(Continued from page 389)

them a distinct biological community which in many respects is alien to that outside the ring. These organisms, and their chemical and physical environment, are typical of the water mass from which the core of the ring was derived. In the case of a ring to the south of the Gulf Stream, the cold-water community in its core must attempt to cope with its slowly changing environment as the ring dissipates and gradually loses its

The cold waters north of the Gulf Stream, having higher levels of essential nutrients than the warm Sargasso Sea. support larger amounts of plankton (microscopic plants and animals) and the larger animals that feed on the plankton. Marine biologists assume that the species indigenous to these cold waters are particularly well suited to some factor or combination of factors characteristic to those waters. Determining which factors are involved has proved difficult.

Some marine biologists think that rings offer an opportunity to simplify investigations. By changes that occur in ring organisms as their environment becomes progressively more adverse, biologists hope to delineate those conditions that are most important to their success.

The most striking results to date are those of Peter Wiebe of Woods Hole concerning the shrimplike, 25-millimeter-long zooplankter Nematoscelis megalops. This organism has been considered to have a strict preference for cold water, although scattered reports of catches south of the Gulf Stream have been made. It now appears that most of those were chance catches from rings. Wiebe found that N. megalops moved to deeper and colder water as the core warmed, apparently in an attempt to maintain the temperature of its surroundings at about 10°C. It moved to greater depths even though it meant moving out of reach of its food supply, the smaller zooplankton in the warmer surface layer. Wiebe has observed the extinction of this "expatriated species" due to starva-

The study of rings as a significant aspect of the ocean seems to have left its infancy, but it has not yet arrived at maturity. New instruments are being put to use, and large cooperative projects are being pursued. These should prove useful in exploring one of the increasing number of newly discovered oceanographic phenomena.

-RICHARD A. KERR

## Personnel Placement

#### **POSITIONS WANTED**

Ph.D. Biochemistry; experience in enzymology, nucleic acids, cyclic nucleotides, radioimmunoassay, radio-receptor techniques. Publications. Drug industry experiences for 2 years. Seeks position in industry. Box 388, SCIENCE.

Biochemist-Chemist. Ph.D. Broad research and Biochemist-Chemist. Ph.D. Broad research and teaching experience. Publications. Experience in neurochemistry, membranes, proteins, lipid biochemistry, enzymology. Research in diabetes and metabolism. Strong background in analytical methods and radioisotopes. On medical school faculty for last 6 years. Desires academic, hospital, industrial, or government position. Available immediately. Box 389, SCIENCE.

Biochemist/Molecular Biologist, Ph.D., 1970. Nine years of experience in nucleic acid and nucleic acid enzymology research. Expertise in molecular biology of RNA tumor viruses. Publications. Desires position in university or industry. Box 390, SCIENCE.

Clinical Chemist: Ph.D. biochemist seeks post-doctoral position in clinical chemistry to qualify for board exam. Box 391, SCIENCE. 10/28; 11/4

Electrophysiologist/Neurobiologist, M.D., publica-

Immunologist/Immunopharmacologist, Ph.D. 1963. Immunologist/Immunopharmacologist, Ph.D. 1965. Postdoctoral at NIH for 2 years; research chemist at VA hospital for 2 years; research associate in immunology for 3 years; senior immunologist in industrial research for 7 years. Looking for new, creative, challenging position in immunological research-industry/academia. Publications, supervisory experience. Interests: cellular/humoral immunology, impunosharmacology, impunodisonostics allegations. munopharmacology, immunodiagnostics, allergy, inflammation, transplantation immunity. Experience in in vitro and in vivo models of cellular and humoral immune responses for drug testing, inflammation, in lymphocyte separation and culture, and immunofluorescence. Box 393, SCIENCE. 10/28; 11/11

Lighthousekeeper, Ph.D. accomplished in realms of Dignitousekeeper, Fr.D. accomplished in realms of people (psychological counseling), things (currently marketeering for high-technology company), ideas (dissertation on quantum psychology). Cerebral hemispheres need exercise, peace of mind. Seeks science-oriented and/or product-oriented position. Box 394, SCIENCE.

Mathematical Ecologist, Ph.D. Seven years as systems ecologist, Canadian IBP forest and lakes ecosystem studies. Three years in Africa, applied fisheries problems. Two years in Latin America, landuse problems. Extensive publications. University teaching experience. Seeks academic position fall 1978 at large or small university which values teaching environmental studies and would encourage continued in the property of the property tinued interest in developing countries. Box 395

Neurophysiologist/Behavior. M.S.; 2 years of experience in primate operant techniques, project adminisence in primate operant techniques, project administration and management, stereotaxic surgery and recording, and electrode implantation. Additional experience in physiology, abdominal and thoraxic surgery, respiratory physiology, and cardiovascular physiology. Thesis topic: electrographic evaluation of the neurotoxicity of mirex (analog of Kepone). Seeks industrial, academic, or government position. R. E. Stevens, III, P.O. Box 1453, Texarkana, Texas 75501; telephone: 501-772-8998.

Zoology M.S. 1976 (physiology emphasis). Broad background in physiology and biology. Desires research technician position in physiology or related laboratory. Willing to accept low salary in order to gain greater research experience. Plans to continue education. Presently in Southern California; open to any location. Box 396, SCIENCE.

#### **POSITIONS OPEN**

### DEPARTMENT OF OPHTHALMOLOGY OF WAYNE STATE UNIVERSITY

The department is seeking applications from ACA-DEMIC OPHTHALMOLOGISTS (M.D.), for ap-pointments in neuro-ophthalmology and other aca-demic subspecialties of ophthalmology. Demondemic subspecialties of ophthaimology. Demonstrated ability to perform basic and/or clinical research is essential. Please send curriculum vitae to: Chairman, Department of Ophthalmology, Wayne State University School of Medicine, 540 East Canfield, Detroit, Michigan 48201. An Equal Opportunity/Affirmative Action Employer.

#### ACADEMIC PATHOLOGISTS

Faculty positions are available in the Department of Pathology, University of California, San Francisco, for Board-certified or Board-eligible (anatomical pathology or anatomical and clinical pathology) pathologists with an interest in modern pathology. An area of expertise in skin, lymphoproliferative, or An area of expertise in skin, lymphoproliferative, or Ob-Gyn diseases is desired, but not essential, as well as interest in or evidence of investigative work. Rank and salary are negotiable. Please direct inquiries to: Edward A. Smuckler, M.D., Ph.D., Professor and Chairman, Department of Pathology, University of California, San Francisco, California 94143. The University of California is an Equal Opportunity/Affirmative Action Employer and welcomes applications from women and minority group members as well as other qualified persons. as well as other qualified persons.

ACADEMIC POSITION: Department of Chemistry of the University of Nebraska-Lincoln seeks to add one Ph.D. organic chemist as a tenure-track assistant professor beginning September 1978. The position involves teaching on both undergraduate and graduate levels, and the development of a high-quality research program. A curriculum vitae, including a list of publications, a brief account of research interests, three letters of recommendation, and copies of graduate and undergraduate transcripts should be sent to: Professor C. J. Michejda or Professor R. D. Rieke, Department of Chemistry, University of Nebraska, Lincoln, Neb. 6858. The closing date for applications is 15 December 1977. University of Nebraska is an Affirmative Action/Equal Opportunity Employer.

#### AQUATIC ECOLOGIST

The University of Wisconsin-Madison invites applications for the position of assistant professor be-ginning fall 1978. The Department of Zoology, Labo-ratory of Limnology, seeks applicants with strong experimental and quantitative interests in **stream ecology**. Responsibilities include an active research ecology. Responsibilities include an active research program and teaching in advanced and introductory courses. Postdoctoral experience is desired. Send curriculum vitae and names of four references to: James F. Kitchell, Laboratory of Limnology, University of Wisconsin-Madison, Madison, Wis. 53706. Applications must be received by 15 November. An Equal Opportunity Employer.

AQUATIC RESEARCH AND TEACHING: The State University College at Fredonia, N.Y., is looking for a Ph.D. biologist, chemist, or similar discipline to assume a 12-month appointment to begin I January 1978. This joint position between the College's Environmental Resources Center and either the Biology or Chemistry Department will be half-time research and half-time teaching each semester plus full-time research in the summer. The research will emphasize fishery biology and/or chemistry in western New York. Possibility of subsequent year reappointments. Salary: \$14,500. Send letter describing research interests, résumé, and two letters of recommendation to: Dr. Richard Mayer, Director, Environmental Resources Center, State University College, Fredonia, N.Y. 14063. An Equal Opportu-College, Fredonia, N.Y. 14063. A nity/Affirmative Action Employer. . 14063. An Equal Opportu

Two ASSISTANT PROFESSOR APPOINTMENTS in chemical engineering are now available. Appointments can be delayed until the fall of 1978. Selection will be based on potential and performance in teaching and research. The Ph.D. is required. Primary emphasis is on biochemical engineering and mathematical modeling; capabilities in other areas will be considered. Initiation research grants are available. New teaching and research facilities are in the advanced planning stage. Please send résumé and supporting information to:

Jerome S. Schultz. Chairman.

Jerome S. Schultz, Chairman Department of Chemical Engineering The University of Michigan Ann Arbor, Michigan 48109

A nondiscriminatory, Affirmative Action Employer

Harvard University seeks an ARCHEOLOGIST with a specialization in scientific methods for a position as an assistant professor beginning in September 1978. Applicants must have a Ph.D. as well as teaching and research interests in two of the following areas: physicochemical techniques of analysis, paleoethnobotany, zooarcheology, materials analysis, and/or dating systems.

Please send curriculum vitae, references, and publi-Please send curriculum viae, reterieres, and puon-cations to: Mary Clare Gubbins, Administrative As-sistant, Department of Anthropology, Peabody Muse-um, Room 54A, Harvard University, Cambridge, Massachusetts 02138. Harvard University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR with Ph.D. and publications to teach four of the following subjects: general biology, embryology, advanced physiology, nutrition, electron microscopy, radiobiology, or biophysics. Send complete curriculum vitae to:

Dr. Mary Newton, Chairman Biology Department Manhattanville College Purchase, New York 10577

An ASSISTANT PROFESSORSHIP is available in An ASSISTANT PROFESSORSHIP is available in the Department of Life Sciences at Worcester Polytechnic Institute. We seek a person who has a combined interest in teaching in a unique undergraduate program in the life sciences and in research dealing with the application of the techniques of microbial genetics and cell fusion to blue-green algae. We have an active program investigating these algae and seek to balance the team with a microbial geneticist. Worcester is about 1 hour's drive from Boston.

