

BOOKS RECEIVED

(Continued from page 882)

Laryngeal Biomechanics. B. Raymond Find and Robert J. Demarest. Harvard University Press, Cambridge, Mass., 1978. x, 134 pp., illus. \$30. A Commonwealth Fund Book.

Learning Strategies. Harold F. O'Neil, Jr., Ed. Academic Press, New York, 1978. xiv, 230 pp., illus. \$15. The Educational Technology Series.

Liquids and Their Properties. A Molecular and Macroscopic Treatise with Applications. H. N. V. Temperly and D. H. Trevena. Horwood, Chichester, England, and Halsted (Wiley), New York, 1978. 274 pp., illus. \$37.50. Mathematics and Its Applications.

The Mammoth—in Ice and Snow? Cold-Adaptation of Woolly Mammoth: Fact or Fiction? Hans Krause. Published by the author, Kameralamtsstrasse 22, Stuttgart, 1978. 108 pp., illus. Paper, \$8.80.

Manual of Standardized Methods for Veterinary Microbiology. George E. Cottral, Ed. Comstock (Cornell University Press), Ithaca, N.Y., 1978. 732 pp., illus. \$35.

Membrane Cell Regulation. Papers from a meeting, Roscoff, France, Nov. 1977. Pierre Guerrier and Marc Moreau, Eds. Société Française de Microscopie Electronique, Paris, 1978. iv, 176 pp., illus. Paper, 80 F. *Biologie Cellulaire*, vol. 32, 1.

Metal Ions in Biological Systems. Vol. 7, Iron in Model and Natural Compounds. Helmut Sigel, Ed. Dekker, New York, 1978. xx, 418 pp., illus. \$39.50.

Microbe Power. Tomorrow's Revolution. Brian J. Ford. Illustrated by the author. Stein and Day, New York, 1978. x, 182 pp. Paper, \$4.95. A Scarborough Book. Reprint of the 1976 edition.

Modeling of Complex Systems. An Introduction. V. Vemuri. Academic Press, New York, 1978. xvi, 448 pp., illus. \$19.50. Operations Research and Industrial Engineering.

Mössbauer Effect Data Index. Covering the 1976 Literature. John G. Stevens and Virginia E. Stevens, Eds. IFI/Plenum, New York, 1978. x, 358 pp., illus. \$95.

The Multimedia Library. Materials Selection and Use. James Cabeceiras. Academic Press, New York, 1978. xvi, 276 pp. \$13. Library and Information Science.

Myelination and Demyelination. Proceedings of a symposium, Helsinki, Aug. 1977. Jorma Palo, Ed. Plenum, New York, 1978. xii, 652 pp., illus. \$49.50. Advances in Experimental Medicine and Biology, vol. 100.

Natural Products and the Protection of Plants. Proceedings of a study week, The Vatican, Oct. 1976. G. B. Marini-Bettolo, Ed. Elsevier, New York, 1977. xxxii, 846 pp., illus. \$112.25. Pontificiae Academiae Scientiarum Scripta Varia, 41.

Neither Feast nor Famine. Food Conditions to the Year 2000. Selwyn Enzer, Richard Drobnick, and Steven Alter. Lexington (Heath), Lexington, Mass., 1978. xx, 188 pp., illus. \$14.

Proceedings of the Fourth International Conference on the Mycoses. The Black and White Yeasts. Brasilia, June 1977. Pan American Health Organization, Washington, D.C., 1978. x, 334 pp., illus. Paper, \$10. Scientific Publication No. 356.

Progress in Experimental Personality Research. Vol. 8. Brendan A. Maher, Ed. Academic Press, New York, 1978. xvi, 344 pp. \$23.

Progress without Poverty. Socially Respon-

sible Economic Growth. Peter S. Albin. Basic, New York, 1978. x, 230 pp. \$13.95.

The Spectrum in Chemistry. J. E. Crooks. Academic Press, New York, 1978. x, 314 pp., illus. Paper, \$13.50.

Structure and Fabric. Jack Stroud Foster. Batsford, London, 1978 (U.S. distributor, Halsted [Wiley], New York). Two parts. Part 1. 264 pp., illus. Paper, \$9.95. Part 2. 436 pp., illus. Paper, \$10.95. Mitchell's Building Construction.

Structure in Nature Is a Strategy for Design. Peter Pearce. MIT Press, Cambridge, Mass., 1978. xviii, 246 pp., illus. \$45.

Studies in Mathematical Biology. S. A. Levin, Ed. Mathematical Association of America, Washington, D.C., 1978. Two volumes. Part 1, Cellular Behavior and the Development of Pattern. xiv, 316 pp., illus. + index. \$16. Part 2, Populations and Communities. xx + pp. 316-624, illus. + index. \$16. The set, \$27. MAA Studies in Mathematics, vols. 15 and 16.

Technology Assessment of the Gas Turbine-High-Temperature Gas-Cooled (Helium) Reactor. Prepared by NUS Corporation. Electric Power Research Institute, Palo Alto, Calif., 1978. xiv, 252 pp., illus. Paper, \$8.75. EPRI NP-805.

Technology, Change and Society. Edward C. Pytlík, Donald P. Lauda, and David L. Johnson. Davis Publications, Worcester, Mass., 1978. xvi, 288 pp., illus. \$12.95.

Textile Sculptures. Irene Waller. Taplinger, New York, 1978. 160 pp., illus. \$17.50.

Theory and Method in Urban and Regional Analysis. Papers from a conference, London, Sept. 1976. P. W. Batey, Ed. Pion, London, 1978 (U.S. distributor, Academic Press, New York). viii, 184 pp. Paper, \$10. London Papers in Regional Science 8.

Thinking Metric. Thomas F. Gilbert and Marilyn B. Gilbert. Wiley, New York, ed. 2, 1978. xvi, 142 pp., illus. Paper, \$3.95.

Transition States in Biochemical Processes. Richard D. Gandour and Richard L. Schowen, Eds. Plenum, New York, 1978. xx, 616 pp., illus. \$49.50.

Vestibular Mechanisms in Health and Disease. Papers from a meeting, London, Sept. 1977. J. D. Hood, Ed. Academic Press, New York, 1978. xx, 378 pp., illus. \$28.50.

Workbook in Pediatric Echocardiography. Hugh D. Allen, Stanley J. Goldberg, and David J. Sahn. Year Book Medical Publishers, Chicago, 1978. viii, 284 pp., illus. Paper, \$17.95.

A Workshop on Personal Health and Well Being. Sydney, Australia, 1976. D. Garlick, Ed. University of New South Wales Postgraduate Committee in Medical Education, Kensington, Australia, 1978. iv, 266 pp., illus. Paper, \$5.80.

Workshop Proceedings: Environmental and Social Impacts of an Electricity Shortage. Asilomar, Pacific Grove, Calif., Sept. 1977. Prepared by Sigma Research. Electric Power Research Institute, Palo Alto, Calif., 1978. Variously paged, illus. Paper, \$5.25. EPRI EA-796-SR.

X-Ray Photoelectron Spectroscopy. Thomas A. Carlson, Ed. Dowden, Hutchinson and Ross, Stroudsburg, Pa., 1978 (distributor, Academic Press, New York). xvi, 344 pp., illus. \$31. Benchmark Papers in Physical Chemistry and Chemical Physics, vol. 2.

Your Medicine Chest. A Consumer's Guide to Prescription and Non-Prescription Drugs. Wayne O. Evans and Jonathan O. Cole. Little, Brown, Boston, 1978. x, 340 pp. Paper, \$5.95.

Personnel Placement

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POSITIONS WANTED

Aquatic Biologist, M.S. degree. Eight years of experience in algal research, water biology, pollution. Desires research position or college teaching in Baltimore-Annapolis area. Box 72, SCIENCE. X

Biochemist/Systems Analyst. Ph.D. (biochemistry), M.S. (electrical engineering), available for mathematical modeling and analysis of biochemical, physiological, or pharmacological systems. Full-time, part-time, or consulting basis. Will translate data into model, check hypotheses, and suggest experiments. Expertise in mathematics, large-scale computation, multivariable optimization, and biochemistry. Has programs. Interdisciplinary publications. References. Box 57, SCIENCE. 3/2, 9

Biochemist/Physician, M.D., Ph.D. Postdoctoral research experience in DNA structure and function, postgraduate training in internal medicine. Several quality publications. Interested in a permanent independent research position with or without teaching. Box 63, SCIENCE. X

Biochemist, Ph.D. 1964, graduating from law school. Publications on RNA, enzymes. Excellent scientific and legal academic qualifications. Seeks position in research administration. Box 73, SCIENCE. 3/2, 9

Inhalation Toxicologist. Ph.D. physiology plus postdoctoral. Five years of experience in contract laboratory. Seeks industrial or government research position. Box 74, SCIENCE. X

Parasitologist/Protozoologist. Ph.D. 1971. Strong zoological background with teaching and research experience. Seeks academic, government, or industrial position, preferably in northwestern United States. Box 75, SCIENCE. X

Physical Oceanographer: Ph.D. and experience. Has worked and published in meteorology, air-sea interaction, descriptive physical oceanography, and biology. Extensive computer experience. Desires position involving interdisciplinary research and teaching. Box 76, SCIENCE. 3/2, 9

POSITIONS WANTED

Reproductive Endocrinologist. D.V.M., Ph.D. (1976). Experience in RIA and RRA of steroid hormones, in vitro steroid biosynthesis, tissue culture. Publications. Research or teaching position. Box 77, SCIENCE. X

Wildlife Ecologist/Land-Use Planner. Ph.D. Graduate and undergraduate teaching; research and planning experience; publications. Specialties: population dynamics modeling, population/community ecology, natural areas planning, endangered species management. Seeking research/teaching/planning position with university, public/private land/wildlife management agency, or consulting firm. Contact: M. L. Shaffer, RD #1, Mahaffey, Pa. 15757. X

POSITIONS OPEN

ANALYTICAL BIOCHEMIST, postdoctoral fellow with expertise in HPLC, GC, and GCMS to join a group in psychopharmacology and biological psychiatry and to supervise two technicians at the Mt. Sinai School of Medicine, Departments of Pharmacology and Psychiatry, N.Y., N.Y. Write to: **Kenneth L. Davis, M.D., VA Medical Center (4C2), 3801 Miranda Avenue, Palo Alto, California 94304.**

ANATOMIST

There is an opening for an anatomist at the West Virginia School of Osteopathic Medicine (WVSOM) beginning 1 July 1979. Principle responsibilities will be in histology and neuroanatomy but applicant should be competent in gross anatomy as well. Rank and salary will depend upon qualifications. An additional 1-year position in gross anatomy is available to fill in for a person on leave of absence.

WVSOM is a fully accredited medical school in the state's system of higher education; it will graduate its second class in June 1979. There are 60 students in each entering class. A systems approach is used, beginning with the second semester of the freshman year; gross anatomy, however, is taught in the traditional manner throughout the first year.

Emphasis at WVSOM is placed upon excellence in teaching. Research is encouraged and small institutional start-up grants are available but promotions and advancement are based upon academic performance.

Letters of application, curriculum vitae, and the names of three references should be sent to:

Frances H. Higginbotham, Ph.D.
Professor and Chairman
Department of Anatomy
West Virginia School of Osteopathic Medicine
400 North Lee Street
Lewisburg, West Virginia 24901

ASSISTANT PROFESSOR OF MICROBIOLOGY. The West Virginia School of Osteopathic Medicine is seeking a Ph.D. in microbiology. The candidate must have excellence as a virology teacher and the ability to teach general medical microbiology courses. Research facilities are available and research is encouraged. Send curriculum vitae with three letters of recommendation to: **Dr. Bernard Bronczyk, Acting Chairman, Department of Microbiology, West Virginia School of Osteopathic Medicine, 400 North Lee Street, Lewisburg, West Virginia 24901.**

CORNELL UNIVERSITY ASSISTANT PROFESSOR DEPARTMENT OF MICROBIOLOGY

Applicants are invited for the position of assistant professor, in the Department of Microbiology, College of Agriculture and Life Sciences. The appointee should possess a strong background in microbiology and be able to teach general microbiology at the undergraduate level. There is the possibility of the development of an advanced course in the candidate's area of specialization. The appointee will also be expected to undertake a vigorous research program and to contribute to advanced undergraduate and graduate training in microbiology.

