallabhbhai Patel Chest Institute, University of Delhi, Delhi, 1976. xvi, 358 pp., illus. \$22.

**A Natural History of Zebras.** Dorcas MacClintock. Pictures by Ugo Mochi. Scribner, New York, 1976. x, 134 pp. \$7.95.

**Stochastic Processes with Learning Properties.** Sándor Csibi. Springer-Verlag, New York, 1975. iv, 152 pp. Paper, \$11.10. International Centre for Mechanical Sciences Courses and Lectures, No. 84.

**The Structure and Dynamics of Theories.** Wolfgang Stegmüller. Translated from the German edition (Berlin, 1973). Springer-Verlag, New York, 1976. xviii, 286 pp. \$29.80.

**Structure and Realization Problems in the Theory of Dynamical Systems.** Michael Heymann. Springer-Verlag, New York, 1975. 80 pp. Paper, \$7. International Centre for Mechanical Sciences Courses and Lectures, No. 204.

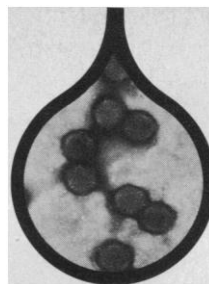
**Symmetry Rules for Chemical Reactions.** Orbital Topology and Elementary Processes. Ralph G. Pearson. Wiley-Interscience, New York, 1976. xii, 548 pp., illus. \$24.50.

**Telecommunications and the Computer.** James Martin. Prentice-Hall, Englewood Cliffs, N.J., ed. 2, 1976. xviii, 670 pp., illus. \$28. Prentice-Hall Series in Automatic Computation.

**Theoretical and Applied Mechanics.** Vol. 24. Proceedings of a congress, Tokyo, Nov. 1974. University of Tokyo Press, Tokyo, 1976 (U.S. distributor, International Scholarly Book Services, Forest Grove, Ore.). x, 512 pp., illus. \$49.

**Wines.** Their Sensory Evaluation. Maynard A. Amerine and Edward B. Roessler. Freeman, San Francisco, 1976. xvi, 230 pp., illus. \$8.95.

17 DECEMBER 1976



# VIRUSES IN WATER

## a cause for concern

*Water is essential to life.* The quantity of water man needs for survival varies for different cultures and economic situations—but for the great majority of the world's people, water resources are scarce and modern water supply systems nonexistent.

Because surface waters are readily contaminated by physical, chemical, and especially biological pollutants, water in many areas, instead of supporting life, brings illness and death. While there are means to control waterborne bacteria that cause typhoid epidemics, current water purification methods do not effectively remove viruses. There is clear evidence that at least one viral disease, infectious hepatitis, is transmitted by polluted waters and by shellfish grown in such waters. As population pressures increase and uncontaminated water sources become scarcer, the problem of waterborne viruses is enhanced.

The International Conference on Viruses in Water, held in Mexico City in 1974, brought leading scientists from many countries to discuss this urgent concern. The conference was sponsored by the American Public Health Association, cosponsored by the World Health Organization, Pan American Health Organization, and Government of Mexico. The book *Viruses in Water* presents data, discussions, and perspectives from these meetings. The editors served as the planning committee and as chairmen of the sessions.

The editors are: Gerald Berg, Ph.D., Environmental Protection Agency, Cincinnati, Ohio. Howard L. Bodily, Ph.D., Brigham Young University, Provo, Utah. Edwin H. Lennette, M.D., Ph.D., California Department of Public Health, Berkeley. Joseph L. Melnick, Ph.D., Baylor College of Medicine, Houston, Texas. Theodore Metcalf, Ph.D., University of New Hampshire, Durham.

## What needs to be done

Standards must be set for permissible virus concentrations in drinking water, recreational waters, and water used for certain other purposes. Improved methods for detecting viruses in large volumes of water, and for removing them from drinking water sources and drinking water itself, must be developed and tested. The waste treatment plant must be replaced by the water refinery. This is the challenge of *Viruses in Water*.

**CONTENTS:** *Part 1.* Social Impact: Introduction, Water Needs and Usage, The Legislative Concern. *Part 2.* Epidemiology: Human-Associated Viruses, Animal-Associated, Minimal Infective Dose, Epidemiological Indications. *Part 3.* Detection Methodology: Enteric Viruses, Viruses on Solids, Systems for Detection, Virologic and Engineering Problems. *Part 4.* Reclamation and Disposal: Removal, Photodynamic Inactivation, Viruses in Renovated Waters, Disposal of Sludges. *Part 5.* Legal, Community and Geographic Problems: Legal and Regulatory Decisions and Dilemmas, Community Response to Spray Irrigation Disposal, Geographic Considerations in the Americas, in Asia. *Part 6.* Perspectives: Social Impact, Epidemiology, Detection Methodology, Reclamation and Disposal, Legal, Community, and Geographic Problems.

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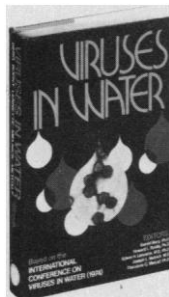
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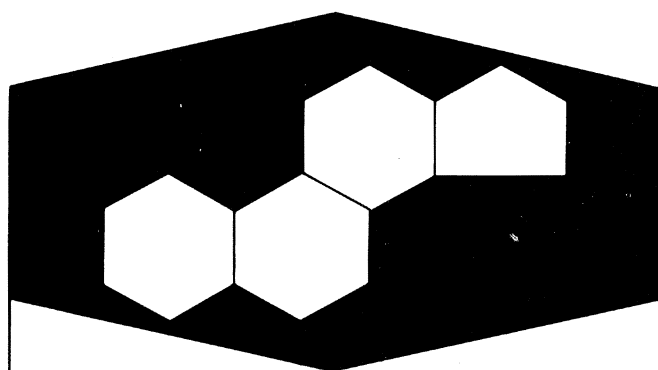
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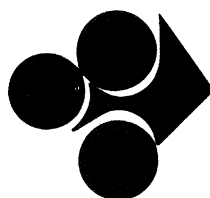
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## Mass Media Intern Program

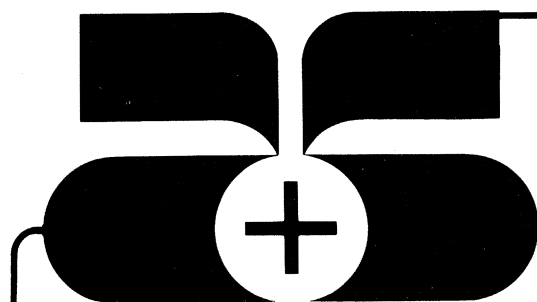
AAAS announces the continuation of its unique, 10-week intern program to support advanced students in the natural and social sciences as reporters, researchers, and production assistants in the mass media.

In 1977, up to 18 students will become summer interns at radio and television stations, newspapers and magazines throughout the United States. These interns will have the opportunity to participate in the process by which events and ideas become news, to increase their understanding of editorial decision-making and information dissemination, and to prepare themselves as interpreters of science to the public, no matter what their final career choices may be.