Interested individuals should contact: Professor J. F. Danielli, Life Sciences Department, Worcester Polytechnic Institute, Worcester, Mass. 01609. Worcester Polytechnic Institute is an Affirmative Action/Equal Opportunity Employer.

#### ASSISTANT OR ASSOCIATE PROFESSOR

Cancer biochemical-pharmacology. Faculty appointment to join active pharmacology and immu-nology research program concerning mechanisms of primary and secondary drug resistance in subclasses of leukemia. Joint appointment in pediatrics and appropriate basic science department. Contact: John propriate basic science department. Contact: John Holcenberg, M.D., Director of Pharmacology, Midwest Children's Cancer Center, Milwaukee Children's Hospital, Box 1997, Milwaukee, Wis. 53201. Equal Opportunity Employer, M/F.

## DEPARTMENT OF BIOCHEMISTRY TEXAS TECH UNIVERSITY SCHOOL OF MEDICINE

Applications are invited for a tenure-track position, ASSISTANT PROFESSOR OF BIOCHEMISTRY, which will open in the summer of 1978. The Ph.D. or an equivalent earned doctorate is required. Applicants also should have at least 2 years' post-doctoral experience and the ability to initiate an effective, independent research program in biological chemistry. The person filling this position will be involved in teaching medical students and graduate students; therefore, a commitment to teaching is essential. Preference will be given to applicants with a strong chemistry background. Send curriculum vitae, list of publications with reprints, names of at least three persons who may be contacted as references, and a summary of future research interest to: ences, and a summary of future research interest to:
Dr. Francis J. Behal, Professor and Chairperson, Department of Biochemistry, Texas Tech University
School of Medicine, P.O. Box 4569, Lubbock, Texas

Texas Tech University School of Medicine is an Equal Opportunity/Affirmative Action Employer.

#### UNIVERSITY OF OTTAWA (CANADA) ASSISTANT PROFESSOR in EVOLUTIONARY ECOLOGY

A faculty position at the rank of assistant professor is available at the Department of Biology, University of Ottawa. Candidates should be prepared to versity of Ottawa. Candidates should be prepared to establish a strong independent research program in evolutionary botany. Exceptional applications from candidates in other areas of ecology will also be considered. Ability to teach in French is an asset.

Please submit curriculum vitae, reprints, description of research plans, and have three letters of reference sent to: the Chairman, Search Committee, Department of Biology, University of Ottawa, Ottawa, Ottawa, Ottario, Canada K1N 6NS.

Deadline for receipt of application is 15 November 1977.

#### **POSITIONS OPEN**

## **ASSISTANT** DIRECTOR

## **GRADUATE MEDICAL EDUCATION**

Saint Barnabas Medical Center, a member of the Council of Teaching Hospitals of the Association of American Medical Colleges, seeks an Assistant Director for the Department of Graduate Medical Education. Applicants should have a Ph.D. degree with background in administration and education. Saint Barnabas Medical Center is located in a beautiful suburban community. 45 minutes from New York City. For further information, submit curriculum vitae to Abdol H. Islami, M.D.

> Saint Barnabas **Medical Center** 94 Old Short Hills Road Livingston, N.J. 07039 (201) 533-5500

Saint Barnabas Medical Center is An Equal Opportunity Employer

### THE UNIVERSITY OF TORONTO ASSISTANT PROFESSORS IN BIOCHEMISTRY

ASSISTANT PROFESSORS IN BIOCHEMISTRY

Applications are invited for two positions of assistant professor in the Department of Biochemistry to take effect from 1 July 1978. One position will be in the tenure stream, and one will be a 2-year contract with possibility of renewal for at least 1 year. The successful applicants will be required to take part in the teaching duties of the department, and to develop a research programme. The department is involved in teaching biochemistry to undergraduates in the Faculties of Medicine, Dentistry, Arts and Science, and Nursing, as well as graduate students. The minimum salary for the position will be \$15,900. Applicants with suitable qualifications should send a curriculum vitae and the names and addresses of three referees to: Chairman of the Search Committee, Department of Biochemistry, University of Toronto, Toronto, Canada, MSS 1A8, to reach him not later than 31 January 1978.

TENURE-TRACK ASSISTANT PROFESSORSHIP IN CHEMISTRY. Applicants must be qualified to participate in diversified analytical instruction and research programs, at both the graduate and under-graduate levels. They will be expected to develop a stature of scientific excellence, leadership, and creativity. Screening of applications will begin 1 November 1977. The closing date for receipt of applications is 31 December 1977. Candidates should submit curriculum vitae, list of publications, and three letters of reference to: Professor Joseph Jordan, Chairman of Search Committee, Box A, 152 Davey Laboratory, The Pennsylvania State University, University Park, Pa. 16802. An Equal Opportunity/Affirmative Action

ASSOCIATE PROFESSOR-PATHOBIOLOGY. Sal-ASSOCIATE PROFESSOR-PATHOBIOLOGY. Salary: \$15,300 to \$26,340. Position available 1 January 1978 to carry out independent research in the field of veterinary histology and pathology. Candidate will be expected to have input into the histology teaching program; perform necropsies of avian and mammalian specimens, giving recommended treatments for flocks of owners who submit birds for necropsy; aid in extension program; designed to provide instance. flocks of owners who submit birds for necropsy; aid in extension programs designed to provide instruction for veterinarians, veterinary technicians, and livestock raisers. Applicants must have a D.V.M. degree and a graduate degree, preferably a Ph.D. with training in investigation of the pathogenesis of disease. Must have ready knowledge of cellular and humoral immunity, histopathology, virology, pathology, and previous teaching experience. Apply by 1 December 1977 to: Dr. E. S. Bryant, U-89, University of Connecticut, Storrs, Conn. 06268. An Equal Opportunity Employer. portunity Employer.

#### **POSITIONS OPEN**

#### ASSISTANT PROFESSOR-MICROBIOLOGY

Ph.D. to participate in the undergraduate and graduate teaching program; to develop an independent re-search program, preferably emphasizing virology or immunology, and to supervise graduate students. Send résumé and names of three references by 15 December to: Dr. Bob Roberson, Search Committee Chairman, Department of Microbiology, University of Maryland, College Park, Maryland 20742. The University of Maryland is an Affirmative Action/ Equal Opportunity Employer. All interested persons are used to apply.

ASSISTANT PROFESSOR OF MICROBIOLOGY. Position open for molecular cell biologist (2 to 5 years postdoctoral) to do research and teaching in years postdoctoral) to do research and teaching in areas related to immunology and/or virology at the University of Virginia School of Medicine. Active research, graduate, and postdoctoral training programs. Send résumé to: Chairman, Department of Microbiology, University of Virginia School of Medicine, Charlottesville, Va. 22901. An Equal Opportunity/Affirmative Action Employer.

#### ASSISTANT PROFESSOR OF PHARMACOLOGY

Applications are invited by the Department of Phar-Applications are invited by the Department of Pharmacology at the University of Missouri-Columbia for the position of assistant professor of pharmacology. The applicant should possess the Ph.D. or M.D., should have completed approximately 3 years of postdoctoral experience, should have demonstrated excellence in research, and should have an active interest in teaching medical and graduate students. Preference will be given to an applicant whose research experience and interest are in biochemical or biophysical aspects of pharmacology. The position biophysical aspects of pharmacology. The position is available as of 1 June 1978. Closing date for receipt of applications is 15 November 1977. Please send complete curriculum vitae, list of publications, and at least two letters of reference to: Dr. Murray Heimberg, Chairman, Department of Pharmacology, School of Medicine, University of Missouri, Columbia, Missouri 65201. The University of Missouri is an Equal Opportunity/Affirmative Action Employer

#### ASSISTANT PROFESSOR, PHARMACOLOGY

Ph.D. who shows promise both as an excellent teacher and is dedicated to developing an independent research program. Postdoctoral experience required. Please send curriculum vitae, statement of research and teaching objectives, and three letters of recommendation to: Chairman, Department of Pharmacology and Toxicology, School of Pharmacy, University of Kansas, Lawrence, Kansas 66045. The University of Kansas is an Equal Opportunity Employer. Qualified men and women of all races are encouraged to apply

ASSISTANT PROFESSOR-PHARMACY. Salary: \$13,000 to \$19,000. Position available 1 January 1978. Duties include: teaching in undergraduate and graduate areas of pharmacology; laboratory research in field of specialization; committee and service responsibilities. Ph.D. in pharmacology or psychology (with major interest in psychopharmacology); biochemical pharmacologist with interests in areas of psycho- or neuropharmacology required. Apply by 1 December 1977 to: Dr. Philip Rosenberg, U-92, University of Connecticut, Storrs, Conn. 06268. An Equal Opportunity Employer.

ASSISTANT PROFESSOR: PSYCHIATRY (School of Medicine). Applicants must have Ph.D. in a physical science. Duties will include teaching advanced courses in cellular neurophysiology and related courses, and research in synaptic transmission with particular emphasis on synaptic plasticity, its modu-lation, and its relation to behavior in simple systems. Salary: open.

Curriculum vitae should be mailed to: Search Committee #11, Department of Psychiatry, University of California, San Diego, M-003, La Jolla, Calif. 92093.

The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST. Recent Ph.D. required for postdoctoral fellowship in cellular immunology laboratory. \$12,000. Two to 3 years. Inquiries to: Dr. R. A. Gatti, Cedars-Sinai Medical Center, 8700 Beverly Boulevard, Los Angeles, California 90048.

### 'ASSISTANT PROFESSOR' Of Marine Ecology/zoology

Requires strong invertebrate background. Coordinate and teach general zoology and introductory courses in marine and field biology. Adjunct full time position. Subsequent renewal of contract includes this year in credit towards tenure. Salary \$15,000 maximum. Doctorate required.