Inquiries are invited from all qualified applicants. Applicants should possess the Ph.D. in microbiology or related area, have postdoctoral research experience, and have demonstrated research ability. *Women and minority candidates are encouraged to apply.* Curriculum vitae and letters of reference from at least three persons should be sent to: **Dr. R. P. Mortlock, Search Committee, Department of Microbiology, Stocking Hall, Cornell University, Ithaca, New York 14853, by 15 April 1979.**

Cornell University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR OF PATHOLOGY available in the Department of Pathology of The George Washington University Medical Center, Washington, D.C. Full-time faculty position available for individual with training and experience in academic pathology with expertise in hematopathology. Candidate should be M.D. with Board-certification or -eligibility. Teaching responsibilities involve medical students and residents. Inquiries, curriculum vitae, and bibliographies should be sent to: **Dr. H. Sidransky, Chairman, Department of Pathology, The George Washington University Medical Center, 2300 Eye Street, NW, Washington, D.C. 20037. An Equal Opportunity Employer.**

ASSISTANT PROFESSOR, PHARMACOLOGY

The Illinois College of Podiatric Medicine (ICPM) seeks Ph.D. (or June 1979 degree completion) with a strong commitment to teaching basic medical pharmacology and to coordinate clinical course input from podiatric physicians. The applicant should also develop research and clinical affiliations in an interdisciplinary setting with the availability of the ICPM podiatric clinic and with affiliated hospitals in the Chicago area. Position available 1 July 1979. Salary competitive with medical schools. Send curriculum vitae, bibliography, and three letters of recommendation to: **Willis H. Riesen, Ph.D., Vice President of Academic Affairs, Illinois College of Podiatric Medicine, 1001 North Dearborn Street, Chicago, Illinois 60610.**

ICPM is an Equal Opportunity/Affirmative Action Employer.

Applications are invited for the position of **ASSISTANT PROFESSOR** beginning 1979-1980 in the Department of Physics, Barnard College, Columbia University. Applicants should have a strong background in experimental physics with interest/experience in the history of physical science. The appointee will be expected to teach in and participate in the development of the Barnard-Columbia History of Physics Laboratory, and to pursue their own scholarly research interests in physics or the history of science. Instruction is mainly at undergraduate level and may involve both nonscience students and science majors. Applicants should send résumé, with the names of two referees, to: **Professor Samuel Devons, Department of Physics, Barnard College, 606 West 120th Street, New York, N.Y. 10027, if possible by 31 March 1979.**

ASSISTANT/ASSOCIATE PROFESSOR OF PHYSIOLOGY. Candidates should have a strong background in cell biology/biochemistry and have demonstrated their ability to carry on independent investigation. The applicant will be expected to supervise the Multidiscipline Teaching Laboratories as a portion of their responsibilities. Applications should include curriculum vitae, short summary of research goals, and names of three professional persons acquainted with their work. Send applications for receipt by 31 March to: **Dr. Howard E. Morgan, Professor and Chairman, Department of Physiology, College of Medicine, The Pennsylvania State University, Hershey, Pa. 17033. An Affirmative Action/Equal Opportunity Employer.**

ASSOCIATE DEAN FOR SCIENTIFIC AFFAIRS

The School of Medicine, University of Washington, seeks a scientist/administrator to manage its research programs. Responsibilities include space management, administration of central resources and multidisciplinary programs, and institutional planning. Record of academic achievement experience in management of research programs, knowledge of granting agencies required. Address inquiries to: **Dean, School of Medicine SC-64, University of Washington, Seattle, Wash. 98195. The University of Washington is an Affirmative Action/Equal Opportunity Employer.**

BIOCHEMIST—Tenure-track position available beginning September 1979. Initial 2-year appointment at assistant professor level in Chemistry Department. Ph.D. required to teach two courses with laboratories each semester. Major responsibility to teach undergraduate biochemistry and guide development of program, plus sharing in responsibilities in introductory course or teaching advanced courses consistent with training and experience. Opportunities for research, particularly in conjunction with departmental Honors Program.

Send résumé and transcripts, and have three letters of recommendation sent to: **J. M. Pappenhagen, Department of Chemistry, Kenyon College, Gambier, Ohio 43022. An Equal Opportunity Employer.** Deadline for completed application is 30 March.

POSITIONS OPEN

BEHAVIORAL TOXICOLOGY RESEARCH

Research position available in field of behavioral toxicology at the Toxic Hazards Research Unit, Wright-Patterson Air Force Base, Dayton, Ohio. This position will have an adjunct professorship of appropriate rank in the University of California, Irvine. Collaborative research conducting studies in animals exposed to airborne materials of environmental/occupational interest. Requires Ph.D. in behavioral sciences or related field and 2 years of postdoctoral research. Experienced in behavioral measurements in laboratory animals. Preference given applicants experienced in inhalation toxicology and published independent work. Closing date for applications is 1 August. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Submit complete curriculum vitae and names of at least three references to: **Dr. J. D. MacEwen, University of California, Irvine, Toxic Hazards Research Unit, Overlook Branch, P.O. Box 3067, Dayton, Ohio 45431.**

BIOCHEMIST—MOLECULAR BIOLOGY AND GENETICS OF CONNECTIVE TISSUE—One-year appointment (may be renewable) beginning 1 July 1979 or later, for an **ADJUNCT ASSISTANT PROFESSOR.** Challenging opportunity to work with energetic team of biochemists to do research on genes for collagen and genetic diseases of collagen with cDNA and other techniques and assist teaching biochemistry. Successful candidate must possess a Ph.D. in biochemistry; experience must include 2 to 4 years of work in appropriate areas of molecular biology. Salary range: \$23,855 to \$26,969 depending on background and experience. Please send curriculum vitae, including summary of pertinent experience and names of three individuals who may be contacted for references, to: **Department of Biochemistry, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY, Rutgers Medical School, P.O. Box 101, Piscataway, N.J. 08854. Equal Opportunity/Affirmative Action Employer, M/F.**

BIOCHEMISTRY—FACULTY OPENING. (Search reopened.) Downstate Medical Center has temporary position (3 to 4 years) for neurochemist. Position available at assistant or associate professor level commensurate with experience. Send résumé and names of three references to: **Dr. A. Stracher, Chairman, State University of New York, Downstate Medical Center, 450 Clarkson Avenue, Brooklyn, N.Y. 11203. Equal Opportunity/Affirmative Action Employer.**

BIOLOGY. Instructor or assistant professor, liberal arts college. September 1979. Ph.D. required or expected within the year. Competency in genetics, biochemistry, participation in related cell biology and introductory courses, and direct undergraduate research. Send curriculum vitae to: **Dr. A. E. H. Gummer, Chairman, Biology Department, MORAVIAN COLLEGE, Bethlehem, Pa. 18018. An Equal Opportunity Employer.**

CARDIOVASCULAR PHYSIOLOGIST

An opening currently exists for a postdoctoral research associate to participate in research in cardiovascular physiology. Emphasis is on control of peripheral circulation, particularly mechanisms of mesenteric vasodilation. We have an interdisciplinary group offering unique training in cardiovascular physiology coupled to radiologic and radionuclide imaging procedures. Applicants possessing the Ph.D. or M.D. degree should send their curriculum vitae and names of three references to:

Dr. John Fara
Radiology Research Laboratories
Department of Radiology and Radiological Science
The Johns Hopkins Hospital
Baltimore, Maryland 21205

Johns Hopkins is an Equal Opportunity Employer.

CHAIRPERSON, Department of Physics and Astronomy, Southern Illinois University-Carbondale (SIU-C). Position available 15 August 1979. SIU-C is a comprehensive university with 22,000 students. The department, with a faculty of 13, offers B.S. and M.S. degrees and participates in a Ph.D. program in molecular science. A chairperson who can provide leadership in academic and research programs is being sought. Candidates should have a successful record in external funding. Three reference letters and an application, including a detailed résumé, should be sent to: **Dr. Subir Bose, Department of Physics, SIU-C, Carbondale, Ill. 62901 by 12 April 1979. SIU-C is an Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

BOTANY-GENETICS. The Department of Botany and Bacteriology at Ohio Wesleyan University invites applications for a tenure-track position in botany-genetics. The appointment will be at the assistant professor rank, beginning in September 1979. Ph.D. required. Teaching duties will include courses in general botany, genetics, and an advanced course in a specialty area (preferably genetics). The candidate chosen will be expected to maintain an active research program and to demonstrate effective teaching of undergraduates. Curriculum vitae, transcripts, and three letters of recommendation should be sent by 1 April 1979 to: **Professor A. A. Ichida, Chairman, Department of Botany and Bacteriology, Ohio Wesleyan University, Delaware, Ohio 43015.** An Equal Opportunity/Affirmative Action Employer.

CHAIRPERSON—Applications or nominations are sought for the position of chairperson of the Department of Veterinary Physiology and Pharmacology, Iowa State University. Available 1 July 1979. Qualifications include the D.V.M. and/or Ph.D. degrees, academic leadership potential, and demonstrated excellence in teaching and research. Send applications, including curriculum vitae and bibliography, by 1 April 1979 to: **Dr. F. Ahrens, Search Committee Chairman, Department of Veterinary Physiology and Pharmacology, Iowa State University, Ames, Iowa 50011.** An Affirmative Action/Equal Opportunity Employer.

CHIEF OF NEUROLOGY

Good Samaritan Hospital and Medical Center, a 539-bed teaching hospital and medical center, located in Portland, Oregon, and serving patients in the Pacific Northwest, is accepting applications for the position of chief of neurology.

Responsibilities include: serving as head of the department; administering graduate medical education program which is affiliated with the University of Oregon Health Sciences Center; conducting programs of postgraduate medical education; participating in basic as well as clinical research projects with the Neurological Sciences Institute of Good Samaritan Hospital and Medical Center.

Qualifications: Board-certification in neurology; qualifications for an academic appointment at the University of Oregon Health Sciences Center; ability to work effectively with clinicians, educators, scientists, hospital executives, and community leaders.

Candidates should submit curriculum vitae, in confidence, to: **Chairman, Neurology Search Committee, c/o Medical Staff Affairs Office, Good Samaritan Hospital and Medical Center, 1015 NW 22nd Avenue, Portland, Oregon 97210.**

An Equal Opportunity Employer

M.R.C. CLINICAL RESEARCH CENTRE (Northwick Park Hospital) Watford Road, Harrow Middlesex HA1 3UJ England

The Division of Anaesthesia requires a **CLINICAL SCIENTIST** to study high pressure neurological syndrome. The appointee will collaborate in high pressure experiments on primates in a new pressure chamber facility.

Knowledge of high pressure engineering an asset with experience in one of the following disciplines: physiology, neurophysiology, pharmacology, and undersea medicine.

The appointment is for 3 years only and the salary within the range £3975 to £6591 plus L.A. Application form and further details from: **Mrs. J. Tucker-Bull**, quoting reference 101/1/4281.

DEPARTMENT OF PHARMACOLOGY AND THERAPEUTICS UNIVERSITY OF FLORIDA COLLEGE OF MEDICINE

Applications are invited for positions on the faculty. Applicants must have an M.D. or Ph.D. degree. Preference will be given to persons with proven research ability. Rank, including that of full professor, will be commensurate with applicant's stature.

The department has teaching and research affiliations with the clinical departments of the College of Medicine, the Clinical Research Center, the Colleges of Dentistry, Pharmacy, and Veterinary Science, and with the Whitney Marine Research Laboratory.

Applications should be sent to: **Dr. A. H. Neims, Chairman, Department of Pharmacology and Therapeutics, Box J-267 JHMC, University of Florida, Gainesville, Florida 32610**, by no later than 30 April 1979. We are an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

DIRECTOR FOR CENTER ON THE INTERACTIONS OF ANIMALS AND SOCIETY School of Veterinary Medicine University of Pennsylvania

This center, concerned with social, cultural, behavioral, and medical aspects of the interdependence of animals and human beings, seeks a director immediately. The position carries senior academic rank, with commensurate salary. Requires doctorate degree, academic experience and/or field experience in societal problems associated with animals such as dog bites, stray animals, and cruelty to animals. Executive experience with governmental agencies and private organizations concerned with animal management and animal welfare desirable. Interested candidates please write to: **Robert R. Marshak, Dean, School of Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, Pa. 19104.**

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

DIRECTOR CENTER FOR EDUCATIONAL DEVELOPMENT UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER

The director for the Center for Educational Development is responsible for a staff of approximately 100 academic and technical personnel who provide the seven component schools and colleges at the Medical Center Campus with professional counsel in the development of instructional and evaluation materials, assistance in the refinement of faculty teaching skills, and such technical services as instructional television, photography, and computer-aided instruction. In addition, the center offers academic programs leading to a master's degree in health professions education and short-term training programs for national and international groups. The academic staff conducts a vigorous program of health professions educational research.

