

# Personnel Placement

Personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, or national origin.

**Positions Wanted:** 40¢ per word; \$10 minimum charge, per insertion. \$4 extra for use of box number. Prepayment required. Rate available only to individuals; personnel agencies, companies, colleges, and universities take display rate for all advertising.

**Display (Positions Open, Market Place, and so forth):** \$145 per 25 millimeters (1 column inch), minimum, per insertion (25 millimeters equals 10 lines of 50 spaces and characters each). Ads over 25 millimeters billed at \$5.80 per millimeter. No charge for use of box number. Rates net. No agency commission for ads under 4 inches. No cash discount. Prepayment required for foreign advertising. Purchase orders and billing information required for all other ads.

Advertising closing is each Wednesday, 3½ weeks before Friday issue date requested. Send copy for all positions wanted ads and display ads under 5 inches to:

**SCIENCE, Room 207  
1515 Massachusetts Ave., NW  
Washington, D.C. 20005  
Telephone: 202-467-4456**

Send copy for display ads, 1/6 page and larger, to:

**Scherago Associates, Inc.  
11 West 42nd Street  
New York, N.Y. 10036  
Telephone: 212-736-1858**

Blind Ad replies should be addressed as follows:

**Box (give number)  
SCIENCE  
1515 Massachusetts Ave., NW  
Washington, D.C. 20005**

## POSITIONS WANTED

**Applied Ecologist in Animal Sciences.** Ph.D. expected in April 1978. Experience in environmental effects on disease defenses, experimental pathology, and air-pollutant challenges. Seeking research and/or teaching position in government, academia, or industry. Box 432, SCIENCE. X

**Biochemist.** Ph.D. 1966. Background: biogenic amines/CNS; needs position immediately. Jourdkian, 252 Washington Boulevard, Oak Park, Illinois 60302. Home telephone: 312-524-1756.

12/2, 9, 16, 23; 1/6

**Biomedical Engineer.** Ph.D. 1977. Postdoctoral. Electrical engineering background. Publications. Seeks R & D position in system analysis, signal processing, and computer applications to biomedical research with industry or university. Box 429, SCIENCE. X

**Clinical Chemist.** Biochemist, Ph.D. 1973. Clinical assistant professor. Twenty publications. Experience in RIA. Analytical techniques. Enzyme purification, assays. Metabolites estimation. Protein chemistry. Tissue culture. Immunochemistry. Electrophoresis. Fluorometer. Bioluminescence. Gel chromatography. Seeks position in clinical chemistry laboratory. Box 427, SCIENCE. X

**Director, Regulatory Affairs/Toxicology.** Ph.D. Safety testing of chemicals, products. Clinical evaluations. Directed preparation of IND's, NDA's, all approved. Management of OTC drug and consumer product development, organic chemistry, microbiology. Many publications, U.S. patents. Box 428, SCIENCE. 12/2, 9

**Pharmacologist.** Ph.D. 1973. Postdoctoral, teaching, and research experience. Strong background in gastrointestinal pharmacology and transport techniques. Publications. Seeks industrial, government, or academic position. Box 430, SCIENCE. X

**Systematic Entomologist:** Ph.D. seeks position in any aspect of teaching and/or research in environmental biology; strength in aquatic ecology. Box 431, SCIENCE. X

## POSITIONS OPEN

Marquette University School of Dentistry is seeking an **ANATOMIST** for its basic science faculty. Must have Ph.D. Responsibilities include teaching and research. Send curriculum vitae to: **Dr. Joseph Abramowitz, 604 North 16th Street, Milwaukee, Wisconsin 53233. An Equal Opportunity Employer.**

The Medical Sciences Program of Indiana University School of Medicine-Bloomington is recruiting an **ANATOMIST** at the assistant professor level to teach human anatomy at the undergraduate level beginning August 1978. Ph.D. in anatomy or equivalent and postdoctoral experience are highly recommended. Preference will be given to those with experience in large enrollment undergraduate courses. In addition, candidates should be capable of participating in the medical and graduate training activities of the program and developing a strong research program.

Application must be returned by 1 February 1978 to: **D. M. Schroeder, Ph.D., Medical Sciences Program, Indiana University, Bloomington, Indiana 47401. An Equal Opportunity/Affirmative Action Employer.**

**ANIMAL PHYSIOLOGIST:** Ph.D.; postdoctoral experience desirable. Expected to teach at graduate and undergraduate levels, develop dynamic research program, and guide graduate students. Salary and rank dependent upon qualifications. Send curriculum vitae, reprints, statement of research plans, and names of three references to: **Dr. Sara E. Huggins, Chairman, Physiology Search Committee, Department of Biology, University of Houston, Houston, Texas 77004. An Equal Opportunity Employer.**

## AQUATIC ECOLOGIST

Assistant professor to conduct active research program in aquatic ecology, to interact with other faculty and graduate students, to teach undergraduate aquatic ecology one semester each year, and to offer a specialty course the other semester. To begin 1 September 1978. Working knowledge of biostatistics and biochemistry considered most valuable. Strong programs exist in aquatic biology, vector biology, and parasitology. New building, excellent computing facilities, two campus lakes, a 5400-acre natural preserve in northern Wisconsin. Submit curriculum vitae, undergraduate and graduate transcripts, publications, three letters of recommendation, and statement of research and teaching interests to: **Dr. Theodore J. Crovello, Chairman, Department of Biology, University of Notre Dame, Notre Dame, Indiana 46556. Notre Dame is an Affirmative Action Employer. Qualified women and minority group candidates are urged to apply.**

## ASSISTANT PROFESSOR: BIOCHEMISTRY

The Department of Biochemistry at the University of Minnesota Medical School invites applications for a tenure-track position at the assistant professor level. Preference will be given to individuals who have had 1 or 2 years of postdoctoral experience with a strong background in fundamental biochemical disciplines and who show promise of developing a vigorous research program. Applicants should be qualified to teach biochemistry in graduate and professional school courses. Applications must be received by 31 January 1978. Send curriculum vitae, a coherent and comprehensive plan for future research, and names of three references to: **Search Committee, Department of Biochemistry, Medical School, 435 Delaware Street, SE, 227 Millard Hall, University of Minnesota, Minneapolis, Minnesota 55455. An Equal Opportunity Employer.**

The Departments of Biology and Chemistry at the Massachusetts Institute of Technology invite applications from individuals holding a Ph.D. degree in **biochemistry** or a related field for an **ASSISTANT PROFESSORSHIP**. Applicants should have a strong background in protein chemistry. The primary responsibility will be to establish an independent research program in the area of protein chemistry (including protein sequencing). In addition the applicant will be responsible for participating in the teaching program for graduate and undergraduate students. Applications should be sent to: **the Department of Biology, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, Mass. 02139.** Applications received prior to 1 March 1978 will be considered.

*An Equal Opportunity/Affirmative Action Employer*

## POSITIONS OPEN

### ASSISTANT PROFESSOR

A position will be available 1 July 1978, for an individual interested in developing analytical methods for studying disposition and metabolism of drugs and toxicants. This person should be interested in teaching undergraduate and graduate students, while developing a strong independent research program. Salary will be commensurate with experience. Send a curriculum vitae with three references to: **Professor K. A. Connors, School of Pharmacy, University of Wisconsin, 425 North Charter Street, Madison, Wis. 53706. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.**

Positions available: **ASSISTANT PROFESSORS OF ANATOMY**, beginning summer 1978. (i) **Neuroanatomist:** teaching responsibilities include neuroanatomy and gross anatomy. Research in neuroscience. Grant support desirable. (ii) **Cell biologist:** teaching responsibilities include histology and gross anatomy. Research in cell biology. Grant support desirable. Send curriculum vitae and names of three references to: **Dr. Harry Maisel, Department of Anatomy, Wayne State University School of Medicine, Detroit, Michigan 48201. An Affirmative Action/Equal Opportunity Employer.**

### ASSISTANT PROFESSORSHIPS OF COMPUTER SCIENCE MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

The MIT Department of Electrical Engineering and Computer Science has several positions available starting September 1978 or earlier, for superior candidates interested in teaching and research. Candidates from all areas of specialization within computer science will be considered. The department has special interest in candidates in the hardware and computer systems areas. Research would probably be performed within the Laboratory for Computer Science (formerly Project MAC), the Artificial Intelligence Laboratory, or the Research Laboratory for Electronics.

Applications should include a curriculum vitae, and names and addresses of three or more references; non-U.S. citizens should include an explanation of visa status. Additional material describing the applicant's work, such as papers or technical reports, and a one-paragraph statement of future research plans would be helpful. Send applications to:

**Professor Albert R. Meyer  
Chairman, Computer Science Search Committee  
545 Technology Square, MIT Room 515,  
Cambridge, Mass. 02139**

*MIT is an Equal Opportunity/Affirmative Action Employer and actively solicits applications from women and minority group candidates.*

### UNIVERSITY OF CALIFORNIA DEPARTMENT OF GEOLOGY AND GEOPHYSICS

The Department of Geology and Geophysics, University of California, Berkeley, has approval to hire an **ASSISTANT PROFESSOR OF GEOPHYSICS** with breadth of interest in teaching and research in the internal constitution and dynamics of the earth. Strength in geophysical fluid dynamics, for example, and a strong background in geology are desirable credentials. Ph.D. required.

Applicants should send, by 1 January 1978, curriculum vitae and names of at least three references to: **Dr. T. V. McEvilly, Chairman, Department of Geology and Geophysics, University of California, Berkeley, Calif. 94720.**

*The University of California is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.*

### SOUTHERN ILLINOIS UNIVERSITY SCHOOL OF MEDICINE

Division of Pharmacology, **ASSOCIATE PROFESSOR OF PHARMACOLOGY**, Ph.D. or M.D. Applicants must have an established research program, preferably in the area of endocrine or biochemical pharmacology. Commitment to teaching medical pharmacology and participation in the graduate program is expected. Candidates should send curriculum vitae, summary of teaching duties, and the names of three references to: **Dr. William H. Cline, Jr., Professor and Director, Division of Pharmacology, Southern Illinois University, School of Medicine, P.O. Box 3926, Springfield, Illinois 62708. An Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### CORNELL UNIVERSITY ASSISTANT PROFESSOR OF BOTANY

Applications are invited for a teaching position in botany, in the Section of Botany, Genetics, and Development. Excellence in undergraduate teaching is a major consideration. The appointee will be expected to accept, as primary teaching role, responsibility for a large course at the elementary level, with emphasis on morphology, anatomy, development, reproduction, evolution, and plant identification. The appointee will also be expected to contribute to advanced undergraduate and graduate training in an area of research specialization and to undertake a vigorous research program.