Please send résume no later than 25 November 1977 to: Elisabeth Palmer Campus Personnel Services FAIRLEIGH DICKINSON UNIVERSITY 285 Madison Avenue, Madison, N.J. 07940 An Equal Opportunity/ Affirmative Action Employer, M/F

## WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE

ASSISTANT PROFESSOR OF PHYSIOLOGY. Two tenure-track positions available beginning spring 1978. Candidates must have doctoral degree, post-doctoral experience, and be able to develop independent research program. Cardiovascular and renal areas preferred. Responsibilities include teaching of graduate, medical, and other health science students.

POSTDOCTORAL RESEARCH ASSOCIATE. One position available immediately for research in neuroendocrine regulation of ACTH and TSH secretion. Send curriculum vitae, brief description of research interests, and names of three references to: George A. Hedge, Chairman, Department of Physiology and Biophysics, West Virginia University Medical Center, Morgantown, West Virginia 26506.

West Virginia University is an Equal Opportunity/ Affirmative Action Employer.

#### ASSISTANT PROFESSOR, IN-RESIDENCE

The University of California, Irvine, Department of Pathology is recruiting for a faculty position at the assistant professor level. Required: M.D., Board eligible in anatomic pathology, service experience in surgical pathology and hematopathology, documented independent research. Duties: surgical pathology service, teach medical students and housestaff, research, limited administrative responsibility. All qualified candidates welcome: minorities and women encouraged to apply. Send curriculum vitae and references to: Dr. Edward R. Aquilla, University of California, Irvine, Department of Pathology, Irvine, Calif. 92717 by 4 November 1977.

#### ASSISTANT RESEARCHER

To conduct experimental and theoretical research on the interaction of electric and magnetic fields with neural tissue. We desire a person who has a Ph.D. with a physics background, experience with invertebrate neurophysiology, electrophysiology, and competence to develop theoretical models of plasma membrane structure/function relations. This is a nontenured position funded for 10 months and will commence 1 December 1977. Address correspondence to: M. Beltman, Brain Research Institute, University of California, Los Angeles, California 90024. An Equal Opportunity/Affirmative Action Employer.

#### BIOCHEMIST/CHEMIST

Applications are invited for postdoctoral or research associate positions. The person should be familiar with general biochemical and analytical techniques and be interested in the area of enzymology and intermediary metabolism. Applications should be sent to: the Director, Ophthalmology Research, University of Maryland Hospital, Baltimore, Maryland 21201.

#### BIOCHEMISTRY FACULTY POSITION WAYNE STATE UNIVERSITY SCHOOL OF MEDICINE

One faculty position is open, at rank and salary commensurate with experience and qualification. Candidates should display a strong history of research excellence or exceptional promise and an interest in teaching both graduate and medical courses. The University is an Equal Opportunity/Affirmative Action Employer. Please send curriculum vitae, names and addresses of three professional references, and summary of research interests to: Dr. Ray K. Brown, Chairman, Department of Biochemistry, Wayne State University School of Medicine, Detroit, Mich. 48201. Applications must be received prior to 1 December 1977.

#### **POSITIONS OPEN**

BIOCHEMISTRY-ASSISTANT OR ASSOCIATE PROFESSOR. The Department of Biochemistry, University of Missouri-Columbia, invites applications for two positions, either assistant or associate professor. Applicants must have the Ph.D. degree or equivalent, and postdoctoral experience is expected. Candidates with promise (assistant) or evidence (associate) of exceptional research and teaching abilities are being sought. A curriculum vitae, summary of research plans, and three letters of recommendation should be sent by 15 December 1977 to: Dr. James L. Gaylor, Department of Biochemistry, 322-A Chemistry Building, University of Missouri-Columbia, Columbia, Missouri 65201. An Equal Opportunity/Affirmative Action Employer.

BIOLOGIST, Ph.D., assistant or associate professor with broad training that includes emphasis at the organismic level. Duties include teaching in the introductory biology program and at the graduate level. It is desirable that the person have postdoctoral experience, and an active research program is expected. Closing date for receipt of applications 15 November 1977. To apply, send curriculum vitae and three letters of reference to: Dr. John L. McCarthy, Chairman, Department of Biology, Southern Methodist University, Dallas, Texas 75275.

Southern Methodist University is an Equal Opportunityl Affirmative Action Employer. Applications from women and members of minority groups are encouraged.

#### CELL BIOLOGISTS

The Department of Biological Sciences at Purdue is considering making two faculty appointments at the assistant professor level. Candidates with outstanding potential for teaching and research in any area of eukaryotic cell biology will be considered with preference given to those who complement existing programs and have research experience in the areas of ultrastructure, plant cells, cellular immunology, or tumor virology. The successful candidates will be expected to initiate and maintain a program of high-quality research and to contribute to the teaching of undergraduate biology majors. Applications including a curriculum vitae, list of publications, statement of research interests, and the names of at least three referees should be submitted before 7 November to: Professor Struther Arnott, Head, Department of Biological Sciences, Purdue University, West Lafayette, Ind. 47907. Purdue University is an Equal Access/Opportunity Employer.

#### CELL AND MOLECULAR BIOLOGIST

The Division of Biology has a tenure-earning position available at the assistant or associate professor level. Applications are sought from those with an active research interest in the regulation of transcriptional or translational events in eukaryotic cells. The successful applicant will be expected to establish a vigorous and creative research program and to participate in graduate or undergraduate teaching. Appointments will be effective 1 September 1978. Applicants should submit curriculum vitae, three letters of reference, and a brief description of future research plans by 15 January 1978 to:

Dr. Terry Johnson, Director Division of Biology Kansas State University Manhattan, Kansas 66506

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

#### MEMBRANE BIOLOGIST

The Division of Biology has a tenure-earning position available at the assistant or associate professor level. Applications are sought from those with an active research interest in the broadly defined area of eukaryotic cell membranes. Some representative areas may include membrane structure and function, surface membrane alterations in transformed cells, and changes occurring during developmental processes. The successful applicant will be expected to establish a vigorous and creative research program and to participate in graduate or undergraduate teaching. Appointments will be effective 1 September 1978. Applicants should submit curriculum vitae, three letters of reference, and a brief description of future research plans by 15 January 1978 to:

Dr. Terry Johnson, Director Division of Biology Kansas State University Manhattan, Kansas 66506

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

#### **POSITIONS OPEN**

### ANATOMY DEPARTMENT, UCLA ASSOCIATE PROFESSORSHIP

Applications are invited for a state-funded faculty position for 1978. The level of appointment is negotiable, conceivably even as a starting full professorship, although more likely as a fully tenured associate professorship. It will require teaching capability in gross anatomy. Applicants should submit a curriculum vitae and list of references, as soon as possible, to: Dr. D. C. Pease, Department of Anatomy, UCLA School of Medicine, Los Angeles, Calif. 90024.

The University of California is an Faural Opportunity.

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

Department of Chemistry at University of Southern Mississippi seeks BIOCHEMIST for tenure-track position beginning 1 January 1978. Assistant or associate professor rank, depending on qualifications. Ph.D. required, postdoctoral experience preferred. Excellence in graduate and undergraduate teaching required. Vigorous research program expected. Applications should include curriculum vitae, complete transcripts, description of research and teaching interests, and three letters of reference to be sent to: Dr. John H. Bedenbaugh, Chairman, Chemistry Department, Box 43, University of Southern Mississippi, Hattiesburg, Mississippi 39401. Deadline: 4 November 1977. An Equal Opportunity/Affirmative Action Employer.

#### BIOCHEMIST-MOLECULAR BIOLOGIST

The Department of Biochemistry is seeking a faculty member with research interests in the area of the molecular biology of mammalian systems. Applicants should forward a curriculum vitae with complete bibliography, summary of future research interests, and the names of three references no later than 15 November 1977 to: Dr. Eugene G. Sander, Chairman, Department of Biochemistry, West Virginia University School of Medicine, Morgantown, W. Va. 26506. West Virginia University is an Affirmative Action/Equal Opportunity Employer.

#### UNIVERSITY OF GUELPH Department of Mathematics and Statistics CHAIRMAN

The Department of Mathematics and Statistics, University of Guelph, invites applications for the position of chairman of the department commencing July/September 1978.

Qualifications include an established research record in mathematics, applied mathematics, biomathematics, or statistics, and university experience. The chairman will have administrative responsibility for the department and will be expected to participate in and encourage the development of teaching and research programs.

Salary is negotiable. Applications, with complete curriculum vitae and the names of three referees, should be sent to: Dean E. B. MacNaughton, College of Physical Science, University of Guelph, Guelph, Ontario, Canada, NIG 2WI, by 15 December 1977 or as soon as possible thereafter.

### CHAIRMAN DEPARTMENT OF BIOCHEMISTRY

We are conducting a search for a chairman, Department of Biochemistry, Howard University, College of Medicine. We are seeking an established researcher with proven administrative ability and outstanding qualities as a teacher. The teaching program includes instruction to medical, dental, allied health, and graduate students. Research space is available and facilities are being expanded. Howard University is a private, predominantly black university located in the nation's capital. Please send curriculum vitae to: Russell L. Miller, M.D., 2041 Georgia Avenue, NW, Washington, D.C. 20060.

CHEMISTRY FACULTY POSITION AT ASSOCIATE OR FULL PROFESSOR RANK. Candidates must be qualified to participate in diversified analytical instruction and research programs, at both the graduate and undergraduate levels. They should have an established reputation of scientific excellence, leadership, and creativity. Preferred interests include surface analysis and clinical, biomedical, and electroanalytical areas. Screening of applications will begin 1 November 1977. The closing date for receipt of applications is 31 December 1977. Candidates should please contact: Professor Joseph Jordan, Chairman of Search Committee, Box A, 152 Davey Laboratory, The Pennsylvania State University, University Park, Pa. 16802. An Equal Opportunity/Affirmative Action Employer.