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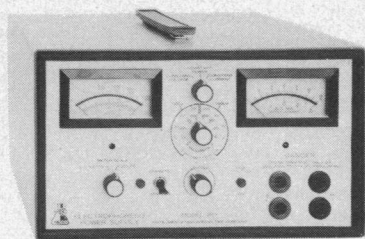
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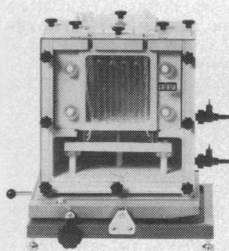


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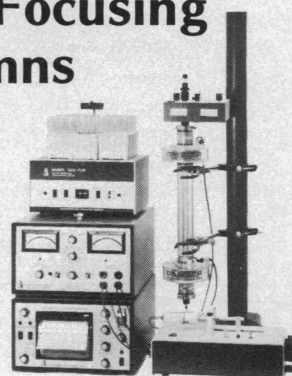
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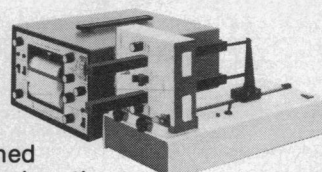
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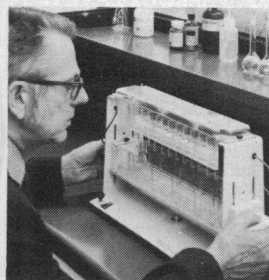
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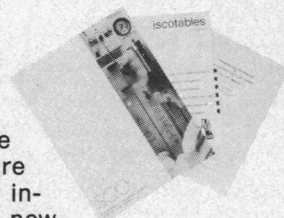
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## POSITIONS OPEN

### ACAROLOGIST

The Department of Entomology at The Ohio State University, Columbus, invites applications for a faculty position in acarology. Applicants should have postdoctoral experience and publications demonstrating productivity and originality in research on the biology of Acari. Preference will be given to applicants with research and teaching interests in physiology or ecology (basic or applied). The successful candidate will be expected to establish an outstanding research program, to teach in the acarology program, and to develop undergraduate/graduate courses in the department. Appointment will be at the assistant professor level and will begin on or before 1 July 1977. A complete résumé with transcripts, copies of publications, and names of four referees should be sent to **Professor Donald E. Johnston, Acarology Search Committee, Department of Entomology, The Ohio State University, 1735 Neil Avenue, Columbus, Ohio 43210.** Applications should be submitted before 28 February 1977.

*An Equal Opportunity/Affirmative Action Employer*

### AQUATIC ECOLOGIST

Position for assistant professor is open for September 1977. Primary responsibility in teaching, research and graduate student advisement in limnology. This person will also teach general biology and general ecology. Ph.D. is required. Applications, including transcripts, curriculum vitae, three letters of reference and a statement of personal goals should be submitted by 15 February 1977 to: **Dr. B. O. Krogstad, Chairman, Search Committee, Department of Biology, University of Minnesota, Duluth, Duluth, Minn. 55812.**

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### DEPARTMENT OF ENTOMOLOGY UNIVERSITY OF CALIFORNIA, RIVERSIDE

**ASSISTANT ENTOMOLOGIST-ASSISTANT PROFESSOR OF ENTOMOLOGY**—Available 1 July 1977. Full-time academic appointment, 90% research 10% teaching, with opportunity for advancement to tenure. Ph.D. required with training in agricultural entomology, ecology, insect toxicology, biological control, insect pest management, and statistics. Primarily responsible for research on pest mite species occurring on citrus in California. Send curriculum vitae, transcripts, publication list, names of at least five referees to **W. H. Ewart, Department of Entomology, University of California, Riverside, California 92502.**

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

### ASSISTANT PROFESSORSHIP

Applications are invited for an assistant professorship in plant cell biology in the Department of Biology at Washington University. Applicants should have demonstrated research accomplishment, preferably including postdoctoral training, in the study of ultrastructural, physiological, and/or biochemical properties of plant cells, and have an interest in graduate and undergraduate teaching. Excellent research opportunities are available in the Division of Biology and Biomedical Sciences as well as with staff members of the Missouri Botanical Garden. Applications including a curriculum vitae, statement of research interests, and the names of three references should be sent to: **Dr. V. Walbot, Department of Biology, Washington University, St. Louis, Mo. 63130.** *Equal Opportunity/Affirmative Action Employer.*

### ASSISTANT PROFESSOR OF BIOCHEMISTRY

In conjunction with the new University of South Carolina School of Medicine, the Department of Chemistry invites applications from individuals having a Ph.D. degree who are highly qualified in any area of biochemistry. Potential candidates should have 1 to 2 years of postdoctoral experience and will be expected to show promise of developing a vigorous research program. The appointee will join six other biochemists in teaching medical students as well as graduate and undergraduate students in the Department. The tenurable appointment based on a 12-month academic year will be effective for September 1977, subject to approval by the South Carolina Board of Budget and Control. Apply by submitting curriculum vitae, a short statement of projected research problems, and names of three references to **Professor Ronald R. Fisher, Chairman, Department of Chemistry, University of South Carolina, Columbia, South Carolina 29208.** *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR—ANALYTICAL,** fall 1977. The Department of Chemistry, Mississippi State University invites applications from qualified individuals dedicated to excellence in research and teaching in the area of analytical chemistry. Postdoctoral experience desirable. Subfield should be spectroscopy, electrochemistry, other. Send résumé, graduate transcript, and three letters of reference to: **Dr. T. H. Fisher, Department of Chemistry, Mississippi State University, Mississippi State, Miss. 39762.** *An Equal Opportunity/Affirmative Action Employer.*

### DEPARTMENT OF ENTOMOLOGY UNIVERSITY OF WISCONSIN, MADISON

Two full-time (12-month) positions at the assistant professor level will be available by mid-spring 1977. The persons employed will be expected to share in the departmental teaching responsibilities and to develop a viable research program. We are particularly interested in individuals with one of the following specialties: (i) biological pest suppression; (ii) veterinary entomology; (iii) applied ecology, preferably related to agronomic crop insects; and (iv) genetics.

Applicants must have a genuine interest in teaching and proven ability to carry out research in their field. Interested persons holding a recent Ph.D. degree should send, by 15 February 1977, a curriculum vitae, transcripts of undergraduate and graduate work, research papers, and a brief statement of research and teaching interests, and have four letters of recommendation sent directly to **Dr. G. M. Boush, Chairman, Department of Entomology, University of Wisconsin, Madison, Wisconsin 53706.**

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### ASSISTANT PROFESSOR, ZOOLOGY UNIVERSITY OF IDAHO

Position open for qualified, research oriented developmental biologist with Ph.D. to teach basic principles course in biology to undergraduate students. Strong background in zoology with additional strength in areas such as embryology, cell biology, and biochemistry, is recommended. Opportunity to initiate a course in developmental biology. Postdoctoral research training highly desirable. Send curriculum vitae, list of publications, and names and addresses of three references to:

**Dr. Kenneth A. Laurence  
Department of Biological Sciences  
University of Idaho  
Moscow, Idaho 83843**

Closing date for applications is 15 January 1977. *The University of Idaho is an Affirmative Action/Equal Opportunity Employer.*

### ASSOCIATE CHIEF OF STAFF OF RESEARCH

The Veterans Administration Hospital, Cincinnati, Ohio, is seeking an associate chief of staff of research. The Cincinnati VA Hospital is an integral part of the University of Cincinnati Medical Center and staff members are appointed to the faculty of the College of Medicine. The hospital is committed to improving its research program, which currently has a research building (17,000 square feet), 14 funded investigators, and 25 full-time research employees. The associate chief of staff of research would be a senior staff position and primary duties would be to administer, guide and oversee the research program. Clinical responsibilities are possible. Preference will be given to candidates with an M.D. degree and some administrative experience. *The VA Hospital is an Equal Opportunity Employer.* Please send curriculum vitae or letters of inquiry to:

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Chairman, Search Committee for Associate Chief of Staff of Research  
Division of Clinical Pharmacology  
5502 Medical Science Building  
231 Bethesda Avenue  
Cincinnati, Ohio 45267**

**BIOLOGY**—Gettysburg College needs an assistant professor of biology effective September 1977 who should have teaching and research competence in cell biology/developmental biology and the ability to teach biochemistry. Ph.D. required; salary dependent upon background and experience. Initial appointment for a period of up to 2 years with possibility that appointment will be tenure qualifying after the 2-year period. Send letter of application including names of three references by 15 February 1977 to **A. R. Cavallere, Chairman, Department of Biology, Gettysburg College, Gettysburg, Pa. 17325.** *Equal Opportunity Employer, M/F.*



## POSITIONS OPEN

### ASSISTANT PROFESSOR OF NEUROSCIENCE

The University of California, Los Angeles, invites applications or nominations for a position of assistant professor of neuroscience. This appointment will be sponsored jointly between the Brain Research Institute and an appropriate basic science department in the School of Medicine. The appointment committee is seeking a scientist of recognized accomplishment and outstanding promise in the field of cellular neurobiology, one area of particular interest being neuroimmunology. The appointee will join the newly established Ahmanson Laboratory of the Brain Research Institute. Applications for nominations should be submitted with a curriculum vitae, bibliography, and names of potential references to: **Director, Brain Research Institute, UCLA School of Medicine, Los Angeles, California 90024**. All applications and inquiries will be treated confidentially within the limits of the law. *UCLA is an Equal Opportunity Employer. Candidates will be considered without regard to race, color, religion, sex, or national origin.* All applications must be received by 31 December 1976.

