

## BOOKS RECEIVED

(Continued from page 944)

**Public Policy.** Papers from a conference, New York, Feb. 1977. Rick J. Carlson and Robert Cunningham, Eds. Ballinger (Lippincott), Cambridge, Mass., 1978. xxiv, 240 pp., illus. \$15.

**Geographic Medicine for the Practitioner.** Algorithms in the Diagnosis and Management of Exotic Diseases. Kenneth S. Warren and Adel A. F. Mahmoud, Eds. University of Chicago Press, Chicago, 1978. xii, 136 pp., illus. \$25. Studies in Infectious Disease Research. Reprinted from the *Journal of Infectious Diseases*.

**Health Care.** Regulation, Economics, Ethics, Practice. A Special *Science* Compendium. Philip H. Abelson, Ed. American Association for the Advancement of Science, Washington, D.C., 1978. iv, 258 pp., illus. Cloth, \$14; paper, \$6. AAAS Publication 78-12.

**Health Manpower Planning.** Principles, Methods, Issues. T. L. Hall and A. Mejía, Eds. World Health Organization, Geneva, 1978 (U.S. distributor, WHO Publications Centre, Albany, N.Y.). 312 pp. Paper, \$24.20.

**Information Retrieval.** Computational and Theoretical Aspects. H. S. Heaps. Academic Press, New York, 1978. xii, 344 pp., illus. \$19.50. Library and Information Science.

**Inorganic Polymers.** N. H. Ray. Academic Press, New York, 1978. viii, 174 pp., illus. \$17.35.

**Input/Output Databases.** Uses in Business and Government. Jay M. Gould. Garland STPM Press, New York, 1979. x, 128 pp. \$19.95.

**The Living State and Cancer.** Albert Szent-Györgyi. Dekker, New York, 1978. viii, 86 pp., illus. \$7.50.

**Lobbying the Corporation.** Citizen Challenges to Business Authority. David Vogel. Basic Books, New York, 1979. xii, 270 pp. \$14.95.

**Making Medical Choices.** Who Is Responsible? Jane J. Stein. Houghton Mifflin, Boston, 1978. xviii, 270 pp. \$10.95.

**Man, Cancer and Immunity.** Alistair J. Cochran. Academic Press, New York, 1978. xii, 206 pp., illus. \$16.15.

**The Neurophysiological Aspects of Human Mental Activity.** N. P. Bechtereva. Translated from the Russian second edition (Leningrad, 1974). Oxford University Press, New York, 1978. x, 182 pp., illus. \$11.95.

**Neurotransmitter Receptor Binding.** Henry I. Yamamura, S. J. Enna, and Michael J. Kuhar, Eds. Raven, New York, 1978. x, 196 pp., illus. \$17.

**Oxidation in Organic Chemistry.** Part C. Walter S. Trahanovsky, Ed. Academic Press, New York, 1978. xii, 382 pp., illus. \$34. Organic Chemistry, vol. 5.

**The Painted Message.** Otto Billig and B. B. Burton-Bradley. Schenkman, Cambridge, Mass., and Halsted (Wiley), New York, 1978. xii, 260 pp., illus. \$19.50.

**Paläozoische und mesozoische Floren Eurasiens und die Phytogeographie dieser Zeit.** V. A. Vakhrameev, I. A. Dobruskina, S. V. Meyen, and E. D. Zaklinskaja. Translated from the Russian edition (Moscow, 1970). Gustav Fischer Verlag, Jena, East Germany, 1978. 300 pp., illus. 79 M.

**Paleolithic Site of the Douara Cave and Paleogeography of Palmyra Basin in Syria.** Part 1, Stratigraphy and Paleogeography in the Late Quaternary. Kazuro Hanihara and Yu-

taka Sakaguchi, Eds. University of Tokyo Press, Tokyo, 1978 (U.S. distributor, ISBS, Forest Grove, Ore.). vi, 122 pp., illus. \$29.50.

**Referendums.** A Comparative Study of Practice and Theory. David Butler and Austin Ranney, Eds. American Enterprise Institute for Public Policy Research, Washington, D.C., 1978. x, 250 pp., Paper, \$4.75. AEI Studies 216.

**Reflections on Behaviorism and Society.** B. F. Skinner. Prentice-Hall, Englewood Cliffs, N.J., 1978. xiv, 210 pp. \$15.95. Century Psychology Series.

**Seeing Is Deceiving.** The Psychology of Visual Illusions. Stanley Coren and Joan Stern Girgus. Erlbaum, Hillsdale, N.J., 1978 (distributor, Halsted [Wiley], New York). xvi, 256 pp., illus. \$18.

**Selected Papers in Molecular Biology by Jacques Monod.** André Lwoff and Agnes Ullmann, Eds. Academic Press, New York, 1978. xiv, 754 pp., illus. \$29.50.

**Self-Involvement in the Middle East Conflict.** Group for the Advancement of Psychiatry, New York, 1978. pp. 381-588. Paper, \$6. GAP Publication No. 103.

**Senile Dementia.** A Biomedical Approach. Proceedings of a conference, St. Louis, Mar. 1978. Kalidas Nandy, Ed. Elsevier/North-Holland, New York, 1978. xxiv, 308 pp., illus. \$28. Developments in Neuroscience, vol. 3.

**Sensory Processing, Perception, and Behavior.** Robert B. Livingston. Raven, New York, 1978. xiv, 106 pp., illus. Paper, \$8.50.

**Sex Education for the Health Professional.** A Curriculum Guide. Normal Rosenzweig and F. Paul Pearsall, Eds. Grune and Stratton, New York, 1978. xvi, 336 pp. \$19. Seminars in Psychiatry.

**Sex Typing and Social Roles.** A Research Report. Beverly Duncan and Otis Dudley Duncan with the collaboration of James A. McRae, Jr. Academic Press, New York, 1978. xxii, 392 pp., illus. \$22. Quantitative Studies in Social Relations.

**Taxonomy of Fungi.** Part 1. Proceedings of a symposium, Madras, India, 1973. C. V. Subramanian, Ed. University of Madras Centre of Advanced Study in Botany, Madras, India, 1978. viii, 304 pp., illus + plates. Paper, \$10.

**A Teaching Manual on Food and Nutrition for Non-Science Majors.** Daniel Melnick. Nutrition Foundation, Washington, D.C., ed. 3, 1979. x, 354 pp., illus. Paper, \$6.

**Technology, Trade, and the U.S. Economy.** Report of a Workshop Held at Woods Hole, Massachusetts, Aug. 1976. National Academy of Sciences, Washington, D.C., 1978. xii, 170 pp. Paper, \$8.25.

**Topics in Stereochemistry.** Vol. 10. Ernest L. Eliel and Norman L. Allinger, Eds. Interscience (Wiley), New York, 1978. xvi, 350 pp., illus. \$39.50.

**Toxicity of Heavy Metals in the Environment.** Part 1. Frederick W. Oehme, Ed. Dekker, New York, 1978. x, 516 pp., illus. \$45. Hazardous and Toxic Substances, 2.

**The World Energy Book.** An A-Z, Atlas and Statistical Source Book. David Crabbe and Richard McBride, Eds. Nichols Publishing Co., New York, 1978. 260 pp., illus. \$25.

**Xeno-Grafting.** The Future of Organ Transplantation. Ejvind Kemp. Illustrations by Peter Skaaring. Odense University Press, Odense, Denmark, 1978. 118 pp. Paper, 120 Dan.kr.

**Your Own Pigs You May Not Eat.** A Comparative Study of New Guinea Societies. Paula G. Rubel and Abraham Rosman. University of Chicago Press, Chicago, 1978. xvi, 368 pp., illus. \$24.

# Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising closing for a particular Friday issue is Wednesday, 3 1/2 weeks before. Advertising is accepted only in writing; no abbreviations. Also, 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, national origin, or handicap.

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SCIENCE  
1515 Massachusetts Ave., NW  
Washington, D.C. 20005

## POSITIONS WANTED

**Algal Ecologist:** environmental/evolutionary approach; chlorinated hydrocarbons; red tide toxins; publications; teaching experience. R. Michaels, Ecology and Evolution Department, State University of New York, Stony Brook, N.Y. 11794; telephone: 212-626-3443. 6/1, 8, 15, 22

**Biologist/Anatomist.** M.S. (anatomy); emphasis in cell biology. Seeks full-time teaching position undergraduate, community college, or allied health, to teach anatomy/physiology, comparative anatomy, histology, embryology, cell biology. Box 164, SCIENCE. X

**Biophysicist.** Ph.D. PMIA. Pioneer in cell sorting and flow cytometry development and biomedical applications; also image analysis fluorescent cell images. Fifty plus publications, patents, awards, and book. Total experience: 15 years of research, teaching, and administration at large laboratory and university. Seeking senior university research and teaching position. Reply to: Box 159, SCIENCE. X

**Cell Biochemist/Nutritionist.** Ph.D. medical sciences, 1975. Research experience in culture and nutrient media formulation for mammalian cells, intermediary metabolism, protein isolation-purification. Has taught college level. Box 165, SCIENCE. 6/1, 15

**Editorial Service.** Medical/scientific conference proceedings edited. Transcriptions rewritten for publication. Communications expert. Box 166, SCIENCE. X

**Genetic Toxicologist/Cytogeneticist.** Ph.D. microbiology, 1977. NIEHS predoctoral trainee; 16 years of predoctoral experience in virology, 6 years as project director; 2 years of clinical cytogenetics, including supervisory; 2-years postdoctoral at Belgian university directing program on mutagenicity of pesticides. Publications. Seeks research, clinical and/or administrative position in industry, government, or academic institution. West preferred. Box 168, SCIENCE. X

## POSITIONS WANTED

**Endocrine Physiologist.** Drug development/line stock production. Responsible innovator. Full-time or consultation. Box 167, SCIENCE. 6/1, 8

**Physical Scientist/Neuroscientist** seeks consulting or full-time position emphasizing interdisciplinary approach to scientific research, science policy issues, teaching. Ph.D. (1969), physical organic chemistry. Subsequent research in biochemical pharmacology, neurochemistry, clinical psychopharmacology, research ethics. Publications in all above and related fields. J. L. Marini, Ph.D. 36 West Shore Drive, Clinton, Connecticut 06413. X

## POSITIONS OPEN

### ANATOMIST

Applications are invited for a tenure-track position with primary teaching responsibility in gross anatomy for medical students. Teaching experience is essential. Postdoctoral training is desirable and candidates are expected to pursue a productive research program. Appointment expected as assistant professor, but salary and rank depend on qualifications and experience. Excellent research facilities are available in histology, EM, biochemistry, and tissue culture with many opportunities for collaboration. Send curriculum vitae, summary of teaching experience, narrative of future research plans, and names of three referees to: **Dr. R. Hinkley, Gross Anatomy Search Committee, Department of Anatomy (R124), University of Miami School of Medicine, Miami, Florida 33101.**

The Air Force Office of Scientific Research (AFOSR) announces a limited number of 1-year APPOINTMENTS for materials science, electrical engineering, chemistry, chemical engineering, meteorology, aeronomy, physiology, toxicology, behavioral sciences, human engineering, and physics faculty members on leave from U.S. institutions starting summer 1979. These appointments can be to Air Force Laboratories in Arizona, California, Colorado, Florida, Massachusetts, New Mexico, New York, Ohio or Texas, to AFOSR in Washington, D.C., or London, England. Appointees may participate in laboratory research, program management, or international liaison depending upon the appointments received. All appointments are under the conditions of the Intergovernmental Personnel Act which enables AFOSR to contract with the university employer. A limited number of extensions to a second year are permissible. Interested applicants may respond to: **AFOSR/XO, Bolling AFB, D.C. 20332**, stating interests and qualifications, or to request additional information.