#### CHAIRPERSON DEPARTMENT OF BOTANY

The Division of Agricultural and Life Sciences of the University of Maryland invites applications and nominations for chairperson of the Department of Botany at the College Park campus. Minimum requirements include a doctorate in botany or an allied plant science, a distinguished record in teaching and research demonstrated administrative experience. research, demonstrated administrative experience or potential, and a strong commitment to academic excellence. Nominations or applications including a curriculum vitae and the names of four personal references should be sent to:

Professor B. A. Twigg, Chairman

Botany Search Committee

Department of Horticulture

University of Maryland
College Park, Md. 20742
Applications should be received prior to 15 December. The University of Maryland is an Equal Opportunity/Affirmative Action Employer.

CHAIRMAN, Department of Pathology. The University of Missouri Medical Center is recruiting for a chairman and professor of the Department of Patholchairman and professor of the Department of Pathology. The position includes: (i) directing pathology teaching program in a major medical school plus responsibilities for the house staff program in a major paramedical training program; (ii) directing and operating a full-service specialty oriented clinical laboratory in the 500-bed university hospital, plus providing professional service and direction for a 450-bed Veterans Administration hospital; and (iii) directing and expanding a research program. Candidate must be M.D. Send curriculum vitae to: Dr. B. J. Campbell, Chairman, Pathology Search Committee, University of Missouri Medical Center, Columbia, Missouri 65201. An Equal Opportunity/Af-

#### ILLINOIS

CHAIRPERSON: DePaul University is seeking a CHAIRPERSON: DePaul University is seeking a chairperson for fall 1978, for the 19-member Department of Psychology. The department has 90 students in its master's and doctoral programs and approximately 200 undergraduate majors. Ph.D. programs are offered in general-experimental and clinical-community psychology. The clinical-community program has a child/adolescent emphasis and has regram has a child/adolescent emphasis and has received provisional accreditation by the American Psychological Association. We are seeking applicants who are currently full-time faculty members in a psychology department with Ph.D. programs, who have demonstrated significant research productivity, and who have had some administrative experience. Salary and rank are open. Submit a letter of inquiry, curriculum vitae, and a list of references to: Sheldon Cotler, Ph.D., Chairman, Psychology Department Search Committee, Department of Psychology, DePaul University, 2323 North Seminary Avenue, Chicago, Illinois 60614. DePaul University is an Affirmative Action/Equal Opportunity Employer.

#### FACULTY POSITION IN CYTOGENETICS

CYTOGENETICIST, assistant professor of genetics for appointment effective 1 July 1978. Training in genetics and molecular biology essential. Responsibilinetics and molecular biology essential. Responsibilities include undergraduate and graduate instruction in cytogenetics and evolution. Research interests may center on chromosomes and/or chromatin structure, genome organization, and gene expression or gene regulation in eucaryotes. A research program balanced between fundamental and applied problems in agriculture is desired. Send curriculum vitae, reprints, brief statement of research plans and three letters of reference to: plans, and three letters of reference to:

The Search Committee Department of Genetics 345 Mulford Hall University of California Berkeley, California 94720

Deadline for complete applications is 31 December 1977. The University of California is an Equal Opportunity Employer. Women and minority applicants are welcome.

FACULTY POSITIONS—Two faculty positions available at the assistant professor level for an M.D. and a Ph.D. in a university health center clinical chemistry laboratory. A record of scientific achievements and continuing program of research in biochemistry and/or experimental pathology is a must. Experience in clinical chemistry helpful. Reply with curriculum vitae to: Dr. Ajit Sanghvi, Department of Pathology, University of Pittsburgh School of Medicine, Pittsburgh, Pa. 15621. An Equal Opportunity/Affirmative Action Employer. Affirmative Action Employer

#### **POSITIONS OPEN**

#### CHAIRMAN DEPARTMENT OF BIOLOGICAL SCIENCES

The Department of Biological Sciences is seeking a chairman for appointment in June or August 1978. Candidates should have the Ph.D. and should demonstrate competence in teaching, administration, and according to the standard of the stand and research. Experience in development and administration of grants is essential.

The department staff includes 14 faculty and 2 technicians serving some 1600 students each semester. Students served include 220 biology majors, 150 agriculture majors, and 15 M.S. graduate students.

Applications from candidates should be received no later than 16 December 1977. Curriculum vitae, three or more references, and preliminary supporting information such as reprints of significant publications should be forwarded to: Dr. William Davies, Cations should be forwarded to: Dr. William Davies, Chairman, Department of Biological Sciences, In-diana University-Purdue University at Fort Wayne, 2101 Coliseum Boulevard East, Fort Wayne, Indiana 46805. Indiana University-Purdue University at Fort Wayne is an Equal Opportunity/Affirmative Action Employer.

#### CIIT

The Chemical Industry Institute of Toxicology seeks to fill several important positions in its multi-disciplinary research organization. Applicants should have a strong research-oriented background, preferably with some experience in toxicology.

#### CYTOGENETICIST

M.S. in genetics or cryogenetics to perform studies with laboratory animals. Studies involve prepara-tion of tissues for cytological observation and analy-sis of chromosomal and chromatid abnormalities.

#### TERATOLOGIST

M.D., D.V.M., or Ph.D. with 2 years of experience and strong background in biochemistry or developmental biology to perform descriptive and mechanistic studies of chemically induced effects during mammalian perinatal development.

#### **BIOCHEMICAL TECHNICIAN**

B.S. or M.S. in biology or chemistry to conduct experiments to characterize the disposition and metabolism of test chemicals, experience in dosing of laboratory animals, use of radiotracer techniques, and ability to apply analytical procedures for the identification of metabolites is required.

Qualified applicants may submit their résumé in complete confidence to: Dr. Donald A. Hart, Administrative Manager, CIIT, P.O. Box 12137, Research Triangle Park, N.C. 27709. We are committed to Equal Employment Opportunities, M/F.

The University of California at Berkeley seeks an ECONOMIST for a tenured research appointment in the Agricultural Experiment Station of the Departments of Nutritional Sciences and of Agriculture and Resource Economics, to work in the area of food Resource Economics, to work in the area of food and nutrition planning and policy analysis. The position involves development of an interdisciplinary research program with special emphasis on the problems of less developed countries and limited participation in teaching. Outstanding record of research, service, and publication in problem definition, program development and evaluation, simulation modeling, and/or area-level rural development planning is required. The salary is \$21,800 to \$31,800 depending on qualifications. Applications will be accepted until 1 December 1977 or until the position is filled. The University of California is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply. Address applications to: applications to:

Professor Rosemarie Ostwald Chairman, Search Committee
Department of Nutritional Sciences 119 Morgan Hall University of California Berkeley, California 94720

Department of Anatomy FACULTY OPENING; rank and salary to be determined. Position will be available 1 January 1978. Successful applicant must have teaching experience which includes gross and/or neuroanatomy. Prefer research in cell biology, neurobiology, or endocrinology. Women and minority candidates encouraged to apply. Send curricu-lum vitae and three letters of recommendation to:

Terence H. Williams, M.D., D.Sc., Head Department of Anatomy, 1-470 BSB University of Iowa Iowa City, Iowa 52242

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

#### **DIRECTOR** NATIONAL RADIO **ASTRONOMY** OBSERVATORY

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Associated Universities, Inc. (AUI) invites nominations and applications for the position of director of the National Radio Astronomy Observatory (NRAO). AUI, a nonprofit corporation with headquarters in Washington, D.C., manages the NRAO for the National Science Foundation (NSF) and manages the Brookhaven National Laboratory for the Department of Energy.

NRAO, headquartered in Charlottesville. NRAO, headquartered in Charlottesville, Va., has observing facilities at Green Bank, W. Va., Tucson, Ariz., and Socorro, N.M. The director is the chief operating officer of the observatory with primary responsibility for its program, both content and quality, and its representation to NSF. He reports through the AUI president to the Board of Trustees.

Candidate should be a scientist of stature, with an awareness and concern for national needs in astronomy and should have demonstrated ability in leadership and management. Applications or nominations are requested by 15 December 1977, but later inquiries may be considered.

Inquiries, nominations, or applications with résumés should be directed to the chairman of the search committee:

Gerald F. Tape, President Associated Universities, Inc. Suite 603 1717 Massachusetts Avenue, NW Washington, D.C. 20036

AUI is an Equal Opportunity/Affirmative Action Employer .

### PROFESSOR OR SENIOR LECTURER IN THE DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF FORT HARE REPUBLIC OF SOUTH AFRICA

Applications are invited from suitably qualified candidates for the above post.

Minimum requirements: professor-doctor's degree; senior lecturer-master's degree

Candidates must be able to lecture through the medium of English.

Teaching and research experience will be a recommendation.

Assumption of duties: as soon as possible. Closing date for applications: 30 November

#### **GENERAL**

In addition to the substantive salary the following are payable to staff members: professor: R10  $800 \times 450$ —12  $600 \times 600$ —13 800; senior lecturer: R8  $460 \times 360$ —9  $900 \times 450$ —11 250; rate of exchange: \$1.15 = R1.

Pensionable allowance of 10 percent of basic

Vacation savings bonus as applicable to public servants.

Territorial allowance of R150 per annum subject to certain conditions.

Additional fringe benefits include group life Additional irrige benefits include group life assurance, medical aid (subject to certain conditions), and pension scheme. Generous leave privileges and financial assistance towards the University education of children.

Applications including a complete curriculum vitae and the names and addresses of at least three referees, should be addressed to:

The Registrar
University of Fort Hare
Private Bag 314
Alice 5700 Republic of South Africa

**DIRECTOR**, Center for Consumer Research and **PROFESSOR**, University of California.

Director/tenured professorship position in campuswide Center for Consumer Research.

Qualifications: reputation as scholar in consumer research, administrative experience, and ability to promote cooperative research.

Send complete curriculum vitae and names of three persons for recommendations to: J. R. Whitaker, 228 Mrak Hall, University of California, Davis, Calif. 95616 by 15 December 1977.

The University is an Affirmative Action Employer.