### UNIVERSITY OF ALBERTA Edmonton, Alberta, Canada ASSISTANT PROFESSOR, PHYSIOLOGY

Salary negotiable. M.D. and/or Ph.D. Strong research interest and teaching ability essential. Orientation to physiological chemistry or molecular biology desirable. Apply with curriculum vitae and names of three referees by 20 January 1977.

Applications to: **Dr. M. Schachter, Professor and Chairman, Department of Physiology, University of Alberta, Edmonton, Alberta, Canada T6G 2H7**.

University of Pennsylvania seeks up to two **ASSISTANT PROFESSORS OF PSYCHOLOGY** in any area. Applications especially invited from those who would enhance the balance of the department by strengthening under-represented fields, whether they be recent or more experienced Ph.D.'s. Duties include undergraduate and graduate teaching, and research. Send curriculum vitae, relevant papers (including dissertation summary), statement of research plans, and three to five letters of recommendation to: **Personnel Search Committee, Department of Psychology, University of Pennsylvania, 3815 Walnut Street, Philadelphia, Pa. 19174**. *We are an Equal Opportunity Employer.*

### BLOOD PRODUCTS RESEARCH

Full time M.D. required for a research and development laboratory associated with a Blood Transfusion Centre. The successful candidate would be required to participate actively in research related to blood products. Experience in this area would be an asset. The appropriate individual will be given an academic appointment at McMaster University in Hamilton, Ontario, Canada. An excellent opportunity exists for interaction with major research groups in hematology and immunology. Funding for this position (**deputy medical director**) is assured by the Canadian Red Cross Society. Send résumé with salary requirements to:

**M. A. Blajchman, M.D.**  
Medical Director  
Canadian Red Cross Blood Transfusion Service  
299 Main Street East  
Hamilton, Ontario, Canada, L8N 1H8

**MICROBIOLOGY-CHAIRPERSON:** Required experience in graduate level research and undergraduate level education. Salary will be commensurate with experience. Qualified persons should send curriculum vitae and three letters of recommendation to **Gilbert Gordon, Department of Chemistry, Miami University, Oxford, Ohio 45056**. Deadline for all credentials: 15 January 77. *Miami University is an Equal Opportunity/Affirmative Action Employer.*

The University of California, Irvine, College of Medicine is seeking a **CHAIRMAN** for the Department of Pharmacology. Candidates must be eligible for appointment to the rank of professor. Candidates must have demonstrated excellence in biomedical research and teaching and should preferably have administrative experience. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Send curriculum vitae, before 31 January 1977, to **Paul S. Sypher, Chairman of the Search Committee, Department of Medical Microbiology, University of California, Irvine, California 92717**.

## POSITIONS OPEN

**CELL BIOLOGIST.** Two research positions are open now for work on the genetics and physiology of chemical carcinogenesis in tissue culture. Development of in vitro tissue culture screens for mutagens, carcinogens, teratogens, and chemotherapeutic agents as well as general studies of the control of growth are planned. Novel methods will be developed to exploit a unique automated facility developed here for quantitative measurements on very large numbers of clones. Tissue culture experience essential, somatic cell genetics and physiology experience valuable, familiarity with computers helpful. Send résumé, description of your research interests, and three letters of recommendation by 1 February 1977 to **Dr. Donald A. Glaser, Molecular Biology Department, University of California, Berkeley Calif. 94720**. *An Equal Opportunity/Affirmative Action Employer.*

**DEPARTMENT CHAIRPERSON**—To coordinate activities and provide leadership in teaching and research in the Department of Family and Consumer Resources, College of Liberal Arts. Degrees offered at bachelor's and master's levels in five areas: consumer affairs; foods and nutrition; housing and interiors; human development and relationships; and textiles, fashion merchandising and apparel design.

**Qualifications**—Ph.D. degree or equivalent; experience in teaching, research, and administration. Philosophical commitment to the total field. Salary commensurate with experience. To begin no later than 18 September 1977.

**University Setting**—Wayne State University is a large urban university located in Detroit's cultural center. The department has 18 faculty, 800 undergraduates and 125 master's level students.

Send résumé to **Wilfred C. Becker, Chairman, Search Committee, 554 Mackenzie Hall, Wayne State University, Detroit, Michigan 48202**. Application review begins 1 February.

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

**CHAIR OF PHYSIOLOGY:** Applications are invited for this position, Department of Physiology, Michigan State University. The department is a large all-university unit with responsibilities for undergraduate, medical professional and graduate teaching and research. Candidates will be evaluated on the basis of their scientific stature, proven teaching ability and administrative competence. Salary competitive. Submit curriculum vitae before 3 January 1977 to: **Dr. Theodore M. Brody, Chairman, Search and Selection Committee, Department of Pharmacology, B440 Life Sciences Building, Michigan State University, East Lansing, Michigan 48824**. *An Equal Opportunity/Affirmative Action Employer.*

The Department of Psychology, Princeton University, anticipates an opening in the area of **COGNITIVE PSYCHOLOGY** at the level of full professor. Candidates for this position must have a demonstrated record of scientific accomplishment and teaching at both the undergraduate and graduate levels. Specific areas of research interest include cognitive development, information processing, memory, and language behavior. Outstanding candidates will, of course, be considered regardless of specific areas of interest.

Nominations and applications should be sent to **Professor Ronald Kinchla, Chairman, Cognitive Search Committee, Department of Psychology, Green Hall, Princeton University, Princeton, New Jersey 08540**. *We are an Equal Opportunity Employer with a vigorous commitment to Affirmative Action.*

### NEUROANATOMIST

The Department of Psychology invites applications for an anticipated faculty position at the assistant professor level for the fall of 1977. We are interested in a candidate who uses neuroanatomy as a tool for studying function or behavior. The candidate should be prepared to teach courses in vertebrate neuroanatomy at the undergraduate and graduate levels as part of Princeton University's interdepartmental doctoral program in neuroscience. The Department of Psychology currently has five full-time faculty members whose major interest is in neuroscience and behavior. Send curriculum vitae and three letters of recommendation to **Chairperson, Neuroscience Search Committee, Department of Psychology, Princeton University, Princeton, N.J. 08540**. *Princeton University is an Equal Opportunity Employer with a vigorous Affirmative Action Program.*

## POSITIONS OPEN

**CHAIRPERSON:** The University of Central Arkansas invites application or nomination for chairperson of the Department of Biology. Applicants should hold the Ph.D. in a biological science, have a distinguished academic background, a record of effective teaching and other scientific accomplishments in one or more areas of biological science. Applicants should also have broad experiences and interests in order to provide leadership and coordination for a 12 person department with diverse scientific backgrounds. Correspondence should be sent to **Dr. J. B. Throneberry, Search Committee Chairman, Department of Biology, University of Central Arkansas, Conway, Arkansas 72032**. Completed applications should be received by 10 February 1977. *An Equal Opportunity/Affirmative Action Employer.*

### CHAIRMAN-DEPARTMENT OF ZOOLOGY NORTH DAKOTA STATE UNIVERSITY

North Dakota State University anticipates a vacancy in the chairmanship beginning July 1977. Candidates must have an earned doctorate, academic administrative experience, and an established and sustained record of research, preferably in an area of invertebrate zoology. Teaching experience and interest in undergraduate instruction is essential.

Applications should include a curriculum vitae with publications, summary of experience including teaching and academic administration, and the names of at least three references. Submit applications by 1 March 1977 to **William J. Bleier, Department of Zoology, North Dakota State University, Fargo, N.D. 58102**.

*An Equal Opportunity/Affirmative Action Employer*

### UNIVERSITY OF MARYLAND DEAN, College of Engineering

Nominations and applications are invited for the position of Dean of the College of Engineering. The College consists of six academic departments: aerospace, chemical, civil, electrical, fire protection, and mechanical. The college offers B.S., M.S., and Ph.D. degrees in the academic departments. In addition there are graduate degree programs in nuclear engineering and engineering materials.