The director must have a doctoral degree, extensive experience in health professions education, a record of personal recognition in the field, and evidence of substantial administrative skill.

Preferred date of appointment is 1 September 1979. Nominations or applications for the position, including a letter of intent, curriculum vitae, and the names of five individuals well acquainted with the candidate's work, should be submitted before 15 April 1979 to:

**Thomas W. Beckham, Ed.D.
Chairperson of Search Committee
College of Associated Health Professions
University of Illinois at the Medical Center
808 South Wood Street—Room 169
Chicago, Illinois 60612**

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

OCEANIC LABORATORIES' DIRECTOR VACANCY

The National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce has announced the vacancy of director, Atlantic Oceanographic and Meteorological Laboratories (AOML) in Miami, Florida. The director provides research leadership for programs geared to the geology and geophysics of ocean basins and borders, physical and chemical oceanic processes, sea-air interactions and remote sensing of the ocean. The staff includes approximately 115 permanent positions and a budget of approximately \$5 million. The 300-foot ship, *Researcher*, is used more or less full-time by AOML.

Qualifications: at least 3 years of specialized experience in or closely related to at least one of the areas of research being conducted (physical oceanography, ocean chemistry, marine geology and geophysics, sea-air interaction, or marine acoustics) with general competence in all of these specialties. At least 1 year of this specialized experience must demonstrate experience in planning and directing complex programs of national significance.

Salary: the annual rate will be established between \$44,756 and \$47,500 commensurate with experience, training, and scientific achievement.

Application: interested persons should contact: **Dr. Ferris Webster, Assistant Administrator for Research and Development, National Oceanic and Atmospheric Administration, Washington Science Center (Building 5), 6010 Executive Boulevard, Rockville, Maryland 20852.** Application materials will be provided upon request. NOAA is an Equal Opportunity Employer.

POSITIONS OPEN

EDITOR

The National Council on Alcoholism, American Medical Society on Alcoholism, and the Research Society on Alcoholism are soliciting curriculum vitae for a part-time (20 percent) editor of the journal, *Alcoholism: Clinical and Experimental Research*. Applicants with knowledge of the field of alcoholism, as broadly defined, as well as editorial experience, are preferred. Forward applications to: **Jeanette Mason, Managing Editor, National Council on Alcoholism, 733 Third Avenue, N.Y., N.Y. 10017.**

ENVIRONMENTAL TOXICOLOGY—Predoctoral training and postdoctoral positions available in the Toxicology Research Laboratory, The University of Michigan. Individuals interested in ecological toxicology, and the mechanisms of toxicity of halogenated hydrocarbons, aromatic hydrocarbons, heavy metals, neurotoxic chemicals, and organo-metallic compounds are urged to request information on application forms from:

**Dr. H. H. Cornish
Department of Environmental and Industrial Health
School of Public Health
The University of Michigan
Ann Arbor, Mich. 48109**

The University of Michigan adheres to Affirmative Action guidelines.

EXPERIMENTAL PATHOLOGIST—Tenure-track position. Responsibilities include establishment of a research program in the candidate's area of expertise, participation in graduate program of experimental pathology, and teaching in undergraduate medical school curriculum. M.D. degree with training and experience in academic pathology and a record of research excellence as demonstrated by publications and grant support required. Applicants whose research interests are in membrane biology, connective tissue biochemistry, or immunobiology may be given special consideration. Direct inquiries (including current curriculum vitae, three references, and a letter describing research interests) to: **Chairman, Department of Pathology and Laboratory Medicine, Emory University, Atlanta, Georgia 30322.** An Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION IN VETERINARY BIOCHEMISTRY

A faculty position in biochemistry will be available in the Department of Veterinary Biology, College of Veterinary Medicine, University of Minnesota, beginning 1 July 1979. Rank (assistant to full professor) and salary are open, depending on qualifications and experience.

The position involves about 50 percent research and 50 percent teaching. The candidate should have a Ph.D. degree and be well trained in the field of biochemistry and in modern biochemical research techniques. The individual must demonstrate quality and productivity in research (or strong potential for it) and must have a strong interest in teaching biochemistry to veterinary students. Individuals with interests or experience in animal biochemistry or nutrition are particularly encouraged to apply.

The Department of Veterinary Biology includes the disciplines of veterinary anatomy, biochemistry, physiology, and pharmacology. The department is housed in a new building which has excellent teaching and laboratory facilities. The College of Veterinary Medicine is located on the St. Paul campus of the University of Minnesota.

The deadline for receipt of applications is 30 April 1979. Send one copy of curriculum vitae and names of three references to:

**Dr. Thomas Fletcher, Search Committee Chairman
Department of Veterinary Biology
College of Veterinary Medicine
University of Minnesota
St. Paul, Minnesota 55108**

The University of Minnesota is an Equal Opportunity Educator and Employer.

Possible opening fall 1979 for visiting faculty member (1-year appointment) in **GEOLOGY/EARTH SCIENCE**. Candidate must be able to teach a wide range of geoscience material. Interest in undergraduate interdisciplinary research highly desirable. Evergreen is a 4-year accredited liberal arts college which emphasizes team-taught interdisciplinary studies. No departments. For information, contact: **Dr. Willard Humphreys, Academic Dean, L2211, The Evergreen State College, Olympia, Wash. 98505.** Closing date: 31 March 1979. An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

FACULTY POSITIONS

Full-time faculty positions are available in the Department of Obstetrics and Gynecology for basic scientists with a research interest in reproductive biology and an expertise in biochemistry. A doctorate is required. Academic rank and salary are dependent on qualifications. If interested, please send curriculum vitae and bibliography to:

William N. Spellacy, M.D.
Professor and Head
Department of Obstetrics and Gynecology
Abraham Lincoln School of Medicine
University of Illinois Medical Center
840 South Wood Street
Chicago, Illinois 60612

Affirmative Action/Equal Opportunity Employer

UNIVERSITY OF CHICAGO

The Department of Chemistry of the University of Chicago invites applications from outstanding individuals for **FACULTY POSITIONS** in all branches of **CHEMISTRY**. Qualified applicants should submit curriculum vitae, a list of publications, a succinct outline of research to be undertaken, and should arrange for three letters of recommendation to be sent to: **Professor Josef Fried, Chairman, Department of Chemistry, The University of Chicago, Chicago, Illinois 60637.**

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITIONS IN VETERINARY BIOLOGY, D.V.M.'s, M.D.'s, or Ph.D.'s to participate in teaching first year veterinary medical students, graduate students, and postdoctoral students. Promise of excellence in teaching and research is a prime requisite. Curriculum will be developed by body systems and persons with expertise in neurosciences, cell biology, cardiology, reproduction, and endocrinology are especially encouraged to apply. Applicants should send curriculum vitae and names of three references to: **R. B. Talbot, Dean, College of Veterinary Medicine, Blacksburg, Va. 24061.** *An Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION IN MICROSCOPIC ANATOMY

CELL BIOLOGIST. Applications are invited for qualified candidate for full-time faculty position at the assistant or associate professor level in the Microscopic Anatomy Program to begin summer or fall 1979. Candidates should have doctorate in cell biology, microscopic anatomy, or related fields. Selection will be based on teaching commitments and strong research interests with publications. Position requires teaching in microscopic anatomy and participation in related courses. Research opportunities exist within the basic medical sciences programs as well as universities and hospitals of the consortium. Involvement in the graduate program is encouraged. Salary is negotiable.

Selected applicants will be invited for interviews with Dr. Annabel G. Liebelt, Program Director of Microscopic Anatomy.

Submit curriculum vitae and names of three references to: **Charles V. Blair, Vice Provost for Administration, Northeastern Ohio Universities College of Medicine, Rootstown, Ohio 44272.**

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITION—BIOCHEMISTRY. Tenure-track position at assistant or associate professor level for fall 1979. Responsibilities include teaching undergraduate biochemistry, organic, and general chemistry. Ph.D. required. Biochemistry major with organic minor preferred. Organic chemistry major with biochemistry minor considered. Industrial and teaching experience desirable. Eleven-member department with ACS approved program. Send résumé, transcripts, and three letters of reference by 6 April 1979 to: **Dr. John H. Carpenter, Chairman, Department of Chemistry, St. Cloud State University, St. Cloud, Minn. 56301; telephone: 612-255-3031.** *Affirmative Action/Equal Opportunity Employer.*

IMMUNOLOGY—Ph.D. required. Must have research and development background. Experience in isotope handling, antibody production, and RIA. Bench level position. Other positions are available for individuals with experience in radiolabeling of biological substances, biochemical research and R & D of RIA kits. Send résumés to: **G. Barksdale, Department M-51, Ortho Diagnostics, Inc., Route 202, Raritan, N.J. 08869.**

POSITIONS OPEN

FACULTY POSITION. The Department of Geology of the University of South Carolina has requested a tenure-track position at the assistant professor level beginning 1979-1980 academic year. Preferred fields are: solid-earth geophysics, carbonate petrology, or regional geology. Duties will include teaching at the undergraduate and graduate level and developing a strong research program in one of the above areas. Ph.D. required. Applications, including three letters of reference, should be sent to: **Dr. L. R. Gardner, Chairman, Faculty Search Committee, Department of Geology, University of South Carolina, Columbia, South Carolina 29208.** *The University of South Carolina is an Affirmative Action/Equal Opportunity Employer.*

FISHERIES BIOLOGIST—ECOLOGIST. The Skidaway Institute of Oceanography invites applications to fill a full-time research position from fisheries biologists with interest in the role of coastal fishes in marine food chains. A Ph.D. degree is required. The appointment will be at the level of assistant professor. Send curriculum vitae, the names of three references, and a short description of research interests by 15 March to: **Director, Skidaway Institute of Oceanography, P.O. Box 13687, Savannah, Ga. 31406.**

An Equal Opportunity/Affirmative Action Employer

GROSS ANATOMIST

The Department of Anatomy at the University of Minnesota invites applicants for an appointment as either **assistant or associate professor**, with teaching and research responsibilities in the area of **functional human anatomy**. Applicants should have a background either in biomechanics, human evolutionary biology, or comparative anatomy and should be able to teach undergraduates, as well as medical, dental, and graduate students. A vigorous research program in some area pertinent to functional human anatomy is required. Interested persons should contact: **Dr. David W. Hamilton, Department of Anatomy, 262 Jackson Hall, 321 Church Street, SE, University of Minnesota, Minneapolis, Minn. 55455.**

An Equal Opportunity Educator and Employer

INSTRUCTOR OR ASSISTANT PROFESSOR IN PHYSIOLOGY. Medical school full-time faculty to participate in the human physiology course for freshman medical students and advanced courses for graduate students. An active research program, preferably in cardiovascular physiology, is highly desired. Rank and salary negotiable, depending on qualifications and experience; starting 1 July 1979. Send résumé and three letters of recommendation to: **Dr. P. G. Iatridis, Director, Northwest Center for Medical Education, Indiana University School of Medicine, 3400 Broadway, Gary, Indiana 46408.** *Indiana University is an Equal Opportunity/Affirmative Action Employer.*

MARINE BIOLOGIST

Lamont-Doherty Geological Observatory of Columbia University invites applications for a research position (research scientist or research associate, depending on qualifications) in aquatic microbiology; Ph.D. required. Applicants should have research experience in microbiology or biochemistry and should be interested in pursuing problems related to nutrient cycling in marine and estuarine environments. Please forward curriculum vitae, reprints, and three letters of reference to: **Thomas C. Malone, Marine Biology, Lamont-Doherty Geological Observatory of Columbia University, Palisades, New York 10964.** *We take Affirmative Action toward Equal Opportunity.*