DIRECTOR, Institute of Oceanography, University of British Columbia; position available as of 1 July 1978, at the earliest. The Institute is a postgraduate facility, training oceanographers through original research. Applicants should have an established reputation in some branch of oceanography and an interest in multidisciplinary research. Applications and curriculum vitae, including three references, should be sent to: Dr. R. F. Scagel, Head, Department of Botany, University of British Columbia, 2075 Wesbrook Place, Vancouver, Canada V6T 1W5, to arrive not later than 31 January 1978.

FACULTY POSITIONS IN BIOCHEMISTRY—Applications are invited for assistant and associate professor positions. A Ph.D. degree and 2 years of post-doctoral experience are required. Responsibilities include teaching, an active research program, and participation in graduate studies. Special consideration given to candidates with research interests in the areas of nucleic acid structure and biosynthesis and eukaryotic developmental biochemistry. Send résumé, names of three references, and a brief summary of research interests to: Search Committee, Attention: Dr. L. Slobin, Department of Biochemistry, University of Mississippi Medical Center, 2500 North State Street, Jackson, Miss. 39216. Equal Opportunity Employer, M/F.

FACULTY POSITION: environmental epidemiologist. Seeking individual with strong background in the toxicology of chemical pollutants, environmental chemistry, epidemiologic methods and computer science. Teaching responsibilities will include the development of courses in environmental health problems as they relate to animal populations and the use of animals as sentinels of environmental pollution. Laboratory facilities are available to permit the successful candidate to establish an independent research program in environmental toxicology. Applicants should hold a D.V.M., M.D., D.D.S., and/ or Ph.D. degree with advanced training in toxicology and/or epidemiology. Title and salary will be commensurate with ability and experience. Send curriculum vitae, personal bibliography, and references to: Dr. R. H. Cypess, Department of Preventive Medicine, New York State College of Veterinary Medicine, Cornell University, Ithaca, N.Y. 14853. Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION: comparative epidemiology. Seeking individual with a strong background and interest in epidemiological research with a specialization in chronic diseases. Experience in the epidemiology of cancer, cardiovascular or other degenerative diseases as well as specialization in either genetics, biochemistry, endocrinology, or nutrition desirable. Candidate will assist in the teaching of courses in epidemiology for professional students and in the development of research programs in comparative epidemiology and preventive medicine. Applicants should hold a D.V.M., M.D., D.D.S., and/or Ph.D. degree with advanced training in epidemiology. Title and salary will be commensurate with ability and experience. Send curriculum vitae, personal bibliography, and references to: Dr. R. H. Cypess, Department of Preventive Medicine, New York State College of Veterinary Medicine, Cornell University, Ithaca, N.Y. 14853. Affirmative Action/Equal Opportunity Employer.

The Applied Earth Sciences Department at Stanford University is seeking a **GEOLOGIST** to design and lead a teaching and research program in the geological and geophysical aspects of exploration for petroleum and related fossil fuels. This faculty position requires experience in areas such as: (i) modern concepts of depositional systems, (ii) structural analysis of on- and offshore basins, (iii) geological interpretation of seismic records, (iv) participation in recent exploration programs, and (v) economic appraisal of energy resources. Send curriculum vitae and references to: Chairman, Search Committee, Department of Applied Earth Sciences, Stanford University, Stanford, California 94305.

#### **POSITIONS OPEN**

FACULTY POSITION at the Massachusetts Institute of Technology, Department of Chemical Engineering. One or more openings are anticipated for appointment at the assistant professor level, effective September 1978. A Ph.D. and outstanding promise of a successful career in research and teaching are required. Applicants should submit a résumé, a list of publications, a statement of research plans, and the names of at least three references to: Professor Clark K. Colton, Room 66-350, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139. An Equal Opportunity/Affirmative Action Employer.

#### FACULTY POSITION

Assistant or associate professorship available August 1978. Applicants must have the Ph.D. and substantial training in biochemistry, pharmacology/toxicology, or animal physiology. Research interests must be in mechanisms of normal or abnormal development in higher vertebrates. Candidates must have an interest in graduate and undergraduate teaching and be active in research. Send curriculum vitae, including reprints, statement of teaching and research interest, graduate and undergraduate transcripts, and three letters of reference by 5 December 1977 to:

William H. Darden, Chairman Department of Biology P.O. Box 1927 University of Alabama University, Alabama 35486

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

FACULTY POSITION IN PHARMACOLOGY. The Section on Pharmacology, University of South Dakota School of Medicine, invites applications for a faculty position in pharmacology at the assistant professor level. The position is available after 15 March 1978. The duties of the position include working with existing pharmacology faculty to develop and teach a strong course in medical pharmacology to develop a research program in the individual's area of interest, and to participate in graduate training. Some initial research support will be made available to the successful candidate. The Medical School, located in Vermillion, a town of 9000, situated on a bluff overlooking the Missouri River, admits a class of 65 students each year and has been a strong 2-year basic medical science school since 1907. In 1975, the school advanced to a 4-year M.D. degree-granting program. It is presently a growing and expanding medical school, encouraging innovative teaching. Applicants should send curriculum vitae, including bibliography, brief description of research interests, teaching experience, career objectives, and names of three references, to: Kenenth Cerreta, Ph.D., Section on Pharmacology, Division of Biochemistry, Physiology and Pharmacology, School of Medicine, University of South Dakota, Vermillion, South Dakota, 57069; telephone: 605-677-5237. Closing date 31 December 1977. The University of South Dakota is an Equal Opportunity/Affirmative Action Employer.

# FACULTY VACANCY IN THE DEPARTMENT OF ANATOMY AT GEORGE WASHINGTON UNIVERSITY MEDICAL CENTER

Applications are now invited for an assistant professor in the Department of Anatomy. Demonstrated commitment to excellence in research and teaching essential. All applicants should have the M.D. degree or Ph.D. degree in anatomy. Preference will be given to individuals who have one or more years postdoctoral experience.

Candidates should submit their curriculum vitae and bibliography, including a statement of research interests and names of three references, to: Richard S. Snell, M.D., Ph.D., Professor and Chairman, Department of Anatomy, 2300 I Street, NW, Washington, D.C. 20037.

George Washington University is an Equal Opportunity Employer.

PHYCOLOGIST: teaching various courses at undergraduate and graduate level. Research in freshwater phycology: taxonomy, ecology, primary productivity. Candidates with Ph.D. (or D.Sc.) preferred, but candidacies without these diplomas will be considered. Situation open immediately. Salary: in keeping with the norms of the Université de Montréal based on qualifications and experience. Language: fluency in French. Send curriculum vitae and two letters of recommendation to: Dr. E. Magnin, Department of Biological Sciences, Université de Montréal, C.P. 6128, Montréal, Canada H3C 3J7.

#### **POSITIONS OPEN**

FRESHWATER PHYCOLOGIST-LIMNOLOGIST, OR FRESHWATER INVERTEBRATE ZOOLOGIST: beginning September 1978; assistant professor; Ph.D. Regular teaching responsibilities, supervision of student research; develop active research program. Please forward curriculum vitae, reprints of publications, transcripts, and three letters of recommendation to: Professor L. G. Klikoff, Department of Biology, Allegheny College, Meadville, Pa. 16335. Equal Opportunity Employer.

#### GENETICIST

Position available in human cytogenetics or in a field of human metabolic disease. Candidates must have doctoral degree with postdoctoral experience in research and/or teaching compatible with the research duties (major) and graduate level teaching (minor) required for this position. The successful applicant will be expected to vigorously pursue an independent program of research. Send curriculum vitae, pertinent reprints, and three letters of reference to:

Dr. David L. Busbee Chairman, Genetics Search Committee Genetics Center/Biological Sciences North Texas State University Denton, Texas 76203

Equal Opportunity/Affirmative Action Employer

#### GENETICS

Applications are invited for an assistant professorship in the area of molecular cytogenetics. Position involves 75 percent research and 25 percent instruction on a 12-month basis effective 1 July 1978. Emphasis will be on developing a research program dealing with molecular aspects of eukaryotic chromosome structure and function, and to develop and teach a course in cytogenetics. Applicants must have demonstrated excellence in research and teaching. Send curriculum vitae, publications, and reference letters to:

Dr. John G. Scandalios, Head Department of Genetics North Carolina State University P.O. Box 5487 Raleigh, North Carolina 27607

North Carolina State University is an Affirmative Action/Equal Opportunity Employer.

# GENETICIST Department of Genetics and Regional Primate Research Center UNIVERSITY OF WASHINGTON

Faculty candidates sought particularly in population genetics or immunogenetics. Through joint appointment as core staff scientist of Primate Center, appointee's research activities would include, but not be limited to, identification and exploitation of research opportunities provided by a very large, long-established colony of nonhuman primates. A research program interrelating human and nonhuman primate genetics would be particularly welcome. Primary selection criteria: history of scientific excellence and promise of continued research of highest scientific and academic standard. Send letter of application, curriculum vitae, and three personal references to: Douglas M. Bowden, M.D., Chairman, Search Committee, Regional Primate Research Center SJ-50, University of Washington, Seattle, Wash. 98195. Telephone: 206-543-1430. Affirmative Action/ Equal Opportunity Employer.

PROGRAM HEAD for early intervention program at a joint state/university institute. The administrative head is responsible for design and implementation of a research and training program for intervention with developmentally disabled infants and toddlers. Applicant should have doctorate in appropriate field and at least 2 years' experience with early intervention program design and implementation. Candidate must be able to generate outside funding to augment core support and have demonstrated publishing ability. Joint appointment at University of Ilinois, Chicago Circle, in appropriate department is negotiable. Salary competitive. Starting date: as soon as possible. Kenneth Swiatek, Director, Illinois Institute for Developmental Disabilities, 1640 West Roosevelt Road, Chicago, Ill. 60608. Equal Opportunity/Affirmative Action Employer.

OTOLARYNGOLOGIST, professor and chairman of department at Thomas Jefferson University and Thomas Jefferson Hospital in Philadelphia, Pa. Clinical care, teaching, research, and participation in all hospital and university activities. Address inquiries to: Jay Jacoby, M.D., Chairman, Search Committee, 11th and Walnut Streets, Philadelphia, Pa. 19107. Affirmative Action/Equal Opportunity Employer.