Desired qualifications: Ph.D. or equivalent in an engineering discipline, a significant record of engineering research and professional activity, and substantial academic and administrative experience. The appointment will be effective 1 July 1977. Applicants should qualify for an academic appointment with tenure in the relevant department. The salary will be commensurate with qualifications.

Applications should be received before 15 February 1977 to receive full consideration. Applicants should submit a complete résumé with references to: **Dr. Alex J. Dragt, Chairman, Dean Search Committee, Division of Mathematical, Physical Sciences, and Engineering, University of Maryland, College Park, Maryland 20742**.

*The University of Maryland actively subscribes to a policy of Equal Educational and Employment Opportunity. The University of Maryland is required by Title IX of the Education Amendments of 1972 not to discriminate on the basis of sex in admission, treatment of students, or employment.*

### DEAN College of Graduate Studies Medical University of South Carolina

The Medical University of South Carolina, located in Charleston, S.C. and having an enrollment of 2300 students, is seeking candidates for the position of dean of the College of Graduate Studies. Currently there are 123 graduate students in either the master of science or doctor of philosophy degree program. The dean is directly responsible to the vice president for academic affairs. Requirements: nominee or applicant must have an earned doctoral degree and demonstrated ability in academic pursuits. Closing date: applications and nominations will be accepted if received prior to 1 February 1977. Effective date: the dean will assume duties as of 1 July 1977. Salary: commensurate with qualifications and responsibilities. Mail nominations and curriculum vitae to: **Dr. E. Bagwell, Chairman, Search Committee for Dean of the College of Graduate Studies, Department of Pharmacology, Medical University of South Carolina, Charleston, S.C. 29401**. *Affirmative Action and Equal Opportunity Employer*

## POSITIONS OPEN

**DIRECTOR, GORGAS MEMORIAL LABORATORY, PANAMA**—Senior scientist, administrator for private non-profit international research organization to direct aggressive expanding research and training programs in Latin America. Emphasis on diseases of the tropics; program areas include ecology, virology, parasitology, bacteriology, epidemiology and immunology. Research and management experience required. Proficiency in Spanish desirable. Salary commensurate with training and experience. Starting dates between April 1977 and September 1977 will be considered at this time. Please send curriculum vitae, three letters of recommendation, and copies of major publications to: **Jack W. Millar, M.D., President, Gorgas Memorial Institute of Tropical and Preventive Medicine, Inc., 2007 Eye Street, NW, Washington, D.C. 20006. Equal Opportunity Employer.**

### DIRECTOR, CENTER FOR RESEARCH IN AERONOMY

Utah State University is seeking a scientist of international stature as director of the Center for Research in Aeronomy. This position carries with it a professorship in an appropriate academic department. Applicants must have demonstrated scientific excellence and leadership in a research field related to aeronomy, atmospheric chemistry, or solar system space science. Prior experience in establishing and managing a research program of outstanding quality is required. Salary is open and competitive.

Applicants should send their résumés and the names and addresses of three references by 1 February 1977 to **W. Farrell Edwards, Search Committee, Department of Physics, Utah State University, Logan, Utah 84322. Utah State University is an Equal Opportunity/Affirmative Action Employer.**

**ECOLOGIST.** Assistant professorship, beginning September 1977 for 3-year appointment. Ph.D. required. Individual should have broad biological background and be prepared to teach ecology and introductory biology. Competencies in the areas of invertebrate zoology, behavior, and development desirable. Individual selected will have opportunity to assist in development of the ecological field station on 275-acre Vassar Farm. Active research interest expected; opportunity for advancement exists. Send curriculum vitae, explanation of qualifications and references to **Dr. Patricia Johnson, Chairman, Department of Biology, Vassar College, Poughkeepsie, New York 12601. Vassar College is an Equal Opportunity/Affirmative Action Employer.**

**ECOLOGIST (1) AND NONVASCULAR BOTANIST (1).** A small public liberal arts college, 70 miles southeast of Washington on Chesapeake Estuary seeks applicants who are committed to teaching and with a liberal arts perspective for two regular faculty positions at the rank of instructor or assistant professor. Candidates for first position should be general ecologists with a strong background in field biology including aquatic ecology. To teach courses in general ecology, in environmental systems, and in related areas, and a nonmajor course on environmental problems. Candidates for second position should be trained in algae and other lower plants of estuarine and coastal regions. Will teach nonvascular botany, plant taxonomy, water pollution biology and other related undergraduate courses. Faculty of seven biologists. Salary ranges: assistant professor, \$10,500 to \$15,000; instructor \$9,000 to \$13,000. Ph.D. preferred. Send letter and résumé by 14 January to: **Dr. C. M. Wilson, Chairman, Science Division, St. Mary's College of Maryland, St. Mary's City, Md. 20686. Affirmative Action/Equal Opportunity Employer.**

### EPIDEMIOLOGIST/BIostatistician

Epidemiologist with strong background in biostatistics to establish and direct the Oklahoma Cancer Center Tumor Registry at the University of Oklahoma Health Sciences Center. A doctorate degree or equivalent experience preferred. Tumor registry experience highly desirable. An appointment, in the College of Health, Department of Biostatistics/Epidemiology and an opportunity to do research are available. Salary is open with excellent fringe benefits. Please send curriculum vitae with details of work experience and references to **Dr. Jack L. Wherry, Oklahoma Cancer Center, P.O. Box 26901, Oklahoma City, Oklahoma 73190. An Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

**ASSOCIATE DIRECTOR—CANCER CONTROL.** The Ephraim McDowell Community Cancer Network, Inc., is seeking a physician to direct community cancer control activities in central and eastern Kentucky. Successful candidate will join full-time faculty of the University of Kentucky College of Medicine with rank and salary commensurate with academic credentials. Applicants should submit curriculum vitae and letters of reference to **D. M. Goldenberg, Sc.D., M.D., Executive Director, Ephraim McDowell Community Cancer Network, Inc., 915 South Limestone, Lexington, Kentucky 40503. An Equal Opportunity/Affirmative Action Employer.**

**EXPERIMENTAL PSYCHOLOGIST, ASSISTANT PROFESSOR,** beginning September 1977. The Department of Psychology at the University of Minnesota is seeking a new or recent Ph.D. with a primary interest in perception, information processing, or cognition. A secondary interest in the other two areas is preferred. The anticipated teaching responsibilities are: (i) an advanced level course in perception; (ii) an introductory course in cognition/information processing; and (iii) a graduate seminar in the candidate's area of specialization. The candidate must be capable of maintaining a strong research program. Salary is competitive. *The University of Minnesota is an Equal Opportunity Employer. Women and minority candidates are encouraged to apply.* Send curriculum vitae, three letters of reference, and a statement (maximum two pages) of long-term research interests to: **Dr. David LaBerge, Elliott Hall, 75 East River Road, University of Minnesota, Minneapolis, Minnesota 55455 by 1 February 1977.**

**NEUROHISTOLOGIST.** Ideal candidate should be experienced in use of silver stains, Golgi stains, HRP, and use of radioactively labeled amino acids (autoradiography). As minimum experience, must be familiar with standard stains for frozen and paraffin embedded material. Please send curriculum vitae and recommendations to **Lila J. Magie, an assistant Director of Personnel, The Rockefeller University, 66 Street and York Avenue., New York, N.Y. 10021. An Equal Opportunity Employer.**

### FACULTY POSITIONS OPEN COLLEGE OF MEDICINE KING FAISAL UNIVERSITY DAMMAM, SAUDI ARABIA

Applications are now invited from qualified men and women in these pre-medical and preclinical subjects:

Chemistry	Biochemistry
Biology	Physiology
Physics	Embryology
Anatomy	Pathology
Community Medicine	Biostatistics
Histology	Epidemiology

Doctorate or similar degree required. M.D. degree receives higher salary. Language of instruction is English. Positions are available immediately and for 1977-78.

Salary ranges (approximate):

Professor: \$23,000 to \$25,344  
Associate professor: \$18,423 to \$22,272  
Assistant professor: \$13,824 to \$25,492

Free, furnished accommodation is provided.

Incomes not subject to Saudi Arabian income tax.

