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By Keith O. Campbell

Keith Campbell here examines the world's food supply as it relates to economics, politics, the world resource situation, the threat of climatic change, and the energy crisis, and suggests changes on both the national and international levels to increase our food-producing capacity. xii, 178 pages. July. **\$12.50**

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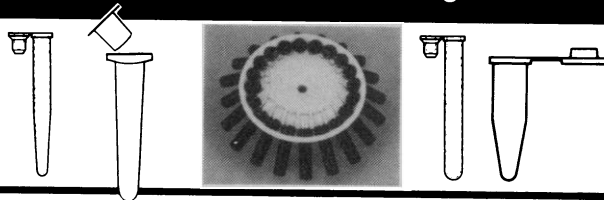
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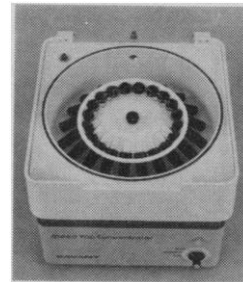
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POSITIONS WANTED

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

Anatomist: Ph.D. anatomy; 7 years of experience teaching gross anatomy, histology, ultrastructure, and neuroanatomy to medical and paramedical students. Experienced electron microscopist and neuroanatomical research. Temporary/part-time position. For details, write: Box 170, SCIENCE. 6/8, 15

Anatomist (M.S. 1979)/Electron Microscopist. Research technician experience in electron microscopy, immunocytochemistry, isotope labeling, tissue culture, hematological assays. Publications. Teaching areas: gross anatomy, histology. Seeks academic, government, industrial position in research and/or teaching. Box 171, SCIENCE. X

Anatomist/Neuroendocrinologist, physiology minor, broad background, Ph.D. 1970. Desires teaching/research position, with emphasis on teaching, at assistant professor level. Experience in teaching anatomical disciplines. Expertise in ultrastructure. Publications. Box 172, SCIENCE. X

Biochemist: M.A. 1976. Creative, highly motivated, self-starter. Seeks challenging research position which would include enrollment in Ph.D. program. Fields of expertise: radiation chemistry, hematology, immunology, protein purifications. Formal training (in Northeast) in neurochemistry, neurophysiology, environmental chemistry, light/EM, and teaching. Well versed in biochemical techniques, instrumentation, supervision. Box 173, SCIENCE. X

Biochemist/Nutritionist/Physiologist. D.V.M., Ph.D. teaching experience in physiology; research interest in endocrine control of metabolic processes (cyclic nucleotides and protein kinases in lungs, adipose, and corpus luteum); 20 publications; scientific reviewer; seeks academic or research position. Box 174, SCIENCE. 6/8, 15, 22

POSITIONS WANTED

Biomedical Research Assistant desires free-lance work in proofreading, indexing. Demonstrated competence. Box 175, SCIENCE. X

Clinical Chemist, Ph.D. Seeks position in teaching hospital laboratory on the West Coast; ABCC eligible. Presently Congressional Fellow, NIH-trained in toxicology, pediatric, RIA routine chemistry. Available September 1979. Reply to: Box 160, SCIENCE. X

Consultant/Laboratory Animal Science and Medicine. D.V.M., Ph.D. in pathology; Board-certified in laboratory animal medicine. Extensive experience in government, industrial, and academic institutions relating to establishing and administering animal care and use programs to support teaching, research, and testing; and in designing related facilities. Box 176, SCIENCE. X

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

Energetic Problem Solver. B.S. in mathematics, M.S. in systems management. Four years of management experience in Army Corps of Engineers. Seeks challenge in industry or government. Box 178, SCIENCE. X

Field Ecologist. B.S. Field experience in jungle ecology; Ecuador. Broad experience in terrestrial and freshwater ecology; marine plankton surveys. Seeking position in field research. J. Leeds, P.O. Box 349, Fox Lake, Illinois 60020. 6/8, 15, 22, 29

Immunodiagnostics. Ph.D. with proven track record for R & D and administration. Nine years of industrial experience in all aspects of product development from concept through marketed licensed products. Box 179, SCIENCE. X

Immunologist, Ph.D.; 25 years of experience in teaching and research. Fifty publications in the field of immunology-allergy. Has supervised theses of undergraduates and graduates at the master's and Ph.D. levels. Seeks research/teaching, research/management, or administrative position. Box 180, SCIENCE. X

Immunologist: extensive experience in areas of immunochemistry, cellular immunology, tumor immunology both in vivo and in vitro studies; numerous publications. Also qualified for administrative duties. Seeking a permanent position in government or industry as researcher or administrator. Box 181, SCIENCE. 6/8, 15

Molecular Biologist and Microbiologist. Ph.D. 1977. DNA repair and recombinant DNA research experiences; seven publications. Available immediately. Seeking teaching/research/industrial position. Box 182, SCIENCE. X

Neurochemist, Ph.D. Emphasis on chemical and radiochemical method development. Established radioimmunoassay and immunohistochemistry techniques for neurotransmitters. Experienced in subcellular fractionation, isolation, characterization of structures of bioorganic compounds with use of modern instruments and synthesis of organic heterocycles. Supervisory license in clinical chemistry (city of New York). Box 183, SCIENCE. X

Organic Chemistry Ph.D./Immunology. Experience: organic synthesis; tracers, conjugates to macromolecules; development of RIA for drug and prostaglandins; ligand immobilization on polyacrylamide beads; extensive use and development of HPLC and RIA method for prostaglandin analysis of cell extract, brain homogenates, blood, urine; tissue culture; NMR, MS, HPLC, and other chromatographic methods. Box 184, SCIENCE. X

Pharmacologist/Physiologist. Ph.D. 1977. Broad background in mechanisms of inflammation and anti-inflammation as well as in chemical carcinogenesis and toxicity. Doctoral work in screening of anti-inflammatory agents. Postdoctoral (at present) in mechanisms of skin tumorigenesis using inflammatory mediators, tumor promoters, and anti-inflammatory agents both in vitro and in vivo. Desires research/management in government, industry, or other health-related places. Box 185, SCIENCE. 6/8, 29

