

BOOKS RECEIVED

(Continued from page 352)

1977 (U.S. distributor, Bishop Museum Press, Honolulu). viii, 88 pp., illus. Paper, \$4.50. Wau Ecology Institute Handbook No. 2.

Industrial and Environmental Xenobiotics. In vitro versus in vivo Biotransformation and Toxicity. Proceedings of a conference, Prague, Sept. 1977. James R. Fouts and Ivan Gut, Eds. Excerpta Medica, Amsterdam, 1978 (U.S. distributor, Elsevier, New York). xviii, 346 pp., illus. \$57. International Congress Series 440.

Jacques Lacan. Anika Lemaire. Mardaga, Brussels, ed. 2, 1977. 382 pp. Paper, 430 BF. Psychologie et Sciences Humaines.

Laboratory Handbook of Paper and Thin-Layer Chromatography. Jiří Gasparič and Jaroslav Churáček. Translated from the Czech by Želimir Procházka. R. A. Chalmers, Transl. Ed. Horwood, Chichester, England, and Halsted (Wiley), New York, 1978. 362 pp., illus. \$42.50. Ellis Horwood Series in Analytical Chemistry.

Manpower and Immigration Policies in the United States. National Commission for Manpower Policy, Washington, D.C., 1978. vi, 276 pp. Paper. National Commission for Manpower Policy Special Report No. 20.

The Mathematics of the Energy Crisis. R. Gagliardi with a section by J. E. Pournelle. Intergalactic Publishing Company, Westmont, N.J., 1978. viii, 72 pp., illus. Paper, \$6.96.

Numerical Methods in Offshore Engineering. Papers from a symposium, Swansea, U.K., Jan. 1977. Wiley-Interscience, New York, 1978. xii, 582 pp., illus. \$48. Wiley Series in Numerical Methods in Engineering.

Organic and Biological Chemistry. John R. Holum. Wiley, New York, 1978. xxiv, 494 pp., illus. \$14.95.

PCT, Spin and Statistics, and All That. R. F. Streater and A. S. Wightman. Benjamin Advanced Book Program, Reading, Mass., ed. 2, 1978. x, 208 pp., illus. Paper, \$14.50. Mathematical Physics Monograph Series.

Pentachlorophenol. Chemistry, Pharmacology, and Environmental Toxicology. Proceedings of a symposium, Pensacola, Fla., June 1977. K. Ranga Rao, Ed. Plenum, New York, 1978. xiv, 402 pp., illus. \$37.50. Environmental Science Research, vol. 12.

Percepción y Cultura. Un Enfoque Ecológico. Carmen Viqueira. Centro de Investigaciones Superiores, Tlalpan, Mexico, 1977. 320 pp., illus. Paper. Ediciones de las Casa Chata, 4.

Psychodynamics of Drug Dependence. Jack D. Blaine and Demetrios A. Julius, Eds. Alcohol, Drug Abuse and Mental Health Administration, Rockville, Md., 1977 (available from the Superintendent of Documents, Washington, D.C.). xii, 188 pp. \$2.75 National Institute on Drug Abuse Research Monograph 12.

Radiation Effects. ESR and ENDOR Analysis. Harold C. Box. Academic Press, New York, 1977. viii, 280 pp., illus. \$24.50.

Rainbows, Halos, and Other Wonders. Light and Color in the Atmosphere. Kenneth Heuer. Dodd, Mead, New York, 1978. 110 pp., illus. \$5.95.

Regional Impacts of Rising Energy Prices. William H. Miernyk, Frank Giarratani, and Charles F. Socher. Ballinger (Lippincott), Cambridge, Mass., 1978. xviii, 138 pp., illus. \$15.50.

Research in Sociology of Knowledge, Sciences and Art. An Annual Compilation of Research. Vol. 1. Robert Alun Jones, Ed. JAI Press, Greenwich, Conn., 1978. viii, 290 pp. \$12.50; to institutions, \$25.

Simulation Modelling of Environmental Problems. François N. Frenkiel and David W. Goodall, Eds. Published for the Scientific Committee on Problems of the Environment of ICSU by Wiley, New York, 1978. xvi, 112 pp. Paper, \$11. SCOPE 9.

Singlet Oxygen. Reactions with Organic Compounds and Polymers. Papers from a conference, Stockholm, Sept. 1976. B. Rånby and J. F. Rabek, Eds. Wiley-Interscience, New York, 1978. x, 332 pp., illus. \$37.

Solar Power and Fuels. Proceedings of a conference, London, Canada, Aug. 1976. James R. Bolton, Ed. Academic Press, New York, 1977. xvi, 254 pp., illus. \$13.50.

Spores VII. Papers from a conference, Madison, Wis., Oct. 1977. Glenn Chambliss and James C. Vary, Eds. American Society for Microbiology, Washington, D.C., 1978. x, 354 pp., illus. \$20.

Statistics. David Freedman, Robert Pisani, and Roger Purves. Norton, New York, 1978. xvi, 506 pp., illus. + appendices. \$13.95.

Structural Analysis. A Unified Classical and Matrix Approach. A Ghali and A. M. Neville. Chapman and Hall, London, and Halsted (Wiley), New York, ed. 2, 1978. xxiv, 780 pp., illus. Paper, \$19.95.

Whence and Wherefore. The Cosmological Destiny of Man Scientifically and Philosophically Considered. Zev Zahavy. Barnes, Cranbury, N.J., and Yoseloff, London, 1978. 178 pp. \$7.50.

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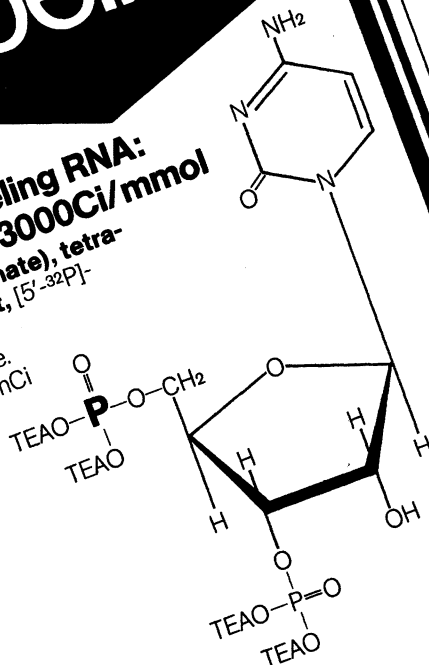


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 1000-3000Ci/mmol
 Ethanol:water, 1:1, dry ice.
 NEG-019 500μCi 1mCi



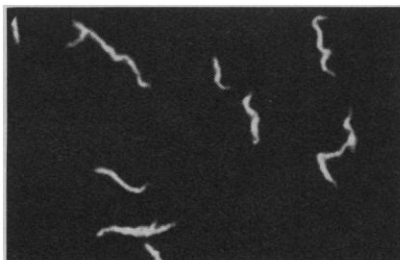
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 Deoxycytidine 5'-triphosphate, tetra-
 (triethylammonium) salt, [α-³²P]-
 1000-3000Ci/mmol
 Ethanol:water, 1:1, dry ice.
 NEG-013H 500μCi 1mCi

Also >300Ci/mmol
 dCTP NEG-013X } 500μCi
 dATP NEG-012X } 1mCi
 dGTP NEG-014X } 2mCi
 dTTP NEG-005X }
 Ethanol:water, 1:1, dry ice.

5' end labeling DNA and RNA:
ATP[γ-³²P] >5500Ci/mmol
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 (triethylammonium) salt, [γ-³²P]-
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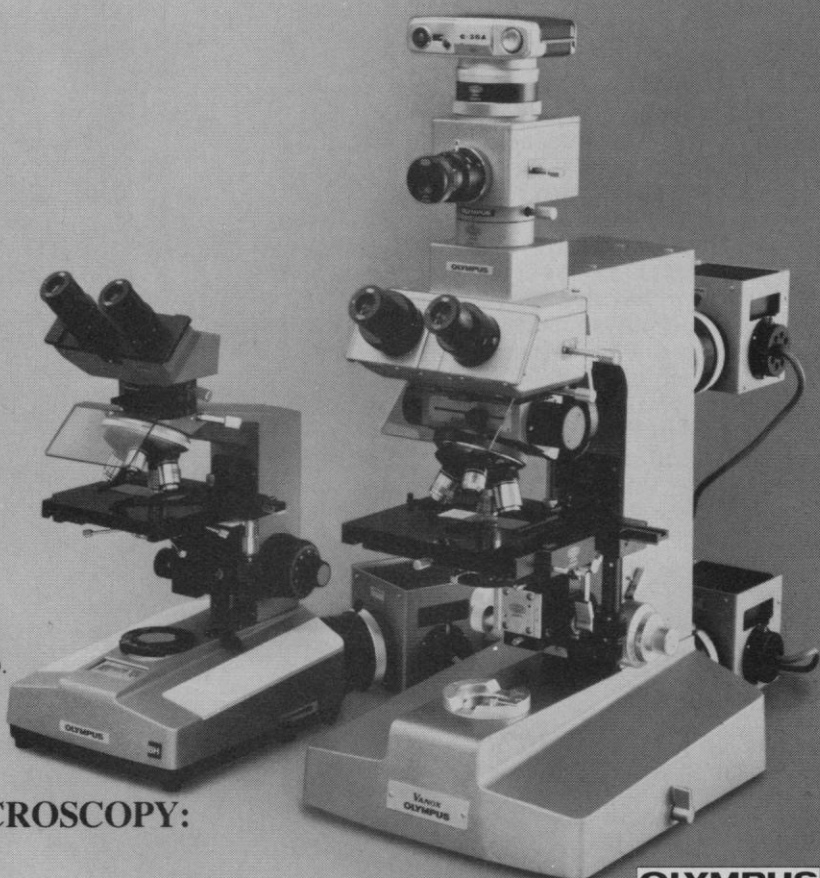
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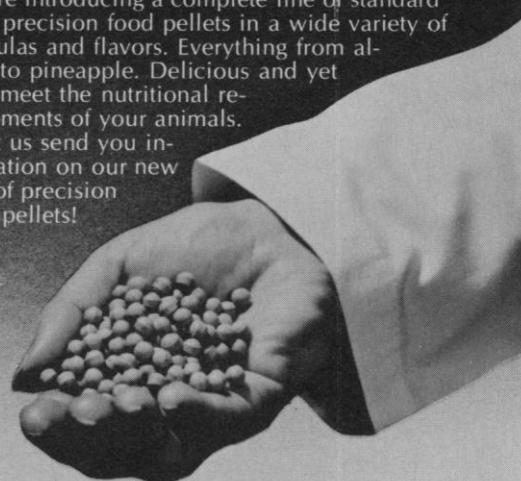
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POSITIONS WANTED

Clinical Biochemist. M.T., Ph.D (biochemistry), specialist in chemistry (ASCP), clinical chemist (NRCC), Board-eligible, AACC, ACS. Expertise in all phases of clinical biochemistry, quality control, radioimmunoassay, laboratory management, computerization; publications. Seeks pathology setting position. Box 26, SCIENCE. X

Clinical Psychologist/Behavioral Psychopharmacologist. Ph.D. 1971. Seven years of experience in substance abuse research. Psychiatric inpatient experience. Grant support and publications. Desires academic or industrial position with opportunity for research in human psychopharmacology. Résumé available upon request. Box 28, SCIENCE. X

Crystallographer. Ph.D. 1974, with postdoctoral experience, seeks permanent position working independently in x-ray crystallography. Box 30, SCIENCE. 1/26; 2/2

College Coordinator for state science fair programs between high school and university; B.S., M.A.E., OBTA; youthful, many years of science fair experience at local, national levels. Box 2032, Gary, Indiana 46409. X

Evolutionist/Generalist. Seeking 1979 academic position. Ph.D. Harvard, 1973. Courses taught: genetics, comparative vertebrate anatomy, cytogenetics, vertebrate ecology, biogeography, invertebrate biology (marine), and general biology. Research: comparative population cytogenetics, modes of speciation and evolution, evolutionary biogeography, systematic herpetology, and evolutionary epistemology. Field experience: United States, Mexico, West Indies, Poland, Israel, Iran, and Australia. Grants, publications. Available for interviews, spring 1979. Write: W. P. Hall, University Research Fellow, Department of Genetics, University of Melbourne, Parkville, Victoria 3052, Australia. X

Ph.D. Nuclear Physicist. One book, five papers published. Five years of research/teaching. Wants research position in nuclear physics/nuclear medicine. Box 27, SCIENCE. X

POSITIONS WANTED

Physiologist. Ph.D. Postdoctoral and industrial cardiovascular and respiratory research experience. Publications. Seeking industrial research position. Box 29, SCIENCE. X

POSITIONS OPEN

ANATOMY: ASSISTANT PROFESSORS

The Department of Anatomy at Tufts University School of Medicine invites applications for two tenure-track positions at the assistant professor level beginning 1 July 1979. Applicants should have at least 1 or 2 years of postdoctoral experience and show promise of developing an active and independent research program. Preference will be given to individuals in the following research areas: reproductive biology, mechanisms of hormone action, cell biology (especially secretory mechanisms), reproductive neuroendocrinology, and the effects of alcohol and/or aging on the CNS. Applicants must be qualified to teach either gross anatomy, histology, or neuroanatomy to medical, dental, and graduate students. Qualified applicants are invited to submit curriculum vitae, names of three references, and a letter describing research and teaching interests to: **Dr. Karen R. Hitchcock, Chairman, Department of Anatomy, Tufts University School of Medicine, 136 Harrison Avenue, Boston, Massachusetts 02111. Tufts University is an Equal Opportunity/Affirmative Action Employer.**

AQUATIC MICROBIOLOGIST. To develop programs in:

- 1) viruses or microbial pathogens in estuarine/marine systems, or
- 2) estuarine/marine microbial ecology, particularly heterotrophic processes.