NEUROPHARMACOLOGY

Assistant professor position available 1 May 1979, for qualified individual with a firm commitment to: (i) teaching programs in neuropharmacology oriented to medical, dental, and graduate students; and (ii) to developing own research projects. Apply to: **Walmor C. De Mello, Chairman, Department of Pharmacology, Medical Sciences Campus, University of Puerto Rico, P.O. Box 5067, San Juan, P.R. 00936.**

POSTDOCTORAL—Available immediately or 1 July. Biochemist, biophysicist, or cell biologist to work on synthesis of myelin in vitro. Experience with membrane isolation and cell culture desirable. Send curriculum vitae and names of three references to: **Dr. Sara Szuchet, Department of Neurology, The University of Chicago Hospital and Clinics, 950 East 59 Street, Chicago, Illinois 60637.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

MARINE INVERTEBRATE PHYSIOLOGIST— Dauphin Island Sea Laboratory with primary appointment in Department of Biology, University of Alabama, Birmingham. Assistant professor on tenure-track; \$18,000 to \$20,000; trained in modern biochemical procedures with postdoctoral experience. Teaching; service; and ability to develop a strong research program required. Submit curriculum vitae and three letters of recommendation by 15 April 1979 to: **Dr. Jack W. Hudson, Department of Biology, University of Alabama, Birmingham, University Station, Birmingham, Alabama 35294.** *An Affirmative Action/Equal Opportunity Employer.*

Announcing anticipated openings for: **MEMBRANE BIOPHYSICIST; ALGAL PHYSIOLOGIST or ENVIRONMENTAL TOXICOLOGIST; MICROBIOLOGIST.**

Portland State University (PSU) anticipates three positions at the level of assistant professor on tenure-track beginning September 1979. Candidates must show evidence of ability to initiate and sustain a productive, independent research program. Teaching duties will be at both the undergraduate and graduate levels. **MEMBRANE BIOPHYSICIST:** research emphasis on the physico-chemical events occurring in membranes of cellular organelles important in energy transformations. The individual's interest might include the role of proteins in membrane transport, bioenergetics of transducing membranes, or charge transport characteristics of single membrane channels. **ALGAL PHYSIOLOGIST or ENVIRONMENTAL TOXICOLOGIST:** research emphasis on physiological mechanisms of chemical toxicity in natural waters. Position offers opportunity to participate in ongoing interdisciplinary research on the biological and chemical significance of trace metals to algae. **MICROBIOLOGIST:** research on microbial physiology with an emphasis on cellular phenomena, such as active transport, energy transduction, or biosynthesis of cellular structures. Salaries competitive and commensurate with experience. Provide curriculum vitae, three letters of reference, and a statement of research interests by 1 May 1979 to: **Dr. W. H. Taylor, Department of Biology, Portland State University, P.O. Box 751, Portland, Ore. 97207.** *PSU is an Equal Opportunity/Affirmative Action Employer. All interested persons are encouraged to apply.*

MICROBIOLOGIST

The Department of Biology, University of Nevada, Reno, anticipates an opening for a microbiologist at the assistant professor level. Responsibilities include the teaching of introductory microbiology and advanced courses in an area of specialty. The successful candidate must have an earned Ph.D. in an area of microbiology and is expected to direct graduate students as well as develop a strong research program.

Application deadline: 16 April 1979. Application forms and details from: **Chairman, Search Committee, Department of Biology, University of Nevada, Reno, Nevada 89557.** *The University of Nevada is an Equal Opportunity/Affirmative Action Employer.*

MUSCLE BIOCHEMISTRY PHYSIOLOGY— Research associate needed for program examining sarcolemmal properties in myometrium in different physiological states. Ph.D. or equivalent in biochemistry, physiology, or pharmacology. Apply: **Dr. W. Bruce Currie, Department of Animal Science, Cornell University, Ithaca, N.Y. 14853.** *An Equal Opportunity/Affirmative Action Employer; minorities, women, and the handicapped are encouraged to apply.*

NEUROBIOLOGIST

The Department of Biology, Boston University, and its Marine Program at Woods Hole (BUMP) are seeking a **NEUROBIOLOGIST (ASSISTANT PROFESSOR, TENURE-TRACK)** for September 1979. The successful applicant would be expected to establish an active research program in neurobiology and to teach upper-level undergraduate/graduate courses in neurobiology and comparative physiology, and a graduate course in the area of specialty. Postdoctoral experience required, preferably with emphasis on marine organisms. Send curriculum vitae, pertinent publications, and names of three references not later than 2 April 1979 to: **Dr. Jelle Atema, Chairman, Neurobiology Search Committee, Boston University Marine Program, Department of Biology, Boston University, 2 Cummings Street, Boston, Mass. 02215.** *Boston University is an Affirmative Action/Equal Opportunity Employer.*

**AUSTRALIAN INSTITUTE
OF
MARINE SCIENCE
LABORATORY MANAGER**

Applications are invited for the above position at the Australian Institute of Marine Science (AIMS) near Townsville in North Queensland. Facilities completed in 1977 include a \$12.8 million headquarters and comprehensively equipped laboratory complex, library, lecture theatre, controlled environment rooms and aquaria, accommodation for visiting scientists, and various field and technical support facilities such as deepwater boat harbour, recompression chamber, and maritime services building. The research fleet includes the 24.4 m RV *Lady Basten* and various smaller craft.

Research at AIMS pays comprehensive attention to an understanding of the physics, chemistry, and biology of the marine environment with present emphasis on tropical systems.

DUTIES: to be responsible for the co-ordination of laboratory requirements, for instrument maintenance, and liaison with research and workshop staff in laboratory services. In particular, to accept responsibility for the establishment and continuing management of an analytical services facility, extending to instrumentation employed in data collection at sea.

QUALIFICATIONS: a diploma or degree in chemistry with extensive experience in analytical instrumentation and procedures combined with skills in administration and personnel interactions relevant to the duties described. Experience relevant to physical and chemical oceanography would be an advantage.

SALARY: a salary commensurate with the responsibilities of the position will be negotiated.

APPLICATIONS: applications must include full curriculum vitae, plus the names and addresses of three professional referees, and should be sent to:

The Secretary
Australian Institute of Marine Science
PMB No. 3
Townsville M.S.O. Queensland 4810
Australia

Closing date for applications is 23 March 1979.

**PROFESSOR OF BIOCHEMICAL
PHARMACOLOGY AND CHAIRPERSON
DEPARTMENT OF PHYSIOLOGY,
BIOCHEMISTRY, AND
PHARMACOLOGY**

The New York State College of Veterinary Medicine at Cornell University invites nominations and applications for the position of chairperson of the Department of Physiology, Biochemistry, and Pharmacology. The specialty of the applicant should be within the discipline of biochemical pharmacology. Credentials should include evidence of outstanding research achievements and potential administrative ability and considerable teaching experience, and there should be a demonstrated commitment to excellence in teaching and research.

The department is multidisciplinary with responsibility for teaching, research, and service. The 17,000 square feet of teaching and research laboratory space and 6,000 square feet of specialized animal-holding space are well equipped for research and instruction on a wide range of subjects and species. The department is also engaged in interdisciplinary research projects and training programs in toxicology and comparative gastroenterology.

Applicants should submit their curriculum vitae, and request that three letters of recommendation be sent directly to the Search Committee. Applications accepted through 1 June 1979.

Please address all correspondence to:

Professor R. H. Wasserman, Chairman
Search Committee
Department of Physical Biology
New York State College of
Veterinary Medicine
Cornell University
Ithaca, New York 14853

Affirmative Action/Equal Opportunity
Employer

**WESTERN AUSTRALIA
PLANT BREEDER**

Department of Agriculture
Position No. 01 3236

SALARY: A\$15,897 to A\$17,284 according to qualifications and experience.

QUALIFICATIONS: 4-year university degree in agricultural science or approved equivalent plus at least 5 years of postgraduate experience. Ph.D. in plant breeding desirable.

DUTIES: carry out in collaboration with the present course grains breeder a programme of barley and oat breeding for the agricultural areas of Western Australia at an experienced professional level.

CONDITIONS OF SERVICE: superannuation benefits, 3-month-long service leave after 7 years continuous service, 4 weeks of annual leave, cumulative sick leave entitlements, and other general conditions applicable to permanent public servants.

TRANSPORT AND REMOVAL ASSISTANCE: the cost of first class rail fares or economy class air fares incurred by the appointee, spouse, and dependent children under the age of 16 years, plus a reasonable contribution towards the cost of transporting essential personal and household effects to Western Australia. A single appointee will receive assistance in the form of fares only.

LOCATION: South Perth with country travel.

APPLICATIONS: to state age, citizenship, qualifications, and experience, with the names of two referees, to be sent to:

Chairman
Public Service Board
111 St. George's Terrace
PERTH 6000
Australia

Closing: 23 March 1979.

**UNIVERSITY OF SOUTHERN CALIFORNIA
(USC)
CATALINA MARINE SCIENCE CENTER
SUMMER NEUROBIOLOGY COURSE**

30 July to 31 August 1979

An intensive "hands-on" electrophysiology course. The major emphasis will be on membrane properties of neurons and neuronal interactions which produce behavior patterns and behavioral plasticity. Topics covered will include excitability mechanisms, synaptic transmission, modulatory neurotransmitters, neuronal development. Techniques will include intracellular and extracellular recording, voltage clamping, ionic replacement studies, intracellular staining, microiontophoresis, statistical analysis of synaptic potentials, and microelectrode recording from intact animals. Experimental animals will be primarily invertebrates, including *Aplysia*, leech, lobster, and locust.

Course director: A. Siger (USC)
Instructor: M. O'Shea (USC)
Participants: R. McCaman (City of Hope)
R. Calabrese (Harvard)
C. Goodman (Stanford and University of California, San Diego)
S. Thompson (Stanford)
R. Bezanilla, S. Hagiwara, and J. Vergara (University of California, Los Angeles)
A. Selveston (University of California, San Diego)
L. Bishop, L. Byerly, W. McClure, and C. Platt (USC)

Financial aid is available on a competitive basis through the generosity of the University of Southern California Oceanographic Associates. For information about application and financial aid, contact: Dr. Alvin Siger, Course Director, Department of Biological Sciences, University of Southern California, University Park, Los Angeles, California 90007.

Research Biologist, Biomaterials

Davis & Geck, a leading producer of surgical sutures, is seeking a scientist to join its Animal Surgery Group. The successful candidate will have an MS/PhD in Biology or its equivalent and 3-5 years experience in animal and experimental surgery with a strong background in biomaterials evaluation including gross and microscopic analysis of biocompatibility. Responsibilities include planning, executing and evaluating research in a wide variety of materials important in the development of surgical sutures and surgical products.

Emphasis will be placed on:

- development of animal models and new techniques for *in vivo* evaluation of bio-implants.
- accountability for FDA reportable studies on *in vivo* properties of new sutures and implantable devices.
- preparation of FDA submittable reports on these studies.

Davis & Geck is a department of the Medical Research Division of American Cyanamid Company, located at Lederle Laboratories, Pearl River, New York. We're 30 miles northwest of New York City. Compensation is competitive and includes a liberal fringe benefits package. Please send resume & salary history in confidence to G.J. Stein.



American Cyanamid Company

Medical Research Division
Lederle Laboratories
Pearl River, New York 10965
Equal Opportunity Employer Male/Female

POSITIONS OPEN

MYCOLOGY/MICROBIOLOGY

Assistant professor; tenure-track; fall 1979; Ph.D. required. Applicants should be capable of teaching undergraduate courses in mycology, microbiology, and general botany. Advanced courses may be developed in master's program. Research is encouraged. Deadline: 2 April 1979. Send curriculum vitae, transcripts, three letters of reference, and a brief statement of research interests to: **Dr. T. G. Froiland, Chairman, Department of Biology, Northern Michigan University, Marquette, Michigan 49855.** *An Equal Opportunity Employer.*

The Department of Neurology at the University of California, Los Angeles (UCLA), School of Medicine, is seeking a **NEUROLOGIST-CLINICAL NEUROLOGIST** who is wanted to develop and run a clinical evoked potential laboratory with the Department of Neurology. Opportunities available for independent and collaborative research. Appointment at assistant to full professor level, depending upon qualifications. *The University of California is an Affirmative Action/Equal Opportunity Employer.* Submit curriculum vitae to: **Richard D. Walter, M.D., Chairman, Department of Neurology, Reed Neurological Research Center, UCLA School of Medicine, Los Angeles, California 90024.**

NEUROPHYSIOLOGIST. A faculty position is available at the professor or associate professor level. Candidates will be expected to teach in the interdisciplinary medical neuroscience course, train graduate and postgraduate students, and conduct research of high quality. Applicants should submit curriculum vitae, three recent reprints, a list of current and pending research support, and the names of three references by 1 April 1979 to: **Dr. N. R. Di Luzio, Chairman, Department of Physiology, Tulane University, School of Medicine, 1430 Tulane Avenue, New Orleans, La. 70112.**

Tulane University is an Equal Opportunity/Affirmative Action Employer.