Ph.D.—Medical Research: 11 years of experience in toxicology and renal physiology and hypertension. Seeking a position in industry or government. Y. Greener, 3450-14A Wayne Avenue, Bronx, N.Y. 10467. X

POSITIONS WANTED

Zoologist/Electron Microscopist. Ph.D. Cambridge, England. Extensive research experience in plasma membrane research, tissue culture, biochemistry, developmental biology, experimental morphology. Teaching experience in cell biology, electron microscopy, anatomy, and virology. Desires research or research/teaching position. Philadelphia and South Jersey area. Box 186, SCIENCE. X

POSITIONS OPEN

ACADEMIC PATHOLOGIST—The University of Southern California School of Medicine and the Los Angeles County—University of Southern California Medical Center invite applications for a junior staff pathologist with special interest in pediatric pathology and hematopathology. Applicant must have a strong interest in teaching and scholarly activity. California license required. Reply to: **Chairman, Department of Pathology, University of Southern California, 2025 Zonal Avenue, Los Angeles, California 90033.**

Equal Opportunity/Affirmative Action Employer

ASSISTANT PROFESSOR

Tenure-track position starting 1 September 1979. Ph.D. with strong commitment to teaching. Areas of responsibilities include: courses in human anatomy and physiology and clinical biology. Development of a course at the graduate or undergraduate level in the area of specialization would be encouraged. The position may involve administrative responsibilities in the department in the future. Submit curriculum vitae, brief statement of interests, and names of three references to: **Dr. Kenneth Kaloustian, Chairman of Search Committee, Department of Medical Laboratory Sciences, Box 154, Quinnipiac College, Hamden, Conn. 06518. Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR to teach physical science courses to nonscience majors. Requirements: facility in communicating ideas in chemistry, earth science, physics, and astronomy; Ph.D. in one of these areas; evidence of academic breadth; desire to teach nonscience majors. Submit letter of intent, résumé, all transcripts, and three letters of reference by 29 June 1979 to: **Dr. Bruce MacLaren, Chairman, Natural Science Department, Eastern Kentucky University, Richmond, Kentucky 40475. Equal Opportunity/Affirmative Action Employer.**

YESHIVA UNIVERSITY. Two full-time tenure-track positions at assistant professor level for fall 1979 in: (i) **developmental genetics** and (ii) **animal physiology and anatomy**. Appointees are expected to teach specialty courses and general biology. Ph.D. and teaching experience required. Research program is expected. Send curriculum vitae and letters of recommendation to: **Dr. Karen Bacon, Acting Dean, Division of Natural Science and Mathematics, Yeshiva University, 2495 Amsterdam Avenue, New York, N.Y. 10033.**

ASSISTANT OR ASSOCIATE PROFESSOR IN BIOCHEMISTRY. Medical school full-time faculty to participate in the medical biochemistry course for freshman medical students and advanced courses for graduate students. An active research program is highly desired. Rank and salary negotiable depending on qualifications and experience; starting January 1980. Send résumé and three letters of recommendation to: **Dr. P. G. Iatridis, Director, Northwest Center for Medical Education, Indiana University School of Medicine, 3400 Broadway, Gary, Indiana 46408. Indiana University is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT/ASSOCIATE PROFESSOR, Section of Physiology, Department of Medicine—state-funded tenure-track position open for candidate to establish an independent research program in environmental, exercise, high altitude, or systems physiology. Participation in teaching of graduate and medical students. Must have training in research areas sufficient to establish an independent research program; demonstrated teaching ability. Salary related to rank and step of appointment within the established salary schedule of the University of California, San Diego, School of Medicine Faculty Compensation Plan. Inquire by 30 June 1979. **John B. West, M.D., Ph.D., Section of Physiology, Department of Medicine, M-023, University of California, San Diego, La Jolla, California 92093. The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR BIOMEDICAL ENGINEERING/ SYSTEMS PHYSIOLOGY

The Department of Biomedical Engineering of The Johns Hopkins University School of Medicine has an opening for a faculty member who will participate in its research and teaching activities. Each applicant should have a doctoral degree and be an established investigator with a demonstrated ability to develop an independently funded research program (preferably in an area other than cardiovascular physiology or neurophysiology) which emphasizes the application of engineering and/or mathematical techniques to the analysis of biological systems. Teaching responsibilities will include the organization of advanced graduate seminar courses, participation in the medical school physiology courses, and the supervision of graduate students. Candidates should send curriculum vitae, a list of publications, and the names and addresses of three references (who will not be contacted without permission), by 1 September 1979 to: **Dr. Richard J. Johns, Director, Department of Biomedical Engineering, The Johns Hopkins University School of Medicine, 522 Traylor Building, 720 Rutland Avenue, Baltimore, Md. 21205. The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR OF MICROBIOLOGY: SEARCH REOPENED. The West Virginia School of Osteopathic Medicine is seeking a Ph.D. in microbiology. The candidate must have excellence as a virology teacher and the ability to teach general medical microbiology courses. Research facilities are available and research is encouraged. Send curriculum vitae, transcripts, and three letters of recommendation by 1 July 1979 to: **Dr. Harold Laubach, Acting Chairman, Department of Microbiology, West Virginia School of Osteopathic Medicine, Lewisburg, West Virginia 24901.**

ASSISTANT/ASSOCIATE PROFESSOR OF PHARMACOLOGY

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

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

ASSISTANT PROFESSOR, PHARMACOLOGY

Applications are invited for an up to 5-year, potentially tenure-track, position at the assistant professor level in the pharmacology area of the College of Pharmacy. An undergraduate pharmacy degree is desirable but not required. Research interests may be in any area of pharmacology or toxicology. Send curriculum vitae and the names of three references to: **Dr. C. K. Erickson, College of Pharmacy, The University of Texas at Austin, Austin, Texas 78712.**