This is a tenure-track faculty position; rank open. Primary emphasis on research productivity. Experience in aquatic ecology desirable.

Send letter of application and curriculum vitae, and arrange for three letters of evaluation to be sent to: **Chairman, Search Committee, Chesapeake Biological Laboratory, University of Maryland, Solomons, Maryland 20688. Closing date: 15 March.**

ASSISTANT PROFESSORSHIPS UNIVERSITY OF WISCONSIN-MILWAUKEE

The Department of Zoology anticipates the availability of two faculty positions for fall 1979. Applicants with postdoctoral experience preferred.

ENDOCRINOLOGIST—Expertise in modern endocrinological concepts and techniques. Interest in collaborative work in behavioral and environmental physiology, or cellular physiology. Teaching duties include endocrinology and participation in developmental biology and/or physiology.

GENETICIST—Expertise in mathematical and biochemical aspects of genetics. Will be expected to teach at introductory as well as graduate level.

Please send résumé, a statement of research goals, and transcripts by 1 March 1979, and arrange to have three letters of reference sent to: **Dr. Roslyn P. Warren, Chairperson, Zoology Search Committee, Zoology Department, P.O. Box 413, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin 53201.**

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

ASSISTANT PROFESSOR OF BIOLOGICAL CHEMISTRY

The Department of Biological Chemistry, Harvard Medical School, invites applications for two positions of assistant professor. Candidates should have a strong background in biochemistry and/or molecular biology.

Applications should include your curriculum vitae, bibliography, a short summary of research goals, and the names of three professional persons acquainted with your work.

Send applications, for receipt by 9 March 1979, to:

**Dr. Charles C. Richardson
Chairman, Search Committee
Department of Biological Chemistry
Harvard Medical School
Boston, Massachusetts 02115**

Harvard University is an Equal Opportunity Employer with an Affirmative Action Program, and it encourages applications from women and members of minority groups.

POSITIONS OPEN

ASSISTANT PROFESSOR, BIOPHYSICAL SCIENCES, State University of New York at Buffalo (SUNYAB). A tenure-track position is open at the Department of Biophysical Sciences, State University of New York at Buffalo. The candidate is expected to develop, alone or in collaboration with members of the faculty, an independent research program in a frontier area in biophysics. In addition to instruction at the graduate level, the candidate is expected to take an active part in the development of a new undergraduate program in biophysics. The candidate should have substantial teaching experience in biophysics, bioengineering, or related topics, and three or more years of postdoctoral research experience. Applications should be received by 1 February 1979. *The State University of New York is an Affirmative Action/Equal Opportunity Employer. We would be pleased to receive suggestions of, or applications from, women and minority candidates. No individual, in whatever relation to SUNYAB, shall be subject to discrimination on the basis of age, color, national origin, race, religion, or sex.* **Dr. Michael Anbar, Department of Biophysical Sciences, SUNYAB, 118 Cary Hall, Buffalo, N.Y. 14214.**

ASSISTANT PROFESSOR OF BIOMEDICAL SCIENCES

The UCR/UCLA Program in Biomedical Sciences, which offers an accelerated M.D. curriculum jointly between the University of California, Riverside, and the University of California, Los Angeles, School of Medicine, has a faculty opening at the assistant professor level. Teaching responsibilities will be in human microanatomy or a related field of medical sciences. Applicants should have postdoctoral experience and be able to continue with or develop an independent research program in an area of **CELL BIOLOGY**. *The University of California is an Affirmative Action/Equal Opportunity Employer.* Applications, including curriculum vitae and names of references, should be sent to:

**Dr. Ernst A. Noltmann, Associate Dean
Division of Biomedical Sciences
University of California
Riverside, California 92521**

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 by 15 February 1979 to: **Dr. Bernard Bronczyk Acting Chairman, Department of Microbiology, West Virginia School of Osteopathic Medicine, Lewisburg, West Virginia 24901.**

ASSISTANT PROFESSOR OF RADIATION ONCOLOGY

The University of Rochester Cancer Center seeks a person with experience and training in radiation biophysics related to determining the mechanism of interaction in combined radiation and drug protocols in animal tumors and normal tissues. The appointee will be expected to mount an active research program through independent grant support and to contribute to the teaching of graduate and medical students. Salary range: \$18,000 to \$21,000. Reply to: **Dr. Robert M. Sutherland, Cancer Center, Box 704, University of Rochester Medical Center, Rochester, New York 14642. An Equal Opportunity Employer.**

Scripps Institution of Oceanography has a possible opening for a postdoctoral position as **ASSISTANT RESEARCH GEOCHEMIST I**, \$17,500, to participate in grant-supported laboratory program using stable isotope variations to study environmental and atmospheric chemistry. Appointment beginning immediately, for 1 to 2 years, possibly longer. Candidates should have Ph.D. in physical, nuclear, or geochemistry or physics, with publications, and experience in analytical work involving mass spectrometry or low-level counting. Experience with study of glacial ice samples is desirable. Send résumés and references to: **M. Atwell, A-020, Geological Research Division, Scripps Institution of Oceanography, La Jolla, California 92093. The University of California is an Equal Opportunity Employer with an Affirmative Action Program. Women and minorities are encouraged to apply.**

POSITIONS OPEN

UNIVERSITY OF CALIFORNIA COLLEGE OF MEDICINE, IRVINE DEPARTMENT OF RADIOLOGICAL SCIENCES

Applications are invited for a post at the ASSISTANT PROFESSOR level in the Division of Radiation Oncology at the University of California, College of Medicine, Irvine (chief, Dr. Martin Colman). This will be a full-time position with responsibilities for teaching at undergraduate and graduate levels and for clinical service and research in the University of California, Irvine, Medical Center. The applicant should be a Board-certified therapeutic radiologist, preferably with postcertification experience in therapeutic radiology, should be prepared to engage in ongoing research and will have the opportunity to develop new research protocols. The division participates in the Radiation Therapy Oncology Group and the Gynecology Oncology Group. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Applications, including a short biography and copies of any publications, should be sent to:

Eric N. C. Milne, M.B., Ch.B., F.R.C.R.
Professor and Chairman
Department of Radiological Sciences
University of California, Irvine
College of Medicine
Irvine, California 92717

Closing date: 6 March 1979.

THE UNIVERSITY OF BRITISH COLUMBIA DEPARTMENT OF ZOOLOGY

Applications are invited for three positions at the assistant professor level to teach:

- 1) Parasitology,
- 2) Introductory Biology, and
- 3) Neurophysiology.

Qualifications include a Ph.D., with demonstrated ability in effective teaching. The appointee for introductory biology must be capable of making a positive contribution to teaching large first-year classes. The successful applicants will be expected to develop strong research programs. Upper-level undergraduate teaching and graduate student teaching and supervision are required. Salary will be commensurate with experience and duties. Curriculum vitae and the names of three references should be sent to: Dr. G. G. E. Scudder, Head, Department of Zoology, University of British Columbia, 6270 University Boulevard, Vancouver, British Columbia, Canada V6T 1W5. Appointment effective 1 July 1979. Closing date: when position is filled.

ASSOCIATE DIRECTOR/CONTENT RESEARCH

The Children's Television Workshop is producing a series of science programs for children 8 to 12 years old. A 1-year position, starting immediately, is available to work with the project staff preparing material for the series. The person we seek will have (i) a Ph.D. in two physical sciences or engineering; (ii) substantial research experience; (iii) teaching experience at the elementary level; and (iv) experience with television or film. No telephone inquiries. Send résumé, the names of three references, and salary requirements to: Director of Employee Relations, CHILDREN'S TELEVISION WORKSHOP, 1 Lincoln Plaza, N.Y., N.Y. 10023. *An Equal Opportunity Employer.*

ASSOCIATE DIRECTOR MONTANA AGRICULTURAL EXPERIMENT STATION

Applications/nominations invited for associate director, Montana Agricultural Experiment Station, Montana State University. Responsibilities include planning, development, direction, and administration of research program. Program encompasses 11 on-campus departments; seven Research Centers; cooperates with USDA-SEA-AR and CES.

Terminal degree, proven scholarly and professional competence, and administrative experience at an Agricultural Experiment Station, desired.

Position available 1 July 1979. Applications must be received by 30 March 1979, accompanied by current curriculum vitae and names of three references.

Montana State University is an Affirmative Action/Equal Opportunity Employer.

Send nominations and applications to:

T. T. Williams, Chairman
Associate Director Search Committee
205 Cobligh Hall
Montana State University
Bozeman, Montana 59717
Telephone: 406-994-2115

POSITIONS OPEN

BIOCHEMIST. Position as associate researcher available for Ph.D. to develop a bacterial mutagenesis assay for use in study of chemical carcinogenesis and DNA repair. Background required in chemistry and microbiology. Salary range: \$15,000 to \$16,000. Send curriculum vitae and three references to: Dr. Gerhard Stöhrer, Chemical Carcinogenesis, Sloan-Kettering Institute for Cancer Research, 145 Boston Post Road, Rye, New York 10580.

BIOCHEMISTRY FACULTY POSITIONS. Two tenure-track assistant/associate level positions are available beginning July 1979. Primary requirements are potential for and commitment to excellence in teaching and research. Preference will be shown candidates in the areas of energy transducing mechanisms and biochemistry of gene expression. Truly outstanding candidates are encouraged to apply, irrespective of field of interest. *University of Wyoming is an Equal Opportunity/Affirmative Action Employer.* Send résumé, statement of proposed research, transcripts, and three reference letters to: Ivan I. Kaiser, Chairman, Department of Biochemistry, Box 3944, University Station, University of Wyoming, Laramie, Wyoming 82071. Closing date: 28 February 1979.

BIOLOGY TEACHING OVERSEAS. Research-teaching positions available beginning fall 1979 in such specialties as ecology, plant physiology, developmental biology, and invertebrate zoology. Ph.D. required; rank and salary depend on experience and qualifications. Usual contract is for 3 years with round-trip travel and other fringe benefits. Curriculum vitae and letters of recommendation should be airmailed to: Dr. Samir Deeb, Biology Department, American University of Beirut, Beirut, Lebanon. Application review will begin 1 March 1979. *An Affirmative Action/Equal Opportunity Employer.*

CARDIOVASCULAR PHARMACOLOGIST

Immediate opening available for a full-time Ph.D. pharmacologist with at least 4 years of postdoctoral experience in experimental cardiovascular pharmacology. The individual should have experience with isolated heart preparations and in surgical techniques and methodology related to the measurement of coronary artery blood flow in the ischemic and nonischemic heart. A practical knowledge of the assessment of coronary collateral blood flow with microspheres and experience with arrhythmia models is desired.

Please send résumé with three references to: Dr. Walter L. Henry, Professor of Medicine and Chief, Division of Cardiology, University of California, Irvine, Medical Center, 101 City Drive South, Orange, California 92668.

Applications are invited from all qualified persons; minorities and women encouraged to apply.