Department of Medicine, University of Florida seeks an **ASSISTANT IN MEDICINE**. Candidates must have a master's in the field of science plus a minimum of 2 years of experience in a research laboratory. Previous experience with hormone immunoassay and tissue culture would be valuable but not essential. Some background in biochemistry is needed for enzyme assays of tissue extracts and serum. Applicant must be capable of supervising others but also be able and willing to work hard independently. Application recruiting deadline: 14 June 1979. Anticipated starting date: 1 July 1979. Salary range: \$10,000 to \$17,000. Contact: **Chief, Division of Endocrinology, University of Florida, Box J-226, Gainesville, Fla. 32610.**

**ASSISTANT PROFESSOR OF BIOCHEMISTRY**—Louisiana State University (LSU) Medical Center—New Orleans, Louisiana. The Department of Biochemistry, Louisiana State University Medical Center, invites applications for 12-month, tenure-track faculty positions. Candidates should have a strong background in biochemistry or molecular biology. In addition to the School of Graduate Studies, the Medical Center includes the Medical, Dental, and Nursing Schools and the School of Allied Health Professions. Applicants should have postdoctoral experience and exhibit potential for developing a strong independent research program. Interest and excellence in teaching is also expected. Applicants should send curriculum vitae, bibliography, a short summary of research goals, and have three letters of evaluation submitted to the following: **Robert Roskoski, Jr., Head, Department of Biochemistry, LSU Medical Center, 1542 Tulane Avenue, New Orleans, Louisiana 70112.**

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

## POSITIONS OPEN

### DEPARTMENT OF BOTANY UNIVERSITY OF MANITOBA

Subject to budgetary approval, the Department of Botany at the University of Manitoba invites applications for a term appointment as an **ASSISTANT PROFESSOR**, effective 1 September 1979. Applicants should have a doctoral degree in botany and a demonstrated competence in the teaching of flowering plant taxonomy plus an ability to assist in other courses in the department. Applicants should also have a commitment to research in experimental taxonomy and be prepared to participate in the graduate teaching program of the department. The current floor for an assistant professor is \$16,480 (subject to revision as of 1 April 1979). Qualified applicants are invited to submit curriculum vitae, names of three referees, and a full résumé of teaching and research experience to: **Dr. James Reid, Head, Department of Botany, University of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2.** Applications will be accepted until 1 August and Canadian citizens, landed immigrants, and others eligible for employment in Canada at the time of application are especially encouraged to apply.

### ASSISTANT/ASSOCIATE PROFESSOR OF PHARMACOLOGY

Faculty position available 1 July 1979 or later. Candidates should have Ph.D. or M.D. and postdoctoral experience. Duties will include medical and graduate school teaching, direction of Ph.D. candidates, and independent research. Preference will be given to candidates with research interests in biochemical, behavioral, and transmitter pharmacology and/or toxicology. Applicants should submit curriculum vitae and the names of three references to: **Dr. Wallace R. Wooles, Department of Pharmacology, School of Medicine, East Carolina University, Greenville, N.C. 27834.**

*East Carolina University is an Affirmative Action/Equal Opportunity Employer.*

The Department of Animal Science, University of California, Davis, is seeking an **ASSISTANT PROFESSOR IN RUMINANT NUTRITION/ANIMAL PRODUCTION**; 50 percent teaching; 50 percent research. Rank and salary commensurate with qualifications and experience. Qualifications for the position are strong background and interest in livestock or dairy production; a Ph.D. in nutrition, animal or dairy science with emphasis on ruminant nutrition; and a desire and ability to teach applied animal production courses. Responsibilities of the appointee will include instruction in undergraduate animal production courses, contributions to undergraduate and graduate nutrition courses, participation in graduate training, and development of a research program relevant to the livestock and/or dairy industries. Applicants should send a résumé, transcripts, and names and addresses of three references to: **Dr. N. E. Smith, Chairman, Search Committee, Department of Animal Science, University of California, Davis, Calif. 95616.** Completed applications should be submitted by 15 July 1979. The position is available 1 August 1979.

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

### ASSOCIATE DEAN FOR BASIC MEDICAL SCIENCES

Applications are invited for position of associate dean for basic medical sciences for newly established Northeastern Ohio Universities College of Medicine operating in concert with The University of Akron, Kent State University, and Youngstown State University. Associate dean will serve as director of the Division of Basic Medical Sciences reporting to provost/dean and will facilitate operation of programs in determining budgetary requirements, recruiting faculty and staff, overseeing support services (vivarium, computer center), developing programs for research programs, and representing dean's office at meetings and convocations.

Qualifications: Ph.D. or M.D. degree. Previous administrative experience as basic sciences department chairman of medical school preferred. Teaching experience in basic sciences in medical school and research experience, including familiarity with procurement and administering research grants, required.

Send curriculum vitae to: **Charles V. Blair, Vice Provost for Administration and Public Affairs, Northeastern Ohio Universities College of Medicine, 4209 State Route 44, Rootstown, Ohio 44272.** *Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**ASSOCIATE DEAN.** Applications are invited for the position of associate Dean of the School of Medical Sciences, University of Nevada, Reno. Responsibilities include day-to-day operation of the medical school, budget development, and implementation of affiliation agreements with associated hospitals in the Reno area. Candidates must have an M.D., Ph.D., or equivalent; experience in medical school administration; and the interpersonal skills needed to foster constructive working relationships in a medical school environment.

The position is available in summer 1979; deadline for application is 15 June 1979. Send curriculum vitae and names of three references to:

**Thomas R. Kozel, Ph.D.  
Chairman of Associate Dean Search Committee  
School of Medical Sciences  
University of Nevada  
Reno, Nevada 89557**

*The University of Nevada is an Equal Opportunity Employer and does not discriminate on the basis of sex, race, color, religion, handicaps, or national origin in the educational programs or activities which it operates.*

**BIOCHEMIST.** Postdoctoral and research positions available to investigate the biosynthesis, structure, and metabolism of collagen. Research to be carried out in a recently completed facility which provides for close interaction with endocrinologists, electron microscopists, chemists, and orthopaedists focusing on the abnormalities of bone and joints.

Please send résumé to: **Dr. Marcel Nimni, Bone and Connective Tissue Laboratories, University of Southern California, Orthopaedic Hospital of Los Angeles, P.O. Box 60132, Los Angeles, California 90060.**

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

**BIOCHEMIST.** Postdoctoral position available immediately. Background in enzyme purification including affinity chromatography for purification of particulate and soluble tyrosinase from human melanoma. Send curriculum vitae and three references to: **Dr. Kenji Nishioka, Surgical Research Laboratory, BF-426, The University of Texas System Cancer Center M. D. Anderson Hospital and Tumor Institute, Houston, Texas 77030.** *An Equal Opportunity Employer.*

**BIOCHEMIST, Ph.D.** to chair Department of Chemistry and Nutrition at the National College of Chiropractic. Position requires Ph.D. in biochemistry with background in nutrition. Person should have administrative experience and background appropriate for development of educational and research programs in biochemistry, metabolism, and basic and clinical nutrition. Rank and salary open.

Interested persons should send résumé, including details of teaching and research experience, official transcripts, and names of three references, before 15 July to:

**Dr. C. C. Kuehner, Director  
Basic Science Division  
National College of Chiropractic  
200 East Roosevelt Road  
Lombard, Illinois 60148**

*An Equal Opportunity/Affirmative Action Employer*

**PHYSIOLOGIST, Ph.D.:** To chair Department of Physiology at National College of Chiropractic. Appointment involves teaching in area(s) germane to professional curriculum. Area of interest should be physiology of body fluid regulation or cardiovascular physiology. Research is encouraged. Credentials and experience should warrant rank and salary at associate professor level.