Inquiries are invited from all applicants qualified for the primary teaching role. Applicants should have a Ph.D. degree in botany or a related area. *Women and minority candidates are encouraged to apply.* Curriculum vitae, transcripts, and three letters of recommendation should arrive by 15 January 1978 addressed to: **Dominick Paolillo, Search Committee Chairman, Section of Botany, Genetics and Development, 238 Plant Science Building, Cornell University, Ithaca, New York 14853.**

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

The Section of Comparative Medicine, Yale University School of Medicine, is pleased to offer an **assistant professorship in COMPARATIVE PATHOLOGY**. Applicants must be veterinarians with advanced training in diagnostic and experimental pathology. Preference will be given to candidates who are Board-certified or Board-eligible. The position involves equally substantial commitments to the anatomical pathology service and to independent research. Salary will be commensurate with training and experience. Please send inquiries and résumé to: **Dr. Robert Jacoby, Associate Professor, Section of Comparative Medicine, Yale University School of Medicine, 375 Congress Avenue, New Haven, Connecticut 06510. Yale University is an Affirmative Action/Equal Opportunity Employer.**

Persons highly qualified in **INORGANIC CHEMISTRY** or **EXPERIMENTAL PHYSICAL CHEMISTRY** are invited to apply for a tenure-track appointment as **ASSISTANT PROFESSOR**. This position will require the ability to organize and present, effectively, courses at both the graduate and undergraduate levels. Moreover, potential candidates are expected to have a solid record of accomplishment in research and to show promise of developing vigorous, independent programs of scholarly investigation. To apply, submit a brief biographical sketch, a publication list, three letters of recommendation, and a short résumé of ideas for the development of teaching and research programs. Deadline for applications is 1 January 1978. Please apply to:

**E. H. Cordes, Chairman  
Department of Chemistry  
Indiana University  
Bloomington, Indiana 47401**

*An Affirmative Action/Equal Opportunity Employer*

### PHYSIOLOGIST: ASSISTANT PROFESSOR

The Department of Physiology, Loyola University of Chicago, Stritch School of Medicine, is seeking candidates for a full-time, tenure-track position. Areas of research and teaching competence sought are renal and/or cardiovascular. Contact: **James P. Filkins, Ph.D., Professor and Chairman, Department of Physiology, Loyola University Stritch School of Medicine, 2160 South First Avenue, Maywood, Illinois 60153.**

*An Equal Opportunity/Affirmative Action Employer*

**ASSISTANT RESEARCH IMMUNOGENETICIST.** Ph.D. or D.V.M./Ph.D. with a thorough working knowledge of blood groups and biochemical polymorphisms in domestic or wild animals to develop and lead a genetics program at a federally funded primate research center. Position available 1 August 1978. Duties will consist primarily of the production and use of alloimmune blood typing reagents. Adjunct appointment in an academic department is available to well-qualified individual which will provide opportunities to participate in professional and graduate teaching. Send complete curriculum vitae including bibliography and names of at least three references to: **Director, California Primate Research Center, University of California, Davis, California 95616.** Closing date for applications is 31 December 1977. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**BIOMEDICAL ENGINEERING FACULTY.** The Biomedical Engineering Department at Boston University is seeking new faculty members. (i) **ASSISTANT OR ASSOCIATE PROFESSOR** with Ph.D. degree, biomedical engineering experience, strong interest in both teaching and research. To participate in new NSF supported undergraduate curriculum, develop graduate specialty courses, supervise design projects and theses, and advise engineering and premedical students, and to develop sponsored research, and collaborate with Medical School or other department, under joint faculty appointment, and (ii) **ADJUNCT PROFESSORS** for part-time teaching of biomedical electronics, biomechanics, diagnostic imaging, or other specialty courses. Send résumé, including detailed teaching and research experience, to: **Dr. R. J. McLaughlin, Chairman, Department of Biomedical Engineering, Boston University College of Engineering, 110 Cummington Street, Boston, Mass. 02215.** *An Equal Opportunity/Affirmative Action Employer.*

**BIOPHYSICIST/MEDICAL PHYSICIST.** A Ph.D. in experimental physics, biophysics, or electrophysiology is required to fill this position in the Francis Bitter National Magnet Laboratory at the Massachusetts Institute of Technology (MIT). Will perform measurements of magnetic fields over human body and biological preparation. Equipment includes superconducting detector in a magnetically shielded room. Some "wet biology" experience is desirable. Please submit résumé to: **MIT Personnel Office, 400 Main Street, Cambridge, Mass. 02139.** Attention: Job No. R77-93. *MIT is an Equal Opportunity/Affirmative Action Employer.*

**CANCER CONTROL PROGRAM MANAGER:** non-tenure tract faculty position with the University of Louisville Cancer Center in the field of public health administration and systems management with areas of specialization in health related programs, federal grant administration, group dynamics, and standard administration techniques. This individual must either have a master's degree or Ph.D. in the field of public health administration or systems management. Preference will be given to persons with previous experience in cancer control. Salary is dependent on qualifications. Send detailed curriculum vitae to: **John S. Spratt, Jr., M.D., University of Louisville Health Sciences Center, P.O. Box 35260, Louisville, Kentucky 40232.** *An Equal Opportunity/Affirmative Action Employer.*

**CARDIOVASCULAR RESEARCH PROGRAM DIRECTOR.** Senior cardiovascular research scientist to direct Cardiovascular Research Program of Oklahoma Medical Research Foundation. Established close working relationships with University of Oklahoma Health Sciences Center and other Oklahoma Health Center institutions. Responsibility for evaluation and development of existing and new clinical and laboratory research components, including small group and larger collaborative programs. Salary negotiable with excellent fringe benefits. *Equal Opportunity/Affirmative Action Employer.* Send curriculum vitae and letter of interest to: **Chairman, Cardiovascular Research Search Committee, Oklahoma Medical Research Foundation, 825 Northeast 13th Street, Oklahoma City, Okla. 73104.**

**COORDINATOR OF RESEARCH AND SPONSORED PROGRAMS.** The Medical University of South Carolina is seeking to fill an expanded (full-time) position as coordinator of research and sponsored programs. Principal duties of this position include the evaluation and processing of proposals for extramural funding of projects in the areas of biomedical research, of education in health fields, and of health care delivery systems as well as the identification of sources of support. This high administrative post will involve close participation with the faculty and administration in strengthening research activities and in identifying changes in funding patterns in the areas mentioned above. The coordinator will report to the vice president for academic affairs. Familiarity with the programs of the National Institutes of Health and other federal and private agencies with interests in health affairs is mandatory as is a background in scientific research. A Ph.D. and/or a professional degree at the doctoral level is required. Send credentials, including names and addresses of three references, by 20 December 1977 to: **Dr. B. Baggett, Chairman, Search Committee for a Coordinator of Research and Sponsored Programs, Department of Biochemistry, Medical University of South Carolina, Charleston, South Carolina 29403.** *The Medical University of South Carolina is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### CELL BIOLOGISTS

The Department of Anatomy and Neurobiology, Washington University School of Medicine, is planning to make two appointments in cell biology, for individuals whose research interests are in the areas of molecular and developmental biology or cell ultrastructure, but not neurobiology. Appointees would be expected to engage in an active research program and would have the responsibility of participating in courses in microscopic anatomy and/or cell biology for medical and graduate students. Applications, which should include a curriculum vitae and the names of three referees, should be made by 1 January 1978 to: **Dr. E. G. Jones, Department of Anatomy and Neurobiology, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, Missouri 63110.**

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

## CHAIRPERSON PEDIATRICS

The New York Hospital-Cornell Medical Center seeks a distinguished pediatrician for appointment as professor and chairperson, Department of Pediatrics, Cornell University Medical College, and as pediatrician-in-chief, the New York Hospital. Candidates must present evidence of experience and accomplishment in teaching, clinical service, and administration, as well as a commitment to scientific inquiry.

Send credentials to:  
**Pediatrics Search Committee  
Room A-128  
CORNELL UNIVERSITY  
MEDICAL COLLEGE  
1300 York Avenue, New York, N.Y. 10021**  
*An Equal Opportunity Employer, M/F*

### CHAIRPERSON DEPARTMENT OF GEOSCIENCES

Purdue University is seeking a nationally known scholar as **head** of the Department of Geosciences. Applicants must have demonstrated scientific excellence in one of the areas of geoscience and have attained an academic or professional level comparable to the rank of senior associate or full professor. Salary is open and competitive.

The Department of Geosciences is a growing department with 22 full-time faculty members participating in undergraduate and graduate degree programs in atmospheric science, geology, geochemistry, geophysics, engineering geology, and coastal dynamics.