CELL BIOLOGIST, BIOCHEMIST. The Research Division of the Department of Ophthalmology, Columbia University, is seeking candidates with recent Ph.D. degrees to fill two positions. **Cell Biologist** wanted with expertise in electron microscopy, cytology, tissue culture, and considerable experience with human donor eyes. **Biochemist** wanted for research in isolation of structure determination of complex carbohydrates. Experience in carbohydrate chemistry desirable. Send curriculum vitae with list of publications and references to: Dr. Karl Meyer, Eye Research, 630 West 168 Street, New York, N.Y. 10032. *An Affirmative Action/Equal Opportunity Employer.*

CHAIRPERSON, DEPARTMENT OF BIOLOGICAL SCIENCES

Applications and nominations are invited for chairperson of a 14-member department within the College of Environmental Sciences of Murray State University. Murray State is a regional university enrolling approximately 8000 students. The department has strong programs in both environmental and laboratory areas leading to B.S. and M.S. degrees in biology. Qualifications include: (i) earned doctorate, (ii) leadership and administrative capabilities to manage departmental programs and (iii) continuing scholarly achievements in teaching and research. Position is a tenure-track appointment with rank and salary open. Duties are to begin 1 July 1979. Letter of application or nomination, curriculum vitae, and three letters of reference should be postmarked by 1 March 1979, and forwarded to: Dr. Robert E. Daniel, Chairman, Search Committee, Department of Biological Sciences, Murray State University, Murray, Kentucky 42071. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

CELL BIOLOGIST/IMMUNOPARASITOLOGIST

We seek to appoint an assistant professor with broad expertise in cell biology and with research interests in immunobiology. Applicants must demonstrate the capacity to establish a research program in experimental cellular immunobiology, with preference given to candidates investigating host-parasite interactions. Responsibilities include teaching introductory biology, parasitology/symbiosis, or introductory cell biology and active participation in the department's graduate program. A Ph.D. is required, and postdoctoral experience is desired. Letters of application, curriculum vitae, representative reprints, and three letters of reference must be received by 10 March 1979. Address all materials to: Immunobiology Search Committee, Department of Zoology, Oregon State University, Corvallis, Oregon 97331. *Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.*

CHAIRMAN DEPARTMENT OF BIOCHEMISTRY Medical University of South Carolina

Applications are invited from highly qualified individuals to assume the position of professor and chairman of the department. Candidates must have the Ph.D. and/or M.D. degree, administrative leadership abilities, and a strong ongoing research program in some aspect of the biochemical sciences. Exciting opportunities exist in this dynamic, growing institution dedicated to education in the health sciences, research, and health care delivery. Nominations or applications should be sent to: Dr. Hiram B. Curry, Chairman, Search Committee for Biochemistry, Department of Family Practice, Medical University of South Carolina, 171 Ashley Avenue, Charleston, South Carolina 29403. *An Equal Opportunity/Affirmative Action Employer.*

The School of Medicine of the State University of New York (SUNY) at Stony Brook is conducting a search for a **CHAIRPERSON** of the Department of Neurosurgery who will be responsible for developing an academic program and a patient-care program at the school and at the University Hospital. Address inquiries to: Leonard E. Meiselas, M.D., Chairman of Search Committee, SUNY at Stony Brook, Long Island, N.Y. 11794. *Equal Opportunity/Affirmative Action Employer.*

CHAIRMAN, Department of Physiology. We are seeking an outstanding leader with demonstrated excellence in teaching, research, and administration to become chairman of our Department of Physiology, September 1979. Please submit complete curriculum vitae and names of four references by 15 April 1979 to: Robert C. Schlant, M.D., Physiology Chairman Search Committee, Emory University School of Medicine, 69 Butler Street, SE, Atlanta, Georgia 30303; telephone: 404-588-4440. *An Affirmative Action/Equal Opportunity Employer.*

CHEMISTRY TEACHING OVERSEAS. Faculty positions, available 1 October 1979, in the following fields: analytical (instrumentation), inorganic (coordination and physical), organic (natural products), and physical (spectroscopy). Appointments are normally made at the assistant professor level for a 3-year period. Ph.D. required. Postdoctoral research/teaching experience preferred. Airmail curriculum vitae and inquiries to: Chairman, Department of Chemistry, American University of Beirut, Beirut, Lebanon. The department has a faculty of 12, an undergraduate B.S. program, an M.S. program with research and thesis, and plans for a Ph.D. program. *An Affirmative Action/Equal Opportunity Employer.*

Position in **DEVELOPMENTAL BIOLOGY** at the assistant professor level.

The person will be expected to maintain an active research program, supervise the training of graduate students, and teach a course in the molecular aspects of development.

Candidates should send curriculum vitae and a statement of research interests postmarked no later than 1 April 1979 to:

Ross J. MacIntyre, Chairman
Developmental Biology Search Committee
Section of Botany, Genetics, and Development
Cornell University
Ithaca, New York 14853

Three letters of recommendation should also be sent to the above address. *Cornell University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

CHIEF, LABORATORY ANIMAL COLONY. An experienced individual is sought to head an AAA-LAC accredited laboratory animal colony. The individual should have a minimum of 2 years of supervisory experience, knowledge of subhuman primate husbandry, certification as a laboratory animal technologist or technician, and academic experience. Send curriculum vitae and three letters of recommendation to: **Chairman, Animal Colony Advisory Committee, Texas Research Institute of Mental Sciences, 1300 Moursund Avenue, Houston, Texas 77030.** An Equal Opportunity/Affirmative Action Employer.

DEAN COLLEGE OF SCIENCE THE UNIVERSITY OF TEXAS AT EL PASO

The University of Texas at El Paso is seeking a person to lead, administratively and academically, its College of Science which is composed of five departments: Biological Sciences, Chemistry, Geological Sciences, Mathematics, and Physics. The college has 81 tenure-track faculty positions and offers B.S. and M.S. degrees in all of its departments and a doctor of geological sciences degree. Applicants must possess a Ph.D., demonstrated administrative ability, and research and teaching experience at both the undergraduate and graduate levels so as to qualify for the rank of professor in one of the college's departments. Closing date for application is 28 February 1979, with date of appointment to be 1 June 1979, or 16 July 1979.

Each applicant should send a résumé and the names of at least three persons qualified to evaluate his/her qualifications and accomplishments to:

**Chairman
Search Committee for a Dean, College of Science
Office of the Vice President for Academic Affairs
The University of Texas at El Paso
El Paso, Texas 79968**

The University of Texas at El Paso is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION— DEVELOPMENTAL—CELL BIOLOGIST

The Department of Biology of Syracuse University is seeking applications for the position of assistant professor (entry level) in the areas of developmental or cell biology, to become available 1 September 1979. We are interested in superior candidates who have completed postdoctoral research and have shown exceptional progress in research. Teaching duties will consist of an undergraduate laboratory course in vertebrate biology and a graduate level course in the candidate's research area. Applicants whose teaching expertise is in the area of neurobiology will also be considered.

Applicants should send curriculum vitae, a statement of research interests and reprints, and the names of three to five individuals who will provide letters of recommendation. Applications should be sent to: **Dr. Donald Lundgren, 206 Lyman Hall, 108 College Place, Syracuse University, Syracuse, New York 13210.** Candidates should arrange to have recommendations sent to the same address. Applicants must either be U.S. citizens or have permanent visa status. Application deadline is 15 March 1979.

The Biology Department has 27 full-time faculty, 58 graduate students, and approximately 400 undergraduate majors (juniors and seniors).

Syracuse University is an Equal Opportunity/Affirmative Action Employer.

DIRECTOR, BIOMEDICAL SCIENCES DEPARTMENT. This position is located at Naval Submarine Medical Research Laboratory, Naval Submarine Base, Groton, Conn. The director is responsible for developing and managing both basic and applied comprehensive multidisciplinary research programs, in response to current and future Navy needs. Unique operational requirements demand investigations in numerous areas, including physiological and biochemical responses to and adaptation to stress, environmental physiology, environmental contamination, and long-term health effects and implications of these factors for Naval personnel. The director is directly responsible to the commanding officer and is the principal adviser for biomedical programs. The position is established as a supervisory medical officer, Series 602, at the GS-15 level. Candidates require a M.D. degree and a Ph.D. in physiology with at least 5 years of medical research experience. Submit résumé to: **Raymond Beattie, Employment Superintendent, Civilian Personnel Department, Box 20, Naval Submarine Base New London, Groton, Conn. 06340.**

POSITIONS OPEN

DIRECTOR, DEPARTMENT OF MICROBIOLOGY CASE WESTERN RESERVE UNIVERSITY

Nominations and applications are invited for the above position. The Department of Microbiology, Case Western Reserve University, has a strong tradition of excellence in research and in interdisciplinary medical education. Candidates are sought with the ability to continue this tradition. An M.D. or Ph.D. degree in a relevant area is required. The candidate should be outstanding in research, be familiar with all areas of microbiology, and have a strong commitment to medical and graduate education. Applicants should submit curriculum vitae and the names of three references to: **Dr. R. W. Hanson, Director of Biochemistry, Case Western Reserve University, Medical School, Cleveland, Ohio 44106.** An Equal Opportunity/Affirmative Action Employer.

DIRECTOR, DIVISION OF ANIMAL CARE, University of Miami School of Medicine, Miami, Florida. The director provides for the care of laboratory animals for all departments in the School of Medicine. He is responsible to the dean. Minimal qualifications are a degree in veterinary medicine, a licensure or eligibility for such in the State of Florida, demonstrated academic accomplishment, and administrative experience. Interested candidates should submit a résumé and names of at least two professional references to: **Dr. Theodore Malinin, Chairman of the Search Committee, Surgical Laboratories (R-12), University of Miami School of Medicine, P.O. Box 016960, Miami, Florida 33101.**

MINNESOTA SEA GRANT DIRECTOR. The University of Minnesota is seeking a highly competent director for its expanding Sea Grant Program. Ph.D. required with proven scholarly and professional excellence, administrative experience, and the ability to provide creative and innovative leadership with a strong commitment to the solution of problems pertaining to the marine environment. For further details contact: **Dr. E. F. Graham, University of Minnesota Sea Grant Program, 1980 Folwell Avenue, St. Paul, Minnesota 55108; telephone: 612-376-5671 or 373-1708, by 15 February.** An Affirmative Action/Equal Opportunity Employer.

MUSEUM DIRECTOR. The San Diego Society of Natural History is seeking an executive director to supervise an expanding, dynamic museum, including research and curation in the fields of natural history, exhibits, and educational activities. Must have administrative experience and be able to deal effectively with the public. Send résumés by 15 April to: **Search Committee, San Diego Society of Natural History, P.O. Box 1390, San Diego, Calif. 92112.** An Equal Opportunity/Affirmative Action Employer.

ELECTRONICS SHOP SUPERVISOR—Department of Chemistry, The University of Chicago. Opening for experienced person to head our three-person electronics shop. Knowledge of magnetic resonance, mass spectrometry, minicomputers, and spectrophotometers preferred. Should be familiar with RF techniques (through microwaves), mechanical design, analog and digital I.C.'s, and a broad range of vacuum-tube and solid-state circuits. Send résumé to: **Dr. G. L. Boshart, Department of Chemistry, The University of Chicago, 5735 South Ellis Avenue, Chicago, Illinois 60637.** An Affirmative Action/Equal Opportunity Employer.

ALFRED HOSPITAL MELBOURNE, AUSTRALIA ENDOCRINE SCIENTIST

The Ewen Downie Metabolic unit at the Alfred Hospital, Melbourne, which is affiliated with Monash University, requires a Ph.D. scientist with expertise in radioimmunoassay, as well as experience with receptor techniques, hormone purification, or affinity chromatography. The unit has both clinical laboratory responsibilities with service and research functions. The successful applicant will be able to conduct an active research program related to either thyroid hormones, the renin-angiotensin system, or adrenal steroids. The position involves responsibility for a routine radioimmunoassay laboratory in addition to the research program. Salary dependent on qualifications and experience. For further information send curriculum vitae, including bibliography and summary of research interests, together with names of three referees to: **Director, Ewen Downie Metabolic Unit, Alfred Hospital.**

Official applications should be forwarded to: **Director of Personnel Services, Alfred Hospital, Commercial Road, Prahran, 3181, Victoria, Australia.**

Equal Opportunity Employer

POSITIONS OPEN

DIRECTOR CENTER FOR ENVIRONMENTAL TOXICOLOGY MICHIGAN STATE UNIVERSITY

The Colleges of Agricultural and Natural Resources, Human Medicine, Osteopathic Medicine, and Veterinary Medicine and the Agricultural Experiment Station provide joint support for a Center of Environmental Toxicology being developed at Michigan State University. The Center will coordinate and carry out interdisciplinary research, develop information and technical services, interact with state and federal agencies, and serve as an interface between the University and these agencies.

Applications and nominations for **DIRECTOR** are solicited. Candidates should hold a Ph.D. or professional degree and be an established scientist in a field related to toxicology. Candidates should have experience in administration and in working in interdisciplinary programs.

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

Applications or nominations, accompanied by recent curriculum vitae, should be sent to:

**Dr. Robert Barker
Department of Biochemistry
Michigan State University
East Lansing, Mich. 48824**

Deadline for receipt of applications is 20 February 1979.

ENGINEERING TECHNICIAN—Engineering or science graduate wanted to operate and maintain fluorescence-activated cell sorter (Becton Dickinson FACS-IV) for research laboratories in cell kinetics, immunology, and related fields. Principal qualifications are experience and competence in working with sophisticated research instruments, plus interest in biomedical applications. Previous experience with flow cytometry and cell sorting is desirable but not essential. Salary is flexible depending on qualifications. Send curriculum vitae and names of references to: **Jerrold Fried, Ph.D., Cell Kinetics Laboratory, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, N.Y. 10021.** An Equal Opportunity Employer, M/F.

ENVIRONMENTAL CHEMIST

Tenure-track assistant or associate professorship beginning September 1979 in an ACS-accredited department with ten chemists. Duties include teaching undergraduate environmental chemistry and quantitative analysis and participating in lower-division environmental science and chemistry courses. Ph.D. required. A strong background in chemistry at the graduate level required. Postdoctoral experience desired. Strong commitment to teaching and ability to develop a research program expected. Send application, three letters of recommendation, and transcripts to: **Faculty Search Secretary, College of Arts, Sciences and Letters, The University of Michigan-Dearborn, Dearborn, Mich. 48128.** A nondiscriminatory, Affirmative Action/Title IX Employer.