PATHOLOGIST. Applications invited for full-time chief, Laboratory Service, Veterans Administration Medical Center, Long Beach, California, with appropriate academic appointment in Department of Pathology, College of Medicine, University of California, Irvine. Board-certification in anatomical and clinical pathology, and demonstrated skill in administration and leadership required. Must have outstanding academic qualifications and proven research ability. *Equal Opportunity Employer—women and minorities encouraged to apply.* Interested candidates send curriculum vitae and three letters of reference to: **G. S. Ascher, M.D., Veterans Administration Medical Center (113), 5901 East 7 Street, Long Beach, Calif. 90822.**

PATHOLOGIST, ACVP-certified or Board-eligible, to fill the position of director of pathology in a modern midwestern toxicology laboratory. The qualified candidate would be responsible for development and direction of the Pathology Department, including the histology section, all in-house necropsies, slide preparation, and slide reading with the final pathology report.

Please submit résumés to: **Dr. Jon C. Fuls, Vice President, SPRINGBORN INSTITUTE FOR BIO-RESEARCH, INC., 553 North Broadway, Spencerville, Ohio 45887.**

An Affirmative Action/Equal Opportunity Employer, M/F

POSTDOCTORAL POSITIONS IN VISION RESEARCH available now in Northwestern University, Department of Psychology. Two projects: (i) visual function in aging humans; (ii) motion perception as relates to aviation. Practical skills in electronics and computers are essential. Good salary; renewable for 2 or 3 years. Send résumé and names of three references to: **Dr. Robert Sekuler, Cresap Neuroscience Laboratory, Northwestern University, Evanston, Illinois 60201.** *Northwestern University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately for research on viral assembly/mechanism of DNA packaging/structure of encapsidated DNA. Experience in biochemistry/enzymology preferred; familiarity with biochemical genetics and electron microscopy desirable. The position is for 2 to 3 years. Send curriculum vitae, summary of research experience and interest, and three letters of reference to: **Dr. L. W. Black, Department of Biochemistry, University of Maryland Medical School, 660 West Redwood Street, Baltimore, Md. 21201.**

POSITIONS OPEN

PHYSICAL THERAPY PROGRAM DIRECTOR—Opportunity for physical therapy professional seeking a faculty position with program directorship in a new baccalaureate program. Qualified applicants should possess a master's degree as a minimum (doctorate preferred) in physical therapy, education, or in an area related to physical therapy. Credentials in physical therapy, licensure, teaching experience, research interest, and commitment required. Faculty rank and salary commensurate with experience and qualifications. Curriculum vitae and two letters of reference should be directed to: **Dr. Moon J. Pak, Associate Provost and Director, Center for Health Sciences, Oakland University, Rochester, Michigan 48063; telephone 313-377-3562.** *An Affirmative Action/Equal Opportunity Employer.*

During the coming academic year (1979-1980), it is anticipated that there will be vacancies on the full-time faculty of the Division of Head and Neck Surgery (Otolaryngology) at the University of California, Los Angeles (UCLA), and its affiliated hospitals. **PHYSICIANS** interested in being considered for an academic faculty position should send curriculum vitae and bibliography to: **Paul H. Ward, M.D., Chief, Division of Head and Neck Surgery, UCLA School of Medicine, Los Angeles, California 90024.** *UCLA is an Equal Opportunity/Affirmative Action Employer.*

PHYSIOLOGIST

This appointee will be responsible for designing and conducting experiments to ascertain performance of implantable devices. Advanced degree in physiology required. Prefer 3 years of cardiovascular experience. Excellent benefits including paid relocation. Send résumé in confidence to: **Mike Dooley, CARDIAC PACEMAKERS, INC., 4100 North Hamline Avenue, P.O. Box 43079, St. Paul, Minnesota 55164.**

An Equal Opportunity Employer, M/F

POSTDOCTORAL POSITION

A recent Ph.D. in physiology, biochemistry, clinical chemistry, or organic chemistry is being sought to participate in the development of radioimmunoassay, radioreceptor assay, and/or enzyme immunoassay techniques for diagnostic use in a major medical center. Applicants with experience in ligand binding techniques and endocrinology will be given preference. Salary not less than \$13,000, renewable up to 3 years. Send résumé and three letters of reference to: **Dr. Barry G. England, Central Ligand Assay Laboratory, Department of Pathology, University of Michigan, Ann Arbor, Michigan 48109.** *University of Michigan is an Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS IN DEVELOPMENTAL BIOLOGY

UNIVERSITY OF CALIFORNIA, IRVINE. Two positions available for postdoctoral fellows, beginning summer 1979, in the Center for Pathobiology. Recent Ph.D. required, preferably in the area of cell biology, developmental biology, or genetics. Candidates to work on problems of stem cell differentiation, determination, pattern formation, or morphogenesis. Research will be carried out in one of several laboratories (H. R. Bode, R. D. Campbell, S. V. Bryant, P. J. Bryant, H. A. Schneiderman) using hydra, amphibians, or *Drosophila*. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Arrange for three letters of reference to be sent and submit résumé and brief description of research interests and experience to: **H. R. Bode, Center for Pathobiology and Department of Developmental and Cell Biology, University of California, Irvine, Irvine, California 92717.**

POSTDOCTORAL POSITION (1 to 3 years) available immediately in mitochondrial autonomy and biogenesis. Studies involve mitochondrial DNA and protein synthesis during the yeast cell cycle. Applicant must have experience in DNA restriction fragment analysis and in SDS gel electrophoresis procedures. Send résumé and names of three references to: **Dr. S. F. Cottrell, Biology Department, Brooklyn College, Brooklyn, N.Y. 11210.** *An Equal Opportunity Employer, M/F.*

POSITIONS OPEN

POSTDOCTORAL POSITION AVAILABLE. To participate in the identification of high affinity binding sites for estradiol receptor complexes within DNA. A background in nucleic acid fractionation and sequence studies preferable. Position is open as of 1 May 1979. Salary commensurate with experience. Send résumé and names of three references to: **Dr. Herbert W. Dickerman, Division of Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, N.Y. 12201.**

POSTDOCTORAL POSITION available 1 May 1979 to conduct studies on transcapillary fluid exchange and regulatory mechanisms in the microcirculation. Send résumé and names of three references to: **Dr. Robert W. Gore, Department of Physiology, College of Medicine, University of Arizona, Tucson, Ariz. 85724.** *An Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.*

POSTDOCTORAL POSITIONS for persons with expertise in neuro- and/or behavioral pharmacology interested in research training and collaboration. Areas available include: (i) human behavioral pharmacology (Dr. Travis Thompson), (ii) animal behavior pharmacology with an emphasis on drug-reinforcement schedules interactions (Dr. Richard Meisch), (iii) oral drug self administration, including dispositional factors, especially for barbiturates (Drs. Roy Pickens and Richard Meisch), and (iv) brain perfusion-operant behavioral teratology (Dr. Sheldon Sparber). Applicants interested in areas (i) to (iii) will be expected to possess skills in the experimental analysis of behavior and basic pharmacology. Persons applying for positions in area (iv) will be expected to possess expertise in analytical biochemistry. The candidate will have an opportunity to extend her/his training via programs in the Department of Psychiatry, Pharmacology, and Psychology. Positions are available immediately and appointment is for 2 years on a Public Health Service National Research Service Award Training Program. Send curriculum vitae and names of three references to: **Dr. T. Thompson, Program Director, Department of Psychiatry, Box 392 Mayo, University of Minnesota, Minneapolis, Minnesota 55455.**

POSTDOCTORAL POSITION IN MOLECULAR VIROLOGY

Available from 1 April 1979 to study early interaction between animal viruses and cells. Reply with résumé to: **Dr. Alfred T. H. Burness, Faculty of Medicine, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1B 3V6.**

POSTDOCTORAL POSITION for work on the reticulo-stimulating effect of vaccines from anaerobic coryneforms (*C. parvum* vaccines). Applicants should have major interest in biochemistry and cell fractionation procedures. Send curriculum vitae and names and addresses of three referees to: **Dr. C. S. Cummins, Anaerobe Laboratory, Virginia Polytechnic Institute and State University, Blacksburg, Va. 24061.** *An Equal Opportunity/Affirmative Action Employer.*

University of North Carolina: **POSTDOCTORAL/RESEARCH ASSOCIATE/RESEARCH ASSISTANT PROFESSOR** position. Two positions for 1 to 3 years. Available 1 April 1979, in the Pharmacology Department of the University of North Carolina at Chapel Hill. The persons will be involved in the program of the development of nucleoside and folate analogs for the treatment of cancer and herpes virus-induced diseases. Experience in enzymology, cell biology, and molecular biology is desirable. Send résumé to: **Dr. Yung-Chi Cheng, Department of Experimental Therapeutics, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, New York 14263.**

UNIVERSITY OF CALIFORNIA, LOS ANGELES POSTDOCTORAL SCHOLAR AND ADJUNCT ASSISTANT PROFESSOR

Individuals with expertise in biochemistry, lipid or protein chemistry to investigate transmembrane processes or membrane structure/function. Postdoctoral position available immediately; \$12,000 per year. Adjunct position available June to September 1979 for 1 to 3 years maximum; approximate salary: \$15,000 for 9 months plus 1 to 2 months of summer salary. Requires some teaching in undergraduate course in microbiology. Send inquiries or statement of interests, résumé, and three letters of recommendation to: **Dr. B. J. Wisniewski, Department of Microbiology, and the Molecular Biology Institute, University of California, Los Angeles, California 90024.** *An Equal Opportunity Employer.*

PHYSICAL OCEANOGRAPHER

Applications are invited for the position of Assistant Scientist in the Department of Physical Oceanography, Woods Hole Oceanographic Institution. Applicants should have an academic background (Ph.D.) in Physical Oceanography and some experience in conducting independent research. Applicants with sea experience are preferred. The successful candidate will be appointed for a two-year term with reappointment to be considered at the end of that term.

Send resume to: Personnel Manager

WOODS HOLE OCEANOGRAPHIC INSTITUTION

Woods Hole, MA 02543



An Equal Opportunity Employer M/F

FACULTY POSITIONS—DEPARTMENT OF PUBLIC HEALTH MEDICAL CENTER, UNIVERSITY OF ALABAMA IN BIRMINGHAM

Continued expansion of the Department of Public Health, an accredited graduate school of public health, now permits the solicitation of applicants for four new faculty positions. General qualifications include: a commitment to excellence in teaching in the graduate program in public health, and of undergraduate and postgraduate physicians; excellence in research. Specific requirements are listed below. Ordinarily Professor and Associate Professor positions are tenured. Salaries and fringe benefits are highly competitive.

Assistant or Associate Professor—Population Genetics—Ph.D. or M.D. Knowledge of human genetics and experience in studies addressing the segregation of genes in large populations is essential. Knowledge of the major histocompatibility complex desirable. Excellent opportunity for collaboration on studies of diabetes, arthritis, and certain tumors.

Professor or Associate Professor—Analytical Epidemiology—Epidemiologist with strong biostatistical background. Ph.D. or D.Sc. in epidemiology or M.D., D.D.S., or D.V.M. with public health degree preferred. Teaching: analytic epidemiology and research design. Research: collaborative and/or independent research, with an especially attractive opportunity in arthritis or cancer. Other chronic and acute disease investigations underway.