Send requests for application forms and information to:

**Dr. Mohammed T. Altorki, M.D., MRCP  
Dean of the Medical Faculty  
King Faisal University  
c/o Mr. Ghazi Abdul Jawad  
Saudi Arabian Educational Mission  
2223 West Loop South, Suite 400  
Houston, Texas 77027**

## POSITIONS OPEN

The Department of Biology anticipates an opening for an **ECOLOGIST** beginning fall 1977. Preference will be given to a plant community ecologist. Applicants must be willing to establish their own research program and teach introductory courses as well as a course in their area of specialization. Résumé, copies of publications, and three letters of reference should be sent to **Dr. William L. Thompson, Department of Biology, Wayne State University, Detroit, Michigan 48202.**

*An Affirmative Action/Equal Opportunity Employer*

**FACULTY POSITIONS** are open to candidates with postdoctoral training and evidence of strong research productivities in the areas of regulatory biology and biophysics. Preference will be given but not limited to: membrane biology, reproduction, computer analysis of regulatory systems. Please send résumé, description of research goals, and three letters of recommendation to: **Dr. Philip D. Morse, II, Department of Biology, Wayne State University, Detroit, Michigan 48202.**

*An Affirmative Action/Equal Opportunity Employer*

### UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER COLLEGE OF PHARMACY FACULTY POSITIONS IN CLINICAL NUCLEAR PHARMACY

Applications are invited for two full-time faculty positions in **nuclear pharmacy**. Salary and academic rank are dependent upon the candidate's qualifications. The University of Oklahoma College of Pharmacy has recently relocated to the University of Oklahoma Health Sciences Center in Oklahoma City. The planned expansion of the curriculum, research and involvement in nuclear pharmacy services to area hospitals will offer opportunities for interrelationships with other health care professionals and provision of clinical nuclear services.

Individuals with experience and demonstrated competency as nuclear pharmacy practitioners/educators are particularly encouraged to submit applications. Applicants must have a baccalaureate degree in pharmacy eligible for registration in Oklahoma and should have a Ph.D. degree. Demonstrated experience and competency may be substituted for the advanced degree.

Interested candidates for the positions should send a letter of application, curriculum vitae, and three references to:

**R. D. Ice, Dean  
College of Pharmacy  
University of Oklahoma Health Sciences Center  
644 Northeast 14th Street  
Oklahoma City, Oklahoma 73190**

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

### FISH ECOLOGIST ACADEMY OF NATURAL SCIENCES

Ph.D. with competence in statistical design, population dynamics, census methods and writing. Primary responsibilities include applied environmental studies and basic research. Must be able to work in multidisciplinary team. Rank is at the level of assistant curator. Job location is Benedict Estuarine Laboratory, near Chesapeake Bay. Available immediately. Send curriculum vitae, reprints, and three letters of recommendation to: **Dr. George D. Constantz, Division of Limnology and Ecology, Academy of Natural Sciences, 19th and the Parkway, Philadelphia, Pa. 19103. An Equal Opportunity/Affirmative Action Employer.**

**IMMUNOPARASITOLOGIST**—Incumbent will supervise parasite serology laboratory, develop and evaluate diagnostic tests for parasitic diseases, develop programs for control, surveillance and prevention of parasitic diseases of livestock, and participate in the College's teaching and research programs in parasitology and immunology. D.V.M. and/or Ph.D. with strong research and field background in parasitology and immunology. Title and salary commensurate with experience. Send curriculum vitae, personal bibliography, and at least three references, before 31 December 1976, to: **Dr. R. H. Cyress, Director, Diagnostic Laboratory, New York State College of Veterinary Medicine, P.O. Box 786, Ithaca, N.Y. 14850. An Equal Opportunity Employer.**

**PHYSICIANS (MULTIPLE OPENINGS)**—Food and Drug Administration/Bureau of Drugs. (Equal Opportunity Employer.) Immediate career Civil Service openings for physicians to evaluate clinical data of new drugs. Physicians function as leaders of multidiscipline teams reviewing New Drug Applications (NDAs) and Notices of Claimed Investigational Exemption for New Drugs (INDs). They participate in formulating policy and developing standards and guidelines for the study of new drugs. Positions are available in most specialties with most immediate needs in fields of Cardiology, Gastroenterology, Rheumatology, Anesthesiology, Pulmonary-Allergy, OB/GYN, and Infectious Diseases. The positions require judgment, ability to plan and organize work, effectiveness in writing, speaking, and interpersonal skills. Security, good salary (\$33,126 to \$37,800 per year), comprehensive fringe benefits, ongoing contacts with professional colleagues and provision for maintaining clinical expertise. Positions are available in the U.S. Civil Service system or the Commissioned Corps of the Public Health Service. Candidates must be U.S. citizens, graduates of U.S. or Canadian Medical Schools with a degree of Doctor of Medicine or Doctor of Osteopathy from a school approved by the Bureau of Professional Education Committee on Colleges of the American Osteopathic Association. A full, unrestricted, and permanent license to practice in a State, District of Columbia, Puerto Rico, or a territory of the U.S. is desirable. Graduates from foreign medical schools, or medical schools not listed as approved by the American Medical Association, may show comparability in medical education with approved schools in one of the following ways:

1. Permanent and full or unrestricted license to practice medicine in a State, the District of Columbia, Puerto Rico, or a territory of the U.S., or
2. At least one year as an active duty commissioned medical officer in the U.S. Armed Services or Public Health Service, or
3. Certification in a specialty by an American Specialty Board, or
4. Permanent certification by the Education Council for Foreign Medical Graduates in its American Medical Qualifying Examination or eligibility in the full examination of the National Board of Medical Examiners.

Send resume to:

FDA Personnel (Mr. Stephen Tobias)  
Room 4B-44  
5600 Fishers Lane  
Rockville, Maryland 20852

## Research Immunologist

We're a world-wide leader in the health care, pharmaceutical industry seeking a highly qualified individual to initiate a research program designed to identify drugs capable of modulating the immune response. Responsibilities will include the investigation of pharmacological means of regulating cellular hypersensitivity reactions with the ultimate goal of uncovering agents useful in the treatment of rheumatoid arthritis.

The qualified candidate will have a Ph.D. degree in Immunology or Pharmacology with several years experience in the field of cellular immunology. A supervisory background will also be helpful.

To the career oriented professional who joins us we offer an excellent salary, full company benefits, and solid potential for growth. Send your detailed resume, with salary history, in confidence, to:

**ABBOTT** Brad Herbeck  
NORTH CHICAGO, ILL. 60064 Corporate Placement

*Abbott is an Affirmative Action Employer*

## Laboratory Head Cardiovascular Pharmacology

Abbott Laboratories, a major, international health care corporation, has an outstanding career opportunity for a qualified professional with a major research interest in the field of hypertension. The person who directs our progressive cardiovascular laboratory will have a Ph.D. and/or a M.D. degree, expertise in Pharmacology, Physiology or Biochemistry of the cardiovascular system and 5-10 years cardiovascular research experience in a university or industry position. Supervisory responsibility and a proven record of expertise in the field, will also be essential.

The scientist who accepts this challenging position will have an excellent salary, fringe benefits, and potential for career growth. Interested scientists should send a detailed curriculum vitae with a salary history in confidence to:

**ABBOTT**  
NORTH CHICAGO, ILL. 60064

Brad Herbeck  
Corporate Placement

*Abbott is An Affirmative Action Employer*

## Cell Cycle Analysis

### NATIONAL CANCER INSTITUTE POST-DOCTORAL NATIONAL RESEARCH SERVICE AWARD

The University of California's Lawrence Livermore Laboratory has a post-doctoral fellowship in cell cycle analysis available through the National Research Service Award program of the National Cancer Institute.

Applicants should be Ph.D.'s, MD's or VMD's with past experience and desire to continue in the field of tumor growth kinetics. Individual backgrounds might include biologists interested in the natural history of tumor growth, pharmacologists and medical oncologists interested in cancer therapy, and bio-physicists interested in the general field of cell cycle kinetics. Position will involve the study of kinetic behavior of normal and malignant cell population systems using both conventional and slow systems methods of analysis.