FACULTY POSITIONS, DIVISION OF CHEMISTRY AND CHEMICAL ENGINEERING CALIFORNIA INSTITUTE OF TECHNOLOGY

Applications are being accepted for the following positions: junior-level positions in organic chemistry, chemical biology, inorganic chemistry, and chemical engineering and senior-level positions in organic chemistry, chemical biology, and chemical engineering. Send curriculum vitae, three letters of recommendation, and a description of research interests to: **Professor F. C. Anson, 127-72, California Institute of Technology, Pasadena, Calif. 91125.** The California Institute of Technology is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS IMMUNOLOGY

Two faculty positions at the assistant professor level are available between April and September for the areas of tumor immunology/immunogenetics. Candidates must have postdoctoral experience and accomplishments in these disciplines and be capable of developing independent research programs. Some graduate teaching required, but teaching load is minimal. Strong research program in immunology and virology available. Send curriculum vitae with three references to: **Dr. D. M. Goldenberg, Division of Experimental Pathology, University of Kentucky Medical Center, Lexington, Ky. 40506.**

Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

ENVIRONMENTAL SCIENTISTS

An established Midwestern firm providing environmental and ecological consulting services throughout the United States and abroad anticipates expansions during the first half of 1979 in the following disciplines:

FIELD ORNITHOLOGIST/WILDLIFE ECOLOGIST

Ph.D. or M.S. plus West/Midwest experience

WILDLIFE ECOLOGIST

M.S. or B.S. plus experience

PLANT ECOLOGIST

Ph.D. or M.S. plus experience

RANGE ECOLOGIST/SOIL SCIENTIST

M.S. plus Western experience

FISHERIES ECOLOGIST

(Marine and Freshwater)

Ph.D. or M.S./population dynamics

AQUATIC BIOLOGIST

(Marine and Freshwater)

M.S. or B.S. plus experience

WATER QUALITY SCIENTIST

Ph.D. or M.S. plus experience

We offer competitive salaries complemented by an excellent benefit program. Interested, qualified candidates are encouraged to forward their résumés to: **Box 24, SCIENCE.**

Equal Opportunity Employer, M/F

ENVIRONMENTAL SCIENTIST

CONSUMERS UNION (CU), publisher of *Consumer Reports*, has had a continuing focus on environmental issues (air, food, water, radiation, waste disposal, energy, and so forth). We are planning to bring together Consumers Union's scientifically related public service activities under one umbrella.

We are looking for a full-time person with a demonstrated interest in environmental issues and with the necessary background to fill a high-level management position in the CU organization. Responsibilities include administration of projects for publication, the development of environmental policies, and managing our technical work.

Candidates should have the requisite scientific education, experience, and stature to serve as a high-level CU technologist-manager. It would be helpful if the candidates showed a flair for journalism and oral exposition, a clear perception of CU's organizational objectives, and an ability to distill a variety of views in an increasingly complex area.

Please forward résumé to: **Technical Director, Consumers Union, 256 Washington Street, Mt. Vernon, N.Y. 10550, Equal Opportunity/Affirmative Action Employer, M/F/H/V.**

EXECUTIVE DIRECTOR OF NATIONAL ASSOCIATION OF BIOLOGY TEACHERS

A Selection Advisory Committee to the National Association of Biology Teachers invites nominations and applications for the position of executive director.

The National Association of Biology Teachers (NABT) is a professional organization of educators and scientists devoted to the improvement of education in the biological sciences. The association maintains its national headquarters in Reston, Virginia. It publishes *The American Biology Teacher* monthly, a newsletter bimonthly, and sponsors an annual convention in addition to many special projects and workshops.

It is desirable for the candidate to have experience in teaching in the biological sciences, a minimum of a baccalaureate in biology or biology education, administrative achievement, and demonstrated capacity to exercise educational leadership. The new director will be expected to assume duties not later than 1 July 1979.

Nominations and applications including current résumés and references may be sent until 1 March 1979 to:

**Phillip R. Fordyce, Chairman
NABT Selection Advisory Committee
Room 211-N Westcott Building
Florida State University
Tallahassee, Florida 32306**

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

FACULTY POSITIONS. Environmental health sciences. **Requirements:** Doctoral degree; teaching experience desirable. **Rank:** Assistant professor, or higher if qualifications warrant. **Research interests:** Air quality, toxicology, environmental epidemiology, or other appropriate fields. Our program is based on a concern for the effects on health of the interactions of people with their environments and emphasizes research in human communities. Please contact:

**Thomas F. Gesell, Ph.D., Chairman
Environmental Health Sciences Search Committee
School of Public Health
The University of Texas
Box 20186
Houston, Texas 77025**

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

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 JHMHC, University of Florida, Gainesville, Florida 32610**, by no later than 30 April 1979. *We are an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION—Ph.D. to assume assistant professorship and combine excellent teaching with high-quality research program. Preference shall be given to experimental inorganic or experimental physical chemists, although outstanding recent Ph.D. recipients with postdoctoral experience are encouraged to apply regardless of area of specialization. Résumé, brief but explicit statement of academic goals, three letters of recommendation, and transcript(s) should be sent prior to 1 March 1979 to: **Dr. Robert W. Kiser, Chairman, Search Committee, Department of Chemistry, University of Kentucky, Lexington, Kentucky 40506.** *An Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS

The Department of Biochemistry, State University of New York at Buffalo, Schools of Medicine, Dentistry, and Pharmacy, has openings for two assistant professors in tenure-track positions. Qualifications include a positive, long-term commitment to teaching, a demonstrated proficiency in research, and interest in training Ph.D. candidates. Complete applications must include curriculum vitae, a statement of long-term research objectives, and reprints or preprints of publications. Applicants should also have three letters of reference sent to:

**Dr. Alexander C. Brownie, Chairman
Department of Biochemistry
State University of New York at Buffalo
102 Cary Hall
Buffalo, New York 14214**

Applications should be postmarked no later than 28 February 1979.

An Equal Opportunity/Affirmative Action Employer

PATHOLOGIST—Dartmouth Hitchcock Medical Center has an opening for a well-trained, Board-qualified or -certified pathologist prepared to play a major role in anatomic pathology, particularly surgical pathology, with an active interest and at least 5 years of experience in educational programs for residents and medical students in an academic medical center. Individuals applying should have experience in the utilization of electron microscopic and immunofluorescent techniques. In addition, candidates should have demonstrated a serious interest and effort in biomedical research. Applications will be accepted through 28 February 1979.

Direct inquiries to: **George D. Sorenson, M.D., Chairman, Department of Pathology, Dartmouth Medical School, Hanover, N.H. 03755.** *Equal Opportunity/Affirmative Action Employer*

POSITIONS OPEN

FACULTY POSITION OPEN—The Department of Civil, Mechanical, and Environmental Engineering of the School of Engineering and Applied Science, George Washington University, has a number of positions to fill. Specifically these include two visiting professorships and several assistant, associate, and full professorships. Because the needs of the department are varied, no specific fields are delineated although the following generic areas are sought:

- 1) Energy science, technology, alternative energy sources, energy systems analysis;
- 2) Systems dynamics and control;
- 3) Biomedical engineering;
- 4) Transportation technology, vehicles, structures and systems analysis on land, sea, and in the air;
- 5) Engineering mathematical analysis;
- 6) Space engineering and flight sciences;
- 7) Hydroacoustics; and
- 8) Manufacturing engineering.

An earned doctorate is required, together with the ability to initiate and conduct research. Academic rank and salary are dependent on qualifications. Send information, including facts of academic, industry, or government experience, and publications to:

**Professor A. B. Cambel, Chairman
Department of Civil, Mechanical, and
Environmental Engineering
School of Engineering and Applied Science
George Washington University
Washington, D.C. 20052**

The George Washington University is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS AVAILABLE DEPARTMENT OF OPHTHALMOLOGY UNIVERSITY OF PENNSYLVANIA SCHEIE EYE INSTITUTE PRESBYTERIAN-UNIVERSITY OF PENNSYLVANIA MEDICAL CENTER

Applications are invited for faculty positions at the assistant professor level. While the chief presently recognized need for faculty lies in clinical ophthalmic subspecialties, especially cornea and external disease, pediatric ophthalmology and retina, any highly qualified candidate interested in a position should inquire further concerning possible opportunities. As a general rule, only candidates who have had one or more years of postresidency training and/or equivalent experience will be considered. Those interested should direct inquiries together with up-to-date curriculum vitae and bibliographies to:

**Myron Yanoff, M.D.
Director, Scheie Eye Institute
Chairman, Department of Ophthalmology
University of Pennsylvania-
Presbyterian Medical Center
51 North 39 Street
Philadelphia, Pa. 19104**

An Equal Opportunity/Affirmative Action Employer

GENETICIST—NORTHWESTERN UNIVERSITY. Assistant professor, tenure-track. Postdoctoral experience is required. Prefer individual working on eukaryotic system. Send curriculum vitae, reprints, other supporting documentation, and names of at least three references to: **Search Committee, Department of Biological Sciences, Northwestern University, Evanston, Illinois 60201.**

Equal Opportunity/Affirmative Action Employer

HEMODIALYSIS RESEARCH PROJECT DIRECTOR

We are an established private research institute looking for a project director who will initiate and supervise projects in clinical hemodialysis. You would be a senior scientist, Ph.D. or M.D., interested in evaluation of dialysis technology in a clinical setting. Experienced in formulating and managing clinical trials especially of extracorporeal devices. Reply in strict confidence to: **Box 25, SCIENCE.**

INSTRUCTOR, BIOCHEMISTRY, to team-teach biochemistry and biochemistry laboratory and conduct research on the biochemical mechanism of excitation-secretion coupling in the CNS. Starting salary: \$14,000 to \$15,000. Position available for 5 years. Send curriculum vitae, three letters of recommendation, and bibliography to: **Dr. J. A. Babitch, Chemistry Department, Texas Christian University, Fort Worth, Texas 76129**, by 28 February 1979. *Texas Christian University does not discriminate on the basis of sex, religion, handicap, race, or ethnic origin.*

POSITIONS OPEN

ICHTHYOLOGIST. Ph.D. required. A systematics-oriented ichthyologist is sought to teach general zoology, ichthyology, and life histories of fishes and to curate a collection of over 70,000 specimens. Assistant professor level starting 20 August 1979. Application deadline is 15 February 1979. *An Equal Opportunity/Affirmative Action Employer.* Send curriculum vitae, two letters of recommendation, transcripts, and supporting materials to: **V. Thiesfeld, Chairman, Department of Biology, University of Wisconsin-Stevens Point, Stevens Point, Wis. 54481.**

Position available in Department of Pathology at **INSTRUCTOR/ASSISTANT PROFESSOR** level. Position involves: (i) Supervising a service laboratory which provides teaching materials for health science students, histochemical, and cytochemical procedures for investigators and receptor assays in various diseases. The service load is small but is expected to expand in scope and number of analyses, (ii) Teaching graduate, postdoctoral, and baccalaureate students, (iii) Research. The laboratory director will be responsible for some of the more demanding assays, but ample opportunity is available for research. A strong background in histochemistry and biochemistry is preferred. Position available 1 July 1979 or sooner by negotiation. Salary commensurate with experience. Send application to: **Gary E. Striker, M.D., Professor of Pathology, School of Medicine, University of Washington, SM-30, Seattle, Wash. 98195.** Include curriculum vitae. *An Equal Opportunity Employer.* Application deadline: 31 March 1979.