#### BIOLOGY DEPARTMENT HEAD

Applicants must have an earned Ph.D. degree in some discipline of biology, experience in both teaching and research, and a strong commitment to both. The department offers bachelor's and master's degrees in biology. This department employs 22 full-time faculty. Interested persons should forward a detailed statement of teaching and research interests and accomplishments, curriculum vitae, and names of at least three references to: Dr. L. D. Brown, Chairman, Biology Search Committee, Ogden College of Science and Technology, Western Kentucky University, Bowling Green, Kentucky 42101. Closing date for receipt of applications is 10 January 1978. This position will be filled by August 1978. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOW/RESEARCH AS-SOCIATE. Ph.D. required immediately to study mechanisms or metal antitumor drugs: requires capabilities in synthesis of model compounds and in analysis of DNA, RNA, or proteins. Forward curriculum vitae, any relevant publications, names of three references, and salary requirements to: Dr. Asher Kelman, Department of Microbiology, Boston University Medical Center, 80 East Concord Street, Boston, Mass. 02118. An Equal Opportunity Employer.

TWO POSTDOCTORAL POSITIONS AVAILABLE IMMEDIATELY: (i) Candidates must have training in soil-water management. Experience with soil-plant relationships in saline environments is desirable. (ii) Candidates must have training in plant physiology. Experience in nutrient uptake kinetics is desirable. Salary range: \$12,000 to \$13,000. Renewable, dependent upon funding. Appointment date: 1 December 1977. Closing date for the applications is 1 month after this advertisement appears. Send a complete résumé and names of three references to: Chairman, Selection Committee, Project RECLAMATION, Box 8122, The University of North Dakota, Grand Forks, N.D. 58202. An Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

#### MARINE INVERTEBRATE ECOLOGIST ECOLOGY AND EVOLUTIONARY BIOLOGY SCHOOL OF BIOLOGICAL SCIENCES UNIVERSITY OF CALIFORNIA, IRVINE

The Department of Ecology and Evolutionary Biology is seeking an assistant or associate professor of marine invertebrate ecology, to begin 1 July 1978. Applicants should: (i) be adept at applying modern ecological theory to marine systems, particularly the nearshore subtidal and intertidal, (ii) have post-doctoral experience for consideration at the level of assistant professor, and (iii) be able to present evidence of substantial potential in research and graduate training, or in the case of applicants at the level of associate professor, be able to present a record of outstanding research and graduate training accomplishment. Teaching duties will include upper division undergraduate and graduate instruction in marine ecology.

All qualified candidates are welcome; women and minorities are encouraged to apply. Send curriculum vitae, publications, statement of interests and qualifications, and letters directly from three references to:

Dr. Mark M. Littler Chair of the Search Committee Department of Ecology and Evolutionary Biology University of California Irvine, Calif. 92717

The closing date for applications is 1 February 1978.

#### NEUROBIOLOGIST

Cornell University's Section of Neurobiology and Behavior, of the Division of Biological Sciences, is continuing its search for an outstanding cellular or molecular neurobiologist. Tenure-track position at assistant or associate professor level with preference for the first. A curriculum vitae with one or two recent reprints and three letters of reference, requested by the candidate, should be sent to: Dr. J. Camhi, 163 Langmuir Laboratory, Cornell University, Ithaca, N.Y. 14853. Applications should be received by 15 Jannuary 1978. Cornell University is an Affirmative Action/Equal Opportunity Employer.

#### **POSITIONS OPEN**

Board-certified or Board-qualified **PATHOL-OGIST**, with special training in immunology and lymphoid tumors, for research and diagnosis in large Eastern medical center. An Equal Opportunity/Affirmative Action Employer.

Box 386, SCIENCE

#### PHYSIOLOGY

The Department of Biological Sciences at Purdue is considering making a faculty appointment at the assistant professor level in the area of physiology. Candidates with interests in, for example, neurochemistry, neurophysiology, or genetic and developmental neurobiology who would complement rather than supplement existing strong programs are particularly invited to apply. The successful candidate will be expected to initiate and maintain a program of high-quality research and to contribute to the teaching of mammalian physiology to medical students. Applications including a curriculum vitae, list of publications, statement of research interests, and the names of at least three references should be submitted before 7 November to: Professor Struther Arnott, Head, Department of Biological Sciences, Purdue University, West Lafayette, Ind. 47907. Purdue University is an Equal Access/Opportunity Employer.

#### POPULATION GENETICS

The Department of Zoology, University of Texas at Austin, has an opening for a faculty appointment in population genetics. Research-oriented department requires capability in graduate and undergraduate teaching and the development of an outstanding research program. Send curriculum vitae, selected reprints, a prospectus of research program, and names of five references by 15 November to: Dr. Bob Sanders, Chairman of Faculty Development Committee, Department of Zoology, University of Texas, Austin, Texas 78712.

 $An \ Equal \ Opportunity | Affirmative \ Action \ Employer$ 

## DEAN, SCHOOL OF SOCIAL SCIENCES THE UNIVERSITY OF TEXAS AT DALLAS

The University is seeking a dean to head the School of Social Sciences, University of Texas, Dallas, a component of The University of Texas System, offers upper division and graduate education in six schools: Arts and Humanities, General Studies, Human Development, Management and Administration, Natural Sciences, and Social Sciences. The School of Social Sciences began operations in fall 1975. It has a non-departmental faculty of 33 and offers undergraduate degrees in anthropology, economics, geography, political science, and sociology and the M.A. and Ph.D. in political economy (an interdisciplinary program in the analysis of public policy). The school emphasizes approaches that transcend traditional disciplinary boundaries and bring social science inquiry to bear on societal needs.

Deanship candidates should be able to conduct administrative responsibilities efficiently and develop the school's potential in undergraduate and graduate education. This will require long-range planning and implementation through faculty development and recruitment, development of new graduate programs, and interaction with academic and non-academic communities at the national and regional levels.

Qualifications required are: an earned Ph.D. or its equivalent in a social science-related discipline; evidence of substantial scholarly achievement; successful experience or demonstrated potential in academic or research-related administration; full-time university teaching experience; appreciation and understanding of both basic and applied scholarship; ability to interact with faculty and administrators; and a demonstrated capacity for leadership.

Starting date is not later than 1 September 1978, and preferably midsummer 1978. Applicants should submit a letter of interest, a résumé, and the names of referees by 15 December 1977 to:

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

Indication of ethnicity and sex for Affirmative Action statistical purposes is requested but not required. The University is an Equal Opportunity/Affirmative Action Employer.

#### MICROBIOLOGY RESEARCH LEADER CAWTHRON INSTITUTE NELSON, NEW ZEALAND

Applications are invited from experienced microbiologists with proven research leader capabilities to join a small group of microbiologists and biochemists currently engaged in several aspects of microbiological research, viz. aquatic microbiology of both fresh and saline waters, alcohol/methane fermentations for energy sources; plasmid-controlled microbial functions; microbial transformations of organic compounds.

The appointee will be responsible for coordinating the work of the group and developing a research programme; for establishing and maintaining liaison with outside laboratories; and for fostering seminars and workshops related to the group's work.

The person appointed will be expected to develop and expand his/her own research interests and to encourage and advise on individual projects.

This independent Institute provides pleasant working conditions in modern, well-equipped laboratories, and also contains a high-calibre consultant analytical laboratory with good instrumentation.

The position is permanent, and salary will be in the range NZ\$16,000 to \$18,500, depending on qualifications and experience. Advancement in the Institute is based on merit.

A contributory pension scheme is available, and some assistance is provided for removal or household effects.

Application (three copies) including a curriculum vitae, health certificate, photograph, and the names of three professional referees under, or with whom, the applicant has worked should be addressed to:

The Director Cawthron Institute P.O. Box 175 Nelson, New Zealand

Applications close in Nelson on 18 November 1977.

#### PHYSICAL OCEANOGRAPHER

Assistant or associate professorship starting September 1978 and leading to tenure in the Marine Sci ences Institute and the Department of Geology and Geophysics, University of Connecticut. Duties shall deophysics, University of Connecticut. Duties shall be to teach undergraduate and graduate courses in physical oceanography, advise M.S. and Ph.D. candidates and conduct independent research. Ph.D. required. Preference will be given to applicants with teaching and research experience in coastal and estuarine processes, and with previous success in obtaining extramural grants. Apply to: A. J. Frueh, U-45, University of Connecticut, Storrs, Conn. 06268. An Equal Opportunity Employer.

POPULATION GENETICIST/BIOSTATIS-TICIAN sought. Please send résumé by 15 November 1977 to: Michael M. Kaback, M.D., Professor of Pediatrics and Medicine, Division of Medical Genetics, UCLA/Harbor General Hospital, 1000 West Carson Street, Torrance, Calif. 90509. An Equal Opportunity Employer

POSTDOCTORAL POSITION. Positions are available to study the molecular mechanism of adhesion of a variety of normal and virus-transformed mamof a variety of normal and Virus-transformed main-malian cell lines grown in tissue culture. Candidates should have a Ph.D. in a biomedical science and plan to spend 2 to 3 years in our program. Please send curriculum vitae plus three letters of recommenda-tion to: Dr. Lloyd Culp, Department of Microbiology, Case Western Reserve University, School of Medicine, Cleveland, Ohio 44106 Cleveland, Ohio 44106.

A POSTDOCTORAL POSITION is available early 1978 for research on the regulation of amino acid metabolism in a simple eurkaryote. Topics include structure-function relationships of regulatory enzymes, the effect of increased cellular complexity on enzyme regulation, the isolation of regulatory mutants, and recombinant DNA work. Salary: \$10,000 to \$11,000 per year. Send résumé and two letters of recommendation to: Dr. G. B. Kohlaw, Department of Biochemistry, Purdue University, West Lafayette, Indiana 47907. An Equal Access/Equal Opportunity

POSTDOCTORAL POSITIONS. Pending availability of funds, 1-year appointments starting November or December 1977 and may be renewable. Laser applications to remote sensing of atmospheric water vapor and other species. Programs to include lidar field measurements, near IR tunable dye laser development, and laboratory studies of near resonant absorption and fluorescence. Possibility of fieldwork using ship, airborne, and satellite platforms.