Interested applicants should send their résumé and the names and addresses of three references to: **Dr. William L. Wood, Chairperson, Search Committee, Department of Geosciences, Purdue University, West Lafayette, Indiana 47907.** *Purdue University is an Equal Opportunity/Equal Access University.*

### CHAIRPERSON, DEPARTMENT OF BIOLOGY

Required: Ph.D. in a biological discipline, established record and commitment to teaching and research, and administrative experience or demonstrated potential. The department comprises 17 full-time faculty offering programs leading to bachelors and masters degrees. Interested persons should submit curriculum vitae, a statement of personal philosophy of teaching, research, and administration, as well as three letters of recommendation, including at least one which assesses administrative skills. Closing date: 1 February 1978. Send application to: **Dr. W. deGraw, Chair, Search Committee, Department of Biology, University of Nebraska at Omaha, Box 688, Omaha, Neb. 68101.** *The University is an Equal Opportunity/Affirmative Action Employer.*

### HAMPSHIRE COLLEGE CHEMISTRY/PHYSICS

Hampshire College has two possible openings for energetic, imaginative scientists whose interests extend beyond their own fields. We are particularly interested in people in physics, inorganic/physical chemistry, and closely related fields. Hampshire attempts to be a center of learning for independent-minded students who, with the help of the faculty, design their own education. Salary is competitive. Address replies including résumés to: **Professor Everett Hafner, School of Natural Science, Hampshire College, Amherst, Massachusetts 01002** by 27 January 1978. *An Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### UNIVERSITY OF LEICESTER, ENGLAND CHAIR OF BOTANY

Applications are invited for a chair of botany which will become vacant from 1 October 1978 following the retirement of Professor H. E. Street. There is no restriction as to the special interests of applicants.

Further particulars from: **the Registrar, University of Leicester, Leicester, England. Ref: CBS.**

**CLINICAL CHEMIST:** Ph.D. in clinical chemistry or biochemistry required. Tenure-track position at the level of assistant professor in an academic setting. Candidates must indicate ability to assume a supervisory and consultative role in a busy clinical laboratory. In addition, the candidates must demonstrate ability to develop an investigative program. Major teaching responsibilities would be in the area of clinical chemistry at the intern/resident level. Submit detailed curriculum vitae, transcript, and salary requirements to: **G. Randolph Schrödt, M.D., Professor and Chairman, Department of Pathology, University of Louisville School of Medicine, P.O. Box 35260, 802 Health Sciences Center, Louisville, Kentucky 40232. An Equal Opportunity/Affirmative Action Employer.**

### DEAN, HUXLEY COLLEGE OF ENVIRONMENTAL STUDIES

Huxley College of Environmental Studies announces reopening of the search for dean. Huxley College, a cluster college of Western Washington University, is an upper-division, interdisciplinary environmental studies unit with undergraduate programs covering the full spectrum of environmental problems and ranging from professional preparation to general environmental studies. The college is actively involved in numerous grant programs and provides services to the community through its faculty and students in areas of environmental assessment and planning. Graduate programs in applied biology and environmental planning are conducted in cooperation with other academic units.

Applicants for the position must have the doctorate or equivalent experience; in addition, qualifications include achievement or demonstrated ability in teaching, scholarly activity, environmental affairs, and administration. Appointment begins 1 July 1978 with salary up to \$31,000 on a 12-month basis. Résumé and supporting materials should address directly the position requirements and qualifications outlined above. Inquiries and applications should be sent to: **Dr. J. R. Crook, Huxley Dean Search Committee, Western Washington University, Bellingham, Wash. 98225.** Applications must be postmarked no later than 13 January 1978 to receive consideration. *Western Washington University is an Equal Opportunity/Affirmative Action Employer.*

### DIRECTOR, SCHOOL OF PHYSICS

Applications and nominations are solicited for the position of director of the School of Physics at the Georgia Institute of Technology, starting September 1978. The department, with 30 faculty members, 10 postdoctoral and research scientists, 55 graduate students, and 200 undergraduate majors, conducts an extensive program of graduate and undergraduate instruction and research. Applicants must have an excellent academic reputation in research and teaching, with some administrative experience, and must qualify for the rank of full professor. Curriculum vitae and a list of publications should be sent to: **Dr. R. F. Fox, Chairman, Search Committee, School of Physics, Georgia Institute of Technology, Atlanta, Georgia 30332. Telephone: 404-894-5260. Georgia Tech is an Equal Education and Employment Opportunity Institution.**

**ECOLOGIST.** Assistant professor to teach general ecology and to take responsibility for a course on the modelling of ecological systems. Preference will be given to those with research interests in aquatic ecology, but others should apply. Strong teaching ability and research potential essential.

Applicants should send no later than 15 January a curriculum vitae, recent reprints if available, and names of three references to: **Simon A. Levin, Chairman, Section of Ecology and Systematics, Langmuir Laboratory, Cornell University, Ithaca, New York 14853.**

*Cornell University is an Equal Opportunity Employer.*

## POSITIONS OPEN

### UNIVERSITY OF WISCONSIN-MADISON DEAN—SCHOOL OF MEDICINE

The University is seeking applicants/nominees for the position of dean of medicine. The qualifications include a background in medical education, demonstrated superior skill in administration and an established record as a scholar in one of the health-related sciences. It is highly desirable that the candidate be experienced in working with the various components of the health care system, related health professions and organizations, as well as state/federal agencies of importance to a health sciences center. *The University of Wisconsin System is an Affirmative Action and Equal Opportunity Employer.*

Applications or nominations should be sent to:

**P. L. Eichman, M.D.  
Chairman—Search and Screen Committee  
Infirmary 1, EMG Laboratory  
1300 University Avenue  
Madison, Wis. 53706**

Closing date for applications/nominations is 1 March 1978.

### ECOLOGY

Yale University, Department of Biology, seeks candidates for a senior appointment in ecology. The appointee will be expected to contribute to a strong program of research and scholarship in ecology, and participate in undergraduate and graduate teaching. Send curriculum vitae, résumé of past and present research, and names of referees to: **The Chairman, Department of Biology, 102 KBT, Yale University, New Haven, Connecticut 06520.** Deadline for receipt of applications is June 1978.

*Yale University is an Equal Opportunity/Affirmative Action Employer. We invite applications from all qualified individuals, especially women and members of minority groups.*

### PHYSICS DEPARTMENT IOWA STATE UNIVERSITY (ISU) AMES LABORATORY-DOE

**EXPERIMENTAL SOLID STATE PHYSICISTS** are invited to apply for a vacant regular faculty position which consists of a joint appointment as assistant professor of physics, ISU, and associate physicist, Ames Laboratory. Duties will include the teaching of physics at any level and the establishment of an active research program in experimental solid state physics. Preference will be given to individuals with demonstrated interests in the development and study of novel materials. Research experience involving lower-dimensional materials, superionic conductors, metal-insulator transitions, valence-fluctuation compounds, and/or related areas would be most pertinent.

Applications should include, in résumé form, a description of educational background, a summary of research and teaching experience, a list of all publications and submitted manuscripts (with a brief summary of the latter), a statement of current research interests and future plans, and the names of four persons who would be willing to give an evaluation of the candidate, if contacted. The above materials should be sent to: **Professor C. A. Swenson, Chairman, Department of Physics, Iowa State University, Ames, Iowa 50011.** The applicant should request that one of the evaluation letters be submitted before the deadline for applications, 15 January 1978.

*Equal Opportunity/Affirmative Action Employers*

The Department of Chemical Engineering of Princeton University is seeking a **SENIOR FACULTY MEMBER** of international reputation, preferably with strong interests in mathematical aspects of chemical engineering. Nominations and supporting documents should be sent to: **Professor Ernest F. Johnson, Chairman, Engineering Quadrangle, Princeton, New Jersey 08540. Princeton University is an Equal Opportunity/Affirmative Action Employer.**

The Department of Chemical Engineering of Princeton University is seeking a **FACULTY MEMBER** with background in chemical engineering and polymer science and engineering and outstanding potential for scholarly productivity in the area of polymers, preferably as related to biochemical and biomedical problems. Nominations and supporting documents should be sent to: **Professor Bryce Maxwell, Chairman, Polymer Materials Program, Engineering Quadrangle, Princeton, New Jersey 08540. Princeton University is an Equal Opportunity/Affirmative Action Employer.**

## POSITIONS OPEN

### FACULTY POSITION

**ANATOMY-PHYSIOLOGY**—Ph.D. required to teach human anatomy and physiology and comparative vertebrate anatomy. Desire candidate with research interests in areas such as vertebrate physiology, pathophysiology, and vertebrate paleontology. Nine-month appointment in the Department of Biology beginning 16 August 1978. Salary and rank dependent upon qualifications and experience. Participation in graduate student supervision is encouraged. Deadline for applications is 1 February 1978. Submit application, curriculum vitae, transcripts, and three letters of recommendation to: **Dr. Donald W. Bailey, Department of Biology, Western Kentucky University, Bowling Green, Kentucky 42101. An Affirmative Action/Equal Opportunity Employer.**

**FACULTY POSITION** is anticipated in the Department of Biology. Candidates with evidence of strong research productivity and teaching experience are invited to apply. Preference will be given but not limited to: hormonal regulation of cells and biochemical adaptations or other aspects of cellular regulation. Send résumé, description of research goals, and names of three or more references to: **Dr. Hiroshi Mizukami, Department of Biology, Wayne State University, Detroit, Michigan 48202. An Equal Opportunity/Affirmative Action Employer.**

### FACULTY POSITION—MICROBIOLOGIST

Applicants must have the Ph.D. degree and a strong commitment to research. Postdoctoral experience preferred. The position calls for an important role in teaching general microbiology and in some more specialized area as well as developing an independent research program. Preference will be given to applicants with expertise in immunology, immunochimistry, pathogenic microbiology, microbial ecology, or virology, but applicants with accomplishments in other areas will also receive consideration. Send curriculum vitae and three letters of recommendation to: **Dr. M. Ogur, Chairman, Department of Microbiology, Southern Illinois University, Carbondale, Ill. 62901.** The deadline for submission of applications is 1 February 1978. *An Equal Opportunity/Affirmative Action Employer.*

### UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

Applications are solicited for faculty positions in the following departments. **PHARMACOLOGY:** (#77) **assistant professor**—M.D. or Ph.D., teaching and research responsibilities in cardiovascular/renal pharmacology. **PHYSIOLOGY:** (#78) **associate professor**—experience in myocardial metabolism, cell kinetics and cardiac function; (#79) **assistant professor**—experience in neurophysiology, especially spinal cord and brain; (#80) **assistant professor**—specializing in respiratory physiology. All carry active teaching and research roles.