PHARMACOLOGIST, Ph.D., to teach pharmacology courses to undergraduate pharmacy and nursing students. Will be expected to develop productive research program and participate in committee work. Assistant professor, tenure-track, 12-month appointment. Applicants must be available no later than 1 July 1979. Applications, including curriculum vitae and names of three references should be sent by 1 April 1979 to: **Dr. William M. Hadley, College of Pharmacy, University of New Mexico, Albuquerque, N.M. 87131.** *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

LABORATORY MANAGER—PHYSICAL CHEMISTRY. Immediate opening for physical chemist (M.S., Ph.D., or equivalent experience) to assist in supervising undergraduate physical chemistry laboratories. Duties include chemical procedures and preparations, overall supervision and maintenance of course equipment (spectroscopic, vacuum, electronic), assistance in experiment design, and working with graduate student assistants. Salary commensurate with experience. Contact: **Dr. G. L. Boshart, Department of Chemistry, The University of Chicago, 5735 South Ellis Avenue, Chicago, Ill. 60637.** *An Affirmative Action/Equal Opportunity Employer.*

NEUROBIOLOGIST

The Worcester Foundation for Experimental Biology has several faculty-level openings for neurobiologists with a commitment to cellular and molecular approaches to understanding the functions and organization of neural ensembles. Areas of potential interest could include, but are not limited to, neuroendocrinology, developmental neurobiology, functional neuroanatomy, and synaptology. Send résumé, statement of research plans, and the names of at least three references to: **Neurobiology Search Committee, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Massachusetts 01545.**

An Equal Opportunity/Affirmative Action Employer

NEUROBIOLOGY AND BEHAVIOR

A position at the assistant professor level is available in the Biology Department, Princeton University. Faculty in the neurobiology and behavior area include M. Constantine-Paton, H. Horn, A. Gelperin, J. Gould, R. Lisk, and W. Quinn. Evidence of exceptional promise in research is essential. Applicants should send curriculum vitae, statement of research experience, and three letters of recommendation to: **Dr. Alan Gelperin, Neurobiology Search Committee, Department of Biology, Princeton University, Princeton, N.J. 08540.** *Princeton University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

PHARMACOLOGIST. Ph.D. Tenure-track position beginning August 1979. Teaching responsibility to dental and allied health professional students. Potential exists to participate in graduate education. Development of an independent research program is required. Send curriculum vitae to: **Dr. Howard M. Klitgaard, Chairman, Department of Basic Sciences, Marquette University School of Dentistry, 604 North 16 Street, Milwaukee, Wis. 53233.** *Marquette University is an Equal Opportunity/Affirmative Action Employer.*

Ph.D. PHYSIOLOGIST with special interest in reproductive physiology wanted to direct gynecologic endocrine laboratory at Tufts New England Medical Center Hospital. Send curriculum vitae to: **Martin Farber, M.D., Associate Professor, Department of Obstetrics and Gynecology, Director, Division of Reproductive Endocrinology, Tufts New England Medical Center Hospital, 37 Bennet Street, Boston, Mass. 02111.** *An Equal Opportunity Employer, M/F.*

NATIONAL RESEARCH SERVICE POST-DOCTORAL POSITIONS for M.D. or Ph.D. Available 1 July 1979. Previous immunology experience desired. Salary: \$12,000 to \$13,200, depending on experience. Send curriculum vitae, bibliography, and two references to: **Dr. H. H. Fudenberg, Professor and Chairman, Department of Basic and Clinical Immunology and Microbiology, Medical University of South Carolina, Charleston, S.C. 29403.**

PROFESSOR/ASSOCIATE PROFESSOR POSITIONS available for M.D. or Ph.D. with background in radioimmunoassay or cancer immunology or quantitative immunofluorescence or dialyzable leukocyte extract. Teaching is required and salary will be based on experience. Candidates must have their own grant support and professional candidate must be member of an editorial board or on a granting agency study section. Send curriculum vitae, bibliography, and two references to: **Dr. H. H. Fudenberg, Professor and Chairman, Department of Basic and Clinical Immunology and Microbiology, Medical University of South Carolina, Charleston, S.C. 29403.** *An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

THE AUSTRALIAN NATIONAL UNIVERSITY

An **ACADEMIC POSITION** is vacant in the Office for Research in Academic Methods (ORAM) (head: A. H. Miller). ORAM was established in 1975 to improve facilities for teaching and learning within the University, to collect data necessary for educational planning, and to make the findings of educational research available to teaching and administrative staff. Applicants should have experience in university teaching and should be qualified to undertake research into one or more aspects of higher education as part of a small independent team. There may be opportunities for a small amount of teaching in the appointee's own discipline, as this will help maintain contact with students and will provide the chance to practice innovations in course design, teaching, and assessment. The appointee may be asked from time to time to be acting head of the office in the absence of the head. Appointment will be for 3 years in the first instance, with the possibility, following review of reappointment, for a further fixed term, or to age 65. A 3-year secondment from an existing tenured position could be negotiated. This post was advertised earlier as research fellow or senior research fellow. The terms have now been slightly varied and the title has not yet been resolved. The applications received for the post when it was last advertised will be considered, unless candidates indicate that they are no longer interested. Commencing salary will be in accordance with qualifications, within the ranges A\$15,179 to A\$19,940 per annum or A\$20,365 to A\$23,737 per annum. Current exchange rates A\$1 : 58NP : U.S.\$1.14. Reasonable appointment expenses are paid. Superannuation benefits are available for applicants who are eligible to contribute. Assistance with housing. The University reserves the right not to make an appointment or to make an appointment by invitation at any time. Prospective applicants should write to: **Academic Registrar, Australian National University, P.O. Box 4, Canberra ACT 2600, Australia,** with whom applications close on 16 February 1979.

SENIOR SCIENTIST~ MICROBIOLOGY

Abbott Laboratories Fermentation Process Development Group has a vacancy for a Ph.D. Microbiologist with a background in general, soil, and fermentation microbiology. The qualified candidate must be experienced in the area of microbial genetics and the physiology of filamentous microorganisms. Also required is knowledge of genetic manipulation procedures, such as recombinations, protoplast fusion, transduction, DNA transformation and mutagenic treatments.

This position is accountable for laboratory work involving microbial strain improvement, maintenance, and physiology, pursuant to the improvement of fermentation productivity. Supervisory responsibility will include giving guidance to technicians and other professionals.

Abbott offers a strong compensation and benefit plan, tremendous opportunity for personal and professional growth, and an outstanding human resource environment. The position is located at Abbott's largest manufacturing facility, which is adjacent to the company's world headquarters, all of which is in a prosperous suburban setting, rich with recreational and cultural activities and one hour from either Chicago or Milwaukee. To receive immediate consideration, please forward your resume including current salary to:

Mark Scott
Corporate Placement

ABBOTT
NORTH CHICAGO, ILL. 60064

Abbott is an Affirmative Action Employer

POSITIONS OPEN

MAMMALIAN SYSTEMS PHYSIOLOGIST

A permanent joint appointment at the rank of assistant professor in the School of Basic Medical Sciences and the School of Life Sciences is available for fall 1979 in the Department of Physiology and Biophysics at the University of Illinois, Urbana. Salary is negotiable depending upon experience and qualifications. Those specializing in endocrinology or neurophysiology need not apply. All other applicants will be considered; however, first consideration will be given to those candidates with strong backgrounds in gastrointestinal or respiratory physiology. Duties will include (i) sharing in the delivery of the physiology curriculum to medical students enrolled in the Schools of Basic Medical Sciences and Clinical Medicine and (ii) participating in teaching and direction of graduate student research in the Department of Physiology and Biophysics within the School of Life Sciences. Postdoctoral experience, a record of research productivity, and a strong interest in quality research and teaching are essential. To receive equal consideration, applications should be received by 15 February 1979. Each applicant is requested to submit (i) complete curriculum vitae including at least two recent reprints if available, (ii) a brief narrative of his/her future research goals, and (iii) the names of three individuals conversant with the applicant and his/her research activities. Apply to:

Dr. James E. Heath, Head
Department of Physiology and Biophysics
524 Burrill Hall
University of Illinois
Urbana, Illinois 61801
Telephone: 217-333-1734

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

Faculty position in **PLANT PHYSIOLOGY**, assistant professor of botany and assistant botanist in the Agricultural Experiment Station (11 months); 75 percent research, 25 percent teaching. The candidate will be expected to develop a research program on the cellular mechanisms of uptake of organic molecules including but not restricted to soil-applied herbicides. A Ph.D. degree is required. The candidate should have a strong background in the biophysical techniques appropriate to the field. Teaching responsibilities will include an upper-division undergraduate course in plant physiology and/or a course in weed science. Applications, including résumé, statement of research and teaching goals, transcripts, and three letters of reference, should be sent to: **Dr. D. E. Bayer, Search Committee Chairman, Botany Department, University of California, Davis, Calif. 95616.** Closing date: 15 March 1979. *The University of California is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.*

POSTDOCTORAL POSITION available now for a biochemical study of capillaries isolated from brain and retina. Goals are to define the cellular basis of capillary failure in diabetes, brain edema, and lead poisoning. Areas under current investigation include membrane transport, pinocytosis, biochemical composition, and cellular metabolism. Experience in tissue culture or cytochemistry is helpful. Salary to \$16,000. Applicants with Ph.D. or M.D. send curriculum vitae and letters of recommendation to: **Dr. G. Goldstein, Department of Neurology, M-794, University of California, San Francisco, Calif. 94143.**

POSTDOCTORAL POSITION of 2-year duration available immediately for sequence and affinity labeling studies on ribulosebiphosphate carboxylase at salary of \$12,000 for first year. Please send résumé and letters of reference to: **Dr. Fred C. Hartman, Oak Ridge-University of Tennessee Graduate School of Biomedical Sciences, P.O. Box Y, Oak Ridge, Tenn. 37830.** *An Equal Opportunity/Affirmative Action Employer.*

Cooperative Institute for Marine and Atmospheric Studies (CIMAS)

Two **POSTDOCTORAL POSITIONS** renewable for up to 3 years, will be available for the investigation of the role of ocean dynamics and of large-scale air-sea interactions in climate variability. Salary will be commensurate with experience. CIMAS is operated under the joint sponsorship of the University of Miami and NOAA. Subject to performance, there are good possibilities for later long-term appointment with either of the two parent organizations. Please send inquiries with résumés to: **Director, CIMAS, 4600 Rickenbacker Causeway, Miami, Florida 33149.** *An Equal Opportunity/Affirmative Action Employer*

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately in protein chemistry. Studies on subunit interactions and slow transitions in the regulation of hexokinases or on interaction of nerve growth factor with membrane receptors. Send curriculum vitae with names of three references to: **Dr. K. E. Neet, Department of Biochemistry, Case Western Reserve University, Cleveland, Ohio 44106.**

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY

One position available immediately and another on 1 July 1979. Research in enzymology of DNA restriction-modification enzymes and DNA polymerase as well as studies on replication transcription and assembly of filamentous phage and interaction of viral components with membrane. Send curriculum vitae and names of three references to: **Robert E. Webster or Paul Modrich, Department of Biochemistry, Duke University Medical Center, Durham, North Carolina 27710.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS AVAILABLE. The Division of Biochemical and Clinical Pharmacology, St. Jude Children's Research Hospital, Memphis, Tenn. 38101 (a totally philanthropic Equal Opportunity/Affirmative Action Employer) provides training (1 to 3 years) through studies of the activities (and inhibition) of enzymes involved in salvage of pyrimidine derivatives by normal and neoplastic cells; synthesis of compounds designed to inhibit these enzymes; mechanisms of growth and inhibition of enzymes within cancer cells in culture; new techniques for identification of drug-resistant cells; studies of chemotherapeutic agents both in cells and in vivo (murine tumors and human xenografts grown in immunosuppressed mice); and pharmacokinetic studies in man; \$12,000 to \$13,500 per annum (partly free of tax). For individuals with more advanced training (for example, in HPLC or in clinical pharmacology), positions at higher stipends may be available after 1 July 1979. Send applications with curriculum vitae and supporting letters to: **Dr. A. D. Welch.**

POSTDOCTORAL POSITION involving the expression of globin genes in erythroleukemia cells and the sequence organization of fetal and adult genes. Send résumé to: **Dr. Jerry B. Lingrel, Department of Biological Chemistry (522), University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, Ohio 45267.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE—Available beginning 1 July 1979 or later. Studies of molecular biology and molecular pharmacology of drug and hormone receptors and adenylate cyclase. Ph.D. in biochemistry, molecular biology, or pharmacology preferred but is not required.

Applications including curriculum vitae, list of publications, selected reprints if available, and names of two or three academic referees should be sent to:

Dr. Robert J. Lefkowitz
Box 3325
Duke University Medical Center
Durham, North Carolina 27710

UCLA—POSTDOCTORAL RESEARCH ASSOCIATE to investigate the organization and expression of seed protein genes in the soybean plant. Experiments will involve the intensive use of recombinant DNA technology. Position available 15 February. Send résumé and names of references to: **Dr. Robert B. Goldberg, Department of Biology, UCLA, Los Angeles, California 90024.**

POSTDOCTORAL STAFF ASSOCIATE

Position available in February–March 1979 for recent Ph.D. in biochemistry, microbiology, or plant physiology to work on the photoproduction of hydrogen from water by solar energy. Research involves use of hydrogenase-containing photosynthetic algae to carry out production of hydrogen and oxygen from water in sunlight, immobilization of algae, and development of effective reagents for reversible removal of oxygen. Applicants should have experience in enzymology or photosynthesis. Salary commensurate with experience.

Send curriculum vitae, bibliography, and names of three references to: **Dr. Alvin I. Krasna, Department of Biochemistry, Columbia University, College of Physicians and Surgeons, 630 West 168 Street, New York, New York 10032.**

Columbia University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTGRADUATE RESEARCH DEPARTMENT OF BIOLOGY PRINCETON UNIVERSITY

NIH postdoctoral training grant positions for recent Ph.D.'s in the areas of biochemical and genetic aspects of cell differentiation (Doctors T. Cline, E. Cox, A. Newton, and P. Schedl), cell biology and development (Doctors J. Bonner, E. Cohen, M. Steinberg, and G. Witman), and behavioral and population genetics (Doctors J. Endler, J. Gould, R. May, and W. Quinn) are available beginning summer 1979. Applications should include curriculum vitae and summary of research interest. Closing date: 2 April 1979. Inquiries or applications should be sent to: **Dr. E. C. Cox, Chairman, Department of Biology, Princeton University, Princeton, N.J. 08540.** *Princeton University is an Equal Opportunity/Affirmative Action Employer.*

PRESIDENT

The Human Resources Research Organization (HumRRO) seeks a replacement for its president who is resigning for health reasons. HumRRO is a nonprofit corporation of national standing that since 1951 has carried out research and development projects on human performance for a variety of public and private clients.