**PHYSIOLOGIST, M.S. or Ph.D.:** To teach physiology courses at first professional degree level at National College of Chiropractic. Appointment includes supervision and coordination of physiology laboratories. Research encouraged. Credentials and experience should warrant rank and salary at instructor or assistant professor level. For either position send curriculum vitae, official transcripts of all undergraduate, graduate and/or professional education, and names of at least three references before 15 July to:

**Dr. C. C. Kuehner, Director  
Division of the Basic Sciences  
National College of Chiropractic  
200 East Roosevelt Road  
Lombard, Illinois 60148**

*An Equal Opportunity/Affirmative Action Employer*

## POSITIONS OPEN

### BIOCHEMIST

The Department of Biochemistry is seeking a full-time faculty member with research interests in the area of cartilage and connective tissue biochemistry. Academic rank will be commensurate with qualifications. Applicant should forward curriculum vitae with complete bibliography and the names of three references no later than 1 July 1979 to: **Dr. Eugene G. Sander, Chairman, Department of Biochemistry, West Virginia University School of Medicine, Morgantown, West Virginia 26506.** *West Virginia University is an Affirmative Action/Equal Opportunity Employer.*

**BIOLOGICAL OCEANOGRAPHER.** Assistant professor. Tenure-track teaching/research position. Ph.D., strong background in quantitative methods, modeling, population dynamics applied to fisheries oceanography or benthic marine populations. Send résumé by 15 June 1979 to: **Dr. John C. Ludwick, Director, Institute of Oceanography, Old Dominion University, Norfolk, Va. 23508.** *An Affirmative Action/Equal Opportunity Employer.*

### CHAIRPERSON, DEPARTMENT OF BIOCHEMISTRY

Nominations and applications are invited for the position of chairperson, Department of Biochemistry, Texas Tech University School of Medicine. Applicants should have strong administrative skills, an established research record, and experience in health sciences education. A doctoral degree is required. Please send curriculum vitae and names of four references to:

**Mary Ann South, M.D.,  
Department of Pediatrics  
Chairperson, Biochemistry Search Committee  
Texas Tech University School of Medicine  
Lubbock, Texas 79430**

*Equal Opportunity/Affirmative Action Employer*

### CHAIRMAN OF THE DEPARTMENT OF PHYSIOLOGY WAYNE STATE UNIVERSITY SCHOOL OF MEDICINE

Creative and energetic leader to assume the chair of this large and diverse department 1 July 1980. More than 20 faculty members, large and modern research and teaching facilities. Applicants should have an established and productive research record, experience in teaching and administration, to be able to assume responsibility for the medical, allied medical, and graduate teaching programs of the department. *Sex, race, religion, or national origin will not be factors in the selection process.*

Interested persons should reply by 1 July 1979 to:

**Dr. Bernard H. Marks  
Department of Pharmacology  
Wayne State University  
School of Medicine  
Detroit, Michigan 48201**

The University of California, Irvine, is recruiting for a **CLINICAL PHARMACOLOGIST** to be located at the University of California, Irvine, Medical Center. Individual must be certified in internal medicine and have experience in clinical pharmacology both in teaching and research. Special knowledge of ingestion and poisoning will be useful as the individual will spend part of the time directing a regional poison control center. University rank will be appropriate to the academic experience of the individual. *Applications are invited from all qualified persons; minorities and women are encouraged to apply.* Please send curriculum vitae and names of five references to: **Jeremiah G. Tilles, M.D., Professor and Chairman, Department of Medicine, 101 City Drive South, Orange, Calif. 92668.**

Research associate position available immediately for a **DEVELOPMENTAL NEUROANATOMIST** to study the effects of prenatal and postnatal malnutrition on the rat brain. The position involves a cooperative effort between the U.S. Department of Agriculture, Human Nutrition Laboratory, and the University of North Dakota. Salary ranges from \$12,500 to \$15,000. Candidates should send curriculum vitae and names of three references to: **Dr. E. S. Halas, Human Nutrition Laboratory, 7166 University Station, Grand Forks, N.D. 58202.**

## POSITIONS OPEN

Utah State University invites applications and nominations for combined position of **DEAN OF GRADUATE STUDIES AND ASSOCIATE VICE PRESIDENT FOR RESEARCH.** The dean serves as administrative officer of the School of Graduate Study and provides leadership in the development of graduate programs. As associate vice president, assists vice president for research in developing research policies and programs.

Applicants should have an earned doctorate or equivalent experience; evidence of continuing scholarly, professional, and research activities; demonstrated ability in development of graduate programs.

Salary negotiable. Closing date: 15 July 1979. Applications and/or nominations should contain updated curriculum vitae, including supportive evidence of qualifications specified, and four names of references. Correspondence should be addressed to: **Dr. Gene W. Miller, Chairperson, Search Committee, UMC 53, Utah State University, Logan, Utah 84322.** *An Equal Opportunity/Affirmative Action Employer.*

### UNIVERSITÉ LAVAL—QUEBEC

A full-time academic appointment in **DENTAL RESEARCH (ORAL BIOLOGY)** will be available 1 June 1979. The successful applicant will join a recently formed research team in oral microbiology-biochemistry area. He/she must hold a Ph.D. in an appropriate field or a D.D.S. (D.M.D.) and M.Sc. (M.S.D.) with experience in basic science research. It is expected that the applicants would have acquired training and experience in research in a dentistry-related subject and will be able to propose a research program. Beside research, duties will include graduates supervision and teaching with minimal undergraduate responsibilities. Candidates must be prepared to fulfill French language requirements in a reasonable period of time. Salary and rank commensurate with qualifications and experience according to a collective agreement. Letter of application along with curriculum vitae and three letters of recommendation should be sent before 15 July to:

**Dr. Laurent Dufour  
Associate Director  
Ecole de médecine dentaire  
Université Laval  
Québec, Canada G1K 7P4**

### DEVELOPMENTAL BIOLOGIST

The Department of Biology at Washington University in St. Louis plans to appoint an additional faculty member in developmental biology, to begin July 1980, whose research interests focus on the differentiation of metazoan cells or tissues. Applications are solicited from individuals who have demonstrated exceptional competence in research beyond the doctorate and are interested in undergraduate and graduate teaching. Although it is anticipated that most applicants will be at a junior level, applications from senior individuals will be welcomed. Send curriculum vitae and a description of present and future research interest, and request that three letters of reference be sent to: **Dr. Ursula Goodenough, Department of Biology, Washington University, St. Louis, Mo. 63130.** *An Equal Opportunity/Affirmative Action Employer.*

**DIRECTOR OF HISTOCOMPATIBILITY LABORATORY/M.D. and/or Ph.D.**—The University of Alabama in Birmingham, Birmingham, Alabama, invites applications for director of its well-established HLA laboratory that services an active organ transplantation program in an academic setting. This is a position requiring teaching ability and an interest in both pure and applied research. The rank and salary offered are commensurate with training and experience. *The University of Alabama in Birmingham, Birmingham, Alabama, is an Affirmative Action Employer and invites applications from women and minority applicants.* Send curriculum vitae and copies of reprints of articles to: **Jack C. Geer, M.D., Professor and Chairman, Department of Pathology, University of Alabama in Birmingham, Birmingham, Alabama 35294.**

**ENVIRONMENTAL STUDIES, NATURAL SCIENCES, BARUCH COLLEGE—City University of New York.** Tenure-track **ASSISTANT PROFESSOR** to develop a program in environmental studies; Ph.D. required plus experience in environmental studies. Salary negotiable. Send curriculum vitae to: **Professor Morris Winokur, Chairman, Department of Natural Sciences, Baruch College, 17 Lexington Avenue, Box 349, New York, N.Y. 10010.** *Equal Opportunity Employer, M/F.*

## POSITIONS OPEN

### DIRECTOR OF CLINICAL LABORATORY COMPUTER SERVICES

Physician, experienced in computer applications in clinical laboratories and Board-eligible or -certified in clinical pathology, to direct Computer Services and Central Processing Laboratory for Hospital Laboratories and Pathology at a medical school teaching hospital. Responsible for computer application and development using laboratory-based computers interfaced with hospital computer system. An academic appointment in pathology will be made at the assistant or associate professor level, depending on training and experience. Opportunities for teaching and research. Large computer centers also available on the university campus and in adjacent Research Triangle Park. Send application with curriculum vitae and request three letters of reference to be sent to: **William W. McLendon, M.D., Chairman, Department of Hospital Laboratories, North Carolina Memorial Hospital, University of North Carolina, Chapel Hill, N.C. 27514.** Position is available 1 January 1980 and applications should be received by 1 July 1979. *The University of North Carolina/North Carolina Memorial Hospital is an Equal Opportunity/Affirmative Action Employer.*

**ECOLOGIST, ASSISTANT PROFESSOR,** beginning August 1979. Ph.D. required. Primary responsibility is teaching ecology and general biology. Individual with interest in invertebrates preferred. Department primarily concerned with teaching excellence. Salary based upon qualifications. Send complete credentials by 15 June to: **Dr. Robert B. Angstadt, Chairman, Department of Biology, Lycoming College, Williamsport, Pa. 17701.** *An Equal Opportunity Employer.*

### EXPERIMENTAL RESEARCH ASSOCIATE

Two positions available: (i) biological physics to study the low-frequency modes of DNA and RNA films using either f.i.r. (Fourier) spectroscopy or microwave spectroscopy using swept sources. Some background of biophysics desirable. Position open immediately. (ii) Study the photoconductivity of excess electrons trapped in insulating liquids. Excess electrons will be generated by an accelerator and the spectroscopy will be carried out using Fourier techniques. Position available October 1979. Send application and three letters of recommendation to: **G. Ascarelli, Physics Department, Purdue University, West Lafayette, Indiana 47907.** *An Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITIONS

#### Assistant and Associate Professors of Pharmacology

The Department of Pharmacology, Medical College of Georgia, is recruiting for faculty positions at the assistant and associate professor levels. The Medical College of Georgia is Georgia's primary institution of higher education for training health professionals. The department is seeking individuals with a Ph.D. or M.D. degree who are productive researchers in pharmacology including toxicology. Candidates must demonstrate an ability to carry on a productive research program with leadership in obtaining outside funding. An additional qualification is a sincere involvement and interest in graduate and postdoctoral training. Salary and rank are negotiable. Applicants should send a résumé, including research interest, publications, and previous research support, and names of three references, to: **Dr. Lowell M. Greenbaum, Professor and Chairman, Department of Pharmacology, Medical College of Georgia, Augusta, Georgia 30901.**

*The Medical College of Georgia is an Affirmative Action/Equal Opportunity Educational Institution.*

### FACULTY POSITION—INDUSTRIAL HYGIENE

The Johns Hopkins University School of Hygiene and Public Health has a position open at the assistant or associate professor level in the Division of Environmental Health Engineering, Department of Environmental Health Sciences. This position involves teaching in the Industrial Hygiene Program and development of the inhalation toxicology facility of the department. Applicants should hold an earned doctorate degree in industrial hygiene or a related field and demonstrate ability in the generation, sampling, and analysis of aerosols and vapors with an interest in research. Certified industrial hygienists will be given preference. *Johns Hopkins University is an Equal Opportunity Employer and welcomes applications from qualified women and minorities.* Send curriculum vitae and references by 15 August 1979 to: **Dr. David L. Swift, Department of Environmental Health Sciences, Johns Hopkins University, 615 North Wolfe Street, Baltimore, Md. 21205.**

## POSITIONS OPEN

### FACULTY POSITION

The University of California, Irvine, Department of Biological Chemistry in the College of Medicine, invites applications for an appointment as professor; applications will also be considered at the associate professor level. Teaching responsibilities involve instructing medical and graduate students in selected areas of biochemistry. Research experience and interest in eukaryotic cell systems dealing with genetics, protein synthesis, RNA synthesis and metabolism, or macromolecular processing and its control is preferred. Faculty members are expected to have a strong, independent, ongoing research program. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Send curriculum vitae, three letters of reference, and a detailed description of proposed research program by 25 July 1979 to:

Kivie Moldave  
Department of Biological Chemistry  
College of Medicine  
University of California, Irvine  
Irvine, California 92717

### UNIVERSITY OF CALIFORNIA, BERKELEY College of Natural Resources

Faculty and Agricultural Experiment Station Position in the Division of Biological Control and Department of Entomological Sciences.