ASSISTANT OR ASSOCIATE PROFESSOR IN PHARMACOLOGY. Medical school full-time faculty to participate in the pharmacology course for sophomore medical students and advanced courses for graduate students. An active research program, preferably in neuropharmacology, is highly desired. Rank and salary negotiable depending on qualifications and experience; starting 1 January 1980. Send résumé and three letters of recommendation to: **Dr. P. G. Iatridis, Director, Northwest Center for Medical Education, Indiana University School of Medicine, 3400 Broadway, Gary, Indiana 46408. Indiana University is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR (RESEARCH) required to join a project on the molecular comparison of genes specifying isofunctional catabolic enzymes in plasmids. A candidate with a Ph.D. is required, and someone with experience of work with DNA and restriction enzymes is preferred. Contractual appointment for 2 years, in the first instance, on a salary scale commencing at \$16,950 per annum. Applications, including curriculum vitae and the names of two referees, should be sent to: **Dr. E. A. Barnsley, Department of Biochemistry, Science Building, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1B 3X9.**

POSITIONS OPEN

The Department of Physics at Kansas State University will have a **visiting temporary position** open starting September 1979. This position will be filled at the rank of **assistant professor to professor** depending on the qualifications of the candidate selected. Applications will be considered in the areas of: (i) atomic physics, (ii) biophysics, (iii) physics education, (iv) nuclear physics, (v) solid state physics, and (vi) quantum optics. A brief résumé of experience including names of references should be received no later than 20 June 1979. References will be requested as required. Applications should be sent to: **C. E. Hathaway, Department of Physics, Kansas State University, Manhattan, Kansas 66506. Kansas State University is an Affirmative Action/Equal Opportunity Employer.**

ASSISTANT/ASSOCIATE PROFESSOR OF VIROLOGY. Depending on background and degree of experience. Candidate should have potential as an independent researcher and an interest in teaching at the graduate level. Individuals interested in the application of viral genetics to problems of medical and/or public health importance are encouraged to apply. Salary open to negotiation depending on experience. Minimum 10-month salary: \$17,500. Potential for summer salary. Send curriculum vitae and names of three references to: **Dr. Myron Essex, Chairman, Department of Microbiology, Harvard University School of Public Health, 665 Huntington Avenue, Boston, Mass. 02115. Women and members of minority groups are encouraged to apply. Harvard University is an Equal Opportunity/Affirmative Action Employer.**

BIOCHEMIST

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

Two junior faculty positions (tenure-track) in **BIO-MEDICAL ENGINEERING.** Major responsibilities include monitoring, processing, and analysis of cardiopulmonary and neurological data in clinical research environment. Extensive experience in hardware and software design is essential. Some life sciences background desirable.

Apply before 20 June to:

**Chairman, Biomedical Engineering
Box 377, Medical Center
University of Virginia
Charlottesville, Va. 22908**

Affirmative Action/Equal Opportunity Employer

BIOPHYSICS-BIOCHEMISTRY postdoctoral position available fall 1979. Resonance Raman studies of visual pigments, bacteriorhodopsin, and other biological chromophores are to be studied in a well-equipped laboratory. This new probe provides a great deal of rich structural information concerning these chromophores and how these proteins work. Send curriculum vitae and letters of reference to: **Dr. R. Callender, Physics, City College of New York, New York, N.Y. 10031. An Affirmative Action Employer.**

BIOPHYSICIST—With postdoctoral training to collaborate in research on interaction of drugs with receptors and membranes and to build own research program. Rank commensurate with qualifications. Please send résumé with names of three references to: **Box G, Department of Pharmacology, THE MOUNT SINAI SCHOOL OF MEDICINE, One Gustave L. Levy Place, New York, N.Y. 10029. An Equal Opportunity Employer.**

CELL BIOLOGY—Faculty position beginning fall 1979 at the assistant or associate level. Preference will be given to Ph.D. applicants committed to undergraduate teaching with evidence of relevant research experience involving cell function and/or structure. Duties include teaching cell biology and development of an undergraduate research program. Northeastern State University (NSU) (6000 students) is located in the scenic foothills of the Ozarks, among beautiful lakes and clear streams. Submit résumé, description of proposed research, and names of three references to: **Dr. Gary VanDenbos, Division of Natural Science and Mathematics, Northeastern State University, Tahlequah, Okla. 74464. NSU is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

BIOCHEMIST. Available fall 1979, New York City. To develop a program in male reproductive physiology; to establish and maintain a P-3 facility for investigation of testicular chromatin. Three/four years of relevant postdoctoral training. *Equal Opportunity Employer.* **Box 169, SCIENCE.**

The University of Arkansas for Medical Sciences is seeking qualified candidates for the position of **CHAIRPERSON** of the Department of Physiology and Biophysics in the College of Medicine. Candidates with a history of extramural research support, a national reputation for research accomplishment, a record of excellence in medical school and graduate teaching, administrative experience, and a desire to shape a department of excellence in an expanding medical center are encouraged to apply by sending curriculum vitae to: **Dr. Donald E. McMillan, Chairman, Department of Physiology and Biophysics Search Committee, Department of Pharmacology, Slot #521, University of Arkansas for Medical Sciences, 4301 West Markham Street, Little Rock, Arkansas 72201. The University of Arkansas for Medical Sciences is an Equal Opportunity/Affirmative Action Employer.**

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

AUSTRALIAN MUSEUM SYDNEY CURATOR/ASSISTANT CURATOR OF BIRDS

SALARY: curator range: A\$17,346 to A\$18,400 with progression to A\$19,655 subject to certain conditions. Assistant curator range: A\$10,953 to A\$14,873 with progression to A\$16,594 subject to certain conditions.

QUALIFICATIONS: university degree in zoology and research experience in ornithology. Applicants should have some knowledge of modern museum curatorial practice. Research experience in systematic ornithology or biogeography preferred. A wide knowledge of avian biology is essential and is more important than a thorough knowledge of Australian birds.

DUTIES: to curate the ornithological collections and to answer public and professional scientific enquiries on ornithology. To participate in the museum's display and educational programmes on various aspects of ornithology. To carry out an active programme of research in some field of Australian ornithology.

GENERAL: the Australian Museum has a total staff of over 160 with 12 departments covering all systematic groups of animals, animal ecology (both vertebrate and invertebrate), mineralogy, palaeontology, and anthropology. Scientific staff numbers 55. Field research is emphasised.

CONDITIONS: subject to certain conditions, the successful applicant will be eligible for:

- Payment of fares to Sydney;
- Financial assistance towards cost of removal expenses;
- Financial assistance towards initial accommodation expenses.