A person experienced in the management of behavioral and social science R & D, with marketing experience and a background in the nonprofit sector, is desired.

Applicants should submit a full résumé no later than 15 March 1979. Address all communications to: **P.O. Box 580, Alexandria, Virginia 22313.**

An Equal Opportunity/Affirmative Action Employer

PUBLIC HEALTH/PESTICIDES

The Board on Toxicology and Environmental Health Hazards is seeking a senior professional in the public health aspects of pesticides. The individual will be responsible for the development and implementation of a broad program aimed at the assessment of scientific data to determine risks to human health and to investigate mechanisms for evaluating risks. The individual would develop areas of evaluative investigations, determine technical approaches, and work with a committee to provide expert judgmental analysis for the resolution of scientific problems. A Ph.D. or equivalent, with evidence of experience and scholarly contributions to the public health assessment of pesticides or environmental agents, are required. Applicants should submit curriculum vitae to: **Dr. Robert G. Tardiff, Executive Director, Board on Toxicology and Environmental Health Hazards, National Academy of Sciences, 2101 Constitution Avenue, NW, Washington, D.C. 20418.** *An Equal Opportunity Employer.*

RESEARCH ASSOCIATE—Ph.D. in biochemistry, pharmacology, or related subject required for experimental cancer chemotherapy program, which includes cell culture studies and separation of drug metabolites by HPLC. Salary competitive. Send curriculum vitae and names of three references to: **Dr. R. C. Jackson, Laboratory for Experimental Oncology, Indiana University School of Medicine, Indianapolis, Indiana 46223.**

Indiana University is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE. A biochemist or cell biologist with postdoctoral experience is required to join a group engaged in investigating the control of spermatogenesis. The appointment will be for 2 or 3 years, beginning around August 1979, and will involve full-time research. Send curriculum vitae, statement of research interests, and names of three referees to: **Dr. Irving Fritz, Banting and Best Department of Medical Research, University of Toronto, Toronto, Canada M5G 1L6.**

STEREOLOGIST. Applications are invited for a Ph.D. or M.D. at the principal research associate faculty level to work on quantitative morphologic and functional correlates in the alveolar macrophage and in whole lung parenchyma after experimental animal exposure to tobacco smoke. Candidates should have several years experience in stereology at the electron microscope level, with publications in the field, and be familiar with research in tobacco toxicology. Salary scale: \$25,000 to \$34,000 depending on experience. Send résumé to: **Dr. G. L. Huber, Division of Respiratory Diseases, Beth Israel Hospital, 330 Brookline Avenue, Boston, Mass. 02215.**

**FACULTY POSITIONS
1979-1980
KING FAISAL UNIVERSITY
COLLEGE OF MEDICINE
DAMMAM, SAUDI ARABIA**

The expanding College of Medicine, now in its fourth year, is accepting applications from qualified men and women for the 1979-1980 academic year in:

CHEMISTRY	PATHOLOGY
BIOLOGY	COMMUNITY
PHYSICS	MEDICINE
BIOCHEMISTRY	EPIDEMIOLOGY
ANATOMY	MICROBIOLOGY
PHYSIOLOGY	PARASITOLOGY
PHARMACOLOGY	

Doctorate or equivalent degree required. Language of instruction is English. Interviews to be held in London and Houston in late February 1979.

SALARY RANGES (annual, paid monthly in Saudi riyals):

Professor: \$26,118 to \$33,378
Associate Professor: \$23,359 to \$29,712
Assistant Professor: \$19,039 to \$24,757
Lecturer: \$11,906 to \$16,444
(30 percent allowance for M.D. degree)

BENEFITS:

Free furnished housing, educational allowances, airfare to and from Saudi Arabia for family of four, 60-day paid vacation, liberal overweight allowance. No Saudi income tax.

Send two copies of résumé and three references to:

Dr. Tawfik Tamimi
Deah, Faculty of Medicine
King Faisal University
c/o Saudi Arabian Educational Mission
2221 West Loop, South
Houston, Texas 77027
OR
c/o P.O. Box 2
Sunbury on Thames
Middlesex TW16 6EH England

**CSIRO
RESEARCH SCIENTIST (ONE POSITION)
POSTDOCTORAL RESEARCH FELLOW (ONE POSITION)
DIVISION OF FISHERIES AND OCEANOGRAPHY
SYDNEY, NEW SOUTH WALES**

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

FIELD: FISHERIES BIOLOGY.

GENERAL: the Division is Australia's principal marine research institution with about 70 scientists investigating the physical, chemical, and biological features including fisheries of the oceans around Australia. Headquarters of the division are at Cronulla, Sydney, with regional laboratories in Perth, Brisbane, and a field laboratory at Karumba. On-line access to a Cyber 76 computer is available. Two well-equipped medium-sized chartered vessels are available for oceanographical research and there are several smaller CSIRO vessels. (Generous removal and resettlement costs including rental assistance for a reasonable period will be paid.)

**1) RESEARCH SCIENTIST
Reference Number 320/611**

DUTIES: to take a leading role in the development and execution of a research programme on marine fish resources around Australia including the supervision and coordination of other researchers in this field. Initially attention will be directed to demersal and pelagic resources associated with the continental mass. Field investigations on the division's vessel and on fishing vessels in the open sea will be required. Temporary posting to other parts of Australia might be necessary.

QUALIFICATIONS: a biologist with considerable experience is being sought. Basic formal qualifications are Ph.D. degree or equivalent qualifications in one of the ecological sciences or fisheries with training in mathematics and statistics, together with demonstrable research ability, and ability to work at sea.

SALARY: senior research scientist: A\$18,819 to A\$21,543 per annum, or principal research scientist: A\$22,353 to A\$25,354 per annum.

TENURE: indefinite with superannuation.

**2) POSTDOCTORAL RESEARCH FELLOW
Reference Number 320/610**

DUTIES: to participate in the development and execution of a research programme on marine fish resources around Australia. Initially attention will be directed to demersal and pelagic resources associated with the continental mass. Field investigations on the division's vessels and on fishing vessels in the open sea will be involved. Temporary posting to other parts of Australia may be required.

QUALIFICATIONS: a Ph.D. degree or equivalent in one of the ecological sciences or fisheries with training in mathematics and statistics, together with demonstrable research ability, and ability to work at sea.

SALARY: research scientist: A\$14,829 to A\$18,177 per annum, or senior research scientist: A\$18,819 to A\$21,543 per annum.

TENURE: 3- to 5-year fixed term appointment with superannuation.

Applications quoting the appropriate reference number and stating full personal and professional details and names of at least two referees, should reach: **The Chief, Division of Fisheries and Oceanography, CSIRO, P.O. Box 21, CRONULLA, NSW 2230, Australia, by March 1979.**

**PLANT MOLECULAR
BIOLOGIST
BROOKHAVEN NATIONAL
LABORATORY**

Position now available for plant scientist to conduct research in molecular biology. Candidates must have a background in the plant sciences and demonstrated experience in the area of molecular genetics. Research initiated by the investigator may be at a fundamental level but must be directed toward the U.S. Department of Energy's long-range goals of increasing biomass productivity. This would include basic research on cellular or genetic mechanisms that control plant growth, productivity, and response to the environment.

Applicants should submit curriculum vitae (including list of publications), brief research proposal, and the names of three references to:

H. Z. Kondratuk
Biology Department
Brookhaven National Laboratory
Associated Universities, Inc.
Upton, Long Island, N.Y. 11973

An Equal Opportunity Employer, M/F

INFORMATION TRANSFER SPECIALISTS. Opportunity requiring combined information and communication science background.

The Biological Services Program of the U.S. Fish and Wildlife Service needs an information transfer specialist at its National Power Plant Team, Ann Arbor, Michigan, and Eastern Energy and Land Use Team, Harpers Ferry, West Virginia.

The Biological Services Program is a national system including interdisciplinary teams that develop and disseminate ecological information and technology for use in planning and decision-making by federal and state governments and the private sector to prevent or minimize the impact of development on fish and wildlife.

On each of these teams an information transfer specialist provides information and communication science expertise personally and through staff and contracts to help the team plan, develop, and disseminate information and technology. Technical information support capabilities and services needed include those related to user needs analysis; data base development; on-line retrieval; dissemination planning and implementation; the preparation, production, and distribution of print media, such as reports, atlases, handbooks, and newsletters; and planning and managing workshops, conferences, and exhibits.

The information transfer specialist is experienced in program planning and budgeting with the ability to conceptualize, develop, and manage a comprehensive information transfer support program. This person is excellent in interpersonal communication at all professional levels and a good writer.

Four years of college in a science or engineering field and 3 years of experience in relevant information science work are minimum requirements.

Applicants should have CSC status or be currently certified in Senior Level CSC 408 Register at GS-13 level. Applicants with particularly relevant qualifications but who are certified in Mid-Level Register at GS-11 or -12 may be considered.

Applicants should respond by providing an updated SF 171 and Supervisor Appraisal (Form 3-142). Desired location should be indicated. *Equal Opportunity Employer.*

Responses should be sent within 2 weeks from the date of this ad to:

Doris Smith
Office of Biological Services
Fish and Wildlife Service
U.S. Department of the Interior
Washington, D.C. 20240

POSITIONS OPEN

RESEARCH ASSOCIATE for work on the biochemical genetics of hypertension in salt-sensitive rats. Requirements are a Ph.D. in biochemistry, pharmacology, or related disciplines. Experience with Na,K-ATPase is desirable but not mandatory. Salary is negotiable at postdoctoral level or above, depending on experience. Position available June 1979. 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.

UNIVERSITY OF MELBOURNE RESEARCH FELLOW GRADE II (LIMITED TENURE) IN PHYSICAL OCEANOGRAPHY OF THE SOUTHERN OCEAN in the DEPARTMENTS OF MATHEMATICS AND METEOROLOGY

A position has been created, in conjunction with a New Development Program for Antarctic Studies and Resources, for a research fellow to work jointly in the Mathematics and Meteorology Departments of this University primarily on the development of a model of the Southern Ocean circulation with some emphasis on sea/air/ice interactions.

The candidate should preferably have a background in physical oceanography and some knowledge of numerical modeling. Applicants should also state any field experience they may have.

SALARY: A \$15,179 to A \$19,940 per annum.

Further information, including details of application procedure and conditions of appointment, is available from: **Registrar, University of Melbourne, Parkville, Victoria, 3052, Australia.** Applications referring to position number 618 096 should be addressed to the Registrar and close on 15 March 1979.

BEN GURION UNIVERSITY OF THE NEGEV DEPARTMENT OF BIOLOGY, BEERSHEVA, ISRAEL

Invites applications for staff positions in fields related to modern agricultural biology of arid zones such as, green-house crops, stress physiology, biochemistry and physiology of plant productivity, breeding, climatology, growth dynamics, ichthyology, animal physiology, and nutrition. Candidates should send their curriculum vitae, list of publications, names of four persons able to evaluate their qualifications, and résumé of research and teaching interests. Salary and academic rank according to the qualifications and experience of the candidate. Contact: **Professor H. Lips.**

TEACH SCIENCE AND/OR MATHEMATICS IN AN INDEPENDENT SCHOOL

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

The University of Tennessee. **DEPARTMENT OF ZOOLOGY**, has three tenure-track openings to be filled at the assistant or associate professor level for September 1979. Postdoctoral experience is strongly desirable. Duties will include lecturing at undergraduate and graduate levels and maintenance of a strong research program. Applications are invited for positions of:

- 1) **CELL BIOLOGIST** with expertise in one of the following: regulation of assembly of cell components; cell cycle, growth and division; differentiation in tissue culture; nuclear-cytoplasmic interactions. Search committee chairperson: **G. L. Whitson.**
- 2) **ENDOCRINOLOGIST** with expertise in mechanisms of hormone action, hormone receptors and cell regulation. Search committee chairperson: **C. A. Shivers.**
- 3) **EVOLUTIONARY BIOLOGIST** with expertise in quantitative population genetics and interest in ecology and animal behavior. Search committee chairperson: **S. E. Riechert.**

Applicants should send curriculum vitae and three references by 1 March 1979 to the appropriate chairperson. Department of Zoology, University of Tennessee, Knoxville, Tenn. 37916.

An Equal Opportunity/Title IX/Section 504 Employer

POSITIONS OPEN

NEUROBIOLOGY UNIVERSITY OF UTAH

The Biology Department, University of Utah, will be making several appointments to regular faculty positions in neurobiology. Rank and salary will be negotiable according to qualifications and experience. Preference will be given to persons with research interests in cellular and molecular analysis of the function and development of nervous systems; interest extends to those pursuing physiological, genetic, and biochemical approaches to such analysis.

Interested applicants should submit curriculum vitae, a summary of professional goals, and names of three people who have agreed to give references. Candidates should also include reprints/preprints of no more than two papers which best represent their research achievements and interests. We are specifically seeking candidates with a broad biological interest, who show exceptional achievement and/or promise in both research and teaching.