A position as professor of entomology and entomologist in the Experiment Station will be available 1 July 1979. Qualifications must include a Ph.D. degree with specialization in the biology, ecology, and systematics of parasitoids and predators of arthropod pests, together with extensive skills and experience in these areas, and in foreign exploration, importation, colonization, and evaluation of such agents in biological control programs. Research responsibilities (80 percent) in the Division of Biological Control will include studies in the biology, ecology and behavior, and on foreign exploration, importation, evaluation, augmentation, and conservation of natural enemies of arthropod pests of agricultural crops and urban plantings, and in the cooperative development of integrated pest management programs. Teaching responsibilities (20 percent) will be in the Department of Entomological Sciences in the area of biological control. Applicants should send full curriculum vitae, relevant publications and manuscripts, official academic transcripts, and the names of three persons for reference by 1 July 1979 to:

L. E. Caltagirone, Chairman  
Division of Biological Control  
University of California  
Albany, California 94706

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

The Scripps Institution of Oceanography, Marine Physical Laboratory, anticipates an opening for a FACULTY/RESEARCH APPOINTMENT in marine physics. The rank of appointment is open, assistant through professor, depending upon the qualifications of the candidate. Position details may be obtained by writing to: Dr. F. N. Spiess, Marine Physical Laboratory of the Scripps Institution of Oceanography, University of California, San Diego, San Diego, California 92152. Telephone: 714-452-2300. *The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer.*

### IMMUNOLOGIST

Ph.D. or M.S. with considerable experience in research on production of vaccines and identification of antigens and antibodies by advanced methods for long-established academic medical research group in New York City. Send curriculum vitae and references to: Dr. Kurt Lange, Lenox Hill Hospital, 100 East 77 Street, New York, New York 10021.

### MICROBIOLOGIST—Ph.D. Saint Michael's Medical Center—New Jersey Medical School

Saint Michael's Medical Center has a position available for a Ph.D. to direct our special bacteriology laboratory, hospital resistant strains, new antibiotics, M.I.C., M.B.C., killing curves. Medical school appointment. Responsibilities include lecturing to students and supervision of fellows researching infectious diseases.

Interested candidates, please send your curriculum vitae to: Leon G. Smith, M.D., Director, Department of Medicine, Saint Michael's Medical Center, Newark, New Jersey 07102.

## POSITIONS OPEN

**FACULTY POSITIONS** (two) to start September 1979. (i) A tenure-track position for a Ph.D. in physical biochemistry. Appointee will be involved in the integration of biochemical experiments in our unified (analytical, physical, instrumental) laboratory sequence for undergraduate biochemistry majors as well as in general chemistry. Development of a research program is expected. (ii) A 1-year appointment involving primarily teaching in our freshman courses. Send résumé and names of three references to: Dr. Herbert K. Miller, Department of Chemistry, Manhattan College, Riverdale, N.Y. 10471. *Minority and female applicants welcome. Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITION

Assistant or associate professor, medical laboratory sciences, to teach in upper-division bachelor's program in at least two of the following areas: microbiology, hematology, and clinical chemistry. Doctorate required; M.T. (A.S.C.P.) registry or significant clinical experience essential. Tenure-track. Salary competitive; excellent fringe benefits. Résumé to:

Dean of Health Sciences  
Hunter College  
440 East 26 Street  
New York, N.Y. 10010

*An Equal Opportunity/Affirmative Action Employer*

### FACULTY POSITIONS— ANATOMY

Full-time, tenure-track faculty positions are available in the Department of Anatomy, Temple University School of Medicine, at the assistant professor level and at the associate professor-professor level. Candidate must have experience teaching either human gross anatomy, microscopic anatomy, or neuroanatomy. Applicants must hold the Ph.D. or M.D. degree and demonstrate research productivity commensurate with rank sought. Send curriculum vitae and names of three references to:

Carson D. Schneck, M.D., Ph.D.  
Professor and Acting Chairman  
Department of Anatomy  
3420 North Broad Street  
Philadelphia, Pa. 19140

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

**IMMUNOBIOLOGIST**, assistant professor (non-tenure) with joint appointment in Departments of Microbiology and Surgery. One-year appointment with possibilities of renewals and eventual tenure consideration. Requirements include Ph.D. with postdoctoral experience. The successful candidate should have experience in immunobiological research at the cellular level and is expected to (i) develop a sound research program in immunobiology, (ii) obtain extramural research support, (iii) direct a currently funded transplantation research laboratory, and (iv) participate in the instruction of medical and graduate students. Position is available 1 July 1979. Send curriculum vitae and names of three references to: Dr. Stephen K. Farrand, Department of Microbiology, Stritch School of Medicine, Maywood, Illinois 60153. *An Equal Opportunity/Affirmative Action Employer.*

**MICROBIOLOGIST**, instructor, tenure-track. College teaching experience required. To teach basic bacteriology and introductory biology. Salary negotiable. Starting date: 1 August 1979. Deadline for receiving applications including curriculum vitae, three letters of recommendation, and official transcripts is 1 July 1979. Apply to: Dr. Ralph E. Sharp, Chairman, Search Committee, Department of Biology, Middle Tennessee State University, Murfreesboro, Tennessee 37132. *An Affirmative Action/Equal Opportunity Employer.*

### POSTDOCTORAL FELLOW MICROBIAL BIOCHEMIST

Position requires a Ph.D. Work experience should be in biochemistry, chemistry, or microbiology. Applicant will conduct investigations of metabolic capacity of intestinal bacteria and studies on mutagenesis with respect to colon cancer.

Send résumé in confidence to:

Dr. B. Reddy  
American Health Foundation  
Naylor Dana Institute for Disease Prevention  
Dana Road  
Valhalla, New York 10595

*An Equal Opportunity Employer, M/F*

## POSITIONS OPEN

**INSECT ECOLOGIST**, a tenure-track position at assistant or associate professor level is available fall 1979. Ph.D. in entomology with experience or interest in forest/shade tree ecosystem. Salary is competitive and negotiable. Responsibilities include teaching in insect ecology and forest/shade tree entomology and the development of an active research program in ecology of forest/shade tree insects. Applications, including curriculum vitae, transcripts, representative publications, three letters of recommendation, and two names for general reference should be sent by 1 July 1979 to: Dr. Chih-Ming Yin, Department of Entomology, Fernald Hall, University of Massachusetts, Amherst, Mass. 01003. *University of Massachusetts is an Equal Opportunity/Affirmative Action Employer.*

**PHARMACOLOGY TEACHERS.** English or Spanish for accredited medical school in Puerto Rico. Immediate opening at all levels from instructor through full professor. Doctor's degree preferred. Research encouraged. Fringe benefits. Answers: Chairman, Department of Pharmacology, Catholic University of Puerto Rico School of Medicine, Ponce, Puerto Rico 00731.

**POSTDOCTORAL ASSOCIATE**—Biochemist is sought, preferably with interest in protein sequencing and/or chemical modification of proteins. The 2-year position, with possibility for renewal, is available immediately for sequence and affinity labeling studies on ribulosebiphosphate carboxylase at a salary of \$12,000 to \$13,500. A complete application requires résumé, transcripts, and three letters of reference sent to: Dr. Fred C. Hartman, The University of Tennessee—Oak Ridge Graduate School of Biomedical Sciences, P.O. Box Y, Oak Ridge, Tenn. 37830. For further information, telephone: 615-574-0959. *An Equal Opportunity/Affirmative Action Employer.*

### CSIRO POSTDOCTORAL RESEARCH FELLOW DIVISION OF MINERAL PHYSICS NORTH RYDE, NEW SOUTH WALES

CSIRO has a broad charter for research into primary and secondary industry areas. The organization has approximately 7000 employees, 2400 of whom are research and professional scientists, located in divisions and sections throughout Australia.

### FIELD: LANDSAT IMAGERY IN PETROLEUM EXPLORATION.

**GENERAL:** the CSIRO Fuel Geoscience Unit and the CSIRO Division of Mineral Physics have jointly undertaken to carry out research on the feasibility of using Landsat imagery to detect seepages of petroleum from offshore petroleum reservoirs. The project is expected to be of 2 years' duration (subject to availability of resources).

**DUTIES:** to lead the project which will involve assessing available Landsat imagery over prospective areas of Australia's continental shelf and collaborating with exploration companies. The Division of Mineral Physics has established extensive hardware and software for the analysis of Landsat imagery and the Fuel Geoscience Unit is conducting research into geochemical detection of hydrocarbon seepages.

**QUALIFICATIONS:** a Ph.D. or equivalent research experience in geology, geophysics, or related discipline. Experience in Landsat imagery is highly desirable.

**SALARY:** research scientist/senior research scientist: A\$15,422 to A\$22,405 per annum.

**TENURE:** initially for 1 year with possibility of extension.

**APPLICATIONS:** stating full personal and professional details, the names of at least two referees, and quoting reference number 589/056, should reach:

The Acting Chief  
Division of Mineral Physics  
P.O. Box 136  
North Ryde, New South Wales 2113  
Australia

by 29 June 1979.