Send curriculum vitae to **Arthur L. Henry, Lawrence Livermore Laboratory, Personnel Department, (SC-126), P.O. Box 808, Livermore, California 94550.**

U.S. Citizenship  
Required



An Equal  
Opportunity  
Employer

**LAWRENCE LIVERMORE LABORATORY**

## POSITIONS OPEN

**INSECT TOXICOLOGIST, ASSISTANT PROFESSOR**—Ph.D. or equivalent. Academic year appointment, available summer 1977. Background in entomology and toxicology with an interest in field oriented research on the fate of toxicants in the environment. Teaching responsibilities in environmental toxicology and insect toxicology. Application deadline: 1 February 1977. Address applications or inquiries to **Dr. John Edman, Chairman of Search Committee, Department of Entomology, Fernald Hall, University of Mass., Amherst, Mass. 01003. Telephone 413-545-2284. An Affirmative Action/Equal Opportunity Employer.**

### INSTRUCTOR

Duties: Research and teaching in human genetics with little or no responsibility for clinical determinations.

Training: Doctorate and experience in human biochemical genetics, especially in the area of pyrimidine metabolism.

Candidates should send curriculum vitae, publication reprints, and three letters of reference to **Dr. Robert S. Krooth, Chairman, Department of Human Genetics and Development, College of Physicians and Surgeons, 701 West 168th Street, New York, N.Y. 10032. Equal Opportunity/Affirmative Action Employer, M/F.**

**LECTURER-ASSISTANT RESEARCH PSYCHOLOGIST.** Beginning 1 January 1977 a position is available in the Department of Psychobiology requiring both teaching and research. Applicants must have completed the doctorate, should be interested in teaching neurobiology at the undergraduate level and should be pursuing research in neurobiology, specializing in the area of in vitro neurophysiology. Address applications to **Dr. Gary S. Lynch, Department of Psychobiology, University of California, Irvine, California 92717**, providing curriculum vitae and publications. At least three letters of recommendation should be sent by references. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.*

### MEMBRANE BIOLOGIST

Applications are invited for an assistant or associate professor in the school of Life Sciences to develop and maintain an active research program and supervise graduate students in membrane biology. Postdoctoral required. Teaching of cell biology essential. Salary negotiable and competitive. Starting August 1977. Curriculum vitae, list of publications, a short description of future research program, and the names of three references should be sent to **Dr. Eric Davies, School of Life Sciences, University of Nebraska-Lincoln, Lincoln, Nebraska 68588. The University of Nebraska is an Equal Opportunity Employer.** Applications received after 15 January 1977 will not be considered.

### MOLECULAR BIOLOGIST

The Cellular and Molecular Biology Faculty of Colorado State University—an interdisciplinary group drawn from eight academic departments—is seeking a molecular biologist with a Ph.D. in an appropriate field and at least 2 years of postdoctoral experience (or the equivalent) in molecular events of replication; transcription; translation; or, processing of genetic information. The candidate must have the ability to teach molecular genetics at the undergraduate and graduate levels and will also be expected to pursue a vigorous research program in his/her areas of expertise.

Faculty rank and departmental affiliation are negotiable. We anticipate that the position will be available beginning September 1977. Deadline for receipt of applications is 31 January 1977.

More detailed information about this position and instructions for application thereto may be had by writing to:

**Dr. George M. Happ, Chairman  
Graduate Faculty of Cellular and Molecular Biology  
c/o Department of Zoology and Entomology  
Colorado State University  
Fort Collins, Colorado 80523**

*Colorado State University is an Equal Opportunity Employer and complies with Title IX requirements. Complaints should be filed with the Office of Equal Opportunity, Student Services Building. Enquiries from qualified ethnic minority and/or female candidates are especially welcomed.*

## POSITIONS OPEN

### MOLECULAR BIOLOGY— DEVELOPMENTAL GENETICS

Applications are invited for the position of assistant professor (effective August 1977) in the Department of Biology at Creighton University. The position requires participation in biology instruction at the introductory level and development of upper division and graduate offerings in molecular aspects of genetic and developmental control mechanisms. In addition to teaching, the individual will be expected to develop an active research program. Subsequent promotion will depend on both scholarly and teaching performance. Consideration will be given to both zoologically and botanically trained applicants.

Applicants should send a curriculum vitae (which includes a description of teaching experience and expertise), three letters of recommendation, and transcripts to:

**Dr. Harry Nickla  
Chairman, Search Committee  
Department of Biology  
Creighton University  
Omaha, Nebraska 68178**

The deadline for receipt of applications is 15 February 1977.

*Creighton University is an Equal Opportunity Employer.*

**NEUROPHYSIOLOGIST: MAMMALIAN CENTRAL NERVOUS SYSTEM:** Rank and salary open, for fall 1977. Teaching includes undergraduate and graduate instruction, largely in neurophysiology. Postdoctoral research experience, publications, strong biological background essential. Additional teaching expertise in neuroanatomy preferred. Applications should be received by 15 February 1977. Apply to: **Dr. James E. Heath, Department of Physiology and Biophysics, 524 Burrill Hall, University of Illinois, Urbana, Illinois 61801. The University of Illinois at Urbana-Champaign is an Affirmative Action/Equal Opportunity Employer and encourages applications from members of minority groups and women.**

**NUCLEAR MEDICINE**—The Department of Radiology invites applications for the position of **assistant professor or associate professor** in the Division of Nuclear Medicine at the Ohio State University Hospitals, Columbus, Ohio.

Applicants should be Board-certified and thoroughly trained, preferably in a University Center, in the use of radionuclides, and must have demonstrated evidence of clinical expertise. A portion of time in this position will be devoted to teaching medical students, residents, and to research—applicants must therefore have had prior training in the fundamentals of research methodology. To ensure that the successful candidate will be able to work closely with the medical imaging team, preference will be given to applicants with training in diagnostic radiology.

Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.

If you are interested in this position, please write to the address below including a curriculum vitae and an autobiographical letter.

**Marc R. Tetelman, M.D.  
Acting Director  
Division of Nuclear Medicine  
Ohio State University Hospitals  
410 West 10th Avenue  
Columbus, Ohio 43210**

**PH.D.** to supervise studies in genetics of transplant antigens and immunology of marrow transplantation with emphasis on transplantation tolerance. Good experience with animal models. **Division of Oncology, University of Washington, Seattle, Washington 98195.**

### POSTDOCTORAL POSITION

**IMMUNOLOGY.** Research areas in immunogenetics including use of synthetic polymers to study genetic control of immune response in mice; isolation, characterization of lymphocyte membranes, T cell receptors, T cell factors, and so forth. Experience in biochemical isolation techniques preferred. Apply with curriculum vitae to **Dr. Paul H. Maurer, Department of Biochemistry, Jefferson Medical College, 1020 Locust Street, Philadelphia, Pennsylvania 19107.**

## POSITIONS OPEN

**LECTURER IN BIOLOGY,** Ph.D. needed to teach introductory level biology courses to undergraduates from educationally disadvantaged backgrounds. Teaching effectiveness is our most important concern; the candidate will be expected to provide assistance to students outside of class. This is a non-tenure track position starting August 1977. Send résumé, transcripts, and five letters of reference before 31 December to: **Dr. R. J. Kaleta, Experimental Program in Higher Education, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin 53211.**

*An Equal Opportunity/Affirmative Action Employer*

**POSTDOCTORAL POSITION IN MEMBRANE BIOCHEMISTRY.** A recent Ph.D. with a strong biochemistry background is required for a group investigating mammalian cell membrane mutants. The position is in a hospital based, university affiliated basic research laboratory. The appointment is for 2 years and is available immediately. Canadian citizens or permanent residents preferred. Apply to: **R. L. Juliano, Ph.D., Research Institute, Hospital for Sick Children, Toronto, Ontario, Canada M5G 1X8.**

**POSTDOCTORAL POSITIONS IN IMMUNOLOGY:** postdoctoral research positions available this year (and 1977) for Ph.D. or M.D. graduates in the areas of tumor/bacterial immunology (Dr. Percy Minden) and structure of lymphocyte membrane antigens (Dr. Howard Grey). Send curriculum vitae and names of three references to: **Dr. Ronald J. Harbeck, Education Committee, Allergy and Clinical Immunology, National Jewish Hospital and Research Center, 3800 East Colfax Avenue, Denver, Colorado 80206. An Equal Opportunity Employer.**