Assistant or Associate Professor—Environmental Biostatistics—Ph.D. with formal training in biostatistics with experience in applications to environmental research. Experience with pharmacokinetic models and their applications to trace contaminant uptake preferred. Collaborative research opportunities exist in aquatic bioaccumulation/bioconcentration or cancer epidemiology. Teaching: Statistics for dose-response studies, including design and analyses of bioassay and accumulation experiments.

Assistant or Associate Professor—Epidemiology/Demography/Biostatistics—Ph.D. with statistical and demographic specialization preferred. Research opportunities include population based studies of chronic illness or environmental problems. Teaching: participation in instructional programs noted above. This position will be a primary appointment in the Department of Biostatistics and a secondary one in the Department of Public Health.

Application Closing Date: March 31, 1979

Send curriculum vitae and three letters of recommendation plus manuscripts or examples of major work to: Dr. William F. Bridgers, Chairman, Department of Public Health, University of Alabama in Birmingham, University Station, Birmingham, Alabama 35294 An Equal Opportunity/Affirmative Action Employer.

DIRECTOR NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH FOOD AND DRUG ADMINISTRATION

The U.S. Food and Drug Administration (FDA) is seeking candidates for the position of director of the National Center for Toxicological Research (NCTR). The center, an interagency facility, conducts research programs on the biological effects of potentially toxic chemical substances found in the human environment. The director of NCTR provides leadership and direction to all center operations and provides scientific liaison between NCTR and other government agencies, private organizations and the worldwide academic, scientific, and medical communities. The center is located in Jefferson, Arkansas, and has a staff of approximately 600 employees. The center is well-equipped with sophisticated modern laboratories to support advanced research in virtually all areas of toxicology.

FDA is looking for candidates of recognized scientific distinction and administrative ability. Candidates should possess an advanced degree in a relevant field of science (such as a Ph.D. in biochemistry, pharmacology, toxicology, or statistics, an M.D., or a D.V.M.). The position also requires appropriate research experience and an association with multidisciplinary issues. This is a Civil Service position that pays up to \$47,500 per year in basic salary. The director will also be eligible to receive performance bonuses and special stipends that may result in a higher total pay. This position has been designated for inclusion in the federal government's Senior Executive Service (SES), and the selectee will be required to enter the SES. Information on the SES will be available for interested applicants.

Send curriculum vitae and/or Standard Form 171 (Personal Qualifications Statement) and bibliography to:

HEW/Food and Drug Administration
NCTR Search Committee
c/o Patricia Sykes
Room 9-89, 5600 Fishers Lane
Rockville, Maryland 20857

FDA/An Equal Opportunity Employer

Unique opportunity exists for an experienced molecular biologist/biochemical geneticist with proven record of productivity in recombinant DNA Technology to head excellent laboratory and containment facilities which are approaching completion.

This career position has been created for the right person to become a leader of a group of professionals. The successful candidate will be expected to attract and recruit other senior research candidates for the group.

Credentials should include distinguished publication record, broad interests in molecular biology, with at least 5-10 years of post doctoral experience, particularly as related to molecular cloning and recombinant DNA technology; demonstrated leadership in basic research, and the desire to apply this experience to long range goals of medical importance.

Reply in confidence including curriculum vitae, availability, and salary requirements to Mr. R. O'Connor, MERCK & CO., INC., P.O. Box 2000, RAHWAY, NEW JERSEY 07065

An equal opportunity employer, m/f.

HEAD, BIOCHEMICAL GENETICS LABORATORY

POSITIONS OPEN

NUTRITIONIST

Kellogg's, one of the world's leading food manufacturers, has an immediate career opportunity for a nutritionist in the Food Research Department at the corporate headquarters located in Battle Creek, Michigan.

The individual selected for this opportunity will serve as consultant on nutritional matters regarding technical information, labeling, legislation, food additives, and nutritional quality of new food products. Additional responsibilities include the coordination of nutrition research and nutrition analysis of new food products. A Ph.D. in nutrition along with a minor in one of the sciences is required. Some experience related to nutrition toxicology is preferred.

This position offers a competitive salary, comprehensive benefits, and rewarding opportunities for personal growth and development.

If you are qualified and interested, please send a letter and/or résumé in confidence to:

Bill Steele

Kellogg's

235 Porter Street
Battle Creek, Mich. 49016

An Equal Opportunity Employer, M/F

Applications are invited for:

- POSTDOCTORAL RESEARCH ASSOCIATES.** Two openings for work in carcinogenesis. Promotor action, mutagenesis mechanisms and carcinogen-DNA interactions are of particular, but not exclusive, interest. Useful background disciplines include biophysics, genetics, organic synthesis, or nucleic acid chemistry. Send curriculum vitae and three or more references to: **Dr. Thomas Meehan.**
- RESEARCH ASSISTANT** in molecular oncology program. Responsibilities include all procedures pertinent to operation of tissue culture laboratory including cell/virus isolation, media preparation, and so forth, in addition to participation in research on surface modifications of cancer cells. B.S. in biochemistry/biology required; tissue culture experience preferred. Send résumé to: **Dr. Susan P. Hawkes.**

Midland Macromolecular Institute
1910 West St. Andrews Drive
Midland, Mich. 48640

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL RESEARCH ASSOCIATE—available immediately. Research in biochemistry genetics, and hormonal regulation of plasminogen activator in cultured hepatoma cells. Ph.D. in biochemistry, molecular or cell biology preferred. Experience with protease biochemistry highly desirable. Send résumé and names of references to: **Dr. Thomas Gelehrter, Department of Human Genetics, University of Michigan Medical School, Ann Arbor, Michigan 48109.**

POSTDOCTORAL RESEARCH ASSOCIATE. Ph.D. in biochemistry or pharmacology with experience, capabilities and/or strong interest in cancer chemotherapy, enzyme kinetics, and computer programming to work on studies of tight-binding inhibitors. Position available immediately. Send résumé with reprints and/or preprints of publications and two letters of recommendation within 1 month to: **Sungman Cha, M.D., Ph.D., Professor and Chairman, Section of Biochemical Pharmacology, Box G, Brown University, Providence, R.I. 02912.** An Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF MIAMI Department of Biochemistry and Microbiology

Applications are invited for a **POSTDOCTORAL RESEARCH ASSOCIATE** to work with Dr. D. W. Ribbons on the biochemical and genetic organization of catabolic pathways in bacteria. Previous experience in pathways of aromatic catabolism and/or mapping of plasmid genes by in vivo and in vitro techniques will be an advantage.

Applications, which should include curriculum vitae and the names and addresses of three referees, should be sent by 20 April 1979 to: **Dr. D. W. Ribbons, Biochemistry, UMED, P.O. Box 016129, Miami, Fla. 33101,** from whom further particulars may be obtained. An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

PRE- AND POSTDOCTORAL POSITIONS are available for studies on the protein synthesizing system with special emphasis on structure and function of mRNP particles, ribosomes—topography, biogenesis and function—under various conditions of growth and development. Teaching opportunities available. Reply with résumé to:

Professor Bruce H. Sells
Laboratories of Molecular Biology
Faculty of Medicine
Memorial University of Newfoundland
St. John's, Newfoundland, Canada A1B 3V6

PROFESSOR OF PLANT AND SOIL BIOLOGY UNIVERSITY OF CALIFORNIA, BERKELEY

The Department of Soils and Plant Nutrition is seeking a senior level professor who may be asked to serve as department chairman. Applicant must have a distinguished research record, university teaching experience, and capacity for leadership in academic administration. His/her research may be in any phase of plant-soil biology. Soil microbiology, plant nutrition, plant physiology, soil chemistry, or plant biochemistry are examples of acceptable specialization. The applicant must be able to relate his/her work to plant-soil relations, agriculture, resource conservation, and environmental quality. Salary and step commensurate with qualifications. Applicants should send résumés and names of at least three references to: **L. J. Waldron, Acting Chairman, Department of Soils and Plant Nutrition, 108 Hilgard Hall, University of California, Berkeley, Calif. 94720.** Applications will close 1 May 1979. *The University of California is an Affirmative Action/Equal Opportunity Employer.*

PROFESSOR—VISUAL SCIENCES

Applications and nominations are invited for a position of full professor with tenure at the Institute of Biological Sciences, Oakland University. Candidates should be established investigators in visual sciences with continued research commitment to the field, and have a strong background in protein biochemistry and biophysics with experience and interest in lens proteins and membranes. Candidates must have a Ph.D. or M.D. and an ongoing research program; those with a successful history of external funding and a record of achievements as evidenced by publications in outstanding journals will be given preference. The selected candidate's primary responsibility is to establish a strong research program and compete successfully for grant funds. The institute with its six-member faculty is devoted to basic ophthalmic research and currently has a funded NIH postdoctoral training program. Confidentiality of the applicants will be strictly maintained. Please direct your correspondence, with curriculum vitae and names of references, by 31 March 1979 to:

Dr. V. N. Reddy
Director, Institute of Biological Sciences
Oakland University
Rochester, Michigan 48063

An Equal Opportunity/Affirmative Action Employer

PROJECT MANAGER/ENVIRONMENTAL CHEMIST—For a demonstration project to determine the effectiveness of a retention/detention drainage system for reducing nitrogen, phosphorus, and other pollutant loadings in nonpoint source agricultural run-off. The project, funded by Florida legislature will be conducted in Okeechobee County, Florida. Minimum requirements are 3 years of working experience, including supervisory experience in environmental water chemistry, and master's degree in appropriate discipline or equivalent training and experience; \$20,072.

LIMNOLOGIST—Chemical limnologist to conduct research and evaluation of eutrophication of Lake Okeechobee, Florida. Duties include assessment of existing water chemistry data, design of future research/monitoring programs, and preparation of formal reports including recommendations for management alternative to preserve and protect the natural environment. Minimum requirements are 2 years of working experience in chemical limnology or eutrophication modeling and bachelor's degree in limnology or chemistry or master's degree with specialization in chemical limnology or eutrophication modeling; \$16,244. Attractive fringe benefits. Send résumé to: **South Florida Water Management District, Employee Relations Office, P.O. Box "V," West Palm Beach, Florida 33402.** Equal Opportunity Employer.

POSITIONS OPEN

PSYCHOLOGIST (Ph.D.) for 1-year position to teach experimental methods, a seminar in specialty area, and participate in introductory psychology consortium. Applicants must be competent in experimental methods, statistics, learning and/or physiological. Teaching experience preferred. Send curriculum vitae, reprints, and three letters of recommendation by 30 March to: **Search Committee—Experimental Psychology, Department of Psychology and Education, Mount Holyoke College, South Hadley, Mass. 01075.** An Equal Opportunity/Affirmative Action Employer.

PULMONARY PHYSIOLOGY RESEARCH

Research position available in field of mammalian pulmonary physiology at the Toxic Hazards Research Unit, Wright-Patterson Air Force Base, Dayton, Ohio. This position will have an adjunct professorship of appropriate rank in the University of California, Irvine. Collaborative research conducting physiologic studies in animals exposed to airborne materials of environmental/occupational interest. Requires Ph.D. in physiology or related field and 2 years of postdoctoral research experience in pulmonary measurements in intact laboratory animals. Preference given applicants experienced in inhalation toxicology with published independent work. Closing date for applications is June 1. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Submit complete curriculum vitae and names of at least three references to: **Dr. J. D. MacEwen, University of California, Irvine, Toxic Hazards Research Unit, Overlook Branch, P.O. Box 3067, Dayton, Ohio 45431.**

CORNELL UNIVERSITY

Position available 1 March 1979 for **RESEARCH ASSOCIATE** with practical experience in planetary geomorphology and photointerpretation to analyze Viking Orbiter Images. Participation in compilation of data bank of time-variable, aeolian phenomena on Mars, Ph.D. in planetary sciences or related subject desirable but not necessary. Send curriculum vitae and two letters of recommendation to: **J. Verkerka, Space Sciences Building, Cornell University, Ithaca, N.Y. 14853.**

RESEARCH ASSOCIATE/POSTDOCTORAL POSITION available immediately for research on the mechanism of action of cholera toxin. Background in biochemistry, enzymology, or membrane proteins preferred. Please send curriculum vitae and the names of three references to: **Dr. Geoffrey W. G. Sharp, Department of Physiology, Tufts University Schools of Medicine, Dental Medicine, and Veterinary Medicine, Boston, Massachusetts 02111.** An Equal Opportunity/Affirmative Action Employer

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

SENIOR (Ph.D.) PHARMACOLOGISTS

Eli Lilly and Company, a leading worldwide manufacturer of pharmaceutical products, specialized agricultural chemicals, animal health products, and cosmetics, is searching for qualified individuals to join our expanding Cardiovascular Research Division.