## POSITIONS OPEN

### MARINE BIOLOGIST—INVERTEBRATE CULTURE

Division of Neurobiology and Behavior, Columbia University, is currently seeking an individual to design and undertake studies on the mass culture of *Aplysia californica* (Gastropoda, Opisthobranchia) throughout the larval and metamorphic stages. This is part of an ongoing research program at our marine culture laboratory at the MARINE BIOLOGICAL LABORATORY, Woods Hole, Mass. Position is available immediately; Ph.D. required. Familiarity with laboratory or hatchery culture of invertebrate larvae, especially molluscan, preferred. Experience in any of the following also desirable: marine microbiology, cultivation of phytoplankton, and macroalgae. Please send curriculum vitae, summary of research experience, and two letters of recommendation to: **Dr. Michele Jacob, Division of Neurobiology and Behavior, Columbia University, 630 West 168 Street, N.Y., N.Y. 10032.**

**PHARMACOLOGIST.** Position available at the assistant professor level. Should have 1 or 2 years of postdoctoral experience with interest in renal, cardiovascular, neuro-, or biochemical pharmacology. To teach medical and graduate pharmacology courses and establish an independent research program. Send curriculum vitae and names of three references to: **Dr. James Boelkins, Department of Pharmacology, University of North Dakota School of Medicine, Grand Forks, N.D. 58201. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL ASSOCIATE** in insect biochemistry and toxicology. Full-time research position available immediately for studies on the pharmacokinetics and action of pyrethroid insecticides in insects and mammals. Background in pharmacology and experience in the development and use of radioligand assays desirable. Starting salary: \$12,000. Send detailed curriculum vitae, transcripts, names of three references, and relevant publications to: **D. M. Soderlund, Department of Entomology, New York State Agricultural Experiment Station, Cornell University, Geneva, N.Y. 14456.**

**POSTDOCTORAL ASSOCIATE.** Appointment open for postdoctoral research fellow/associate to collaborate in studying the comparative physiology of photoreceptor membrane turnover particularly using various electronic microscopic and tracer techniques. Send curriculum vitae and two letters of reference to: **Professor Talbot H. Waterman, Yale University, 610 Kline Biology Tower, New Haven, Conn. 06520. An Affirmative Action Employer; all interested persons are encouraged to apply.**

**POSTDOCTORAL FELLOW.** Position in biochemical research beginning 1 July 1979. Research in lipid enzymology and nutrition to investigate the role of dietary fatty acids in lipoprotein metabolism. Knowledge of and training in energy metabolism, via balance and respiration experiments, to determine the influence of dietary fatty acids on utilization of energy relative to aging would be desirable. Send curriculum vitae, publications, and names of three references to: **O. S. Privett, The Hormel Institute, University of Minnesota, 801 16th Avenue, NE, Austin, Minn. 55912. An Equal Opportunity Employer.**

**POSTDOCTORAL**—Available 1 July. Ph.D. Biochemistry or related area to work in a group active in the enzymology and regulation of poly(A) and RNA polymerases. Experience in peptide mapping and protein structural studies highly desirable. Send curriculum vitae and names of three references to: **Dr. S. T. Jacob, Professor of Pharmacology, Hershey Medical Center, The Pennsylvania State University, Hershey, Pa. 17033. An Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL FELLOW.** Production of peptide hormones in *E. coli* by recombinant DNA technique. Experience with microbiology required. Send résumé regarding Position #MGPS to: **Dr. K. Itakura, Department of Molecular Genetics, City of Hope National Medical Center, Duarte, California 91010. An Equal Opportunity Employer.**

**RESEARCH ASSOCIATE.** Development of new type of antivirals and antitumors using synthetic oligonucleotides. Experience with organic synthesis and cell culture required. Salary open. Send résumé regarding Position #MGAS to: **City of Hope National Medical Center, Personnel Department, Duarte, California 91010. An Equal Opportunity Employer.**

## POSITIONS OPEN

### NEUROPHARMACOLOGIST

The Department of Pharmacology and Experimental Therapeutics, University of Maryland School of Medicine, invites applications from qualified individuals for a position at the level of research assistant professor. Position is available immediately to conduct electrophysiological studies involving the actions of drugs and toxins at the neuromuscular junction and spinal cord regeneration. Applicants should have a Ph.D. plus 2 to 3 years of research experience preferably in the area of neuromuscular junction pharmacology or spinal cord regeneration. Starting salary: \$14,500 per year.

Applicants should send their curriculum vitae and publication list to: **Dr. Edson X. Albuquerque, Chairman, Department of Pharmacology and Experimental Therapeutics, University of Maryland School of Medicine, Baltimore, Md. 21201. The University of Maryland is an Equal Opportunity/Affirmative Action Employer. Applications from minorities and women are encouraged.**

### OCCUPATIONAL HEALTH-TOXICOLOGY LABORATORY DIRECTOR

Analytical toxicologist sought by the Department of Laboratory Medicine, University of California, San Francisco, for full-time appointment as assistant or associate professor in residence at a newly created Occupational Health-Toxicology Laboratory located at the San Francisco General Hospital. Responsibilities include direction of the routine diagnostic service and development and evaluation of new procedures. Opportunity for research exists and is encouraged. Minimum qualifications are a doctoral degree, training in analytical chemistry-toxicology, and managerial experience. Board-certification or -eligibility in clinical chemistry-toxicology is encouraged. Send curriculum vitae to: **Laurence Marton, M.D., Chairman, Occupational Health-Toxicology Search Committee, 1378 Third Avenue, University of California, San Francisco, Calif. 94143. An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

**POSTDOCTORAL POSITION IN GENETIC REGULATION.** Available immediately; \$12,000 per year. The molecular mechanism for regulating  $\beta$ -galactosidase synthesis in yeast will be studied using the cloned  $\beta$ -galactosidase gene for genetic and biochemical experiments. Send curriculum vitae and names of three references to: **Dr. Robert C. Dickson, Department of Biochemistry, University of Kentucky Medical Center, Lexington, Kentucky 40536.**

**POSTDOCTORAL POSITION** to investigate mode of host-specific toxin produced by *H. maydis*, race T, and affecting corn. Available 1 July. Apply by 15 June to: **Dr. J. M. Daly, Laboratory of Agricultural Biochemistry, The University of Nebraska-Lincoln, Lincoln, Nebraska 68583. Telephone: 402-472-2937. Affirmative Action/Equal Opportunity Employer.**

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

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

## POSITIONS OPEN

**POSTDOCTORAL FELLOW**—Background in chemistry. We are interested in drug-drug interactions that generate new nitrosamines. Experience in HPLC, GC, and interested in developing new methods for the study of potential carcinogens desirable. Position open immediately. Contact: **Irene H. Raisfeld, M.D., Department of Pharmacological Sciences, Health Sciences Center, State University of New York at Stony Brook, Long Island, N.Y. 11794. Telephone: 516-246-2568. Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL POSITION

Mechanisms of bacterial genetic control approached through DNA sequencing by the dideoxy method, in vitro transcription, identification of genetic control signals, and recombinant DNA technology and vector development. See PNAS 75: 4281 (1978) and the imminent gene for example approaches. NIH scale to start any time. Respond with résumé, ideas, and names of three references to: **Wayne M. Barnes, Department of Biological Chemistry, Washington University School of Medicine, 660 South Euclid, St. Louis, Missouri 63110.**

### POSTDOCTORAL POSITION

Research position available immediately for a biochemist, neurochemist, or biophysicist interested in the dynamic aspects of membrane structure and function. Research procedures now used in this laboratory for studying lipid-protein interactions in acetylcholine receptor containing membranes include: spin labeling (electron paramagnetic resonance spectroscopy), membrane characterization, membrane reconstitution, and cell culture. Please send résumé and the names of two references to:

**Dr. Mark McNamee  
Department of Biochemistry and Biophysics  
University of California  
Davis, California 95616**

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

**POSTDOCTORAL POSITION.** Available immediately for an individual with a Ph.D. in biochemistry, physiology, or molecular biology. Interest in red and white cell function and experience in enzyme, isotope, and spectrophotometric techniques are encouraged. The thrust of research addresses redox processes in cellular blood elements. Send curriculum vitae and the names of three references to: **Dr. James S. Roloff, Division of Pediatric Hematology-Oncology, E-2205, Vanderbilt University Medical Center, Nashville, Tenn. 37232. Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION.** Immediate opening for a recent Ph.D. biochemist to participate in a research program on control mechanisms for cell growth. Investigations will focus on the molecular signals controlling transcription and translation of heart, kidney, and liver proteins. Preference will be given to applicants with expertise in investigations of protein purification and identification. This is a collaborative program between the Department of Surgery at Yale Medical School and the Department of Biology, Yale University. Send résumé and references to: **Graeme L. Hammond, M.D., Department of Surgery, Yale University, 333 Cedar Street, New Haven, Connecticut 06510. The University is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** available for 2 to 3 years for soil microbiologist interested in characterizing tropical *Rhizobia*. Collaborative project with IITA Nigeria. Objective to increase nitrogen fixation by grain legumes in tropical farming systems. Send curriculum vitae and three references to: **Dr. Allan Eaglesham, Boyce Thompson Institute at Cornell University, Ithaca, N.Y. 14853. Boyce Thompson Institute is an Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available immediately for research on the comparative biochemistry of microsomal oxidation in insects and mammals or on the mechanism of inhibition of mixed-function oxidases by selected compounds. Strong biochemical background required and research experience in solubilization and purification of membrane-bound enzymes advantageous. Appointment renewable annually; salary ranges from \$11,000 to \$13,000. Send curriculum vitae and three letters of reference to: **Dr. C. F. Wilkinson, Department of Entomology, Cornell University, Ithaca, N.Y. 14853.**

*Cornell is an Equal Opportunity/Affirmative Action Educator.*

# RESEARCH ASSISTANT

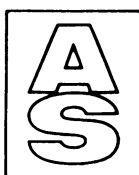
## Cardiovascular Pharmacology

Internal promotion has created an opening in our c.v. pharmacology lab for a research assistant with at least two or more years of experience in vivo c.v. pharmacology, laboratory experimentation and instrumentation. Academic qualifications should include BS or MS in a biological science, physiology, or pharmacology.

Position responsibilities involve performing animal experiments designed for purposes of evaluating the c.v. pharmacology or new drug candidates.

We offer a competitive salary and comprehensive benefits package. For consideration, please send resume including salary history and requirements to:

Ken McArthur  
V.P. Personnel



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McGaw Park, IL 60085

*An equal opportunity employer m/f*

## Neurophysiologist Neuro-pharmacologist

3M has an immediate opening for a neurobiologist in the Biodynamics Section central research laboratories in St. Paul, Minnesota. Applicants should have an MS/PhD in Neurobiology (or equivalent), experience in preclinical neurophysiology research, and a strong background in neuroanatomy and neurosurgery.