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, Oklahoma 73190. We are an Equal Opportunity Employer.**

Two faculty positions expected to become available for fall 1978: (i) **CELLULAR NEUROPHYSIOLOGIST** with interests in neural integration, and (ii) **ANIMAL BEHAVIORIST** with strength in social behavior of invertebrates or non-primate vertebrates. Salary and rank negotiable depending on qualifications. Applicants should submit curriculum vitae, statement of teaching and research interests, copies of papers published, and names of three references to: **Albert D. Carlson, Chairman, Neurobiology and Behavior Search Committee, Department of Biology, State University of New York, Stony Brook, N.Y. 11794. Equal Opportunity/Affirmative Action Employer.**

The Department of Pharmacology invites applications for **TWO FACULTY POSITIONS** at the assistant professor level. One of these will be a joint appointment with the Department of Biochemistry. Candidates should be dedicated to independent research and are expected to participate in graduate and medical school teaching programs in the department. Nominations or curriculum vitae and three letters of reference should be sent to:

**Dr. A. G. Gilman  
Department of Pharmacology  
University of Virginia  
School of Medicine  
Charlottesville, Virginia 22901**

*An Affirmative Action/Equal Opportunity Employer*

## POSITIONS OPEN

### DEPARTMENT OF PHARMACOLOGY SCHOOL OF MEDICINE CASE WESTERN RESERVE UNIVERSITY

The Department of Pharmacology has faculty positions available at all levels. Postdoctoral research experience is required. The primary qualification is the potential of the applicant to establish a strong, independent research program. The area of research is open, but particular consideration will be given to persons whose interest is physiological pharmacology. New faculty will also be expected to actively participate in the teaching activities of the department.

Applications should include a curriculum vitae, reprints of up to three recent publications, the complete addresses of at least three references, and a brief description of future research interests. Submit to: **Dr. M. E. Maguire, Faculty Recruitment Committee, Department of Pharmacology, School of Medicine, Case Western Reserve University, Cleveland, Ohio 44106.**

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

**TWO FACULTY POSITIONS:** tenure-track assistant professorships in **BIOCHEMISTRY** and **CELL BIOLOGY/PHYSIOLOGY** for September 1978. Biochemistry position to include teaching in areas of enzymology and molecular biology. Cell biologist to teach animal physiology plus area of research specialization such as endocrinology, metabolic regulation, or ultrastructure. The successful applicants will be expected to establish vigorous research programs including the supervision of masters and doctoral students. Postdoctoral experience preferred. Salary approximately \$14,000 for 9 months. Send curriculum vitae, three letters of recommendation, and reprints of publications to: **Dr. R. M. Nardone** (for cell biology position) or **Dr. B. T. DeCicco** (for biochemistry position), **Department of Biology, Catholic University, Washington, D.C. 20064.** *An Equal Opportunity/Affirmative Action Employer.*

**FACULTY POSITION.** The Chemistry Department of the University of Maryland is seeking to fill a position by fall 1978, at the assistant or associate professor level in the area of experimental physical chemistry, organic chemistry, polymer chemistry, or organic mass spectrometry. A vigorous research program as well as excellence in teaching will be expected of the successful candidate. Send curriculum vitae and plan of proposed research and have three letters of recommendation sent to: **J. H. Moore, Chairman, Faculty Search Committee, Chemistry Department, University of Maryland, College Park, Md. 20742.** Deadline for receipt of applications is 1 February 1978. *The University of Maryland is an Affirmative Action/Equal Opportunity Employer.*

Applications are invited for the post of **ICHTHYOLOGIST** or **HERPETOLOGIST**. Applications are invited for the post of **ASSISTANT CURATOR** in the Royal Ontario Museum, Toronto, Canada. Minimum qualifications include a Ph.D. or equivalent, with training, and demonstrated interest in some area of the systematics of cold-blooded vertebrates. Museum experience desirable. Duties will include aspects of collection maintenance, independent research (including publication), gallery display, and interaction with the public. Minimum salary: \$15,000; starting date: 1 July 1978 or later. Please send a complete curriculum vitae, list of publications, and the names and addresses of at least two people in your field who have agreed to act as a reference to: **Dr. E. J. Crossman, Department of Ichthyology and Herpetology, Royal Ontario Museum, 100 Queens Park, Toronto, Ontario, Canada M5S 2C6.** Applications must be received by 31 January 1978.

### IMMUNOGENETICIST OR CELLULAR IMMUNOLOGIST

With strong research interest in cancer and membranology, and/or clinical immunology; sought for academic position in cancer immunology program of Division of Experimental Pathology. Candidate should have demonstrated ability to secure research grant funds and should be interested in collaborative studies. Faculty appointment and salary commensurate with qualifications and experience. Forward curriculum vitae and list of references to: **Dr. D. M. Goldenberg, Department of Pathology, University of Kentucky Medical Center, Lexington, Kentucky 40506** before 31 January 1978. *Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**FACULTY POSITION,** September 1978; **assistant professor of biology.** Qualifications: biology Ph.D., proven undergraduate teaching ability; must be qualified to teach genetics, cell physiology, general physiology, and other undergraduate biology courses. Send curriculum vitae to: **Dr. D. B. Ford, Chairman, Division of Science and Mathematics, University of Tampa, Tampa, Florida 33606.** Complete job description available on request; deadline for letter of application is 31 December 1977. *The University of Tampa is an Affirmative Action Employer.*

The Northwest Ohio Regional Red Cross Blood Center is seeking an **IMMUNOLOGIST** as **SCIENTIFIC DIRECTOR.** The Blood Center is affiliated with the Toledo Academy of Medicine and The Medical College of Ohio at Toledo. Candidates should be an M.D. or Ph.D., both experienced in tissue typing. Interest and skill in teaching and research. Compensation competitive. Send inquiry with curriculum vitae to: **American Red Cross, 2275 Collingwood Boulevard, Toledo, Ohio 43620.** *An Equal Opportunity/Affirmative Action Employer.*

### THE UNIVERSITY OF MICHIGAN Department of Radiology Instructor, Assistant Professor, Associate Professor, or Professor

Position available 1 July 1978. Candidate must be Board-eligible or Board-certified. Entering level commensurate with qualifications and experience. Specialized interest in angiography. The physician will take part in the programs of patient care, teaching and research carried on in the Department of Radiology. He or she will supervise the activities of the resident staff and aid in the teaching of residents and medical students. Code 200HO. Please send résumé to **Box 433, SCIENCE.** *Nondiscriminatory, Affirmative Action Employer.*

### THE UNIVERSITY OF MICHIGAN Department of Radiology Instructor, Assistant Professor, Associate Professor, or Professor

Position available immediately. Candidate must be Board-certified or Board-eligible. Entering level commensurate with qualifications and experience. The physician will take part in the programs of patient care, teaching and research carried on in the Department of Radiology. He or she will supervise the activities of the resident staff and aid in the teaching of residents and medical students. Code 2400HO. Please send résumé to **Box 434, SCIENCE.** *Nondiscriminatory, Affirmative Action Employer.*

**MICROBIOLOGIST:** leading biocide manufacturer in N.J. seeks a microbiologist with 1 to 5 years of industrial experience. Position involves report writing, literature search, technical service, research and development. Starting salary is \$10,000 to \$13,000. *Equal Opportunity Employer. Box 435, SCIENCE.*

**MICROBIOLOGIST-IMMUNOLOGIST.** Ph.D. Assistant professor; effective 1 September 1978. Coordinate and teach general microbiology and develop a course in immunology; direct master's theses, undergraduate, and honors research; develop own research program. Salary open; teaching experience desired. Applications close 30 December 1977. Submit complete résumé, three letters of reference, and official transcripts to: **Dr. G. S. Tre-lawny, Head, Department of Biology, James Madison University, Harrisonburg, Va. 22801.** *James Madison University is an Equal Opportunity Employer.*

### NURSE COORDINATOR- CANCER CONTROL PROGRAM

Challenging position as nursing coordinator in a Cancer Control Program. Plan and coordinate programs to upgrade the nursing community's knowledge of cancer control. A master's degree in nursing with emphasis on cancer nursing, eligibility for nursing license in the state of Kentucky, plus 2 to 3 years related nursing experience are necessary. Please submit curriculum vitae with salary requirements. Interested candidates may apply to: **Health Sciences Center Personnel, University of Louisville, P.O. Box 35260, Louisville, Kentucky 40232.** *An Equal Opportunity Employer, M/F.*

## POSITIONS OPEN

### MICRO- BIOLOGIST

Degree required: Ph.D. or M.S. or B.S. with appropriate experience. Goodyear is looking for an individual with experience in in vitro cell culture techniques including mammalian cell cultures, genetics, cytology, histology, or biochemistry. This opening is a new area involved in testing of chemicals for toxic effects. If interested, please send complete résumé to:

**Kathy Gurley  
Salaried Personnel  
GOODYEAR  
TIRE & RUBBER  
COMPANY  
1144 East Market Street  
Akron, Ohio 44316**

*Goodyear is An Equal Opportunity Employer/Affirmative Action Employer*

### MOLECULAR BIOLOGIST/BIOCHEMIST NEW YORK UNIVERSITY

The Department of Biology wishes to appoint a tenure-track assistant professor starting September 1978. Postdoctoral experience, research interests in molecular genetics and enzymology, and potential to develop an independent research program are required. Candidate's lecturing duties include participation in team-taught, interdepartmental biochemistry program, with emphasis on nucleic acid enzymology and metabolic regulation. Qualified applicants should submit résumé and three letters of recommendation to: **Dr. P. S. Coleman, Laboratory of Biochemistry, Department of Biology, New York University, New York, N.Y. 10003.** *An Equal Opportunity/Affirmative Action Employer.*

**NEUROSCIENTIST;** rank open. To teach graduate and undergraduate courses in physiological psychology. Ph.D. with teaching and research experience required. Salary in accordance with rank and qualifications. Starting date is 1 September 1978. Apply to: **Dr. G. R. Skanes, Head, Department of Psychology, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1C 5S7.** Position subject to the availability of funds.