INQUIRIES: for further information telephone or write to the **Recruitment Section, New South Wales Centre, 6th Floor, 7 West 51 Street, New York, N.Y., telephone: 212 432-0155, where applications close on 6 July 1979.**

POSITIONS OPEN

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

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

Interested persons should reply by 1 July 1979 to:

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

CHEMISTRY CHAIRPERSON. The Department of Chemistry of Rensselaer Polytechnic Institute, Troy, N.Y., invites applications for the position of chairperson. Candidates must have a distinguished research and teaching record and be willing to devote considerable time to a departmental development program that emphasizes expansion of graduate teaching and research. Position available 1 July 1980. Closing date for applications: 15 August 1979. Submit application and curriculum vitae and have three letters of recommendation sent directly to: **David A. Aikens, Chairperson Search Committee, Department of Chemistry, Rensselaer Polytechnic Institute, Troy, N.Y. 12181.** *An Affirmative Action/Equal Opportunity Employer.*

UNIVERSITY OF OTAGO DUNEDIN, NEW ZEALAND CHAIR OF PHARMACOLOGY

The University Council invites applications from medical or science graduates for appointment to the chair of pharmacology, at present occupied by Professor F. N. Fastier who is retiring in early 1980.

Professional salaries, which are regularly reviewed, are paid within the following ranges:

Medical: NZ\$30,365 per annum to NZ\$33,865 per annum, and
Science: NZ\$23,865 per annum to NZ\$29,865 per annum.

(Both rates inclusive of a \$365 per annum cost-of-living allowance.)

Further particulars are available from: **The Secretary-General, Association of Commonwealth Universities (Appointments), 36 Gordon Square, London WC1H 0PF, England,** or from **D. W. Girvan, Registrar.**

Applications quoting Reference A.79/13 close in New Zealand and London on 30 June 1979.

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

ENVIRONMENTALIST, ASSISTANT PROFESSOR, tenure-track, to develop a program in environmental studies and to teach established course in ecology. Experience and Ph.D. required. Salary commensurate with professional qualifications. Send résumé to:

Dr. Morris Winokur
Department of Natural Sciences
City University of New York
17 Lexington Avenue—Box 349
New York, N.Y. 10010

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POSITIONS OPEN

CURATOR OF FISHES

The Smithsonian Institution seeks applications and nominations for a curatorial position in ichthyology. Candidates should be United States citizens and ichthyologists with: curatorial experience, active research programs in systematic ichthyology utilizing collections, and a good publication record. Position level (tenure-track, with term not to exceed 2 years) will be GS-11-12 (starting salary: \$19,263 or \$23,087) as established by the director, Natural History Museum, on recommendation of peer review of candidate's qualifications in accordance with Civil Service guidelines. Send curriculum vitae, bibliography, statement of career objectives, and names of three references (letters are not desired at this time) by 14 July 1979 to: **Chairman, Search Committee, Division of Fishes, National Museum of Natural History, Washington, D.C. 20560.** *The Smithsonian is an Equal Opportunity Employer.*

DEVELOPMENTAL NEUROBIOLOGIST

The Department of Biological Sciences and the Neurobiology Research Center of the State University of New York (SUNY) at Albany invite applications for the position of assistant professor from candidates who have demonstrated excellence in research and who have had significant postdoctoral training. The position is to be filled during the 1979-1980 academic year. The present staff includes: Charles Edwards, Helmut Hirsch, Jon Jacklet, Rodney Murphey, and Suzannah Tieman. Curriculum vitae and bibliography, a summary of research plans, and the names of three qualified referees should be sent prior to 30 July 1979 to: **Charles Edwards, Department of Biological Sciences, SUNY at Albany, 1400 Washington Avenue, Albany, N.Y. 12222.** *The State University at Albany is an Equal Opportunity/Affirmative Action Employer. Applications from women, minorities, and handicapped are especially welcome.*

ECOLOGIST. The National Oceanic and Atmospheric Administration, U.S. Department of Commerce, announces a Career Civil Service vacancy in the Marine Environmental Assessment Division, Center for Environmental Assessment Services, Environmental Data and Information Services, Washington, D.C.

Ecologist (GS-14): incumbent has lead responsibility to develop and provide technical direction for the Marine Environmental Assessment Division's programs which lead to the development of models which describe the dynamics of marine ecosystems; serves as investigator/contract monitor for inter-agency and private contractual arrangements; represents agency at scientific symposiums.

Qualifications: bachelor's degree in biology or related field. Includes at least 30 semester hours in basic and applied biological sciences, 9 semester hours in ecology, 12 semester hours in the physical and mathematical sciences, plus 3 years of directly related professional experience in the field. At least 1 year of professional experience must have been at a level of difficulty comparable to the next lower grade in the federal service. Additional information may be obtained by contacting: **Edward Ridley, telephone: 202-634-7379.** Applications (SF-171) should be submitted to: **Personnel Division, AD412, Page Building 2, 3300 Whitehaven Street, NW, Washington, D.C. 20235, attention: Mrs. Thomas,** by 15 June 1979.

An Equal Opportunity Employer

ENTOMOLOGIST. Systematist in Macrolepidoptera, Coleoptera, or Hymenoptera. Ph.D. and major collection experience required. Must participate in all phases of museum work, including exhibit planning, education, public service, and departmental administration. Rank and salary open, depending on experience. Send application, curriculum vitae (with bibliography), and names of three references to: **Dr. C. J. McCoy, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, Pa. 15213.** *Carnegie Institute is an Equal Opportunity Employer.*

BAYLOR UNIVERSITY

HISTOLOGIST. Available August 1979. Tenure-track position at ASSISTANT or ASSOCIATE PROFESSOR level. Teach vertebrate histology and electron microscopy. Ph.D. required. Teaching experience and publication record preferred. Send curriculum vitae and names and addresses of three references to: **Chairman, Search Committee, Biology Department, Baylor University, Waco, Texas 76703.**

An Equal Opportunity Employer

POSITIONS OPEN

The Institute of Chemistry invites applications for **TWO FACULTY POSITIONS** in organic geochemistry. Applicants should have the Ph.D., and research interest in petroleum geochemistry. The salary will be commensurate with experience and qualifications (minimum: \$20,000).