We are seeking scientists who have at least 2 years of postdoctoral experience in one or more of the following areas:

**Cardiovascular pharmacology/physiology,
In vivo electrophysiological techniques,
Skeletal muscle biochemistry, and
Lipid metabolism**

Successful candidates should have an interest in collaborating with other senior-level scientists in a creative approach to the development and discovery of new cardiovascular drugs.

Send résumé with salary requirements to:

Peter D. Cullen
Senior Personnel Representative
Eli Lilly and Company
P.O. Box 618
Indianapolis, Indiana 46208

POSITIONS OPEN

NEUROCHEMIST: full-time research position available for established scientist in institute devoted to investigation of hearing, speech, language, and their disorders. Candidate will direct newly formed laboratory dedicated to neurochemical studies of own choosing, preferably related to hearing. Opportunities exist for collaboration with staff scientists and physicians working on anatomical, physiological, behavioral, and clinical aspects of hearing and communication. Academic appointment at appropriate level in Department of Otolaryngology and Human Communication, Creighton University Medical School, but teaching optional. Salary guaranteed and negotiable. Funds available for setting up laboratory. Qualified applicants should send curriculum vitae, references, and a brief summary of their current research plans to: **Charles S. Watson, Director of Research, The Boys Town Institute for Communication Disorders in Children, 555 North 30 Street, Omaha, Nebraska 68131.**

Equal Opportunity Employer

RESEARCH ASSOCIATE position available immediately for research on protein folding and/or structure and function of hemoglobin. Annual salary: \$12,000 to \$15,000, according to qualification. Send curriculum vitae and names of three references to:

Dr. Clara Fronticelli
University of Maryland School of Medicine
Biochemistry Department
660 West Redwood Street
Baltimore, Maryland 21201

RESEARCH ASSOCIATE—Immediate opening for D.V.M. or Ph.D. in physiology or similar discipline. Program involves study of the effects of hyperthermia on tumors and normal tissues of dogs, cats, pigs, and mice. Experience with large animals essential. Some exposure to electronic instrument development would be an asset. Salary negotiable, depending upon qualifications. Please send résumé and names of three references to: **Dr. George Hahn, Department of Radiology, Stanford University School of Medicine, Stanford, Calif. 94305.** *Stanford University is an Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION is available immediately for electron microscopist for ultrastructural studies of RNA tumor viruses. Experience with tissue culture and protein characterizations useful. Send curriculum vitae and names of three references to: **Etienne de Harven, M.D., Sloan-Kettering Institute for Cancer Research, 1275 York Avenue, New York, N.Y. 10021.**

RESEARCH ASSOCIATE

B.S. degree with additional working experiences in a research environment. Experience in a neonatal center desired. Salary commensurate with experience. Send résumé to: **Personnel Department, Louisiana State University Medical Center in Shreveport, P.O. Box 33932, Shreveport, La. 71130.**

An Equal Opportunity Employer

SUPERVISOR OF DEPARTMENTAL ELECTRON MICROSCOPE LABORATORY which includes three transmission (Philips 301, Philips 201, and RCA 3H) and two scanning (Coates/Welter HPS-50 and JEOL JSM-2) electron microscopes. The successful candidate should have a thorough knowledge of electron microscopy and be willing to assume responsibilities associated with general operations of the laboratory. Send curriculum vitae and three letters of recommendation to: **Dr. John D. Taylor, Chairman, Department of Biology, Wayne State University, Detroit, Michigan 48202.**

Equal Opportunity/Affirmative Action Employer

VIROLOGIST—Candidate for this position should have a Ph.D. degree and postdoctoral experience in animal virology. Must be familiar with procedures for virus isolation and propagation. Strong background in technique for the identification of viral-specific antibodies such as radioimmunoassay, immune adherence, hemagglutination, and immunofluorescence is required. Experience with immunoelectron microscopy of viruses is desirable. Send résumés to: **G. Barksdale, Department M-51, Ortho Diagnostics, Inc., Route 202, Raritan, N.J. 08869.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS. Studying estrogen receptor mechanism of marker protein (peroxidase) regulation. One position (NIH training grant) available immediately, second (research associate) available September to December. Biochemists experienced with receptor studies or mRNA quantitation desired. Send résumé and names of two references to: **Dr. E. R. DeSombre, Ben May Laboratory for Cancer Research, University of Chicago, 950 East 59 Street, Chicago, Ill. 60637.** *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATES

Protein chemistry—to work with nephrology and biochemistry group studying the molecular basis of renal disease. Training in animal models, renal physiology, and clinical chemistry. Salary: \$10,000 to \$14,000. Send curriculum vitae and names of three references to: **Amadeo J. Pesce, Ph.D., Department of Internal Medicine, University of Cincinnati, Cincinnati, Ohio 45267.**

RESEARCH ASSOCIATE for work on the biochemistry of mitochondrion-free anaerobic protozoa and on the mode of action of drugs acting on these organisms. Requirements are a Ph.D. in biochemistry or microbial physiology. Experience in anaerobic microbial biochemistry (especially with ferredoxin-linked systems) is desirable. Salary is negotiable at the postdoctoral level or above, according to experience. Position available May 1979 or later.

Send curriculum vitae to: **Dr. Miklós Müller, The Rockefeller University, 1230 York Avenue, New York, N.Y. 10021.** *An Equal Opportunity Employer.*

SENIOR POSTDOCTORAL POSITION: enzymology, structure-function studies. Protein chemistry, peptide isolation and sequencing experience desirable. Start 1 September 1979. Salary: \$13,000 to \$14,000 per annum, renewable. Appointment as lecturer possible. Send résumé and reference letters to: **Professor E. E. Dekker, Department of Biological Chemistry, Medical School, The University of Michigan, Ann Arbor, Mich. 48109.**

An Equal Opportunity/Affirmative Action Employer

Dean of Graduate Studies

The Woods Hole Oceanographic Institution is seeking applicants for the position of Dean of Graduate Studies. It is expected that the occupant of this position will combine the Dean's duties with a significant research and teaching program in some field of oceanography.

The Dean is responsible for the educational programs of the Institution. These consist of a Joint Program with the Massachusetts Institute of Technology which enrolls about ninety doctoral students; an independent doctoral program for special students; cooperative graduate programs with certain other universities; a postdoctoral program; and a summer fellowship program for undergraduates. Significant private resources are available for the support of these programs. With the help of a full-time Assistant Dean, the Dean works with the Institution staff on such matters as student admissions, counseling and supervision, curriculum and course development, and thesis supervision. The Dean is the principal representative to M.I.T. regarding the Joint Program and is responsible for the coordination of educational programs with all other universities. The Dean serves as Chairman of the Educational Assembly made up of the scientific staff and others who work with students. The Dean is a member of the Directorate and Staff Council, the principal policy-making groups of the Institution.

Qualifications for this position are a Ph.D. or equivalent experience both in oceanography and graduate education and a minimum of ten years' experience in a similar research or educational institution. It is expected that the candidate would meet the qualifications for senior scientist position at the Institution.

Interested individuals should write directly to **Dr. John H. Steele, Director, before April 1, 1979.**



WOODS HOLE OCEANOGRAPHIC INSTITUTION
Woods Hole, MA 02543

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POSITIONS OPEN

SUMMER TEACHING POSITIONS

The University of Minnesota, Lake Itasca Forestry and Biological Station, offers 5-week teaching positions each summer to experienced biologists who have distinguished themselves as researchers and instructors. Positions open in 1980 are for field and research oriented courses in advanced topics in ecology and behavioral biology, aquatic ecology, terrestrial community structure, field entomology, aquatic flowering plants, and freshwater algae. Qualified and interested persons should contact: David F. Parmelee, University of Minnesota, 10 Church Street, SE, Minneapolis, Minn. 55455.

An Equal Opportunity Employer

SYMPOSIA

An International Symposium on Ribosomes will be held 4 to 8 July 1979, at the University of Wisconsin-Madison under the auspices of the Harry Steenbock Symposia Committee. Persons interested in receiving application forms and other information should write to: J. Davies, Department of Biochemistry, University of Wisconsin-Madison, Madison, Wis. 53706. Requests for applications must be received by 28 February 1979.

SYMPOSIUM

Human Nutrition Research: Questions and Answers
Beltsville Agricultural Research Center
Beltsville, Maryland—6 to 9 May 1979

Information and registration forms available:
Publicity Chairman, Symposium IV
Nutrition Institute, USDA, SEA, HNC
Room 223, Building 308, BARC-East
Beltsville, Maryland 20705

COURSE

FRIDAY HARBOR LABORATORIES
University of Washington
Friday Harbor, Washington

will offer a course during the summer quarter

MARINE FISH BIOLOGY

18 June to 21 July 1979

This concentrated course of study will emphasize the systematics, zoogeography, ecology, and life history of marine fishes of the world, with examples taken from taxa of regional significance. Time spent in the field will be maximized. The course is intended for students who have not had other marine fish biology courses.

The instructors will be Dr. Theodore W. Pietsch of the College of Fisheries, University of Washington, and Dr. Basil Nafpaktitis of the University of Southern California. No more than 12 participants will be accepted.

Application should be made as soon as possible to: Director, Friday Harbor Laboratories, P.O. Box 459, Friday Harbor, Washington 98250.

TRAINEESHIPS

PRE- AND POSTDOCTORAL POSITIONS IN ENVIRONMENTAL PATHOLOGY

Applications are invited for NIEHS-supported traineeship in environmental pathology. Research emphasis is on cellular responses to toxic environmental chemicals. Mutagenic, teratogenic, carcinogenic, and cell degeneration are emphasized. Send inquiries to: N. Karle Mottet, M.D., Director, Environmental Pathology Training Program, D-403, Department of Pathology, SM-30, University of Washington, Seattle, Wash. 98195. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL TRAINEESHIPS available in immunogenetics and immunochemistry at Washington University School of Medicine. Ongoing programs include chemistry of mouse, guinea pig, and human MHC products, function of these products in artificial membrane systems, and the chemical basis of MHC restriction of cell mediated cytotoxicity. Applicants should have training in immunology and/or biochemistry. Send curriculum vitae to: Dr. Susan Cullen and Dr. Benjamin Schwartz, Box 8045, Washington University School of Medicine, St. Louis, Mo. 63110. *An Equal Opportunity Employer.*

TRAINEESHIPS

Two **POSTDOCTORAL TRAINEESHIPS** are available in biochemistry at the University of California, Los Angeles (UCLA), Mental Retardation Research Center, through an award from USPHS. Studies focus on various aspects of inborn errors of metabolism and the metabolism of ketone bodies during development. Apply to: Dr. George Popják or Dr. John Edmond, Mental Retardation Research Center, 760 Westwood Plaza, UCLA School of Medicine, Los Angeles, California 90024. *An Equal Opportunity Employer.*

NEURAL AND BEHAVIORAL SCIENCES THE UNIVERSITY OF IOWA

POSTDOCTORAL TRAINEESHIPS for research in neural and behavioral sciences are available in anatomy, pharmacology, physiology and biophysics, psychology, zoology, and related disciplines through a university program in Neural and Behavioral Sciences. Send curriculum vitae, list of references and statement of research interests to: Neural and Behavioral Sciences Committee, 201J Gilmore Hall, The University of Iowa, Iowa City, Iowa 52242. *An Equal Opportunity/Affirmative Action Employer.*

GRADUATE STUDY

DOCTORAL PROGRAM IN MOLECULAR AND CELLULAR BIOLOGY AND PATHOBIOLOGY

Interdisciplinary program leading to Ph.D. degree seeks qualified candidates interested in fundamental molecular and cellular biology and its application to disease states in man. Research training is available in a broad range of basic and clinical disciplines.

Stipends are available on a competitive basis. Contact: Graduate Training Director, Program in Molecular and Cellular Biology and Pathobiology, Dean's Office, College of Graduate Studies, Medical University of South Carolina, Charleston, South Carolina 29403.