Duties involve planning and implementation in experimental neurophysiology. Qualified applicants should call or send your resume in confidence to:

**Dennis G. Nelson**  
Technical Placement Manager/3M  
3M Center  
St. Paul, Minnesota 55101  
(612) 733-4231

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# 3M

## TIAA Cuts Life Insurance Costs Again!

Teachers Insurance and Annuity Association announces increased dividends for 1979, further reducing costs that were already well below what you'd pay for similar policies sold by commercial companies.

For only \$65.50 a man aged 30 or a woman aged 35 can now buy \$50,000 worth of TIAA life insurance on the 20-Year Decreasing Term plan . . . and just \$111 buys \$100,000 of coverage on the same plan (if you didn't notice, that's twice the coverage at well under twice the price!).

These examples, drawn from the following table, dramatize how little it costs to own substantial amounts of family protection.

### See What These Lower Costs Mean to Your Family

The following table illustrates yearly costs for \$50,000 and \$100,000 Decreasing Term policies at selected ages:

20-Year Decreasing Term Insurance	\$50,000 Policy					\$100,000 Policy				
Issued to a man aged	25	30	35	40	45	25	30	35	40	45
Issued to a woman aged	30	35	40	45	50	30	35	40	45	50
Annual Premium	\$ 93.50	\$117.50	\$164.00	\$243.50	\$373.50	\$187	\$235	\$328	\$487	\$747
Yearly Cash Dividend*	42.00	52.00	70.50	100.00	148.00	104	124	161	220	316
Yearly Net Cost	\$ 51.50	\$ 65.50	\$ 93.50	\$143.50	\$225.50	\$ 83	\$111	\$167	\$267	\$431

\*Dividends are payable at the end of each policy year, while not guaranteed, they have been paid every year since TIAA was established in 1918.

Isn't it time you found out more about TIAA's low cost life insurance? Just think what an additional \$50,000, \$100,000 or more of solid TIAA protection would do for your family . . . and for your peace of mind.

### Call Collect (212) 490-9000

The fastest, easiest way to get more information is to phone the TIAA Life Insurance Advisory Center and say "I'd like to talk with an insurance counselor."

**Or Mail Coupon** If you prefer, simply fill out and mail the coupon at right to receive personal illustrations for your age. There is no obligation, and no one will call upon you as the result of your inquiry.

**Eligibility** to apply for a life insurance policy from Teachers Insurance and Annuity Association is open solely to employees of institutions of higher education, private schools and certain other nonprofit educational or scientific organizations, and to the spouse of such an employee when more than half the combined earned income of husband and wife is from a qualifying institution.



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Life Insurance Advisory Center  
Teachers Insurance and Annuity Association  
730 Third Avenue, New York, NY 10017  
SP7906K2

Please send me more information about TIAA's new, lower life insurance costs, including personal illustrations of TIAA policies for my age, as indicated below:

☐ Decreasing Term ☐ 5-Year Renewable Term ☐ Other \_\_\_\_\_

Name and Title Please print \_\_\_\_\_ Date of Birth \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Nonprofit Educational or Scientific Employer (college, university, private school, etc.)  
If your spouse is also eligible according to the rules set forth at left, please provide  
spouse's name: \_\_\_\_\_  
and date of birth: \_\_\_\_\_



## POSITIONS OPEN

**POSTDOCTORAL OPPORTUNITIES** in biochemical toxicology and mechanistic studies of drug metabolism and chemical model systems are available for recent Ph.D.'s having either some experience in these areas or a strong background in chemistry, biochemistry, or a biological science and an interest in diversification. Research areas include in vitro, in vivo, and chemical model studies of the chemistry and biology of toxic substances; current emphasis is on furans, thiocarbonyl compounds, transition metal organometallics, and their metabolites. Collaborative interdepartmental program, excellent facilities, flexible starting dates during the coming year. For further information contact: **Dr. Robert P. Hanzlik, Smissman Research Laboratory, Department of Medicinal Chemistry, University of Kansas, Lawrence, Kansas 66045.** An Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL POSITION THEORETICAL ATOMIC PHYSICS

A postdoctoral position is available in theoretical physics in the area of atomic structure and collisions, including studies of ionization and charge transfer in heavy-ion collisions. Quantum chemists interested in atomic collisions and atomic physicists interested in electron correlations are also encouraged to apply.

This position is for 1 year with subsequent renewal for a second year subject to mutual agreement. The stipend will be \$14,000 to \$15,000 per annum depending on experience. Application, including a résumé and the names of three references, should be received by: **Dr. C. D. Lin, Department of Physics, Kansas State University, Manhattan, Kansas 66506,** by 15 June 1979.

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

### POSTDOCTORAL POSITIONS

Two positions available fall 1979. Ph.D.'s in biochemistry with interests in enzymatic methyl transfer or sulfate transfer reactions. Experience in enzyme isolation and kinetics preferred. One-year appointments, renewable. Stipend: \$10,000 to \$12,000, depending upon experience. Send résumé and two letters of reference to: **Dr. R. T. Borchardt, Department of Biochemistry, University of Kansas, Lawrence, Kansas 66045.** An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION**, available June 1979 in Raman laser spectroscopy of red cell membranes and model systems. Experience in membrane vesicle characterization desirable. Salary: \$13,500. Send résumé and names of three references to: **Dr. James E. Garvin, Department of Biochemistry, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, Illinois 60611.** An Affirmative Action Employer.

**RESEARCH IMMUNOLOGIST** to work in newly established rheumatology-immunology laboratory. Applicant must have Ph.D. degree in immunology with experience in cellular immunology. Starting salary: \$23,087; excellent fringe benefits. Contact: **William Gallo, Personnel Service, VA Medical Center, Danville, Illinois 61832; telephone: 217-442-8000, extension 236.** Equal Opportunity Employer.

**RESEARCH SCIENTISTS POSITIONS** (two) are now available for qualified individuals with M.S. or Ph.D. in chemistry. Salary range: \$12,000 to \$15,000, depending upon qualifications. The successful candidate would be involved with the synthesis of a variety of new organic compounds labeled with cyclotron-produced, short-lived radionuclides. The applicants should have a strong background in organic synthesis from chromatographic techniques and spectroscopy. Extensive experience in enzyme kinetics is desirable. There will be considerable responsibility for growth with a challenge to produce first-rate creative work.

Interested candidates should forward curriculum vitae, bibliography, and two letters of recommendation by 30 June 1979 to: **Laboratory Personnel Officer, Laboratory of Nuclear Medicine and Radiation Biology, University of California, 900 Veteran Avenue, Los Angeles, California 90024.** An Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**POSTDOCTORAL POSITION IN NEUROPHARMACOLOGY** to study spinal neuronal mechanisms involved in the control of locomotion. An electrophysiological-pharmacological investigation of the influence of descending monoaminergic pathways on spinal motoneurons and interneurons. Experience with extracellular microelectrode recording techniques necessary; knowledge of microiontophoresis would be useful. Stipend: \$13,500. Position available 1 August. Send résumé and names of two referees to: **Dr. Ronald D. Huffman, Department of Pharmacology, University of Texas Medical School, 7703 Floyd Curl Drive, San Antonio, Texas 78484.** Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION** available immediately to study mechanism of action of antitumor and radiosensitizing agents. Strong background in biochemical pharmacology and tissue culture techniques preferred. Stipend: \$12,500 per annum. Send résumé with two references to: **Dr. K. C. Agrawal, Department of Pharmacology, Tulane University School of Medicine, New Orleans, La. 70112.** An Equal Opportunity Employer.

**POSTDOCTORAL RESEARCH**—Two positions available July 1979 for Ph.D.'s for neuronal recording in developing and adult mammalian CNS. Must have experience in single neuron recordings. Send curriculum vitae and names of referees to: **N. A. Buchwald, Director, Mental Retardation Research Center, University of California, Los Angeles, 760 Westwood Plaza, Los Angeles, Calif. 90024.** Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL RESEARCH ASSOCIATE** to join group working on biophysical analysis of insulin regulation of ( $\text{Na}^+ + \text{K}^+$ )-ATPase and role of ion transport in hormone action. Available immediately. Experience with either ion transport, ion-sensitive microelectrodes. ( $\text{Na}^+ + \text{K}^+$ )-ATPase studies or enzyme regulation desirable.

Laboratory is equipped not only for enzyme studies but ion transport and microelectrode studies as well. Our laboratory has its own 64k microcomputer with plotter. Library good in research journals of biochemistry/biophysics. Two other Ph.D. research associates on project. Send curriculum vitae and three letters of recommendation to: **Dr. Richard D. Moore, Professor of Biophysics, State University of New York, Plattsburgh, New York 12901.**

*An Equal Opportunity/Affirmative Action Employer*

### POSTDOCTORAL RESEARCH ASSOCIATE IN BIOCHEMISTRY

An active research group investigating several problems of biologic interest has an opening for an ambitious scientist with training in the physical and organic chemistry of proteins. The research will involve the modification and labeling of proteins to be used for the study of protein-protein and protein-cell interaction.

Salary will be competitive and dependent on training and experience. Send curriculum vitae and names of three references to: **Department of Biochemistry, Box 8 F, State University of New York/Downstate Medical Center, 450 Clarkson Avenue, Brooklyn, N.Y. 11203** or telephone **Dr. Richard Feinman at 212-270-2252.** Equal Opportunity/Affirmative Action Employer.

**RESEARCH ASSOCIATE.** Requires 2 years of postdoctoral training in muscle electrophysiology, experience with gap voltage clamp methods for cardiac and skeletal muscle, and advanced training in physics and applied mathematics. Familiarity with data taking and analysis by laboratory computer is desired; \$15,000 to \$18,000 per year. Send curriculum vitae and names of three references to: **Dr. M. F. Schneider, Department of Physiology, University of Rochester Medical Center, 601 Elmwood Avenue (Box 642), Rochester, N.Y. 14642.** An Equal Opportunity/Affirmative Action Employer.