Applications, including curriculum vitae and the names of three references, should be addressed to:

Dr. Carlos López Eyzaguirre
Facultad de Ciencias
Instituto de Química
Universidad Central de Venezuela
Apartado 10098
Caracas-Venezuela

FACULTY POSITIONS. Expanding medical center department seeks applicants for several full-time tenure-track positions in immunology and microbial physiology/genetics. Candidates must have post-doctoral experience and a demonstrated potential for independent research in a contemporary area. High quality participation in teaching of medical, dental, and graduate students is required. Rank and salary will be commensurate with experience. Send curriculum vitae, names of three references, and a statement of projected research activities to: **Dr. L. William Clem, Chairman, Department of Microbiology, University of Mississippi Medical Center, 2500 North State Street, Jackson, Miss. 39216.** *Equal Opportunity Employer, M/F.*

FACULTY POSITION available for person interested in pursuing his or her own research and interacting with a group whose primary interests involve CNS mechanisms of temperature regulation, aging and exercise. Rank and salary dependent upon qualifications. Joint appointment with basic science department possible. Send curriculum vitae, selected reprints, and addresses of four persons familiar with the applicant's academic qualifications to: **Dr. Lucien J. Cote or Dr. Larry I. Crawshaw, Department of Rehabilitation Medicine, College of Physicians and Surgeons, Columbia University, 630 West 168 Street, New York, New York 10032.** *An Equal Opportunity/Affirmative Action Employer.*

GEOCHEMIST/ CHEMICAL ENGINEER

Perform and supervise laboratory studies of dissolution kinetics of natural and synthetic phases, and sorption of chemical species on natural substrates. Assist in the coordination of programs dealing with the storage/disposal of radioactive wastes, and assist in the creation of new programs dealing with chemical transport. Experience in the field of chemical transport including application of kinetics and equilibrium theories to natural systems, and handling of radionuclides is highly desirable. Prefer Ph.D. in chemical engineering or geoscience.

Please send two copies of résumés to: **Employment Office, Lawrence Berkeley Laboratory, 1 Cyclotron Road, Berkeley, Calif. 94720.** *An Affirmative Action/Equal Opportunity Employer, M/F.*

INHALATION TOXICOLOGY

The Board on Toxicology and Environmental Health Hazards of the National Academy of Sciences is seeking an associate scientist (toxicologist/pharmacologist) with experience in the area of inhalation toxicology. Responsibilities will include assisting a study group to analyze and evaluate scientific data pertaining to inhalation or other exposure to toxic emissions, assessment of risk, and determination of the overall effects on health. In addition, maintain liaison with multiple sources of related ongoing and future research programs, and assist in developing recommendations for future research. A doctoral degree or its equivalent in toxicology/pharmacology is required. Two years or more of experience in inhalation toxicology/public health is preferred; experience with performing risk assessments is desirable. Applicants should submit curriculum vitae to: **Dr. Sushma Palmer, Board on Toxicology and Environmental Health Hazards, National Academy of Sciences, 2101 Constitution Avenue, Washington, D.C. 20418.** *An Equal Opportunity Employer.*

INSTRUCTOR/ASSISTANT PROFESSOR. One-year, full-time temporary position available for fall 1979 in biology to teach introductory biology to non-science majors. Ph.D. plus experience teaching introductory biology. Interested candidates should send curriculum vitae, transcripts, and three letters of reference by 2 July 1979 to: **Search Committee Chairperson, Department of Biology, Millersville State College, Millersville, Pa. 17551.** *Millersville State College earnestly seeks and is eager to receive applications from minority candidates.*

Special

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The 1 June 1979 issue of **SCIENCE** features exclusive reports on the U.S. space flight of Voyager I to Jupiter. Because of the significance of these reports, we are offering an 80-page reprint of the Jupiter papers, illustrated with 14 full-color photographs of Jupiter and its satellites.

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STAFF POSITIONS for MARINE POLICY STUDIES

Applications are invited for two staff positions at the rank of Policy Associate in the Institution's Program on Marine Policy and Ocean Management. The successful applicants will be expected to engage in applied research projects related to various uses of the ocean. Such projects will be both self-initiated and collaborative with postdoctoral fellows and members of the Institution's professional staff. Present research projects within the Program include ones in ocean dumping, aquaculture, fisheries management, nuclear waste disposal, coastal zone management and law of the sea. Two kinds of applicants are sought: those with a strong background in an environmental science appropriate to problems of ocean waste disposal and marine pollution and those with a strong background in mathematical modelling. Applicants should possess the doctoral degree and should have had at least two years' additional experience in policy-related research. Appointments will be made for an initial term of two years. Salary will be commensurate with experience.

Inquiries and requests for application forms should be addressed to: Dr. Robert W. Morse, Associate Director.



**WOODS HOLE OCEANOGRAPHIC
INSTITUTION**
Woods Hole, MA 02543

The application deadline is August 1, 1979.

An equal opportunity employer M/F/H



TERRESTRIAL ECOLOGIST

(Project Manager)

One of the prime growth areas in the foreseeable future is protection of environmental resources and, at WESTON, you'll be well in the forefront. We're pioneers in the environmental study and management field and play a vital part in conserving water, land and energy resources.

Demand for our services is increasing and we need a Project Manager with expertise in the area of terrestrial ecology.

The ideal candidate will possess PhD in the area of terrestrial ecology, preferably in botany with knowledge of toxic materials. Masters degreed candidates will also be considered, depending on experience of at least 2-5 years' consulting and project management in areas of toxic materials and EIA/EIS projects.

WESTON offers exceptional working environment, excellent starting salary and liberal fringe benefits.

Please send resume, including salary history, to:

Human Resources

Roy F. Weston, Inc.