**PHARMACOLOGIST:** responsibilities include undergraduate and graduate pharmacology teaching and research. Preference will be given to candidates with Ph.D. in pharmacology and B.S. in pharmacy. Available on or before 1 July 1978.

**TOXICOLOGIST:** responsibilities include laboratory activities, teaching and research. Preference will be given to candidates with Ph.D. in forensic toxicology with G.C./M.S. experience. Other Ph.D.'s with experience in forensic toxicology and G.C./M.S. will be considered. Available immediately. Send résumé and reference to: **Dave Forbes, Ph.D., Chairman, Search Committee, College of Pharmacy, North Dakota State University, Fargo, North Dakota 58102.** *North Dakota State University is an Affirmative Action/Equal Opportunity Employer.*

### POSTDOCTORAL POSITION

Bioinorganic and mechanistic studies of the anti-tumor agent, bleomycin, and other metal binding ligands with biological activity. Applications from inorganic and biochemists, pharmacologists, and persons with training in all biology are welcome. Starting salary is \$10,000. Available immediately. Contact: **Dr. D. Petering, Chemistry Building, University of Wisconsin, Milwaukee, Milwaukee, Wis. 53201.** *The University is an Equal Opportunity Employer engaged in an Affirmative Action Plan.*



## POSITIONS OPEN

### NEUROANATOMIST AND CELL PHYSIOLOGIST THE DEPARTMENT OF PHYSIOLOGY-ANATOMY UNIVERSITY OF CALIFORNIA, BERKELEY

Invites applications to fill two faculty positions at the assistant professor level. One position is for a neuroanatomist whose primary teaching responsibilities will be in advanced neuroanatomy and either anatomy or histology. The other position is in cell physiology with responsibility to teach in cellular physiology or general physiology courses. The positions are at the assistant professor level; however, candidates at the beginning associate professor level will also be considered. In addition to excellence in teaching, individuals must have extremely promising credentials in research. Candidates should be thoroughly involved in an ongoing, active research project and be successful contributors to that area. Research areas of interest are neurobiology with emphasis in morphological approaches and areas of cell physiology, such as receptor function, membrane biology, motility, ultrastructural analysis, or developmental biology. Interested individuals should write a letter explaining their qualifications for the particular position and enclose a current curriculum vitae and a list of three or more persons who could act as referees to: **Search Committee, Department of Physiology-Anatomy, University of California, Berkeley, California, 94720.** Applications must be received by 31 January 1978. *Applications from women and minority candidates encouraged. The University of California is an Equal Opportunity/Affirmative Action Employer.*

### PHYSIOLOGICAL PSYCHOLOGIST

Applications are invited for a tenure-stream position in physiological psychology at the level of assistant professor in the Department of Psychology, University of Toronto. Preference will be given to candidates whose primary research interest is in the physiological basis of motivation. The candidate will be expected to take a major responsibility for undergraduate courses in physiological psychology including a laboratory course. Experience in managing an active research program and in training graduate students is also desirable. Applicants should send a curriculum vitae and three letters of reference to: **Dr. R. Lockhart, Department of Psychology, University of Toronto, Toronto, Canada M5S 1A1.**

**PHYSIOLOGIST.** Ph.D., beginning September 1978, assistant professorship. Biochemical-molecular orientation with interest in invertebrates preferred. To teach undergraduate physiology courses and direct a strong program of undergraduate research. Send letter of application, curriculum vitae, and three references by 15 January 1978 to: **Chairman, Search Committee, Department of Biology, Lafayette College, Easton, Pa. 18042.** *Equal Opportunity/Affirmative Action Employer.*

**PHYSIOLOGIST.** Physiology invites application for faculty appointment, assistant professor or associate professor. Southern Illinois University is state-supported and appointments do not depend on grant funding. Rank open and commensurate with academic credentials. Appointee will bring or develop strong research program. Capability to teach experimental animal surgery. Teaching background and interests in body fluids and transport desired. The department has good facilities and equipment in modern laboratories. *Affirmative Action/Equal Opportunity Employer.* Send curriculum vitae, current research, reprints, and names of three references. Write or telephone (618-453-2583) for information. Closing date: 31 January 1978. **Chairman, Physiology, Southern Illinois University, Carbondale, Ill. 62901.**

### TWO POSITIONS AVAILABLE

**Assistant research biochemist and assistant research physiologist.** Both must have doctoral degree plus 2 years of postdoctoral experience working with lungs. Send curriculum vitae and three references to: **Donald F. Tierney, M.D., Department of Medicine, UCLA School of Medicine, Los Angeles, California 90024.** *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available 1 January 1978 in the area of biochemical oncology. Beginning salary is \$12,000. Send curriculum vitae and references to: **Dr. A. P. Kimball, Chairman, Department of Biophysical Sciences, University of Houston, 4801 Cullen Boulevard, Houston, Texas 77004.**

*Equal Opportunity Employer*

## POSITIONS OPEN

**BROCK UNIVERSITY. POPULATION GENETICIST:** a tenure-stream position at the assistant professor level is available 1 July 1978 for a population geneticist. The appointee will be expected to teach molecular, transmission, and population genetics at the undergraduate level, to develop a strong research program preferably in an area that complements the ecology segment of the department, and to supervise M.Sc. level graduate students. Submit full curriculum vitae by 15 January 1978, with a statement of research and teaching interests, reprints of published research, and the names of three referees to: **Chairman, Genetics Search Committee, Department of Biological Sciences, Brock University, St. Catharines, Ontario, Canada L2S 3A1.**

## POSTDOCTORAL POSITION

For research on effect of chemical carcinogens on organ cultures of colon as part of multidisciplinary study of etiology. Salary: \$12,500 plus, depending upon experience. Submit curriculum vitae to:

**Gary M. Williams, M.D.  
Chief, Division of  
Experimental Pathology  
Naylor Dana Institute for  
Disease Prevention  
American Health Foundation  
1 Dana Road  
Valhalla, N.Y. 10595**

*An Equal Opportunity Employer, M/F*

### POSTGRADUATE RESEARCH BIOCHEMIST

Candidate should have Ph.D. in biochemistry, preferably in area of mitochondrial respiratory enzymology and oxidative metabolism. Research is in the area of lung biochemistry and air pollution; pulmonary effects of sulfur dioxide and oxidant pollutants to be studied in terms of oxidative metabolism and metabolism of sulfur and sulphydryl compounds in the lung. Salary commensurate with experience. Send curriculum vitae and two references to: **Dr. Mohammad G. Mustafa, Department of Medicine, UCLA School of Medicine, Los Angeles, California 90024.** *An Equal Opportunity/Affirmative Action Employer.*

**UNIVERSITY OF CALIFORNIA, IRVINE.** Several positions available for **POSTDOCTORAL FELLOWS**, beginning summer 1978, in the Center for Pathobiology. Recent Ph.D. required, preferably in the area of cell biology, developmental biology, or genetics. Candidates to work on problems of pattern formation, determination, morphogenesis, or stem cell differentiation in hydra (with Doctors H. R. Bode or R. D. Campbell), *Drosophila* (with Doctors P. J. Bryant or H. A. Schneiderman), or amphibians (with Dr. S. V. Bryant). *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Arrange for three letters of reference to be sent, and submit résumé and brief description of research interests and experience to: **Dr. S. V. Bryant, Center for Pathobiology, University of California, Irvine, Irvine, California 92717.** Closing date: 31 January 1978.

**POSTDOCTORAL POSITION** available 1 January to study proofreading of the codon-anticodon interaction on ribosomes. Salary \$10,000 per annum. Send résumé and two references to: **Dr. R. C. Thompson, Chemistry Department, Temple University, Philadelphia, Pa. 19122.**

**PRE- AND POSTDOCTORAL OPENINGS** in experimental parasitology (immunologic, physiologic, and biochemical aspects of protozoal, helminth, and arthropod parasites) available July 1978. Support from NIH Training and Research Grants with stipends according to NIH guidelines for trainees. Candidates should write as soon as possible to: **Dr. B. M. Honigberg, Department of Zoology, University of Massachusetts, Amherst, Mass. 01003,** stating their research interests. *An Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available for biochemist, physiologist, or pharmacologist for studies of bone metabolism. Experience in latter desirable but not essential. *Female and minority candidates are encouraged to apply.* Send application to: **Dr. D. Baylink, VA Hospital, American Lake, Tacoma, Wash. 98493.** *The University of Washington is an Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL RESEARCH ASSISTANT** in Department of Medicine, 9 a.m.-5 p.m. Qualified individual with experience in immunology and/or cell membrane study is needed. Ph.D. should be trained in biochemistry. Apply to: **Personnel Department, ST. LUKE'S HOSPITAL CENTER, Amsterdam Avenue and West 113th Street, New York, N.Y. 10025.** *An Equal Opportunity Employer, M/F.*

**POSTDOCTORAL RESEARCH ASSOCIATES.** Two positions available for recent Ph.D.'s for work in: (i) molecular biology and/or genetics of tRNA biosynthesis in yeast, and (ii) recombinant DNA and EM technology to study gene structure and function in flies. Preference will be given to candidates whose backgrounds enhance their ability to fit into ongoing research programs. Send curriculum vitae and recommendations to: (i) **Anita Hopper,** or (ii) **Raymond White, Department of Microbiology, UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL, 55 Lake Avenue, North Worcester, Mass. 01605.** *An Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.*

### FULL PROFESSOR OF BIOLOGY AT THE UNIVERSITY OF COLORADO

The Department of Environmental, Population and Organismic Biology at the University of Colorado, Boulder, expects to fill a position at the full professor level beginning fall 1979. Applicants should have an outstanding research record in one or more areas of environmental, population, and organismic biology. A major responsibility of this position will be to serve as chairperson of the department for an initial period of 4 years. Teaching responsibilities can be largely suspended, if desired, during this period. After that, the individual will be expected to assume normal responsibilities for both teaching and research. Applicants should send curriculum vitae, a list of persons who can be contacted for references, and other pertinent supporting information to: **Professor Richard E. Jones, Department of EPO Biology, University of Colorado, Boulder, Colo. 80309.** Nomination of candidates by non-applicants is also encouraged. *The University of Colorado is an Equal Opportunity/Affirmative Action Employer.*