All applications should be addressed to:

Professor T. D. Wilkerson
Institute for Physical Science and Technology
University of Maryland
College Park, Maryland 20742

University of Maryland is an Affirmative Action/ Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediate-POSTDOCTORAL POSITION available immediately for individual with appropriate background and an interest in embryology. Projects center on perfecting in vitro procedures permitting development of mouse embryos. Send curriculum vitae and three reference letters to: Professor William E. Koch, Department of Anatomy, 111 Swing Building 217H, University of North Carolina, Chapel Hill, N.C. 27514. The University of North Carolina is an Equal Opportunity Findlayer. tunity Employer.

POSTDOCTORAL POSITION in enzymology, glycoproteins, and lipids. Send résumé and three letters of recommendation by 15 December 1977, to: P. E. Kolattukudy, Department of Agricultural Chemistry, Washington State University, Pullman, Wash. 99164. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE wanted to study gene expression and its control in lower eukaryotes using recombinant DNA techniques, with Dr. J. D. Friesen and Dr. R. Pearlman. Availwith Dr. J. D. Friesen and Dr. R. Pearlman. Available immediately for 1 year with possible extension to 3 years. Experience with bacterial genetics and EM of nucleic acids desirable. Apply with curriculum vitae to: Dr. R. Pearlman, Biology Department, York University, Downsview, Ontario, Canada M3J 1P3.

#### **POSITIONS OPEN**

POSTDOCTORAL RESEARCH ASSOCIATE: Two positions to study biosynthesis of DNA precursors and its regulation in microbial systems or cultured mammalian cells, with Dr. Christopher K. Mathews, Department of Biochemistry and Biophysics, Oregon State University, Corvallis, Oregon 97331. Available: 1 January 1978. Inquiries, including names of three references, should be sent to: Dr. Mathews at the Department of Biochemistry, University of Arizona, Tucson, Arizona 85724. After 15 December 1977, address all correspondence to Corvallis. Oregon State University is an Affirmative Action/Equal Opportunity Title IX, Section 504, Employer. positions to study biosynthesis of DNA precursor Employer.

POULTRY NUTRITION POSITION, 100 percent research; research on evaluation of feedstuffs in-digenous to the Pacific Northwest and nutritionaldigenous to the Pacific Northwest and nutritional-genetic interactions for new poultry lines applied to laying hens and replacement pullets. Title, either as-sistant or associate poultry scientist (depending on qualifications), Washington State University. Appliqualifications), Washington State University. Applicants should possess a Ph.D. degree in poultry or animal nutrition. Those desiring to apply should send résumé and references by 20 January 1978 to: Ernest C. Bay, Superintendent Western Washington Research and Extension Center, Puyallup, Wash. 98371. Washington State University is an Equal Opportunity/Affirmative Action. Employer. portunity/Affirmative Action Employer.

### PROFESSOR OF PATHOLOGY HARVARD MEDICAL SCHOOL

Applications are invited for the joint position of professor of pathology at the Harvard Medical School and chief of pathology at the Beth Israel Hospital. Requirements: (i) high competence in anatomic pathology, (ii) a record of active experimental research, (iii) capacity to carry on medical student and resident teaching, and (iv) ability to administer the anatomical and clinical laboratories, the teaching and training programs, as well as active departmental research programs.

tal research programs.

Both institutions are Equal Opportunity/Affirma-Both institutions are Equal Opportunity/Affirmative Action Employeers; minority group members and women are encouraged to apply. Address replies with full curriculum vitae and names of referees before 15 January 1978 to: Norman Geschwind, M.D., Neurological Unit, Beth Israel Hospital, 330 Brookline Avenue, Boston, Massachusetts 02215.

#### RESEARCH ASSOCIATE/POSTDOCTORAL

Postdoctoral position available immediately for inrostdoctoral position available immediately for investigator interested in nucleic acid biochemistry. Projects include isolation and characterization of and physical studies on RNA and DNA unwinding proteins; metal ion-nucleic acid interactions; determination of intracellular metal ions using liposomes. Experience with mammalian cell culture, chemical modification of proteins, or artificial membrane systems will be useful. Send résumé and three letters of recommendation to: Dr. Richard L. Karpel, Department of Chemistry, University of Maryland Baltimore County, 5401 Wilkens Avenue, Catonsville, Md.

Affirmative Action/Equal Opportunity Employer

**RESEARCH ASSOCIATE.** Applied mathematicians and/or fluid mechanicians needed for research on mathematical modeling of currents and ecologic sysmathematical modeling of currents and ecologic systems in both lakes and oceans. Candidates should have common sense and competence in numerical methods and fluid mechanics. Competence in or willingness to learn biology and chemistry is desirable. Applicants should send résumé and references to: Professor Wilbert Lick, Department of Earth Sciences, Case Western Reserve University, Cleveland, Ohio 44106. An Equal Opportunity Employer.

#### STAFF OFFICER

A nonprofit organization in Washington, D.C., is seeking a staff officer for a committee on international disaster assistance.

Qualifications should include a doctorate or equivalent achievement in the social or behavioral sciences, and experience in conducting and/or utilizing disaster and emergency-related research. Duties will include preparing study plans, arranging committee and workshop meetings, preparing meeting minutes, supervising consultants and support personnel, editing draft reports, and preparing proposals for additional research projects. Evidence of excellent administrative ability and good writing skills cellent administrative ability and good writing skills are required. The salary is competitive and will be based on the candidate's qualifications and experience. Candidate should send résumé and salary requirements to **Box 387**, **SCIENCE**. An Equal Opportunity Employer

#### **POSITIONS OPEN**

RESEARCH POSITION available immediately for Ph.D. biochemist with expertise in blood c ponents. Research involves development and sessment of radiolabeled agents for thrombus detecsessment of radiolabeled agents for thrombus detection. Experience in platelet biochemistry, radioisotope techniques or chromatographic techniques helpful. Send résumé and two references to: Michael J. Welch, Ph.D., Department of Radiology, Washington University School of Medicine, St. Louis, Missouri 63110. An Equal Opportunity/Affirmative Action Employer.

## THE MAURICE AND GABRIELA GOLDSCHLEGER EYE INSTITUTE TEL-HASHOMER, ISRAEL

The Institute invites applications from and nomination of RESEARCHER-SCIENTISTS to head the following laboratories of the Institute: Pathology and Electron Microscopy, Electrophysiology of Vision, Microbiology and Immunology, Biochemistry and Pharmacology, and Biophysics.

The Research Department of the Institute is affiliated with the Sackler School of Medicine, Tel-Aviv University, Tel-Aviv.

Applicants must have the qualification for an aca-Applicants must have the qualification for an academic position and should have interest and experience in the area of eye research, and a demonstrated capacity in scientific administration. One of the heads will be nominated director of the Research Department, and will be directly responsible for all activities of the Research Laboratories, including personnel and budget.

Letters of application or nomination should include curriculum vitae and three personal and professional references and should be addressed to:

**Professor Richard Stein** Eye Department Chaim Sheba Medical Center Tel-Hashomer, Israel

#### SENIOR HYPERTENSION TECHNOLOGIST

Directly responsible for conducting, compiling, analyzing and interpretation of the research projects in the Hypertension Research Laboratory utilizing specialized techniques of hemodynamic and muscle me-chanics-kinetics in acute and chronic animal experiment models and to participate in clinical investiga-tional activities of the Hypertension Unit. Requires a master's degree in pharmacology or physiology plus 3 years of experience in cardiovascular research. Please submit résumé to: Health Sciences Center Personnel, University of Louisville, P.O. Box 35260, Louisville, Kentucky 40232. An Equal Opportunity Employer

Position open for a SURGICAL PATHOLOGIST at the level of assistant professor, Northwestern Memorial Hospital and Northwestern University School of Medicine, Chicago, Illinois. Competence in general surgical pathology with special interest in neoplasia. Active research program in chemical carcinogenesis obligatory. Send résumé to: Box 368, SCIENCE. Equal Opportunity/Affirmative Action Employees. Employer.

Applications from Ph.D.'s are invited for TEACHING POSITIONS in the following courses:

Epidemiology Neuroanatomy Histology **Biophysics** Pharmacology Hematological Studies Microbiology Pathophysiology I Pathophysiology II Immunology Parasitolog Medical History Analysis

The university is located in the West Indies. Please send curriculum vitae

St. George's University c/o Foreign Medical School Service Corp One East Main Street Bay Shore, New York 11706

## — J. ROBERT OPPENHEIMER RESEARCH FELLOWSHIPS —

In addition to our Laboratory's regular postdoctoral program, one or two special postdoctoral research fellowships will become available beginning about June, 1978. Named in honor of the first Director of the Los Alamos Scientific Laboratory, the purpose of these appointments is to foster continuing interactions between the Laboratory and recent recipients of doctoral degrees who show clear and definite promise of becoming outstanding leaders in scientific research.

Appointments will be considered in the physical sciences, the natural sciences, mathematics, and engineering.

The one to three year appointments carry an annual salary of \$22,500.00.

Closing date for the competition is November 1, 1977.

Inquiries should be directed to:

R. Lynn Wilson, Recruiting
Director
Division 77-VV

Los Alamos Scientific Laboratory

P. O. Box 1663

Los Alamos, New Mexico 87545



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Scientific Staff position for PhD in Electronics or Physics to develop new instrumentation for use in most advanced scientific research. Candidates must have a thorough understanding of principles of measurements and of signal processing. A basic functional approach to the design of electronic circuits and systems is preferred over specialized knowledge of particular techniques. Position and salary commensurate with recognized achievement and experience.

Write to: Dr. V. Radeka, Head, Instrumentation Division

Brookhaven National Laboratory,



Associated Universities Inc. Upton, LI, New York 11973.