Weston Way
West Chester, PA 19380
(215) 692-3030
An Equal Opportunity Employer M/F/H

POSITIONS OPEN

GEOLOGIST

NEW ENGLAND COLLEGE (NEC) invites applications for a position in **stratigraphy-paleontology** starting September 1979 at the assistant professor level. Primary responsibility includes teaching historical geology, paleontology, stratigraphy, and additional courses, in area of specialty, appropriate for a B.A. program in geology with 25 to 30 majors and a total of three full-time faculty members. Excellent opportunity exists to teach abroad at NEC's British campus in Arundel, Sussex, England. Send résumé and three letters of recommendation by 25 June 1979 to: **Dr. Erwin A. Jaffe, Vice President for Academic Affairs, New England College, Henniker, N.H. 03242.** *An Equal Opportunity Employer.*

MARINE ECOLOGIST UNIVERSITY OF STOCKHOLM

Research-teaching position available immediately for a Ph.D. in ecology or biological oceanography as a participant in an interdisciplinary project to develop ecosystem models of the Baltic Sea. Experience in pelagic or benthic ecosystem modelling and analysis is desirable. Please respond with a résumé and a statement of research and teaching interests to: **Dr. Wayne L. Wilmot, Research Group for Aquatic Systems Analysis, Arrhenius Laboratory, University of Stockholm, S 106 91, Stockholm, Sweden.**

MEDICAL, DENTAL, AND VETERINARY PHYSIOLOGISTS

The Department of Physiology at Tufts University Schools of Medicine, Dental Medicine, and Veterinary Medicine is seeking physiologists for tenure-track positions at the assistant and associate professor levels. Of particular interest are persons with strong research in cell physiology and teaching ability in the areas of organ, comparative, and avian physiology. The department is committed to developing research programs relating to the interests of the three schools so that persons with the M.D., D.M.D., D.V.M., and/or Ph.D. degrees are encouraged to apply. Applicants should send a letter describing their research and teaching interests, curriculum vitae with publication list, and the names of three references to: **Dr. Geoffrey W. G. Sharp, Department of Physiology, Tufts University Schools of Medicine, Dental Medicine, and Veterinary Medicine, 136 Harrison Avenue, Boston, Massachusetts 02111.**

Tufts University is an Equal Opportunity/Affirmative Action Employer.

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

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

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

UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

Applications are solicited for faculty positions in the following departments: **PATHOLOGY.** (#160) **Assistant professor** (anatomic pathologist). Responsible primarily in the area of surgical pathology, teaching of pathology residents with a lesser responsibility to medical, dental, graduate, and allied health students. Requirements: M.D. or equivalent degree. Anatomic pathology Board-eligibility or certification. (#166) **Associate professor or full professor** (academic faculty). Administer teaching programs for Pathology Department. Experience in research, adviser for graduate students. Terminal degree in pathology or correlative area. (#167) **Assistant professor.** Experience in research, having funded research. Teaching and guidance of graduate students. Terminal degree in pathology or correlative areas.

Applicants should send curriculum vitae identifying vacancy number for which they are applying to: **Dr. Thomas N. Lynn, Dean, College of Medicine, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Okla. 73190.** *We are an Equal Opportunity Employer.*

POSITIONS OPEN

MECHANICAL ENGINEER

B.S. degree and 1 year minimum experience in design of water desalinization systems equipment. Familiarity with multi-state and vertical tube evaporators distillation procedure desirable.

Prefer candidate who can speak and write Arabic for temporary assignments in Saudi Arabia.

Salary of \$1365 per month, depending on qualifications and experience.

Send résumé and salary history in confidence to: **Envirogenics Systems Company, David Larsen, Director of Industrial Relations, 9255 Telesar Avenue, El Monte, California 91731. Telephone: 213-573-9220.**

PHYSIOLOGY, BIOLOGICAL SCIENCES, POSTDOCTORAL FELLOW. Collaborate with ultrastructure aspects of on-going project on development of nervous system. Salary: \$10,000 to \$12,000. Requires Ph.D. and experience in electromicroscopy. Reply to: **Dr. G. Pilar, U-42, University of Connecticut, Storrs, Connecticut 06268.**

An Equal Opportunity Employer

PLANT PHYSIOLOGY— ASSISTANT PROFESSOR

Position for a Ph.D. starting September 1979. Training should be in growth, development, and metabolism. An interest in horticulture helpful. Contingent upon approval of funding. Application forms available from: **Affirmative Action Officer, Bridgewater State College, Bridgewater, Mass. 02324.** Apply by 1 July 1979. *Bridgewater State College is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW

To study regulation of transcription in hepatomas in vivo and in culture. Experience in nucleic acid chemistry and/or enzymology is preferred. Position supported by an NCI grant for a minimum of 2 years. Stipend is \$12,000 to \$14,000 per year. Send curriculum vitae and names and addresses of two referees to: **Dr. Aubrey Thompson, Department of Biology, University of South Carolina, Columbia, S.C. 29208.**

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

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

BOYCE THOMPSON INSTITUTE (BTI) AT CORNELL—POSTDOCTORAL POSITIONS

Open immediately to support established program on entomopathogenic fungi. Salary \$12,000 per year or higher, depending upon experience.

- 1) Fungal spore physiology—investigate mechanisms of *Entomophthora* resting spore germination.
- 2) Fungal genetics—study basic genetics of *Entomophthora* to enhance field utility through fungicide resistance and increased pathogenicity.

Biocontrol Program at BTI has 21 staff members including nine Ph.D.s. Send résumé, bibliography, and names of three references to:

**Dr. Richard S. Soper
Insect Pathology Research Unit
Boyce Thompson Institute
Tower Road
Ithaca, New York 14853**

An Equal Opportunity Employer

POSITIONS OPEN

POSTDOCTORAL POSITIONS (two) for recent Ph.D. in research related to neurotrophic regulation of skeletal muscle. Preference will be given to candidates with competence in: (i) ultrastructural and electrophysiological investigations of the neuromuscular junction, (ii) tissue culture and protein analytical techniques. Positions (up to 3 years) are available immediately. Applicants should send curriculum vitae, summary of past research, and the names of three references to: **Dr. Wolf-D. Dettbarn, Department of Pharmacology, Vanderbilt University Medical Center, Nashville, Tenn. 37232.** *Vanderbilt University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available 1 July to collaborate in research on cellular identification, separation, and purification techniques. Experience in immunochemistry and/or membrane biochemistry/biophysics desired. Send curriculum vitae to:

**Dr. M. Lieberman
Department of Physiology
Duke University Medical Center
Durham, N.C. 27710**

Affirmative Action/Equal Opportunity Employer

POSTDOCTORAL POSITION available for research on biochemistry of kindling model of epilepsy beginning in fall-winter 1979. Approach will center on biochemical experiments which provide direct opportunity for correlative pharmacologic, electrophysiologic, and morphologic study. Send curriculum vitae and names of three references to: **Dr. James O. McNamara, Department of Medicine, Duke University Medical Center, Box 2900, Durham, N.C. 27710.** *Duke University is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately to study viral DNA replication in vertebrate/invertebrate cells. Ph.D. cell or molecular biology, experience with virus, nucleic acids, transfection, and cell culture desirable. Send curriculum vitae and two references to: **Dr. W. H. R. Langridge, Boyce Thompson Institute at Cornell University, Ithaca, N.Y. 14853.**

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION (2 years, starting 1 July 1979) in genetics of DNA plant viruses. Emphasis on gene mapping and function. Experience in the molecular biology of viruses or nucleic acids preferred. Annual salary: \$12,000. Send résumé and three letters of recommendation to: **Management Services Officer, Department of Plant Pathology, University of California, Davis, Calif. 95616.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION. Chemical modification of nucleic acids. Start summer or autumn 1979. Salary \$12,000 per year. Send curriculum vitae and references to: **Professor Robert Shapiro, Department of Chemistry, New York University, 4 Washington Place, New York, N.Y. 10003.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION. Starting 1 July or when available thereafter, for person to work on proteolytic enzymology in senescence legume nodules. Background in plant biochemistry, protein chemistry, and basic enzymology preferable. Salary \$13,000. Apply with curriculum vitae and three reference letters by 1 July to: **Dr. Fred W. Wagner, Associate Professor, Laboratory of Agricultural Biochemistry, The University of Nebraska-Lincoln, Lincoln, Nebraska 68583.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION IN IMMUNOLOGY. To study biochemistry of antigens recognized by mouse anti-Sendai viral cytolytic T lymphocytes. Available 1 July 1979. Send résumé with three references to: **Dr. David Fan, Department of Genetics and Cell Biology, University of Minnesota, 1445 Gortner Avenue, St. Paul, Minn. 55108.**

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

POSTDOCTORAL POSITION in a fast growing and progressive Physiology Department. Research will deal with the molecular mechanisms of muscle atrophy and regrowth in small animals caused by controlled disuse and exercise rehabilitation respectively. Please send curriculum vitae and names of three references to: **Frank W. Booth, Ph.D., Department of Physiology, University of Texas Medical School, P.O. Box 20708, Houston, Texas 77030.** *An Equal Opportunity Employer.*

PRESIDENT ASSOCIATED UNIVERSITIES, INC.

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

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

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

LaRoy B. Thompson
Associated Universities, Inc.
Suite 603
1717 Massachusetts Avenue, NW
Washington, D.C. 20036

*AUI is an Equal Opportunity/Affirmative
Action Employer*

Group Leader Allergy & Immunology

Key project in the Metabolic Disease research section of the Medical Research Division of American Cyanamid brings broad-based professional rewards.

We seek an innovative PhD to initiate and manage pharmaceutical research in the areas of anti-allergy therapeutics. This high interest position requires 3-5 years academic or industrial research experience, supported by strong biochemical background and working knowledge of models of asthma and allergic skin diseases. Supervisory experience desired.

Our well equipped, modern complex is located at Lederle Laboratories in an attractive, easily accessible community just 30 miles northwest of New York City. Along with the opportunity to enhance professional stature and career development, we offer commensurate salary and a comprehensive company-paid benefits program. Send resume with salary history in confidence to Mr. G. J. Stein,



American Cyanamid Company

Medical Research Division at
Lederle Laboratories
Pearl River, New York 10965
An Equal Opportunity Employer, M/F

CSIRO POSTDOCTORAL RESEARCH FELLOW DIVISION OF IRRIGATION RESEARCH GRIFFITH, NSW

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

FIELD: FRESHWATER ECOLOGY/AQUATIC PLANT ECOLOGY.

GENERAL: The division is located at Griffith, about 500 km north of Melbourne and 650 km west of Sydney. The town has a population of about 13,000 and is situated in a well-developed rural centre, with good educational and extensive recreational facilities.

Research programmes within the field of water management are expanding with special attention being paid to: (i) the effects of irrigation on surface water quality, (ii) utilisation of waste waters from agro-industry, and (iii) problems associated with aquatic weeds. Research on the use of aquatic plants to achieve reclamation of waste waters constitutes a major new initiative within the division.

DUTIES: To investigate the use of Australian native aquatic plants for treatment of rural waste waters. An initial sequence of three objectives is envisaged with an early progression from the first to second area viz. (i) To assess the tolerance of selected Australian native aquatic plants to waste waters. (ii) Determine the ability of such plants for salt tolerance and for luxury uptake of nutrients such as phosphorus. (iii) Monitor microbiological activity in water reclaimed from those species with the greatest ability for nutrient uptake, biomass generation, and solute attenuation.

These studies would then provide a basis for predicting the quantity of plants necessary to remove given amounts of nitrogen and phosphorus under typical conditions with respect to stream flow, water temperature, oxygen status, turbidity, and salinity levels.

The successful applicant would be able to join an established interdisciplinary group involved in water management studies whose expertise encompasses population biology/ecology, physiology, biochemistry, microbiology, and water/soil-substrate chemistry.

QUALIFICATIONS: Ph.D. or equivalent in fresh water biology or aquatic plant ecology. Previous experience relating to the autecology/physiology of aquatic macrophytes would be a distinct advantage.

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

TENURE: Fixed term of 3 years.

APPLICATIONS: Stating full personal and professional details, the names of at least two referees and quoting reference number 500/350 should reach: The Chief, Division of Irrigation Research, Private Bag, Griffith, NSW 2680, Australia, by 6 July 1979.