Send applications before 28 February 1979 to: **Dr. William R. Gray, Chairman, Faculty Recruitment Committee, Biology Department, University of Utah, Salt Lake City, Utah 84112.**

An Equal Opportunity/Affirmative Action Employer

SENIOR INSTRUCTOR: PH.D. in biophysics/biology to develop a research program and be assistant director for the Cell Separation Facility at the University of Rochester Cancer Center. Responsibilities: develop, perform, and evaluate cell-separation procedures that isolate homogeneous cell populations for researchers in the Center. Experience with centrifugal elutriation, flow cytometry, and zonal rotor centrifugation required. Background in cell kinetics or cellular and molecular repair processes recommended. Salary: \$12,000 to \$14,000. Send curriculum vitae to: **Dr. Kenneth T. Wheeler, Box 704, Cancer Center, University of Rochester, Rochester, N.Y. 14642.** An Equal Opportunity Employer, M/F.

Two **STAFF OFFICER POSITIONS** with the Food and Nutrition Board:

- 1) **Food Scientist:** full time. Applicants must have Ph.D. or equivalent with broad education in food science, demonstrated writing skills, education or experience in nutrition also preferred. Salary commensurate with experience.
- 2) **Food Scientist/Technologist:** 60 percent time. Applicants must have M.S. in food science/technology or equivalent, plus experience in laboratory work and science writing and editing. Education or experience in nutrition also preferred. Salary is commensurate with experience.

Please send résumé with reference to position to: **Dr. M. L. Brown, National Academy of Sciences, 2101 Constitution Avenue, NW, Washington, D.C. 20418.** An Equal Opportunity Employer.

WILDLIFE BIOLOGISTS. Faculty teaching-research positions: (i) a large mammal management-ecologist with expertise in predator-prey interactions involving domestic and wild animals and (ii) a waterfowl ecology and management specialist. Inquiries or applications, including a résumé and three letters of recommendation, should be sent prior to 1 March to: **Head, Wildlife and Fisheries Sciences, Texas A & M University, College Station, Texas 77843.** An Equal Opportunity/Affirmative Action Employer.

PROGRAMS

SPILLED OIL RESEARCH PROGRAM

The NOAA Alaskan Outer Continental Shelf Environmental Assessment Program (OCSEAP) is surveying the availability of scientists to participate in a research program dealing with spilled oil. The program will attempt to improve site-specific predictions of the fate and effects of spilled oil on selected marine environments in Alaska. OCSEAP would like to assess the degree of interest among researchers who would be willing to design an experiment, oversee it in the field, do the laboratory analysis, and write up the results in scientific format. The program will use spills of opportunity, not necessarily occurring in Alaska, to test hypotheses derived from current OCSEAP research. Interested researchers should contact: **John Kineman, OCSEAP (RX4), 1790 30 Street, Boulder Colorado 80302; telephone: 303-499-1000, extension 6531; or Lois Killewich, OCSEAP Juneau Project Office, Juneau, Alaska 99802; telephone: 907-586-7438.**

CALL FOR PAPERS

An **International Symposium on the Effects of Nutrient Enrichment in Estuaries** will be held on 29 to 31 May 1979 in Williamsburg, Va. The conference is being organized by the Chesapeake Research Consortium and sponsored by the U.S. Environmental Protection Agency. One- to two-page abstracts for papers on relevant topics should be submitted by 15 February 1979 to:

Dr. Bruce J. Neilson
Virginia Institute of Marine Science
Gloucester Point, Va. 23062
Telephone: 804-642-2111

GRADUATE STUDY

PHYSIOLOGY—Opportunity for extensive research training in human physiology in a diversified multidisciplinary department leading to Ph.D. Close student-faculty interaction; up-to-date facilities; in city providing fine recreational and cultural environment. University stipends available on competitive basis.

For information and application form write to: **Dr. H. F. Martin, Department of Physiology, Medical University of South Carolina, Charleston, S.C. 29403.** Applicants considered without regard to sex or minority status.

GRADUATE TRAINING IN MEDICAL COMPUTING FOR PHYSICIANS

The University of Illinois at Urbana-Champaign College of Medicine and Department of Computer Science are accepting applications for a 2-year program in medical computing, leading to the degree of master of computer science.

All applicants must have an M.D. degree and preferably some residency training. A basic stipend of \$15,000 per year will be provided to qualified applicants.

The Department of Computer Science offers a well-established graduate program with 35 full-time faculty. Research interests include advanced instrumentation, information engineering, image processing, and artificial intelligence. The College of Medicine's Medical Computing Laboratory supports research in interactive medical consultation and other aspects of medical informatics, especially those involved with man-machine interaction.

Inquiries should be directed to: **Allan H. Levy, M.D., 567 Medical Sciences Building, University of Illinois, Urbana, Illinois 61801; telephone: 271-333-2284.**

The University of Illinois is in full compliance with all federal and state nondiscrimination and Equal Opportunity laws, orders and regulations, and will not discriminate against any person in any of its educational programs and activities.

COURSES

MARINE BIOLOGICAL LABORATORY Woods Hole, Massachusetts will conduct a residential laboratory course SCANNING ELECTRON MICROSCOPY in the BIOLOGICAL SCIENCES 29 April to 4 May 1979

This intensive course will enable scientists to use a scanning electron microscope effectively for biological research. The instruction emphasizes specimen preparation and interpretation of SEM images. Attendance is limited to 16 participants who will have ample access to microscopes and ancillary equipment.

The faculty will be led by **Dr. Bruce Wetzell** of the National Cancer Institute who will offer the program for the second time at Marine Biological Laboratory.

Other short courses on electron microscopy, freeze-etching, and diagnostic microscopy will be offered by the Laboratory in the spring.

Application materials and additional information are available from: **Office of Admissions, Marine Biological Laboratory, Woods Hole, Mass. 02543. Telephone: 617-548-3705.**

An Equal Opportunity/Affirmative Action Institution.



EPIDEMIOLOGIST (BRANCH CHIEF)

The U.S. Environmental Protection Agency, Office of Toxic Substances, Health Review Division, is seeking to fill the position of Branch Chief, Epidemiology Branch. The Branch is responsible for: developing guidelines and/or studies under the Toxic Substances Control Act; conducting epidemiological risk assessments; supporting the development of epidemiological risk assessment methodologies; evaluating the success of regulatory actions designed to reduce risk of adverse human health effects by identifying human health effects and proposing regulations or actions for the control of specific environmental contaminants; developing/managing a nationally/internationally recognized program in epidemiology. The Branch Chief plans and administers the Programs of the Branch.

This position may be filled by Civil Service or Public Health Service appointment. Applicants must have at least a Bachelor's degree in a Health related field, plus three years of appropriate professional experience in a health related field. Salary ranging from \$38,160 to \$47,500 depending on qualifications. You should send a Civil Service Commission Standard Form 171 (*please do not send resumes*) which can be acquired at any Civil Service Commission Job Information Center or any Federal Agency to:

Dr. Norbert Page, Director
Health Review Division (TS-792)
E.P.A.
Washington, D.C. 20460
Telephone No. (202) 755-6841

If you are now or have ever been employed in the Federal Service, you must also submit a performance appraisal dated within one year of the closing date of the announcement. The closing date for acceptance of applications is February 28. All SF 171's must be postmarked by this date. All applications (SF 171's) postmarked after the above date will be returned.

CNS PHARMACOLOGIST Pharmaceutical Research

This appointment offers an excellent career opportunity to conduct research with new therapeutic entities. It requires a Ph.D. having a broad background in general pharmacology with particular emphasis in neuropharmacology and neurochemistry, plus up to 3 years experience in drug development. The successful candidate must be oriented to the development of new CNS methodology for the detection of drug action or the definition of mechanism of action. Excellent benefits.

Please send resume to: Manager, Personnel Administration, Schering-Plough Research Center, 60 Orange Street, Bloomfield, New Jersey 07003.



Schering-Plough

We Are An Equal Opportunity Employer M/F



THE UNIVERSITY OF MANITOBA
invites applications and nominations for the
position of
DEAN OF THE FACULTY OF SCIENCE

The Faculty of Science at the University of Manitoba has a complement of 180 faculty and 90 support staff. Its 12 departments and units span the biological, mathematical, and physical sciences; they offer a full range of undergraduate science programs for approximately 2100 students enrolled in the faculty, courses for a large number of students from other faculties and schools, and M.Sc. and Ph.D. programs for about 280 graduate students.

Candidates should have achieved distinction as scholars in a major field of science, have a commitment to advancing higher education in science, and have strong leadership ability. Relevant administrative experience and knowledge of the Canadian educational system would be assets.

The appointment is expected to commence 1 September 1979 and will be for a renewable term of normally 5 to 7 years.

Please address responses to:

Provost R. A. Johnson
Chairman

Selection Committee for Dean of the Faculty of Science
Room 202, Administration Building
The University of Manitoba
Winnipeg, Manitoba, Canada R3T 2N2

Applications, nominations, and suggestions will be received until 15 March 1979.

N. C. SCHOOL OF SCIENCE AND MATHEMATICS

seeks chief executive officer (title to be decided) to provide leadership in the development of a unique residential public high school committed to excellence in education for 750 to 900 boys and girls with very high aptitude in science and mathematics. Candidate should have graduate degree(s) in science and/or mathematics and teaching and administrative experience, preferably in secondary or college education. Residential school experience a plus factor. This new publicly supported School will be structured to provide the chief executive and staff maximum flexibility to pioneer in curriculum development, instructional techniques, and the admission of students for the purpose of setting and attaining the highest standards of excellence in science and mathematics. The recruitment of an outstanding full-time faculty and the management of the School, including its curriculum and its funding, will be primary responsibilities of the chief executive who will report directly to a distinguished Board of Trustees. Salary commensurate with experience. It is anticipated that the appointment will be made prior to July 1, 1979 and that the first 300 students will be admitted to the Watts campus in Durham, North Carolina in September 1980. Candidates are urged to apply with full curriculum vitae as soon as possible, preferably prior to February 28, 1978.

SEARCH COMMITTEE
N.C. School of Science & Mathematics
Office of the Governor
Raleigh, North Carolina 27611
AN EQUAL OPPORTUNITY EMPLOYER

COURSES

MARINE BIOLOGICAL LABORATORY Woods Hole, Massachusetts SUMMER COURSES, 1979

These seven intensive courses are intended for postdoctoral, graduate, and advanced undergraduate students. Each consists of a formal program, 4 to 7 weeks long, and a postcourse research session (in some courses by invitation only) of 4 to 6 weeks in which the student does individual research under the tutelage of an instructor.

The courses are: **EMBRYOLOGY**, T. Humphreys, University of Hawaii, and J. V. Ruderman, Harvard Medical School, instructors-in-chief; **EXPERIMENTAL MARINE BOTANY**, J. A. Schiff, Brandeis University; **MARINE ECOLOGY**, I. Valiela, Marine Biological Laboratory, and J. M. Teal, Woods Hole Oceanographic Institution; **MICROBIAL ECOLOGY**, H. O. Halvorson, Brandeis University, and H. W. Jannasch, Woods Hole Oceanographic Institution; **NEURAL SYSTEMS AND BEHAVIOR**, A. Gelperin, Princeton University; **NEUROBIOLOGY**, E. A. Kravitz, Harvard Medical School; and **PHYSIOLOGY**, K. E. Van Holde, Oregon State University.

Tuition is \$600 for the formal program and \$250 for the postcourse research session. Room and board starts at about \$50 weekly. Limited financial aid is available.



For application materials and additional information, write: Admissions Office, Marine Biological Laboratory, Woods Hole, Mass. 02543 or telephone: 617-548-3705. Completed applications must be received by 2 March 1979.

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TRAINEESHIPS

POSTDOCTORAL TRAINING IN CELLULAR IMMUNOLOGY

The Department of Microbiology and Immunology, University of Colorado School of Medicine, invites applications for postdoctoral **NIAD TRAINEESHIPS** from individuals with a Ph.D., M.D., or equivalent degree and an interest in immunology teaching and research. Training projects offered by our faculty focus on the cellular biology and immunochemistry of induction and repression of immunologic responses. Address inquiries to: A. J. Crowle, Ph.D., B-122, University of Colorado School of Medicine, 4200 East Avenue, Denver, Colorado 80262. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL TRAINEESHIP

BROOKHAVEN NATIONAL LABORATORY

Visiting fellow position now available for recent Ph.D. with background in biochemical pharmacology, to participate in NCI-sponsored research in environmental and genetic factors in neoplasia, relative to short-term in vivo genetic toxicological testing. Initial appointment for 1 year, renewable for a second. U.S. citizenship or immigrant status required. Send curriculum vitae and names of three references to:

Dr. R. Tice
Medical Department
Brookhaven National Laboratory
Associated Universities, Inc.
Upton, Long Island, N.Y. 11973

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TRAINING PROGRAMS

PATHOLOGY OF RESPIRATORY DISEASE

Lecture and laboratory course for nonphysician scientists involved in lung research, air pollution, and public health. Comprehensive morphological overview with emphasis on pathophysiology and pathogenesis; 12 to 18 August 1979; tuition: \$250. Contact:

J. E. Craighead, M.D.
Vermont Lung Center
Rowell Building
University of Vermont
Burlington, Vermont 05405

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS available for research training in alcoholism. Doctorate in health, biological, or behavioral science required. One-year appointment begins 1 July 1979; plus additional year contingent on grant renewal. Stipend (\$10,000 to \$13,200) plus allowances for travel, tuition, research expenses. Send curriculum vitae, doctoral transcript, two recommendation letters, and letter describing research interests to: Joan Martin, Ph.D., Alcoholism and Drug Abuse Institute, University of Washington, 3937 15th Avenue, NE, Seattle, Wash. 98105. Deadline: 5 March 1979.