### PROFESSOR AND HEAD DEPARTMENT OF ANATOMY QUEEN'S UNIVERSITY KINGSTON, ONTARIO, CANADA K7L 3N6

Applications invited with full documentation from anatomists of distinction to fill post effective July 1978. Salary and terms of appointment negotiable according to qualifications. Address enquiries to: **Dean T. J. Boag, Faculty of Medicine.**

**PSYCHOBIOLOGIST.** Assistant Professor. Behavior genetics and neurochemical or psychopharmacological competence. Send letter describing research and teaching interests and names of three references to: **John L. Fuller, Department of Psychology, State University of New York, Binghamton, New York 13901.** *Equal Opportunity/Affirmative Action Employer.*

**RESEARCH ASSOCIATE:** to study the structural dynamics of contractile and motile cells. Must have: experience with photon correlation spectroscopy, some knowledge of muscle physiology, and Ph.D. Send résumé and references to: **Dr. Francis D. Carlson, Department of Biophysics, The Johns Hopkins University, Charles and 34th Streets, Baltimore, Maryland 21218.** *Equal Opportunity Employer, M/F.*

**RESEARCH ASSOCIATE/POSTDOCTORAL POSITION** available 1 July 1978 to study carcinogenesis of pesticides and other chemicals in mammalian cell culture systems. Preference given to applicants with strong background in biochemical pharmacology and toxicology as related to procarcinogen metabolism and design of carcinogenesis testing systems. Two-year appointment. Stipend commensurate with experience. Send curriculum vitae and names of three references to: **Philip Guzelen, M.D., Box 217, MCV Station, Richmond, Va. 23298.** *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

Seeking **RESEARCH ASSOCIATE** interested in basic aspects of smooth muscle physiology and pharmacology. Ph.D. in physiology or pharmacology with expertise in electrophysiology. Yearly salary \$12,000, plus fringe benefits. Available February 1978. Send résumé and three references to: **Dr. J. M. Marshall, Section of Neuroscience, Division of Biology and Medicine, Brown University, Providence, R.I. 02912.** An Equal Opportunity/Affirmative Action Employer.

### RESEARCH ASSOCIATE

An opening for a research associate is immediately available in the laboratory of Dr. Behrus Jahan-Parwar to study cellular neuroethology in *Aplysia*. Applicants should be recent Ph.D.'s with strong background in cellular electrophysiology and working knowledge in one of the following techniques: synaptic pharmacology, voltage clamping, ultrastructure, or computer modeling. *Women and minority candidates are encouraged to apply.* Send curriculum vitae and request three referees to send references directly to: **Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545.**

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### DEPARTMENT OF PATHOLOGY University of Maryland School of Medicine and University of Maryland Hospital Baltimore, Maryland

**RESEARCH BIOCHEMIST.** Ph.D. or equivalent experience in biochemistry required to work on enzymes in a chemical carcinogenesis program. Salary: \$12,000. Send résumé to:

**Dr. M. W. Kahng  
Department of Pathology  
University of Maryland School of Medicine  
31 South Greene Street  
Baltimore, Maryland 21201**

Equal Opportunity/Affirmative Action Employer

### RESEARCH POSITIONS

**ASSOCIATE RESEARCH SCIENTIST.** M.S. or Ph.D. Research in biochemical mammalian toxicology. Position available immediately for duration of up to 4 years. Starting salary \$15,000 to \$18,000. Prefer experience in teratology. Will consider related qualifications.

**ASSOCIATE RESEARCH SCIENTIST.** Research on metabolism and toxicity of inhaled sulfur dioxide and sulfite aerosols. Experience with gas chromatography desirable. Salary \$15,000 to \$18,000. Position available for up to 3 years. Both above positions in environmental laboratory near Tuxedo, N.Y. Please send résumés to: **M. Kerans, Personnel Department, NEW YORK UNIVERSITY MEDICAL CENTER, 568 First Avenue, New York, N.Y. 10016.** An Equal Opportunity/Affirmative Action Employer, M/F.

### University of California, Berkeley RESEARCH POSITION AS PEST MANAGEMENT SYSTEMS ANALYST Department of Entomological Sciences and Department of Plant Pathology

Position available 1 February 1978. Tenure research position at the associate level for a Ph.D. with training and at least 5 years of experience in the use of mathematical optimization techniques in connection with programs in integrated pest management. The assignment stresses implementation procedures, and will require effective interaction with research and extension staffs from various disciplines, including entomology, plant pathology, nematology, weed science, crop production, economics, and engineering.

Send full curriculum vitae, official transcripts, copies of all publications or manuscripts, and names of three references by 1 January 1978 to: **Dr. Robert van den Bosch, Chairman, Division of Biological Control, University of California, 1050 San Pablo Avenue, Albany, California 94706.** *The University of California is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.*

**SALES ENGINEER.** Nationally known laboratory animal cage manufacturer needs a qualified person to coordinate sales with engineering and production. Experience in cage field necessary as responsibilities include assisting in new product development. We offer negotiable salary, excellent advancement opportunity, and usual benefits, plus bonus and profit-sharing. Telephone: **Merle Ulberg at 616-382-2803**, collect, or send résumé to: **UNIFAB CORPORATION, 5260 Lovers Lane, Kalamazoo, Mich. 49002.**

## POSITIONS OPEN

**SYSTEMS LIBRARIAN—BOULDER, COLORADO.** Needed immediately to be responsible for writing and documenting computer programs used in indexing library material. Will supervise and train cataloging and indexing personnel. Will be expected to learn FORTRAN and write programs for library. Requirements: M.L.S., 2 years' experience in comparable library position, including use of computer assisted retrieval systems. Hire-in salary: \$13,000 to \$16,250 per year. Qualified candidates should submit letter of application and complete résumé, including salary requirements to: **Personnel Office, National Center for Atmospheric Research, P.O. Box 3000, Boulder, Colorado 80307.** An Equal Opportunity/Affirmative Action Employer.

### TECHNOLOGY AND PUBLIC POLICY

The Department of Engineering and Public Policy of Carnegie Institute of Technology and the Schools of Urban and Public Affairs and Humanities and Social Science, Carnegie-Mellon University, have one or more joint faculty openings: (i) for applied social scientists interested in doing collaborative policy research with engineers, or (ii) for engineers interested in doing collaborative policy research with social scientists. Problem areas of interest include social impacts of computers and telecommunications, product liability and safety, electric power load management, retrospective technology assessments, and energy and environmental systems. Desirable areas of skill include decision analysis, optimization techniques, organizational analysis, and regulatory process and law. Send résumé with list of publications to: **Barbara Lydon, Assistant Head, Engineering and Public Policy (Sc), Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213.**

**New York State College of Human Ecology  
A Statutory College of the State University  
Cornell University, Ithaca, New York**

**CORNELL UNIVERSITY—TEXTILE SCIENCE:** one or possibly two faculty positions. Research and teaching at undergraduate and graduate levels. Research interests should be in textile chemistry or textile physics, possibly with interests in energetic and/or ecological aspects of textile production and use. Ph.D. or extensive experience required, with background in textile or polymer science, or in chemistry, physics, or engineering with appropriate experience. Salary and rank will depend on qualifications and experience. Send résumé by 1 January 1978, to: **Dr. David R. Buchanan, Search Committee Chairman, Department of Design and Environmental Analysis, Box 327A, New York State College of Human Ecology, Cornell University, Ithaca, N.Y. 14853.** *Cornell University is an Equal Opportunity/Affirmative Action Employer.*

**VERTEBRATE PHYSIOLOGIST FACULTY POSITION.** The Biology Department invites applications for the above position, to begin in September 1978. Applicants with a productive postdoctoral research experience and with teaching experience in vertebrate physiology are encouraged to apply. Rank and salary negotiable. Send curriculum vitae, description of research goals, and names of three or more references to: **Dr. C. J. Swanson, Department of Biology, Wayne State University, Detroit, Michigan 48202.**

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### VICE CHANCELLOR FOR ACADEMIC AFFAIRS THE UNIVERSITY OF WISCONSIN—MADISON

The vice chancellor for academic affairs is second only to the chancellor in responsibility and authority. Major areas of responsibility for this position are: faculty and academic staff personnel matters, academic program review and development, and a leadership role in budget policy development and implementation. Qualifications required include: significant academic and administrative experience, appreciation of the role of faculty in the governance of the institution, and the ability to provide strong academic leadership. *The University of Wisconsin-Madison is an Equal Opportunity/Affirmative Action Employer and the committee wishes to consider all qualified applicants.* Nominations should be made in writing by 31 December 1977 and should include such biographical information or narrative description as appropriate to support the nomination. Submit to:

**Professor E. R. Mulvihill  
Vice Chancellor Search and Screen Committee  
1410 Van Hise Hall  
The University of Wisconsin-Madison  
Madison, Wisconsin 53706**

## POSITIONS OPEN

Two permanent faculty positions immediately available in **NUCLEAR MEDICINE/RADIOTRACER METHODOLOGIES.** Ph.D. required; D.V.M. desirable, but not essential. Applicants should have formal training and research interests in radionuclide uses for measuring physiological parameters or detection and/or treatment of medical pathology. Appointees will spend approximately half-time directing graduate students and teaching in radionuclide methodology or physiology courses; remainder devoted to research/service. Research interests may include mammalian physiology, nuclear medicine, or radionuclide applications such as radiation imaging, pharmacokinetics, and radiation oncology. Starting date open. Rank and salary commensurate with qualifications. Send curriculum vitae and names of three references to: **A. K. Twardock, Department of Veterinary Anatomy, Physiology, and Pharmacology, College of Veterinary Medicine, University of Illinois, Urbana, Ill. 61801.** Telephone: 217-333-1192. In order to be assured full consideration, applications must be received by 15 January 1978. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