**POSTDOCTORAL POSITION:** Immediate opening for recent Ph.D. with strong background in microbial genetics and enzymology. Research deals with biochemical genetics of bacteria with particular emphasis on gene-enzyme interactions and gene expression. Please send curriculum vitae and references to: **Dr. J. S. Gots, Department of Microbiology, School of Medicine, University of Pennsylvania, Philadelphia, Pa. 19174. Equal Opportunity/Affirmative Action Employer.**

**PROFESSOR AND CHAIRPERSON,** Department of Physical Education and Dance, including elective, undergraduate through graduate professional preparation programs. Doctorate or equivalent degree with administrative ability and strong teaching, service, and research. Deadline 1 February 1977. Send application letter and curriculum vitae to **George E. Stelmach, Department of Physical Education and Dance, 2000 Observatory Drive, University of Wisconsin, Madison, Wisconsin 53706. An Equal Opportunity/Affirmative Action Employer.**

**PSYCHOLOGY FACULTY POSITION.** Rank and salary dependent upon qualifications. To teach at the graduate and undergraduate levels, conduct research, supervise student research. Ph.D. (or completion of dissertation by September 1977) and demonstrated research competence required.

Area of specialization open, special consideration may be given to those with developmental and/or applied interests.

Indication of sex and ethnicity for Affirmative Action statistical purposes is requested but not required. Send curriculum vitae, letter of salient interest, and three letters of reference by 15 February 1977 to:

**Dr. Alexander Clark  
Vice President for Academic Affairs  
The University of Texas at Dallas  
P.O. Box 688  
Richardson, Texas 75080**

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

**RESEARCH ASSOCIATE.** Position available immediately for Ph.D. with strong background in soil microbiology and soil chemistry, to work on project dealing with the study of nitrogen transformation and organic matter decomposition in soils. The appointment will be for 1 year initially. Send résumé to: **Dr. A. J. Francis, Department of Applied Science, Brookhaven National Laboratory, Associated Universities Inc., Upton, L.I., N.Y. 11973. An Equal Opportunity Employer, M/F.**



## BIOMEDICAL RESEARCH ELECTRON MICROSCOPIST

We are the rapidly expanding U.S. subsidiary of ICI Ltd. (London), a pharmaceutical research institution.

Our Safety Evaluation group has a January 1977 opening calling for:

- **Embedding and sectioning of tissue for electron microscopy**
- **Survey and photography of EM tissues**
- **Analysis of EM findings and assistance in report writing**
- **Cryostat sectioning and histochemical techniques for light microscopy**

You should hold M.S. or B.S. degree in biology, with advanced EM training essential. Cryostat sectioning and histochemical technique experience is preferable, but not essential. Direct EM research experience preferable.

Our salaries and comprehensive benefits portfolio (including dental plan and tuition aid) compare favorably in American drug/chemical industry. Laboratories are located in suburban Wilmington, 25 miles from Philadelphia.

Please submit resume and salary expectation in confidence to:

**Charles T. Brodigan**  
Employee Relations



**ICI United States Inc.**  
Wilmington, Delaware 19897  
An Equal Opportunity Employer M/F

# CELL BIOLOGIST/ CHEMIST

## Mammalian Cell Research

Argonne National Laboratory has a challenging staff opening in the Mammalian Cell Biology Group headed by Dr. M. M. Elkind. Appointment can be made at a level equivalent to postdoctoral, assistant or associate professor.

Research will concentrate on mechanisms of phenotypic changes induced in cultured mammalian cells by chemicals, and ionizing and nonionizing radiations. Mechanisms of oncogenesis, mutagenesis, and teratogenesis will be of particular interest, as well as the development of appropriate *in vitro* assay systems.

Compensation commensurate with background. Send **curriculum vitae**, bibliography and references to: Mr. R. A. Johns, Box Boon Argonne, IL 60439



**ARGONNE  
NATIONAL  
LABORATORY**

An Equal Opportunity Employer M/F,  
HDCPD

U of C-AUA-USERDA

## PHARMACOKINETICIST PHARMACOLOGIST

The National Institute of Environmental Health Sciences, National Institutes of Health, Public Health Service, invites applications for a Pharmacokineticist/Pharmacologist to study the disposition of environmental pollutants in mammalian species, correlate pharmacokinetic studies with toxicity studies, and extrapolate results obtained with laboratory animals to man. The position will be located in the pharmacology branch, NIEHS, in the Research Triangle Park, (equidistant from Raleigh, Durham and Chapel Hill), North Carolina.

A Ph.D. or equivalent in Pharmaceutics, Biopharmaceutics, Pharmacokinetics, Biochemistry, Pharmacology, or a related field with previous training and/or research experience in pharmacokinetics is required. Consideration will be given to both junior and senior investigators. Senior investigators are expected to participate in active research programs as well as to direct and plan for anticipated growth of the pharmacokinetics group at NIEHS. Appointment may be made through a service fellowship or civil service appointment. Appointment will be made initially for one or two years and may be extended. Persons considered for career civil service appointments must be eligible on appropriate U.S. Civil Service Commission Registers. Salary range from \$15,120 to \$24,308 depending on qualifications. Letters of application with curriculum vitae, bibliography, and the names and addresses of two references should be mailed to:

**Ms. Penelope P. Gardner**  
NIEHS Personnel Office  
P.O. Box 12233  
Research Triangle Park, N.C. 27709

**Letters must be received by January 7, 1977 to be considered.**

An Equal Opportunity Employer

# KUWAIT UNIVERSITY

## ACADEMIC POSTS AVAILABLE FOR 1977/78

**IN THE BOTANY DEPARTMENT** in the following fields: (For assistant professors and lecturers only), Taxonomy of Flowering Plants (for two years only), Plant Pathology, Microbial Genetics.

**IN THE ZOOLOGY DEPARTMENT** in: Endocrinology, Invertebrate, Cell Biology, Histology and Histo Chemistry, Animal Behaviour, Comparative Anatomy, General Zoology.

### QUALIFICATIONS

- Must hold Ph.D. degree or its equivalent in the respective specialization.
- Must currently hold academic post in an accredited University or research center.

**CONTACT** the Kuwait Embassy Cultural Division for further information and application forms:  
4340 Connecticut Ave. N.W., Suite 500  
Washington, D.C. 20008  
Tel. 202-244-4709

If outside the United States, please contact your nearest Kuwait Embassy.

## POSITIONS OPEN

### PROTEIN CHEMIST

The National Institute of Environmental Health Sciences, National Institutes of Health, Public Health Services (PHS), invites applications for the position of protein chemist to plan and conduct independent and collaborative research involved with the structural characterization of normal and abnormal proteins and its implications in mammalian biochemical genetics and mutagenesis. A Ph.D. or the equivalent in biochemistry or genetics with research experience in protein sequencing is required. The position will be filled through PHS service fellowship appointment. The annual salary range is from \$14,000 to \$29,500 depending on qualifications. (To be filled between 1 January and 1 July 1977.)

Letters of application with curriculum vitae, bibliography, and names and addresses of three references should be mailed to:

Penelope P. Gardner  
NIEHS Personnel Office  
P.O. Box 12233  
Research Triangle Park, N.C. 27709

Letters must be received by 7 January 1977 to be considered.

*An Equal Opportunity Employer*

**RADIOBIOLOGIST** wanted to head up new program in the Division of Biology and Medicine at Brown University in conjunction with the Department of Radiation Oncology at the Rhode Island Hospital.

Appointment and salary commensurate with experience.

Send curriculum vitae and bibliography to:

Arvin S. Glicksman, M.D.  
Professor of Medical Sciences  
Chairman, Section on Radiation Medicine  
Chairman, Department of Radiation Oncology  
Rhode Island Hospital  
Providence, Rhode Island 02902

### RESEARCH ASSOCIATE

To study primate retinal physiology with electrophysiological techniques. Applicants should be recent Ph.D.'s. Those with a strong background in visual science will be given preference. Candidates will be expected to partake in the development of particular studies and assume responsibility for a laboratory computer facility.