GRADUATE TRAINING IN PHYSIOLOGY

The Department of Physiology at the University of Missouri-Columbia invites applications from individuals interested in the Ph.D. degree in physiology. Predoctoral fellowships and teaching assistantships available. Primary areas of research interest among faculty include cardiovascular, renal, and neurophysiology. Very active research programs in hypertension, ion transport, myocardial metabolism, and the microcirculation. Department on main university campus. Intimate association with faculty and postdoctoral fellows. University town atmosphere. Direct inquiries to: James O. Davis, Ph.D., M.D., Professor and Chairman, Department of Physiology, University of Missouri School of Medicine, Columbia, Missouri 65212. *The University of Missouri is an Equal Opportunity/Affirmative Action Employer.*

FELLOWSHIPS

POSTDOCTORAL POSITIONS

Positions are available for recent Ph.D. graduates interested in advanced training and research on the mechanisms of selectivity of drug action. Areas currently under study are: (i) the biochemical-pharmacological basis for the effects of anticancer and antiviral treatments, inclusive of pharmacokinetics, drug biotransformation and target cell determinants of drug action; (ii) the selective effects of drugs on the various components and interactions involved in immune responses to tumor and nontumor antigens; (iii) the regulation of cell metabolism by hormones, nucleotide pools and cyclic nucleotides, particularly cyclic CMP; (iv) the pharmacological and cellular basis for chemical carcinogenic transformation in animals and in tissue culture; and (v) clinical pharmacological studies on drug selectivity. Nucleosides, antifolates, carbohydrates affecting the plasma membrane, anthracycline antibiotics are among the classes of agents studied. Reply in writing to: Dr. E. Mihich, Department of Experimental Therapeutics, Grace Cancer Drug Center, Roswell Park Memorial Institute, Buffalo, N.Y. 14263. Please include curriculum vitae and indicate at least two references.

FELLOWSHIPS

GEORGE S. WISE FELLOWSHIP

Postdoctoral fellowship in the life sciences available October 1979. For further details, write to:

Dean
George S. Wise Faculty of Life Sciences
Tel Aviv University
Ramat Aviv, Israel

POSTDOCTORAL TRAINING IN MEMBRANES AND TRANSPORT PROCESSES. Fellowships available starting 1 July 1979. Training program includes biophysical, biochemical, morphological, and physiological approaches to the study of transport processes in artificial, reconstituted and isolated membrane systems, and in cells, tissues and organs. Participating faculty includes: Doctors DiBona, Navar, Reddy, Sachs, Schafer, and Urry. Applicants should have a Ph.D., M.D., or equivalent degree. Selection based on needs of participating laboratories and evaluation of academic record, curriculum vitae, and references. Send this information to: Dr. James A. Schafer, Nephrology Center, University of Alabama in Birmingham, Birmingham, Alabama 35294.

Equal Opportunities in Education and Employment

POSTDOCTORAL RESEARCH FELLOWSHIPS are available starting 1 July 1979 for basic research in the fields of (i) electrolyte physiology and membrane transport, (ii) catecholamine inactivation, and (iii) prostaglandins. Appointments are for 1 year and are renewable for one or two additional years. Stipends follow NIH guidelines. Open only to U.S. citizens or persons with a permanent visa. Interested persons please send curriculum vitae to: Dr. John Rapp, Department of Medicine, Medical College of Ohio, C.S. 10008, Toledo, Ohio 43699. *An Equal Opportunity Employer, M/F.*

POSTDOCTORAL FELLOWSHIP

A postdoctoral fellowship will be available 1 May 1979 for the study of physiology of ascending spinal pathways. A quantitative neurophysiological background is strongly preferred. Send curriculum vitae, transcript, and a list of references to: Dr. James Bloedel, Department of Neurosurgery, B590 Mayo, University of Minnesota Medical School, Minneapolis, Minnesota 55455.

RESEARCH FELLOWSHIP TO SWEDEN AND SWITZERLAND

The Fogarty International Center, National Institutes of Health, has been asked to announce the availability to U.S. citizens of Swedish Medical Research Council and Swiss National Science Foundation Fellowships. These fellowships provide postdoctoral training in basic or clinical biomedical research for scientists in the formative stages of their careers with fewer than 10 years of postdoctoral experience. Candidates must have been engaged in independent responsible research in the health sciences for at least 2 of the past 4 years. Applicants must have the assured cooperation of a training institution and a preceptor.

Applications may be obtained from: **Scholars and Fellowships Program Branch, Fogarty International Center, National Institutes of Health, Bethesda, Md. 20014.** These must be submitted before 1 January 1979. Applications will be reviewed for scientific merit at the Fogarty International Center and forwarded to Sweden or Switzerland, as appropriate, for final selection and award in late spring or mid-summer 1979.

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RESEARCH ORIENTED



APPLICATIONS AWARE

This unique combination of challenges is offered to those equally unique individuals who will become part of our Advance Technology Laboratory in 1979.

In April of 1978 the Advance Technology Laboratory was established as part of GTE Laboratories to augment the long-term, broader technology investment of GTE. Drawing on the talents of existing technical staff members from a variety of disciplines, a major planning effort was undertaken and is now complete. In 1979 a substantial and vigorous research effort will be realized in the following areas.

- **LIGHT ASSISTED CHEMICAL REACTIONS**

Chemistry and physics of IR laser-induced reactions; photo-assisted catalysis.

- **POLYMER SYNTHESIS**

Polymer conductors and semiconductors; heat resistant polymers.

- **ROBOTICS RESEARCH**

Research and advanced engineering on fundamental concepts of control, manipulation and judgment; sensors; electronic-mechanical integration; essential elements of batch assembly, materials handling.

- **IMMUNOLOGY/BIOCHEMISTRY**

Interaction of light with immune systems; areas such as biological membrane technology, aquaculture, developmental biology.

- **SURFACE PLASMONS/INTEGRATED OPTICS**

Physics of solid surfaces; optical properties of materials; thin films.

- **QUASI-ONE-DIMENSIONAL SYSTEMS**

Electron transport phase transitions, interactions, and collective modes in linear chain conductors and semiconductors.

- **RESEARCH IN STATISTICS AND APPLIED MATHEMATICS**

Statistical research in such areas as reliability theory, complexity theory, information theory.

GTE Laboratories provides advanced research and development support to the entire Corporation of more than 60 communications, products, research and service subsidiaries in the U.S. and 17 countries around the world. The Advance Technology Laboratory complements the business-focused technology units of GTE. It will participate in the forefronts of research and technology on the broadest technical horizons in order to anticipate long-term technology needs and opportunities for the Corporation. In addition to full Corporate financial backing, the staff has access to the technical facilities and support personnel of GTE Laboratories. Both are among the finest available in the world. Personally, you will find an atmosphere that provides the academic freedom to be creative and encourages publication of your work.

In 1979 the Advance Technology Laboratory will make a substantial addition to the existing staff. We are looking for professionals with Ph.D. or equivalent in such diverse fields as: Electrical and Mechanical Engineering, Physics, Chemistry, Biology, and Mathematics.

Our location in Waltham, Massachusetts is convenient to both the greater Boston/Cambridge academic community and other Rte. 128 research centers. This provides the opportunity for effective cooperation and interaction with technical organizations outside GTE as well as continuing educational opportunities for our staff.

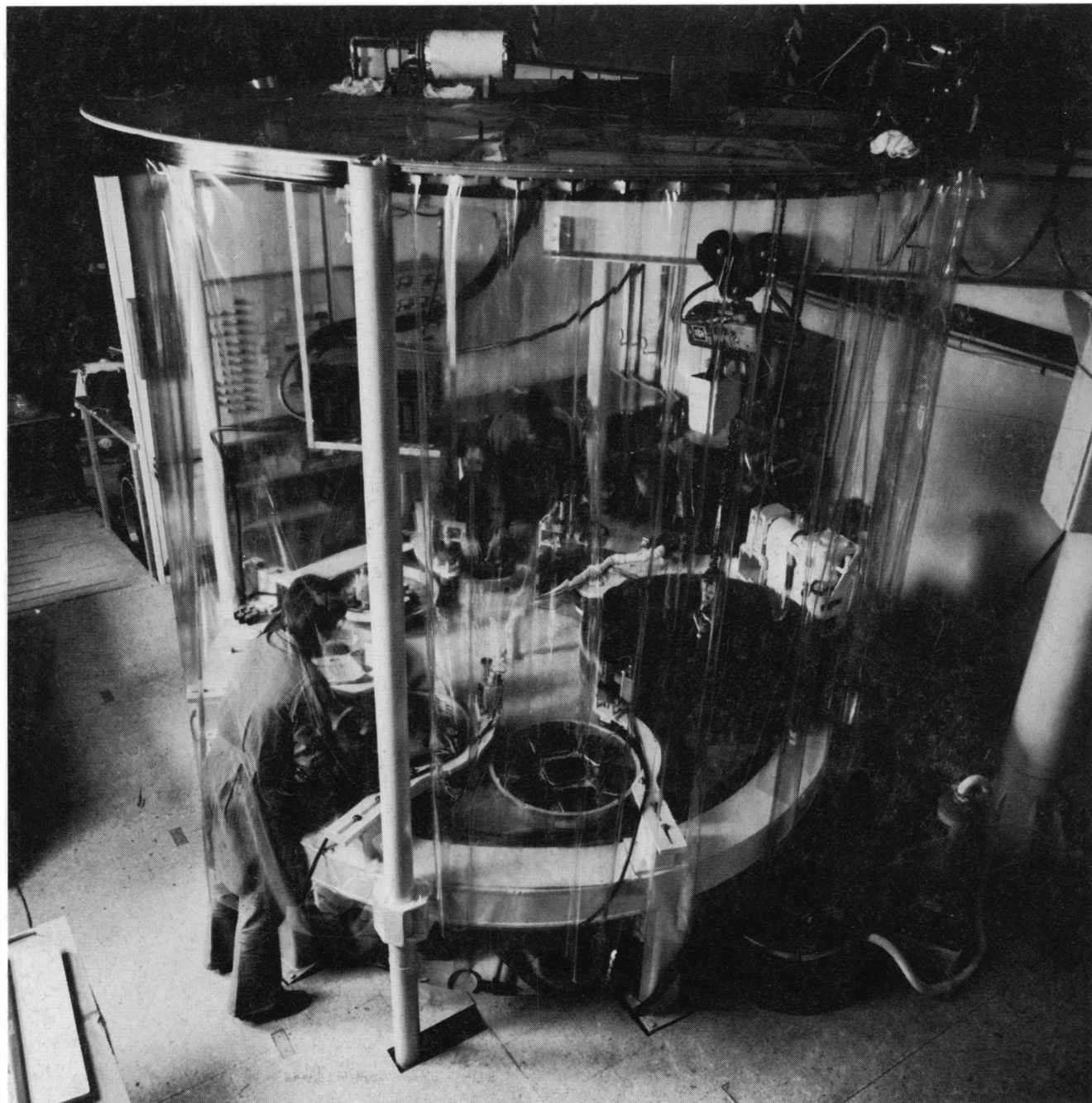
We are inviting resumes from interested individuals who are qualified by experience and education in the areas mentioned above. If you would like more specific details on any area before submitting a resume please forward a letter of inquiry, briefly outlining your background and area of interest, and we will contact you.

Resume and letters should be directed to Ken Keeler, Dept. 3-S, GTE Laboratories, Inc., 40 Sylvan Road, Waltham, MA 02154.

An equal opportunity employer, M/F.

GTE LABORATORIES

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Here is the latest of what we use to polish a large optical surface flat to less than $1/20$ of a wavelength and smooth to 10 angstrom units, which is only ten times the diameter of a hydrogen atom. We don't need such equipment to make the products for which we are most widely known. However, we do make some very special products for some very special customers like, for example, space telescope people and the folks who are trying to see if arrays of huge lasers can ignite a speck of deuterium to give back significantly more energy than the titanic bolts they hurl at it.

Such games run entirely on superlatives—combinations of superlatives in optical quality, in size, in the putting together of things mechanical, optical, electrical, and chemical to work as planned. People who depend on a Kodak camera and Kodak film to picture the fun at a kid's birthday party have no need to know all this. But the lady or gentleman who bears even heavier responsibilities for very large undertakings where our skills can be useful can establish contact for possibly sharing those responsibilities with us by phoning Jack O'Grady at 716-722-0387.