**TUMOR VIROLOGIST.** Faculty position available September 1978 at the assistant professor level in a tenure-track. Requirements: Ph.D. with postdoctoral experience. Demonstrated ability to initiate, develop, and continue significant research dealing with oncogenic mammalian viruses. Teaching expertise for responsibilities at the undergraduate and graduate levels. Research space available will include a laboratory in the Tissue Culture Facility created by the completion of McKinly Hall in the fall of 1978 on the Newark Campus. Send curriculum vitae, list of publications with reprints, names of at least three references, and a summary of future research interests, to: **Dr. Jacques J. Pene, Cell and Molecular Biology Section, School of Life and Health Sciences, University of Delaware, Newark, Del. 19711.**

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

## PROGRAMS

**STUDENT FELLOWSHIPS** available for United States citizens and permanent residents toward Ph.D. in pharmacology. Diversified training related to the pharmacological and biochemical basis for drug action with emphasis on cancer therapeutics, inhibition of nucleic acid, protein and membrane components, enzyme activity regulation, coenzyme action and inhibition, basis for selective toxicity, pharmacokinetics and drug metabolism in animals and cells, medicinal chemistry of nucleosides, carbohydrates and antifolates, immunotherapy, immunosuppression, experimental chemotherapy, molecular pharmacology, endocrine pharmacology and metabolic regulators, hematology, preclinical and clinical pharmacology. Stipends are \$3900 per annum. Write to: **E. Mihich, M.D., Chairman, Graduate Pharmacology Program, Roswell Park Memorial Institute, Buffalo, N.Y. 14263.**

### JOINT Ph.D. PROGRAM IN THE BIOMEDICAL SCIENCES

Applications are being accepted from students interested in obtaining a Ph.D. degree in the biomedical sciences. Clark University, Worcester Polytechnic Institute, University of Massachusetts Medical School (Worcester), and the Worcester Foundation for Experimental Biology have initiated a joint Ph.D. program in the biomedical sciences for the exceptional, self-motivated student, who is capable of accelerated study. This novel Ph.D. program will accord special consideration to those students who have a clearly defined research objective and have exhibited evidence of prior research achievement. It is expected that all applicants will have a substantial background in the natural sciences so as to enable the initiation of full-fledged research immediately. Specific areas of research include: (i) cellular and molecular biology; (ii) cell senescence; (iii) cyclic nucleotides and endocrinology; (iv) pharmacology and experimental pathology; (v) reproductive biology, neurobiology, and behavioral sciences; and (vi) biological engineering, related to nitrogen fixation and development of new symbiotic systems with blue-green algae. A limited number of teaching assistantships are available for the program. For additional information write: **Dr. Ronald B. Luftig, Chairperson, Ph.D. Admissions Committee, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Massachusetts 01545.**

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## BIOLOGICAL RESEARCH ASST.

The Upjohn Company's Hypersensitivity Diseases Research Unit currently has an opening for a Biological Research Assistant.

Candidates should have a B.S. or M.S. degree in the biological sciences with a strong background in pharmacology, biochemistry, or physiology. Several years of experience in the field of pulmonary pharmacology and/or asthma research, tissue isolation techniques and small animal procedures highly desirable.

Kalamazoo is a medium-sized southwestern Michigan community with an excellent mix of cultural/recreational options. Submit your resume in confidence to:

**Upjohn**

Myra W. Johnson  
Employment Rep  
The Upjohn Company  
7000 Portage Road  
Kalamazoo, MI. 49001

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## POSTDOCTORAL FELLOWSHIPS IN PATHOBIOLOGY UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE

Research opportunities are offered to candidates interested in a variety of fields of biomedical research. In order to maximize the interdisciplinary nature of the research projects, a trainee will work jointly with a member of the Department of Pathology and with a member of the Departments of Anatomy and Cell Biology, Biochemistry, Microbiology, or Physiology. Some of the major areas of research include: (a) immunogenetics, (b) immunology and genetics of reproduction, (c) regulation of DNA synthesis in malignant and normal cells, (d) somatic cell genetics, (e) metabolism of carbohydrates in normal and transformed cells, (f) chemical carcinogenesis, (g) temperature sensitive virus mutants in neurological infections, (h) pathogenesis of Hemophilus influenza infections and the genetics of susceptibility, (i) intestinal ion transport and its alteration by hormones and bile salts, (j) pathogenesis and physiology of inflammatory bowel disease, (k) biochemistry of carbohydrates in congenital storage diseases, and (l) biochemical, ultrastructural and immunochemical studies on cell membranes with particular emphasis on cell surface antigens.

The program is administered by a committee composed of R. E. Basford (biochemistry), Thomas J. Gill III (pathology, chairman), Christopher C. Widnell (anatomy and cell biology), and Julius S. Youngner (microbiology). Stipends, travel, and supplies will be provided by an NIH Training Grant in Pathobiology. Applications indicating the area of research interest should be sent to: **Dr. Thomas J. Gill III, Department of Pathology, University of Pittsburgh School of Medicine, Pittsburgh, Pa. 15261** by 1 February 1978. The decisions will be made by 1 April 1978 for the academic year beginning 1 July 1978. *An Equal Opportunity/Affirmative Action Employer.*

## DIRECTOR, DIVISION OF BLOOD DISEASES AND RESOURCES

The National Institutes of Health, Public Health Service, is recruiting for the position of Director, Division of Blood Diseases and Blood Resources, National Heart, Lung, and Blood Institute. This position involves the planning, implementation, and management of research grant and contract programs and training programs in blood diseases and blood resources. It includes basic and applied research on such blood diseases as the hemophilias, sickle cell anemia, and Cooley's anemia. It also includes research on blood and blood products for transfusion and the management of the nation's blood resource. The Division's budget is approximately \$60 million per year and it has a staff of approximately 40 positions.

The Director is required to have had substantial background and experience related to blood diseases and/or blood banking. The position also requires demonstrated managerial experience and an ability to communicate with individuals at all organizational levels and with varying educational experience. An M.D. or Ph.D. (or equivalent experience) is required. This is a career Civil Service position with a salary range of \$42,000 to \$47,500. Selection for and allocation of this position are subject to the approval of the U. S. Civil Service Commission. Appointment may also be made under the United States Public Health Service Commissioned Corps Program which may provide supplemental salary benefits under some circumstances.

For additional information, contact Dr. Robert L. Ringler, Chairman, Search Committee: (301) 496-1078. Applications in the form of a resume and a Personal Qualifications Statement (SF-171) should be sent by January 30, 1978 to Dr. Robert L. Ringler, Deputy Director, National Heart, Lung, and Blood Institute, Building 31, Room 5A49, 9000 Rockville Pike, Bethesda, Maryland 20014. An Equal Opportunity Employer M/F

**NATIONAL INSTITUTES OF HEALTH**



college of cape breton

## ALEXANDER GRAHAM BELL INSTITUTE DIRECTOR

A director is being sought for the newly founded Alexander Graham Bell Institute of the College of Cape Breton, Sydney, Nova Scotia, Canada.

*The purpose of the Institute is to study and extend the work of Dr. Bell, to develop abandoned ideas in the light of modern technology, and to foster mission oriented research and inventive enterprise in the spirit of Dr. Bell.*

The Director's duties will include: overall responsibility for the operations of the Institute; preparation of budgets, proposals and reports; recruitment and supervision of personnel; and active involvement in some of its research and development activities.

The Director will have an established record of achievement in the conduct and administration of research and development projects. A Ph.D. degree, or equivalent experience, in science or engineering is preferred.

For more information write: John E. Terry, Senior Vice-President, College of Cape Breton, P.O. Box 760, Sydney, Nova Scotia, Canada, B1P 6J1.

## PROGRAMS

### DOCTORAL PROGRAM IN PROBLEMS OF TECHNOLOGY AND PUBLIC POLICY

The Department of Engineering and Public Policy at Carnegie-Mellon University offers an interdisciplinary research-oriented Ph.D. for persons with an undergraduate degree in engineering or the mathematical or physical sciences. Persons with more advanced training or experience are especially welcome. Some financial support is available. Contact: **Engineering and Public Policy, Graduate Program (GSE), Carnegie-Mellon University, Pittsburgh, Pa. 15213.**

### THE CATALINA SEMESTER IN MARINE SCIENCE

There are still some vacancies in the University of Southern California's Spring Program for undergraduate students at the Catalina Island Marine Science Center. This program, entitled The Catalina Semester, offers undergraduate students an opportunity to enroll in any or all of the following four-unit upper-division courses. First session (13 February to 12 April) courses in marine invertebrate zoology and marine ichthyology; second session (17 April to 8 June) courses in developmental biology of marine invertebrates and marine phycozoology. Enrollment for independent research units is also available. Registration is through: **Dr. Richard C. Brusca, Coordinator, The Catalina Semester, Department of Biological Sciences, University of Southern California, Los Angeles, Calif. 90007.**

## GRADUATE STUDY

### CORNELL UNIVERSITY

Graduate study in textiles. Liberal financial aid available. Write:

**Graduate Faculty Representative  
Design and Environmental Analysis  
New York State College of Human Ecology  
Cornell University  
Ithaca, N.Y. 14853**

The Department of Biological Sciences, in cooperation with the basic science faculty of the University of Maryland at Baltimore, provides graduate education toward the M.S. and Ph.D. degrees in the areas of molecular biology and biochemistry; genetics, cell, developmental, organismic, and population biology.