Interested candidates should send curriculum vitae and names of three references to: Dr. William Baran, Electronics and Bioengineering Laboratory, SRI, 333 Ravenswood Avenue, Menlo Park, Calif. 94025. *An Equal Opportunity Employer.*

### RESPIRATORY PHYSIOLOGIST

The Department of Physiology and Biophysics at the University of Tennessee Center for the Health Sciences in Memphis, Tennessee, has a position available as of 1 July 1977, at the assistant or associate professor level, depending on qualifications, for a Ph.D. or M.D. with interest in respiratory physiology. Responsibilities will include teaching in both professional and graduate school courses in physiology and developing an independent research program. Interested persons should send curriculum vitae and the names of three references before 25 March 1977, to Dr. Clark M. Blattels, Department of Physiology and Biophysics, University of Tennessee Center for the Health Sciences, 894 Union (NA 427), Memphis, Tenn. 38163. *An Equal Opportunity/Affirmative Action Employer.*

### IMMEDIATE TEACHING POSITIONS

Positions available for instructors holding Ph.D. or M.S. degrees in the following areas: anatomy; biology, with emphasis in anatomy; chemistry; microbiology; pathology; and physiology.

Send résumé to:

Academic Dean  
Cleveland Chiropractic College  
3700 Troost Avenue  
Kansas City, Missouri  
or

Academic Dean  
Cleveland Chiropractic College  
590 North Vermont  
Los Angeles, California 90004

## POSITIONS OPEN

**POSTDOCTORAL POSITION** at the Johns Hopkins University School of Medicine. Available immediately. Neurophysiological and neuroanatomical studies of the postnatal ontogeny of cardiovascular control systems. Applicants should have a strong background in the neurosciences and be familiar with modern techniques in either neurophysiology or neuroanatomy. Applicants should send their curriculum vitae and bibliography to Dr. Lawrence Schramm, The Johns Hopkins University School of Medicine, 223 Traylor Building, 1721 East Madison Street, Baltimore, Maryland 21205.

**LABORATORY INSTRUMENT OR EQUIPMENT SALESPERSON** to train as advertising space salesperson for major scientific journal. New York area. Contact

Dick Charles  
Science  
Telephone: 212-736-1858

**SCIENTIST/TECHNOLOGIST.** Two year appointment. To aid three eastern universities develop course(s) in technological processes for graduate students in public administration/public policy. Ph.D. or master's in science/engineering laboratory, government agency, university faculty or equivalent. Research/writing experience about administration of science/technology. Available February 1977.

Box 543, SCIENCE

### SQUIBB INSTITUTE FOR MEDICAL RESEARCH SENIOR PHARMACOLOGISTS

Our expanding research programs in pharmacology and immunology have created needs for senior pharmacologists in pulmonary renal or cardiovascular areas. These positions require a Ph.D. in physiology or pharmacology and 2 to 5 years of relevant postdoctoral experience in one of these areas with a proven record of independent investigation and a desire to participate in an interdisciplinary collaborative research program.

We offer an outstanding benefits and compensation package as well as a superior atmosphere for medical research at its highest level.

Please send your curriculum vitae in confidence to:

E. R. Squibb & Sons, Inc.  
Department M.G.  
P.O. Box 4000  
Princeton, N.J. 08540

*An Equal Opportunity Employer, M/F*

## COURSE

The Pathology Department of Eastern Virginia Medical School will offer an intensive 5-week **COURSE** in the theory and practice of electron microscopy in summer 1977. The course is not an overview but is designed to provide competence in the field. A certificate will be awarded upon completion. Class size is limited to five people. For further information please contact: Dr. S. H. Vernick, Department of Pathology, Eastern Virginia Medical School, P.O. Box 1980, Norfolk, Virginia 23501.

## CONGRESS

### INTERNATIONAL SOCIETY OF PSYCHONEUROENDOCRINOLOGY

Preliminary notice. The Eighth International Congress of the International Society of Psychoneuroendocrinology will be held at the Atlanta Hilton Hotel, Atlanta, Georgia, 8 to 12 May 1977. Registration will be on Sunday, 8 May. For information please write to Dr. Richard P. Michael, Department of Psychiatry, Emory University School of Medicine, Atlanta, Georgia 30322.

## WORKSHOP

### SCANNING ELECTRON MICROSCOPY FOUR DAY WORKSHOP: 21 to 24 February 1977

Bergen Community College is sponsoring a comprehensive workshop in the theory and biological applications of SEM. The program includes introduction to SEM techniques in specimen preparation for SEM and elemental analysis, image interpretation, and the biomedical applications of SEM which include topographic, histochemical, and correlative techniques. Morning lectures will be followed by afternoon and evening labs which offer intense "hands on" time, demonstrations of operational procedures pertinent to research problems, new techniques, and current developments in instrumentation and specimen preparation. A variety of instruments from several manufacturers equipped with accessories, which include energy dispersive x-ray will be available. Lecturers include researchers prominent in the electron optics, specimen preparation, and biomedical applications of SEM. Direct inquiries to Community Services, Bergen Community College, Paramus, New Jersey 07652. Deadline for application: 21 January 1977.

## PROGRAMS

### HARVARD UNIVERSITY PUBLIC POLICY PROGRAM JOHN F. KENNEDY SCHOOL OF GOVERNMENT

Seeks a very limited number of highly qualified candidates from scientific fields who would like to pursue a public service career. The program provides training enabling graduates to address a wide variety of public policy questions. The core of the program consists of courses in economics, quantitative and analytic methods, and political analysis. Applicants should have strong academic backgrounds and be able to demonstrate an interest in a public service career.

For further information or application forms write to: Harvey Brooks, Ph.D., Benjamin Pierce Professor of Technology and Public Policy, Division of Engineering and Applied Physics, Pierce Hall 217, Harvard University, Cambridge, Massachusetts 02138.

## TRAINEESHIPS

**RESPIRATORY PHYSIOLOGY TRAINEESHIPS.** Postdoctoral traineeships, 1 to 3 years, available July 1977. Emphasizes training in cellular as well as classical respiratory physiology. Nine faculty members. *An Equal Opportunity Employer.* Write: Education Officer, Respiratory Physiology Group, Department of Physiology, School of Medicine, University of Pennsylvania, Philadelphia, Pa. 19174.

**PH.D. TRAINEESHIP**—To study biology and clinical significance of the ocular surface epithelium, including aspects of transformation of conjunctival into corneal cells and corneal neovascularization following epithelial trauma. Training in cellular biology with biochemistry and embryology suggested. Full time position for 1 year with possible extension. Contact R. Thoft, M.D., Eye Research Institute, 20 Staniford Street, Boston, Mass. 02114.

## FELLOWSHIPS

**POSTDOCTORAL RESEARCH FELLOWSHIP** for recent graduate with Ph.D. preferably in biochemistry to study the mechanisms of action of mammalian collagenases with emphasis on structure function relationships. Position available immediately. Inquiries and résumés should be addressed to Dr. A. Z. Eisen, Division of Dermatology, Department of Medicine, Box 8123, Washington University School of Medicine, St. Louis, Missouri 63110.

*An Equal Opportunity Employer*

Available **POSTDOCTORAL FELLOWSHIPS** in respiratory physiology with emphasis on human applications. Dr. M. Jaeger, Department of Physiology College of Medicine, University of Florida, Gainesville, Florida 32610.

# A New 8 Liter Version Of The Most Reliable Freeze Dryer Ever Built

After a decade of dependability — a *new Unitrap* — with extra capacity and convenience! A new front panel mounted visible condenser lets you see what's happening throughout the processing cycle. Smooth stainless steel cylindrical condenser walls and a new rapid defrost give *fast* turnaround — the entire 8 liter ice plug slides out in less than 30 minutes!

You get an ultra reliable Copelametic compressor and spring suspended, shock mounted Hyvac 7 in a compact 29" cabinet with stainless work surface. Thermocouple vacuum gauge, and precise thermistor temperature readouts are standard.

Many options — including 14 changeable chambers and manifolds and a built in shell freezer — allow all around versatility, so you can process in ampules, serum bottles, flasks, petri dishes and trays.

Automatic freeze drying has never been easier or more convenient. After a decade of dependability — and a year in the field for the new model — Unitrap II is available *now*.

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