### TECHNICAL ADMINISTRATOR, Ph.D. Immunologist and Micro Background

Must have 4 years of experience in immunology and 2 years of experience in histocompatibility. Also familiar with all laboratory testing, electronic data processing, customer relations, and work flow. Must be personable and have appropriate licenses for New York City, New York State, New Jersey, and CDC. Salary commensurate with experience. Please send résumé in confidence to:

**Box 156, SCIENCE**  
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## POSITIONS OPEN

Two **POSTDOCTORAL POSITIONS** are open in the Department of Nutrition and Food Science of the Massachusetts Institute of Technology (MIT). The research fields are (i) control of fatty acid and cholesterol synthesis in isolated organs and (ii) metabolism of toxics and carcinogens (activation, binding to DNA, mutagenicity) in isolated organs and cells. Applicants should be nonsmokers and U.S. citizens or permanent residents; surgical skills and experience in relevant methodology are required. Contact: **Dr. H. Brunengraber, MIT 56-229, Cambridge, Mass. 02139; telephone: 617-253-6783.**

### POSTDOCTORAL SCHOLAR PHYSIOLOGICAL ECOLOGY OF FORESTS

A postdoctoral research position to study successional forests as sinks for atmospheric carbon dioxide. Competency in plant physiological ecology and computers. Forest tree modeling and field measurements will be an important part of the project. Candidates should be willing to live at the Biological Station on Douglas Lake in northern Michigan after the first 7 months in Ann Arbor. Position open 1 September 1979 and available for 3 years. Salary starts at \$14,500 per year. Send curriculum vitae, statement of research interest, and three letters of recommendation to: **Dr. David M. Gates, Director, University of Michigan Biological Station, Ann Arbor, Michigan 48109.** A nondiscriminatory, Affirmative Action Employer.

The University of California, Irvine, College of Medicine, invites applications for **RADIOLOGISTS**. Board-eligibility in diagnostic radiology and eligibility for appointment at the assistant or associate professor level are required. Preference will be given to those individuals who are Board-certified or equivalent. Additional preference given to individuals with evidence of competence in pediatric, gastrointestinal, skeletal, or chest radiology and in angiography.

*Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Applications, which must include a short biography and copies of any publications, should be sent to:

**Harris S. Moyed, Ph.D.**  
**Acting Chair, Department of Radiological Sciences**  
**University of California, Irvine**  
**College of Medicine**  
**Irvine, California 92717**

Closing date: 31 August 1979.

### RADIOBIOLOGIST/BIPHYSICIST

The Department of Radiation Medicine at the Massachusetts General Hospital has an immediate opening for a radiobiologist/biophysicist to join a research program investigating the mechanisms through which oxygen and chemical radiosensitizing agents specific for hypoxic cells act in irradiated mammalian cells. A faculty appointment at Harvard University will also be available for a suitably qualified candidate. The position offers an excellent opportunity for career development in a new laboratory.

Submit curriculum vitae to:

**Dr. Edward R. Epp**  
**Department of Radiation Medicine**  
**Massachusetts General Hospital**  
**Boston, Massachusetts 02114**

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### SENIOR RESEARCH FELLOW

Three-year position available to participate in a research program on a neuroendocrine system in mollusks. Individual should have a Ph.D. in neurochemistry with additional experience in the following fields and techniques: electrophysiology including extracellular and intracellular recording in invertebrate nervous systems; cell culture; uptake, release, and characterization of transmitter substances including peptides; radioimmunoassays; and cyclic nucleotide pharmacology and metabolism.

At least 7 years of postdoctoral experience in neurobiology are required. Applicants should send their curriculum vitae, publications list, and names of at least three references to: **Michael Miranda, Administrator, Division of Biology, California Institute of Technology, Pasadena, Calif. 91125.** An Equal Opportunity Employer.

# TOXICOLOGIST

## San Francisco Bay Area

SYNTEX, a leading International Pharmaceutical/Life Sciences Company, has an immediate opportunity for an astute Toxicologist to join our Professional Staff.

You will be responsible for implementing and monitoring preclinical toxicity studies required for U.S. and ex-U.S. regulatory filings. In addition, you will function as a Team Member providing expertise to the Toxicology Dept. for specific classes of compounds.

Position requires a PhD (or equivalent in Toxicology or related areas) and 2-5 years experience conducting preclinical toxicity studies with pharmaceutical agents. You must be familiar with regulatory requirements, have good interpersonal communications and be willing to accept increasing responsibilities.

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# SYNTEX

The Swiss Federal Institute of Technology in Zurich has an opening for the

### Chair of Applied Microbiology

The new professor is responsible for teaching and research in biotechnology, especially in its application to biologically mediated processes in natural aquatic systems and continuous fermentations with mixed microbial biocenoses such as in water and waste treatment plants. It is desirable that the applicant be ready to act as a head of the department of biology of the Federal Institute for Water Resources and Water Pollution Control associated with the Swiss Federal Institute of Technology.

The successful applicant should have several years of relevant experience and proven ability to perform and direct research. He will be expected to teach, at both undergraduate and graduate levels, and to cooperate with various research groups.

Applications, with curriculum vitae and list of publications, should be sent by May 31, 1979, to Prof. H. Ursprung, President, Swiss Federal Institute of Technology, CH-8092 Zurich.

## PRESIDENT ASSOCIATED UNIVERSITIES, INC.

Associated Universities, Inc. (AUI), invites nominations and applications for the position as its president. AUI is a nonprofit corporation with headquarters in Washington, D.C., engaged in the management of scientific research, both basic and applied. Under a contract with the Department of Energy, AUI operates Brookhaven National Laboratory at Upton, New York, and under a contract with the National Science Foundation, AUI operates the National Radio Astronomy Observatory, with facilities in Green Bank, West Virginia, Charlottesville, Virginia, Tucson, Arizona, and Socorro, New Mexico.

The candidate should be a scientist of stature or an administrator who has a successful record of working with scientists and should have demonstrated ability in leadership and management. The candidate should have an awareness and concern for national needs in scientific research and a familiarity with federal agencies and national groups involved in the conduct and support of scientific research.

Applications or nominations are requested by 1 August 1979. Inquiries, nominations, or applications with résumés should be directed to the chairman of the Search Committee:

**LaRoy B. Thompson**  
Associated Universities, Inc.  
Suite 603

1717 Massachusetts Avenue, NW  
Washington, D.C. 20036

*AUI is an Equal Opportunity/Affirmative  
Action Employer*

## PHARMACOLOGIST TOXICOLOGIST (BIOCHEMIST)

The Toxicology Branch of the Carcinogenesis Testing Program, National Cancer Institute, National Institutes of Health, Public Health Service, is seeking to fill a permanent position (GS-13/14—\$27,087–\$40,009) with a person with extensive independent experience as a principal investigator in the area of kinetics and dynamics of toxic chemicals. Experience in experimental design and evaluation of biological data related to toxic/carcinogenic effects is essential. Experience providing a high degree of consulting service to provide leadership for senior scientific staff is required in this administrative (non-laboratory) position. Ph.D. or equivalent course work or experience in biochemistry, pharmacology/toxicology or related biological science.

Submit SF-171, CV and bibliography by June 22, 1979 to Ms. Yvonne M. DeWald, NCI Personnel Office, Building 31, Room 3A19, 9000 Rockville Pike, Bethesda, Maryland 20205. Equal Opportunity Employer.

## NATIONAL INSTITUTES OF HEALTH

### DIRECTOR, NEUROTOXICOLOGY DIVISION

The U.S. Environmental Protection Agency (EPA) is seeking a director, Neurotoxicology Division, Health Effects Research Laboratory, Research Triangle Park, N.C., Office of Health and Ecological Effects, Office of Research and Development. The director plans, directs, coordinates, supports, and evaluates a national neurotoxicology research and development program for EPA and the Food and Drug Administration to detect, define, and quantify the effects of environmental pollutants, food additives, and other chemical and physical aspects as they could relate to nervous system function in humans. The program includes intramural investigations and extramural agreements for research with other government agencies, universities, industry, and private research organizations, and staff support to Office of Research and Development programs.

Candidates must meet Federal Office of Personnel Management X-118 Qualification Requirements in either psychology, the general biological sciences, the general health sciences, veterinary medical science, or the general physical sciences. In addition to meeting the above requirements, the applicant's Standard Form 171 Personal Qualifications Statement (SF 171) must show training and experience to meet the mandatory factors listed below to be considered minimally qualified for the position. Unacceptable ratings in one or more of the mandatory factors will result in an ineligible rating and no further consideration. Mandatory factors include: an advanced degree (Ph.D. or equivalent experience) in neurotoxicology or a related discipline and the scientific evaluation of the effects on the central nervous system of environmental pollutants, food additives, and other chemical and physical agents; experience in one or more of the following areas: toxicity testing; methodology evaluation and development; health effects evaluation including epidemiological, clinical studies, and determination of the mechanisms of neurotoxicity; and demonstrated ability to supervise a research staff of scientific professionals and nontechnical personnel in one or more of the following: psychology, biology, pharmacology, neurophysiology, neuroanatomy, neuropathology, neurochemistry, or neuroendocrinology. In evaluating this factor, knowledge of and demonstrated ability to implement *Equal Opportunity* goals and objectives will be considered.

Location: Research Triangle Park, N.C.

Salary range: \$44,756 to \$47,500, plus civil service benefits.

Telephone inquiries: Ms. Edna Morse at 202-755-2625. Application submissions—please submit a completed SF-171, available at Federal Job Information Centers and federal agency personnel offices, to reach EPA no later than 30 June 1979, to: Ms. Edna Morse, Environmental Protection Agency, 401 M Street, SW, Mail Code PM-212, Washington, D.C. 20460.

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## POSITIONS OPEN

**POSTDOCTORAL RESEARCH POSITION** available for studies on the control of human hemoglobin synthesis. Ph.D. in biochemistry with experience in nucleic acid chemistry, molecular hybridization, and restriction endonuclease mapping desirable. Send curriculum vitae with names of three references to: **Dr. R. F. Rieder, Department of Medicine, State University of New York/Downstate Medical Center, 450 Clarkson Avenue, Brooklyn, N.Y. 11203.** An Equal Opportunity/Affirmative Action Employer.