POSTDOCTORAL FELLOWSHIPS— VISUAL SCIENCE

The Eye Research Institute of Retina Foundation has two or more fellowships available in the Department of Retina Research. Fellowships can be sponsored by any of the following research faculty: A. R. Adolph, B. Chakrabarti, F. C. Delori, P. H. Hartline, T. Hirose, H.S. Liu, B. D. Peczon, M. F. Refojo, L. Reif-Lehrer, D. M. Snodderly, F. I. Tolentino, or R. H. Webb. Please correspond directly with the potential sponsor at:

Eye Research Institute of Retina Foundation
20 Staniford Street
Boston, Massachusetts 02114

A **POSTDOCTORAL FELLOWSHIP** is available for research on cellular aspects of the immune system, particularly the differentiation and potentials of lymphocyte populations produced in bone marrow. Techniques include immunolabeling, radioautography, cell surface markers, cell sorting, and separation procedures. The position is tenable for up to 2 years post-Ph.D. at a salary of C\$11,600 to C\$12,720. A background in general cytology, cellular immunology, or experimental hematology is desirable. Applications, including curriculum vitae and names of two referees, should be sent to: Dr. D. G. Osmond, Department of Anatomy, McGill University, 3640 University Street, Montreal, Quebec, Canada H3A 2B2; telephone: 514-392-4898.

A position is available starting 1 July 1979. Applications are invited from individuals of superior qualifications with interests in membrane biophysics, synaptic physiology, sensory physiology, developmental neurobiology, or ultrastructure. These **NRSA FELLOWSHIPS** are normally held for a 2-year period. U.S. residency is required. Send curriculum vitae and names of three references to: Dr. S. Ciani, Ahmanson Laboratory of Neurobiology, Brain Research Institute, UCLA, Los Angeles, Calif. 90024. An Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.

POSTDOCTORAL FELLOWSHIP—Study biochemical genetics, regulation of human arginine biosynthetic enzymes including enzymology, immunologic methods, tissue culture regulation, messenger RNA analysis, and gene structure. Large scientific community, formal postdoctoral program, and opportunity for experience in clinical biochemical genetics if desired. Send curriculum vitae to: Arthur L. Beaudet, Department of Pediatrics, Baylor College of Medicine, Houston, Texas 77030.

POSTDOCTORAL RESEARCH FELLOWSHIP applications are being accepted for a limited number of investigations in neuroscience with potential application to CNS regeneration at any accredited institutions (worldwide). Applications must be received by 1 April. Stipends: \$12,000 to \$15,000. For information and application forms contact: Research Director, National Paraplegia Foundation Research Division, Suite L-111, 4440 NW 19 Street, Lauderhill, Florida 33313. Telephone: 305-735-9050.

FELLOWSHIPS

FELLOWSHIP. A 2-year fellowship is being offered for research in clinical microcirculation. Qualified applicants with M.D. or Ph.D. degree may write for further information (please include curriculum vitae) to: H. R. Maricq, M.D., Department of Medicine, Medical University of South Carolina, Charleston, S.C. 29403

OPHTHALMIC PATHOLOGY FELLOWSHIP AVAILABLE DEPARTMENT OF OPHTHALMOLOGY UNIVERSITY OF PENNSYLVANIA SCHEIE EYE INSTITUTE PRESBYTERIAN-UNIVERSITY OF PENNSYLVANIA MEDICAL CENTER

Applications are invited for a National Eye Institute training fellowship in experimental ophthalmic pathology, starting 1 July 1979. The fellowship program runs for 2 years. Emphasis is placed on acquiring skills in the performance of experimental ocular pathology. Concurrently, a broad understanding of ophthalmic pathology is fostered. All facilities at the Scheie Eye Institute, the Presbyterian-University of Pennsylvania Medical Center, and the University of Pennsylvania are available for training and learning of specialized research skills. Those interested should direct inquiries and send up-to-date curriculum vitae and bibliographies to:

Myron Yanoff, M.D.
Director, Scheie Eye Institute
Chairman, Department of Ophthalmology
University of Pennsylvania
Presbyterian Medical Center
51 North 39th Street
Philadelphia, Pa. 19104

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IMMUNOBIOLOGY

Postdoctoral fellowships in cancer immunobiology are available at Sloan-Kettering Institute for Cancer Research for training in cellular and molecular immunology, development and interaction of lymphoid cells, clinical and tumor immunology, cell surface immunochemistry and immunogenetics. Individualized research program with qualified mentors is offered either in New York City or at Walker Laboratory, Rye, N.Y. Open only to U.S. citizens or foreign nationals with permanent resident or immigrant visa. Send curriculum vitae to: Dr. Y. S. Choi, Sloan-Kettering Institute for Cancer Research, 145 Boston Post Road, Rye, N.Y. 10580.

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PREDOCTORAL AND POSTDOCTORAL TRAINING IN MOLECULAR VIROLOGY

Several predoctoral and postdoctoral fellowships are available for qualified applicants through NIH training grants. Preceptors include: Drs. J. C. Bennett, D. H. L. Bishop, R. W. Compans, E. Hunter, E. Lamon, J. Lebowitz, J. Mole, and J. P. Segrest. Research areas include: virus structure, genetics and replication, and viral immunology and membrane biology. Send applications and inquiries to: Dr. R. W. Compans, Department of Microbiology, University of Alabama Medical Center, Birmingham, Ala. 35294. An Affirmative Action/Equal Opportunity Employer.

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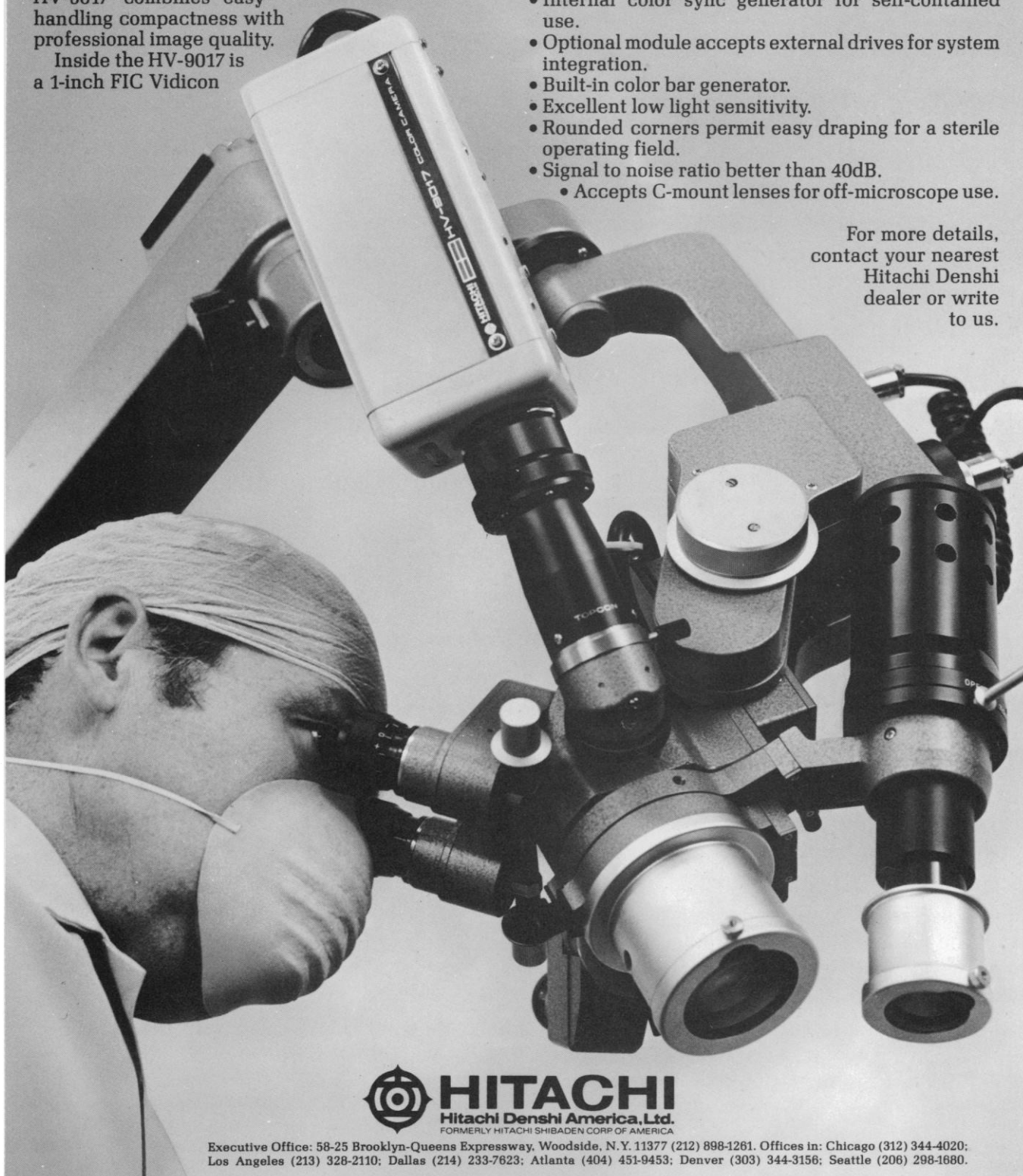
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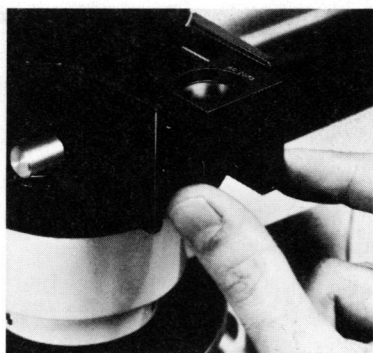


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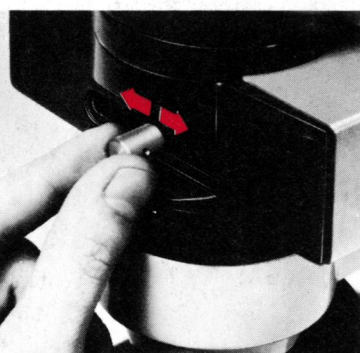
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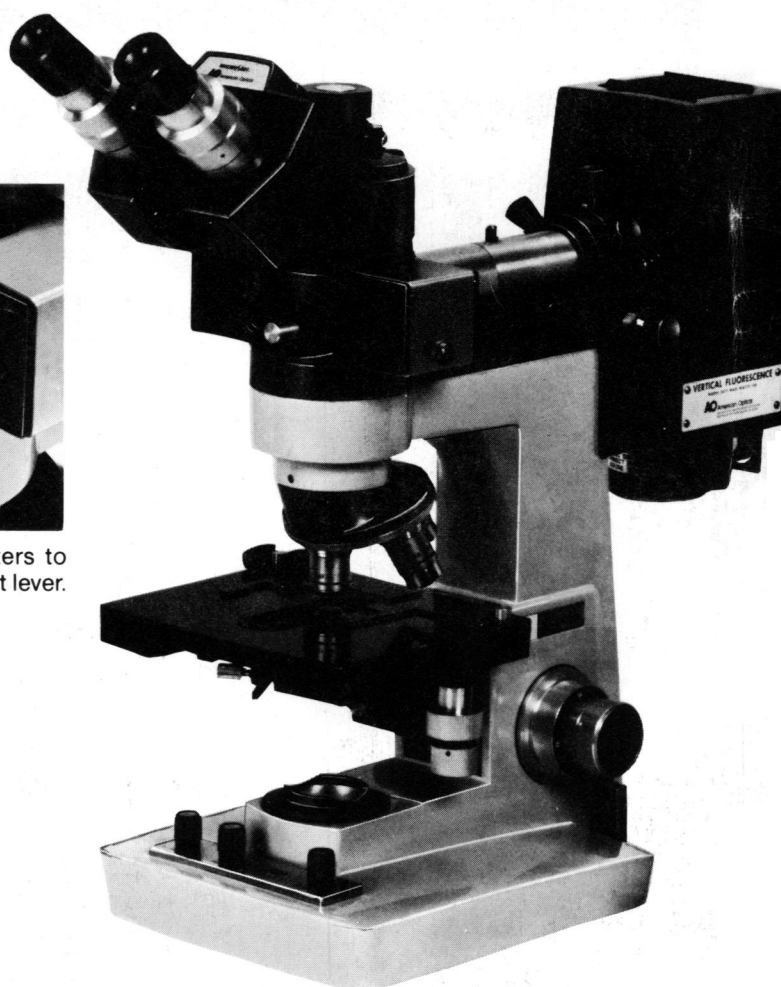
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