**TEACHING ASSISTANTSHIPS and MINORITY STUDENT FELLOWSHIPS** are available for qualified applicants. For details write to: **Dr. R. C. Gethmann, Department of Biological Sciences, University of Maryland Baltimore County, Catonsville, Maryland 21228.**

## ASSOCIATESHIPS

**POSTDOCTORAL RESEARCH ASSOCIATESHIP**, available January 1978, for research on isolation, biochemical, and immunologic characterization of subcellular components from malaria parasites. Background in cell biology-biochemistry preferred. Salary \$13,500. Send inquiries to: **Araxie Kilejian, Ph.D., The Rockefeller University, New York, N.Y. 10021.**

## ASSISTANTSHIPS

Science Majors: **GRADUATE RESEARCH and TEACHING ASSISTANTSHIPS** leading to M.S. and Ph.D. degrees are available in the Department of Biochemistry and Biophysics at Texas A & M University. Departmental interests include cell metabolism, protein turnover, trace mineral metabolism, lipid and nucleic acid research, analysis of macromolecular structures using x-ray crystallography, computer graphics, mass spectrometry and protein sequencing, nitrogen fixation, neurobiochemistry, human nutrition, and drug design. Apply now for fall 1978 to: **Dr. Martyn Gunn, Department of Biochemistry and Biophysics, Texas A & M University, College Station, Texas 77843. An Affirmative Action/Equal Opportunity Employer. Texas A & M especially invites applications from minority groups and women.**

## FELLOWSHIPS

### PREDOCTORAL FELLOWSHIPS

The Division of Experimental Pathology at the University of Kentucky College of Medicine has predoctoral fellowships available to students seeking the Ph.D. degree. An interdisciplinary program is available with research opportunities in the areas of cellular immunology, immunochemistry, tumor immunology, neuroimmunology, molecular and tumor virology, cell biology, and tumor cytogenetics. For further information contact: **Dr. Thomas L. Rozman, Division of Experimental Pathology, Department of Pathology, University of Kentucky, Lexington, Kentucky 40506.**

**GRADUATE TRAINING IN PHARMACOLOGY.** Research training and course work leading to the Ph.D. degree and realistically designed for career opportunities in this expanding field are offered. Major departmental research programs include molecular, cardiovascular, renal, and nervous system pharmacology; the toxicology of therapeutic and environmental agents including drugs of abuse; clinical pharmacology. A limited number of fellowships offering stipend and tuition are available. Early application for August 1978 is advised. Apply to: **Director of Graduate Studies, Department of Pharmacology and Therapeutics, Medical School, State University of New York at Buffalo, 127 Farber Hall, Buffalo, N.Y. 14214. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL FELLOWSHIPS** for M.D.'s or Ph.D.'s available in radiation oncology. Established Special Radiation Cancer Center at University Medical Center in Kentucky-Blue Grass Region. Training in radiation oncology and related medical physics or radiobiology with emphasis on cancer treatment and cancer research. Program funded by NCI under NRS training award for postdoctoral training. Training leads to certification by American Board of Radiology. Inquiries to: **Chairman, Department of Radiation Medicine, University of Kentucky Medical Center, Lexington, Kentucky 40506; telephone: 606-233-5108.**

**DOCTOR OF ARTS IN BIOLOGY.** Fellowships are available for qualified persons interested in the D.A. degree in biology. Applicants should hold a master's degree in some area of biology. The D.A. degree is designed for the professional preparation of college level teachers. The D.A. program stresses flexibility based upon the individual's experience and interest. The deadline for receipt of application is 1 February 1978. For more information contact: **Dr. Richard G. Bowmer, Chairman, D.A. Committee, Department of Biology, Idaho State University, Pocatello, Idaho 83209. An Equal Opportunity Employer.**

### SMITHSONIAN FELLOWSHIPS

Predoctoral/postdoctoral fellowships in anthropology, biology, earth sciences. Tenable at Smithsonian's museum, laboratory, field, and research stations for 6 to 12 months. Deadline: 15 January 1978. Contact: **Academic Studies, SI 356, Smithsonian Institution, Washington, D.C. 20560. The Smithsonian admits investigators of any race, color, sex, age, marital status, national, or ethnic origin.**

## MARKET PLACE

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## FELLOWSHIPS

Drs. E. H. Sonnenblick, J. Scheuer, and 12 colleagues in cardiovascular research have **NIH POSTDOCTORAL (M.D. or Ph.D.) RESEARCH TRAINING POSITIONS** available for 1978. Areas include: biochemistry, electrophysiology, and mechanics of cardiac muscle; coronary circulation and capillary exchange; hemodynamics and cardiovascular regulation. Interviews in New York or at FASEB meetings. Contact: **Dr. J. Scheuer, Division of Cardiology, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, N.Y. 10461.**

### FELLOWSHIPS IN ORNITHOLOGY

Applications are invited for fellowships at the American Museum of Natural History for studies in ornithology. Postdoctoral scholars and distinguished ornithologists at all levels are encouraged to apply for stipends of up to 12 months duration. Fellows will be encouraged to undertake investigations that will use the systematic, library, and laboratory resources at the museum, or at one of the museum's field stations. One of the available fellowships, the Elsie Binger Naumburg Fellowship, may be awarded for research studies in tropical American ornithology. For further details and application forms write to: **Frank M. Chapman Memorial Fund, American Museum of Natural History, Central Park West at 79th Street, New York, New York 10024.**

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### PRE- AND POSTDOCTORAL RESEARCH FELLOWSHIPS "ENVIRONMENT AND THE LUNG: TOXINS AND MEDIATORS"

Four postdoctoral (M.D. or Ph.D.) and two predoctoral positions of 1 to 3 years duration are available for basic and applied research in chemistry, biochemistry, pathology (including electron microscopy and x-ray microanalysis), and medicine.

While trainees will devote most of their effort to studies within traditional academic disciplines (for example, chemistry), the nature of the problems being studied will require close collaboration with other disciplines. All trainees will gain experience in the broad issues of environmental pollution by active participation in required joint interdepartmental seminars. Especially sought are postdoctoral candidates with a strong background in chemistry (preferably with some experience in geology) and biochemistry. Send curriculum vitae, bibliography, and other information to:

**W. S. Lynn, M.D.  
Department of Biochemistry  
Duke University Medical School  
Durham, N.C. 27710**

## MARKET PLACE

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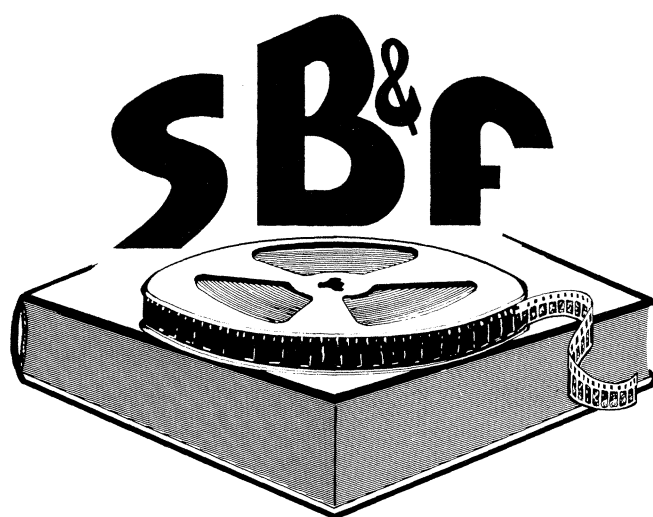
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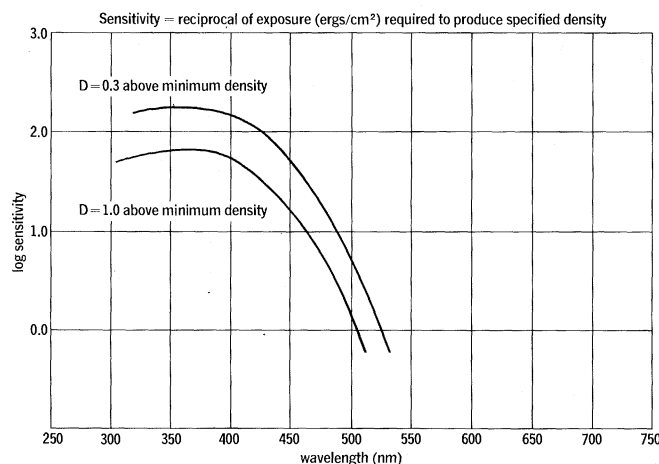
# Urgent message for those planning or developing imaging instrumentation

(as for medical diagnostics)

If our investment in this advertisement brings us revenue, our reward will come by a circuitous route. The immediate purpose is to save precious time for some creative people who might otherwise return from their first meeting with us disappointed, dejected, and disastrously delayed.

We've seen it happen. Years of conceptualizing, breadboarding, designing, refining, proving out old and new principles in logic circuitry, optics, kinematics, even marketing. Eventually arrangements need to be made for film. The proving out of the principles was done with some film that turned up on a shelf in the stockroom. Now the photographic industry, wise and mature, will supply the users with a film that's really right. If only that assumption, too, had been tested earlier on!

The following curve shows, within manufacturing tolerances, the spectral sensitivity of the recently announced KODAK Gray Tone Imaging Film:



The product is a "high-quality film specifically designed for use in the imaging of video monitoring equipment used for CT scanning and ultrasonography." Our promotional flyer goes on to say that the film can be processed in 90

seconds, dry and ready to read, in KODAK RP X-OMAT Processors, or equivalents, using KODAK RP X-OMAT Chemicals, or their equivalents; that its safelighting requirements do not interfere with day-to-day darkroom operations; that its extended gray scale is comparable to "the imaging capabilities of today's video diagnostic displays."

It doesn't say anything about *tomorrow's* video diagnostic displays.

When we convolute the above curve with emission curves, we predict satisfactory utilization of signal light from the following phosphors:

P4, P5, P7, P11, P15, P16, P17, P18, P40, P47, P48.

For other phosphors than these we need to make other recommendations. **Don't go far into planning** before phoning A. H. Allard at 716-724-4741 or writing him at Kodak, Radiography Markets, Rochester, N.Y. 14650. You will be put in touch with someone who, before offering recommendations, will ask not only about speed needs as governed by spectral match, but also about closely related matters such as image size, raster content, resolution, dynamic range, gamma correction, d-c restoration, and user practices and preferences for processing, handling, and reading the imagery.

In fact, whatever the source of light to be employed, Mr. Allard's office should prove most useful in planning for tomorrow's diagnostic imagery. The invitation to consult is also extended to those who provide the light sources.