### PROGRAM MANAGER (\$32,442 to \$47,500) NATIONAL SCIENCE FOUNDATION

The Division of Polar Programs is seeking a qualified person who is interested in a permanent or 2-year rotational assignment at the National Science Foundation as program manager for Polar Ocean Sciences. The program manager will develop long-range and annual plans for polar ocean sciences (oceanography, marine geology, and geophysics), evaluate proposals received from research institutions, recommend award of funds for research projects, visit program activities in the Arctic and Antarctic to assist in program management, and so forth. Coordinate with other government agencies involved with polar ocean science and interact with national and international scientific organizations. This position is excepted from the competitive civil service. Salary is negotiable based on qualifications and experience. Health, life insurance, and leave benefits are available. A physical examination and medical screening is required. Applicants should have a Ph.D. or its equivalent in oceanography or a related physical science, or equivalent experience plus 3 years of specialized experience in an ocean science. Experience in management and field operation of an academic institution ocean science program is desirable.

**HOW TO APPLY**—Submit letters of interest with SF-171 or current résumé to: **National Science Foundation, DPM, Executive and Managerial Personnel Branch, EMPB 79-9, 1800 G Street, NW, Washington, D.C. 20550.** For further information, telephone **Catherine Hobek at 202-632-4124.** Deadline for submission: **15 June 1979.**

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### RESEARCH ASSOCIATE

Children's Hospital Medical Center is seeking a qualified research associate to assume a research career with future possibility of faculty appointment.

If you possess a master's or doctorate in chemistry or biochemistry or equivalent with experience in postgraduate research work, we invite your inquiry.

Must be familiar with structure and expression of eukaryotic genes, enzyme methodology, radioimmunoassay, and various methods of chromatography.

We are one of the nation's top-rated pediatric health care facilities with university affiliation offering a competitive salary and benefit package.

If qualified, please submit curriculum vitae and bibliography to:

**George Hug, M.D.  
Children's Hospital Medical Center  
Burnet and Elland Avenues  
Cincinnati, Ohio 45229**

**RESEARCH ASSOCIATE.** Ph.D. or equivalent. Broad background in biochemistry, animal physiology, and modern analytical methodology. Strong interest in xenobiotic metabolism and histopathology; developmental biochemistry. Full-time renewable annual appointment. Submit complete curriculum vitae and at least three letters of reference before 31 July 1979 to: **Dr. Edward J. Massaro, Director, Center for Air Environment Studies, The Pennsylvania State University, 226 Fenske Laboratory, Box A, University Park, Pa. 16802.** Equal Opportunity/Affirmative Action Employer.

## TRAVEL GRANTS

### \$ FOR NATURAL SCIENTISTS \$ \$ FOR SOCIAL SCIENTISTS \$

Faculty members in colleges in Florida, Kentucky, Louisiana, and Tennessee may apply for supplemental small-grant assistance (average \$500) for travel to use facilities and equipment not available locally and needed in research. Write: **Small Grants Program, Southern Regional Education Board, 130 Sixth Street, NW, Atlanta, Georgia 30313.**

## PERIODICAL SEARCH

**Wanted for Science's archives.** Original issues of 1880-1882 *Science* (subtitled "A Weekly Record of Scientific Progress"). The first issue was dated 3 July 1880; the last was dated 4 March 1882. We want to assemble a full set of the 82 published issues of this early journal, the forerunner of the present *Science*. If you have any issues of the 1880-1882 *Science* that you would be willing to part with, please write: **Janet Kegg, Library, American Association for the Advancement of Science, 1515 Massachusetts Avenue, NW, Washington, D.C. 20005, or telephone 202-467-4428.**

## COURSE

### SCANNING ELECTRON MICROSCOPY INSTRUCTIONAL SEMINARS 11 to 15 June and 20 to 24 August

This course is designed to provide an introduction to **SCANNING ELECTRON MICROSCOPY.** Topics to be covered include: coating techniques, critical-point drying, x-ray fluorescence, vacuum techniques, photography, and maintenance. Contact: **B. L. Gabriel, Electron Microscopy Laboratory, Department of Physics, Elmhurst College, 190 Prospect, Elmhurst, Ill. 60126, or telephone 312-279-4100, extension 413.**

## TRAINING PROGRAMS

### RADIATION PROTECTION 23 JULY TO 3 AUGUST 1979 GEORGIA INSTITUTE OF TECHNOLOGY ATLANTA, GEORGIA

Special 10-day short course for those in industry, government (all levels), and academic institutions who need basic health physics training. Completion of this course satisfies most radionuclide-use requirements of federal and state regulatory agencies. Emphasis is on radiation protection, interaction of radiation with matter, measurement of radionuclides, biological effects, personnel monitoring, operation of field and laboratory instruments, public health and environmental considerations, standards, and rules and regulations. Tuition is \$650. Inquiries for additional information: **Dr. M. W. Carter, Office of Interdisciplinary Programs, Georgia Institute of Technology, Atlanta, Georgia 30332; telephone: 404-894-2375.**

**TOXICOLOGY: PRE- AND POSTDOCTORAL STIPENDS.** North Carolina State University provides graduate training programs, cooperative with other Research Triangle institutions and agencies. In addition to formal coursework, research opportunities include mechanisms of cytochrome P-450-dependent mixed-function oxidation, purification and kinetic properties of enzymes, absorption and distribution of toxicants, genetic effects of toxicants, and behavioral toxicology.

A background in biology, chemistry, and mathematics is required for admission to the degree programs (M.S. and Ph.D. in toxicology). Address inquiries to: **F. E. Guthrie, North Carolina State University, P.O. Box 5215, Raleigh, N.C. 27650.**

## GRADUATE STUDY

### GRADUATE STUDIES IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

Qualified students are invited to apply for graduate study leading to M.S. or Ph.D. degrees in a research-oriented department located in a large state-supported university. Areas of specialization include enzymology, lipids, nucleic acids, molecular evolution, and developmental biochemistry; departmental fellowships, research assistantships, and teaching assistantships are available for qualified applicants. Stipends up to \$5200 per year. For application forms and further information write to:

**Director of Graduate Studies  
Department of Biophysical Sciences  
University of Houston  
Houston, Texas 77004**

## FELLOWSHIPS

### PREDOCTORAL AND POSTDOCTORAL TRAINING IN BASIC NEUROSCIENCES

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

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

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**POSTDOCTORAL FELLOWSHIP** for qualified M.D.'s or Ph.D.'s, available immediately, for research in skeletal and connective tissue morphology and ultrastructural pathology. Background in electron microscopy desired. Send inquiries and curriculum vitae, including names and addresses of three referees, to: **Dr. David Rimoin, Division of Medical Genetics, Harbor-University of California, Los Angeles, Medical Center, 1000 West Carson, Torrance, Calif. 90509.**

**POSTDOCTORAL FELLOWSHIP.** USDA grant-funded fellowship available summer 1979 for 2 years. Strong background in microbial taxonomy preferred. Experience desirable in light microscopy, gas liquid chromatography, serology, and growth of plants. This project involves the isolation, cultivation in vitro and taxonomic characterization of nitrogen-fixing *Frankia* endophytes from actinomycete-nodulated plants. Send curriculum vitae and three references to: **Dr. Maurice Lalonde, Charles F. Kettering Research Laboratory, Yellow Springs, Ohio 45387.** An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL FELLOWSHIPS—MEMBRANE PATHOBIOLOGY.** An interdisciplinary group of investigators (members of the Departments of Biochemistry, Biology, Chemistry, Medicine, Pathology, Pediatrics, and Structural Biology) announces an NIH-funded research training program in membrane pathobiology for individuals with either **clinical or research backgrounds.** Training is in basic research in membrane biology as it relates to the pathological basis of a variety of disease states. Request applications from: **Membrane Pathobiology Program, Department of Pediatrics, Stanford University School of Medicine, Stanford, California 94305.** Stanford University, an Equal Opportunity Employer, welcomes applications from women and minority group members.

**Ph.D. FELLOW:** physiologist, primarily pulmonary or cardiac background. One year, beginning 1 July 1979; option to renew. Research into mechanisms in physiology of acute lung injury following hemorrhagic and septic shock. Appointee may become director of laboratory, do independent research, assist in teaching students and clinical medicine and surgery residents rotating through laboratory. Stipend: \$12,500. University benefits. Some travel allowance. Send curriculum vitae and names of three references to: **B. D. Lowery, M.D., Ph.D., Department of Surgery, Ohio State University, 410 West 10th Avenue, Columbus, Ohio 43210.** An Equal Opportunity/Affirmative Action Employer.

## MARKET PLACE

### FUNDAMENTAL FIELDS AND PARTICLES

Seeking appropriate affiliation for validation and exploitation of comprehensive theoretical models compatible with available data relating to the structure, function, and unification of all fields that generate particles including all quarks, electrons, and heavy leptons. Mesons II, KD and baryon structures defined leading to differentials of all nucleons and light atomic nuclei.

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# The Polytechnic/Wunsch Prize

A Cash Award of \$15,000 to Recognize Excellence  
in the Field of Biomedical Engineering

Polytechnic Institute of New York is pleased to announce the establishment of the Polytechnic/Wunsch Prize, an award designed to honor individuals who have made "a major contribution of biomedical engineering to human health."

The Prize consists of a \$15,000 cash award, to be presented for the first time in the spring of 1980. Nominations will be accepted until November 1, 1979.

The Polytechnic/Wunsch Prize has been made possible by the generosity of Dr. Joseph W. Wunsch, a distinguished Polytechnic alumnus of the Class of 1917, and President of Silent Hoist & Crane Company. It is administered by a Prize Committee which will use the following criteria in selecting the award-winning work:

- (1) The work must have had a wide and significant impact that is generally recognized.
- (2) The work represents the use of engineering methodology to solve a medical problem.

The Prize Committee invites nominations for the award from individuals in the engineering and medical communities both in the United States and abroad.

For nominations form, please write to:

Polytechnic/Wunsch Prize Committee  
Polytechnic Institute of New York  
333 Jay Street  
Brooklyn, New York 11201

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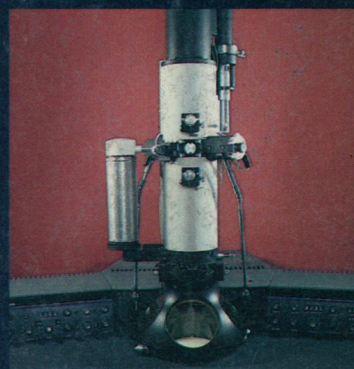
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