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## LABORATORY HEAD, MOLECULAR PATHOLOGY BIOCHEMICAL PATHOLOGIST VETERINARY PATHOLOGIST/ PATHOLOGIST

The Developmental Therapeutics Program, National Cancer Institute, invites applications for these three positions in the Laboratory of Toxicology. This Laboratory conducts basic research and supervises toxicologic studies of antineoplastic agents in animals prior to their introduction into man. Applicants should have interests and experience in studying mechanisms of drug-induced toxicity, particularly from the point of view of following morphologic leads to the molecular level. Applicants should have a Ph.D. and/or M.D./D.V.M. [or equivalent and special training in molecular (biochemical) pathology]. Positions will be filled through career Civil Service appointments, salary range \$20,442-\$35,431, dependent upon qualifications or through U.S.P.H.S. Commissioned Corps. Letters of application with curriculum vitae, bibliography and SF 171, Personal Qualifications Statement, should be sent by November 18, 1977, to:

Mrs. Janie R. Lacy National Cancer Institute NATIONAL INSTITUTES OF HEALTH

Public Health Service 9000 Rockville Pike, Bldg 31, Room 3A27 Bethesda, Maryland 20014

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# PROTEIN CHEMIST

The Radiopharmaceutical Division of New England Nuclear Corporation has a newly created position for a protein blochemist in the Research Department. The assignment calls for a dedicated project manager with primary responsibility in the area of protein chemistry. Efforts will focus on the preparation of research proposals for new product development and characterization and upgrading of our current product line.

A Ph.D in biochemistry is preferred. Candidates with strong background in isolation and purification of plasma proteins and some experience in derivatization will be given highest consideration. Industrial experience is desirable.

As a leader in the field of nuclear medicine, we offer a competitive salary and comprehensive benefit program including relocation and profit sharing.

Interested candidates should submit resume with salary history to New England Nuclear, 601 Treble Cove Road, Billerica, MA 01862.



#### STAFF OFFICER

The National Research Council seeks a staff offi-cer for the Environmental Studies Board. Minimum requirements are advanced knowledge correspond-ing to master's level (Ph.D. preferred), plus relevant experience in benefit-cost analysis, decision analysis, environmental economics, or related fields. Familiarity with pesticide regulations and some adminstrative experience are desirable. Salary range \$22,000 to \$30,000. Applications consisting of a complete résumé, three references, and a sample of writing should be sent to: Environmental Studies Board, 2101. Constitution Avenue, NW, Washington, D.C. 20418.

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TOXICOLOGIST, director of B.S. program. Level dependent on experience. Duties include teaching undergraduate and graduate courses, directing this new B.S. program and carrying out an independent research program. Ph.D. or equivalent required. Send résumé and three confidential letters of recommendation to: Dr. V. Warner, 312 Mugar Building, Department of Medicinal Chemistry and Pharmacology, College of Pharmacy and Allied Health Professions, Northeastern University, Boston, Mass. 02115. An Affirmative Action/Equal Opportunity/Title 1X University.

#### VETERINARY PATHOLOGIST

The Upjohn Company has a research opening for a scientist to plan, conduct, and evaluate animal toxicity studies. The position is in support of the com-

pany's human pharmaceutical R & D.
Responsibilities include conducting an experimental pathology program, consulting for a number of research project teams, and supervising technicians. Qualifications: D.V.M. with Ph.D. in pathology or equivalent training. ACVP Board-certified preferred.

Progressive, multidisciplined research environ-ment. Excellent support. Full benefits, competitive salaries. Living in Kalamazoo means no commuting, immediate access to an excellent mix of cultural-rec-reational pursuits including lakes, nearby colleges, a

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Dennis A. Nevala Employment Representative The Upjohn Company oo, Mich. 49001

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WILDLIFE MANAGEMENT BIOLOGIST. Assistant or associate professor, Department of Zoology and Physiology, University of Wyoming. Teaching, research, participation in direction of Wildlife Pro-gram. Requires Ph.D. in wildlife management or re-lated field; management research experience on large game animals, predators, and/or experience in a state or federal wildlife agency preferred. Tenure rack, 9-month; salary competitive. Affirmative ActionlEqual Opportunity Employer. Send letter, résumé, reprints, and three letters of reference before I February 1978 to: Dr. H. L. Bergman, Box 3166 University Station, Laramie, Wyoming 82071.

#### **PROGRAMS**

PROFESSIONAL PROGRAM: DOCTOR OF OP-TOMETRY (O.D.). Accelerated program of two calendar years specifically designed for the Ph.D. in the sciences to earn the O.D. degree. Excellent opportunities in health-related teaching and research; oppor-tunity for an independent professional career. Pro-gram starts June 1978. Division of Vision Sciences, The New England College of Optometry, 424 Beacon Street, Boston, Mass. 02115. Telephone: 617-261-3430, ext. 34.

#### DOCTORAL PROGRAM—PHARMACOLOGY

Medical University of South Carolina, Department of Pharmacology, seeks qualified candidates for Ph.D. program. Interdisciplinary environment with Ph.D. program. Interdisciplinary environment with research capabilities ranging from gas chromatography-mass spectrometry through cell cultures and animal studies to clinical studies of patients with disease. Research training is available in biochemical pharmacology, physiological pharmacology, drug metabolism, toxicology, analytical chemistry, and clinical pharmacology. Stipends available: \$3900 per year. Contact: Graduate Training Director, Department of Pharmacology, Medical University of South Carolina, Charleston, S.C. 29401.

#### **TRAINEESHIPS**

POSTDOCTORAL TRAINEESHIPS. Appli-Ph.D. degree in immunology, microbiology, zoology, cell biology, molecular biology, biochemistry, or related areas, or M.D. degree for postdoctory transfer for postdoctory biochemistry, or related areas, or M.D. degree, for postdoctoral traineeships in immunology funded by the National Cancer Institute. U.S. citizenship or permanent resident visa required. Research areas are cellular immunology, tumor immunology, transplantation immunology, immunogenetics, developmental immunology, clinical immunology, immunogenetics, developmental immunology, clinical immunology, immunopathology, immunopathology, immunopathology, appeted immune response, and membrane biology. Apply to: Secretary, Immunobiology Research Center, UNIVERSITY OF WISCONSIN, 1150 University Avenue, Madison, Wisconsin 53706. An Affirmative Action/ Equal Opportunity Employer.

#### **FELLOWSHIPS**

POSTDOCTORAL FELLOWSHIP is available for a Ph.D. in biochemistry or molecular biology to work on transport mechanism of vitamin A. This is a 2-year fellowship supported by the National Retinitis Pigmentosa Foundation, Inc. Send résumé with three references to: Dr. Joram Heller, Jules Stein Eye Institute, University of California, Los Angeles, Calif. 90024. An Equal Opportunity/Affirmative Action

PREDOCTORAL FELLOWSHIP IN NEUROBIOL-OGY in the Boston University Marine Program, located at the Marine Biological Laboratory, Woods Hole, Mass, beginning 1 September 1978. The fellow will be a degree candidate in Boston University. The Boston University staff working in neurobiology at the Marine Biological Laboratory includes J. Atema, A. Fein, F. Lang, and E. F. MacNichol, Jr. Candidates with master's degrees preferred, but superior beginning graduate students considered. Application deadline is 1 February 1978. For further information and application forms write: Director, Boston University Marine Program, Marine Biological Laboratory, Woods Hole, Mass. 02543. Telephone: 617-548-3705, Ext. 519.

POSTDOCTORAL FELLOWSHIP available immediately to study lipoprotein biosynthesis in primary liver cell cultures. Strong background in protein synthesis desired. Experience with mammalian system not required. Stipend \$12,000 per year. Send curriculum vitae and the names of three references to: Dr. J. L. Breslow, Metabolism Division, Children's Hospital Medical Center, 300 Longwood Avenue, Boston, Mass. 02115. Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL AWARDS IN OCEAN SCIENCE AND ENGINEERING

Applications invited for 1-year postdoctoral scholar awards from new and recent doctorates in fields of biology, chemistry, engineering, geology, geophysics, mathematics, me-teorology, physics, as well as oceanography. Recipients of awards are selected on a competitive basis, with primary emphasis placed on research promise.

Fellowship stipend is \$14,000. Appointees are eligible for group health insurance and a modest research budget. Recipients are encouraged to pursue their own research interests independently or in association with resident staff. Completed applications must be received by 15 December 1977 for 1978-79 awards. Awards will be announced 1 February 1978. Write for application forms to: Fellowship Committee, Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543. couraged to pursue their own research inter-

Equal Opportunity/Affirmative Action Institution.

A limited number of PRE- AND POSTDOCTORAL A limited number of PRE- AND POSTDOCTORAL FELLOWSHIPS are available in the Department of Pharmacology and Cell Biophysics (Dr. Arnold Schwartz, Director). Research interests include biochemical and biophysical aspects of cardiac and skeletal muscle. Inquiries to: Dr. Earl T. Wallick, Director of Graduate Studies, Department of Pharmacology and Cell Biophysics, University of Cincinnati College of Medicine, Cincinnati, Ohio 45267. An Equal Opportunity/Affirmative Action Employer.

#### **FELLOWSHIPS**

POSTDOCTORAL FELLOWSHIP: Three positions are available in the Center for Reproductive Sciences at Columbia University College of Physicians and Surgeons for training in primate neuroendocrinology, gametogenesis and gamete biochemistry, pituitary receptors, or mammalian meiotic cytogenetics. Salary \$10,000 to \$13,200 depending on experience. M.D. or Ph.D. required. Must be U.S. citizen or have permanent visa. Equal Opportunity Employer. Contact: Dr. G. Jagiello, Center for Reproductive Sciences, Columbia University College of Physicians and Surgeons, 630 West 168th Street, New York, N.Y. 10032.

#### MARKET PLACE

#### ADDITIONAL INCOME

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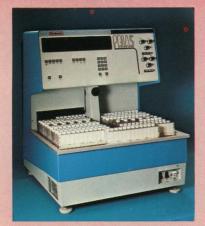
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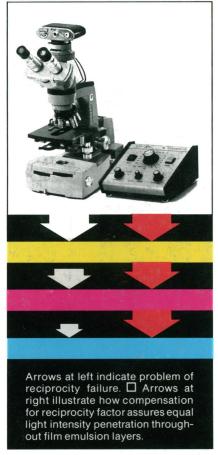
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