VETERINARY AND ANIMAL SCIENCES

FACULTY POSITIONS

- **ASSISTANT OR ASSOCIATE PROFESSOR**
Duties include animal health extension, large animal diagnostic service, and some research. Qualifications include D.V.M. and preferably Ph.D. degree.
- **ASSISTANT PROFESSOR**
Responsibilities include teaching introductory or management courses and/or courses in the candidate's area of specialization and the development of a research program compatible with the department's present research activities. Qualifications include a Ph.D. in dairy or animal science and a strong interest in teaching and research.
- **DIRECTOR OF RIDING (LECTURER)**
Responsibilities include teaching equitation and courses in the equine study program and supervision of all equitation activities of the department. Qualifications: B.S. degree, preferably in animal science; experience and competence as a rider and equitation instructor; experience in stable management.

Applicants should submit complete curriculum vitae and request three letters of reference to be submitted by 22 June 1979, or until a successful candidate is selected, to:

Dr. James B. Marcum, Chairman
Department of Veterinary and Animal Sciences
University of Massachusetts
Amherst, Mass. 01003

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately for a recent Ph.D. (biochemistry/immunology) to study homeostatic mechanisms controlling the size both of the total lymphocyte population and of individual lymphocyte clones. Experience of cell culture, complement, and protein purification helpful. Salary at MRC rates for 2 years. Send curriculum vitae and names of two references to: **Dr. D. R. Forsdyke, Department of Biochemistry, Queen's University, Kingston, Ontario, Canada K7L 3N6.**

A **POSTDOCTORAL POSITION** (up to 2 years) is available immediately for a recent M.D. or Ph.D. with research interests in **NEUROENDOCRINOLOGY**. Beginning stipend is \$12,500. Send curriculum vitae and references to:

Dr. Jon D. Dunn
Department of Anatomy
Oral Roberts University
7777 South Lewis
Tulsa, Oklahoma 74171

POSTDOCTORAL POSITION available immediately to study effects of hormones upon neuroglial development in the central nervous system. Research focuses upon immunocytochemical localization of factors influencing neuroglial differentiation. Salary range: \$14,000 to \$15,000. Send résumé to: **Dr. Robert P. Skoff, Department of Anatomy, Wayne State University School of Medicine, 540 East Canfield, Detroit, Michigan 48201.** *Wayne State University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION is available immediately for biochemist or molecular biologist to study the transforming products of the DNA tumor virus SV40 and its interaction with and induction of host macromolecules. Experience in protein and enzyme characterizations useful. Send curriculum vitae and names of three references to:

Dr. Robert B. Carroll
Department of Pathology
New York University School of Medicine
550 First Avenue
New York, N.Y. 10016

POSTDOCTORAL POSITIONS available starting immediately. Salary range: \$14,000 to \$16,500 plus fringe benefits. Please send curriculum vitae. Projects: (i) Retrovirus gene expression and integration; molecular cloning, DNA sequencing, in vitro construction of mutants; contact: **Dr. Eric James**. (ii) Terminal deoxynucleotidyl transferase and human leukemia; background in protein purification and antibody technique preferred; contact: **Dr. Mary Sue Coleman**. (iii) Nucleotide metabolism and immunodeficiency; contact: **Dr. John J. Hutton**. (iv) Structure and function of methylated 5'-termini in plant viral and cellular messenger RNA; contact: **Dr. Robert E. Rhoads**. All four positions in: **The Department of Biochemistry, Medical Sciences Building, University of Kentucky, Lexington, Ky. 40536.**

POSTDOCTORAL RESEARCH ASSOCIATE IN MARINE BIOCHEMISTRY

Applications are invited from qualified individuals with demonstrated experience to conduct research collaboratively with biologists on the chemical ecology of feeding, fright, and mating behavior of marine predatory boring snails, beginning September 1979. Chemical research will focus on isolation and characterization of compounds released by bivalve molluscs which may evoke or suppress feeding by snails. Applicants should be familiar with separation and characterization of proteins, and, secondarily, with lipids (for example, saponins, glycosides, and terpenes). Consultation and instrumentation will be available in the University of Delaware's Department of Chemistry. The position will be based in the Marine Studies Complex in Lewes. The associate will also have the opportunity to initiate his own research in the general area of the project. Candidates submit curriculum vitae and three letters of recommendation to: **Dr. Melbourne R. Carriker, College of Marine Studies, University of Delaware, Lewes, Del. 19958.** *The University of Delaware is an Equal Opportunity Employer which encourages applications from qualified minority groups and women.*

POSTDOCTORAL RESEARCH ASSOCIATE to work with Judith A. Finkelstein, Ph.D., Associate Professor of Anatomy, on funded project studying the nervous system of genetically obese rats. Some experience with light and/or electron microscopy desirable. Position available fall 1979. Send curriculum vitae to: **Personnel Office, Northeastern Ohio Universities College of Medicine, 2409 State Route 44, Rootstown, Ohio 44272.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL, RESEARCH ASSOCIATE, LECTURER, INSTRUCTOR

The Laboratory for Experimental Oncology invites applications for positions for research in the areas of metabolic regulation, control of pyrimidine enzymology, or enzyme purification in normal and neoplastic tissues. Applicants with Ph.D. or M.D. degrees who have demonstrated productivity and a commitment to collaborative research programs targeted to an understanding of molecular biology, chemotherapy, and drug resistance in normal and neoplastic cells should send curriculum vitae and names of three references by 1 August 1979 to: **Dr. George Weber, Professor and Director, Laboratory for Experimental Oncology, Indiana University School of Medicine, 1100 West Michigan Street, Indianapolis, Ind. 46223.**

Indiana University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE to help isolate and characterize calcium and copper binding proteins for a transport laboratory. Send curriculum vitae and names of three references to: **Dr. Felix Bronner, Department of Oral Biology, University of Connecticut Health Center, Farmington, Conn. 06032.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE

Postdoctoral research position available for a period of 1 year for collaboration in the study of chromosome behavior in *Drosophila melanogaster*. The applicant must possess a Ph.D. and must have had extensive previous experience in *Drosophila* genetics.

The stipend will be comparable to that received by NIH postdoctoral fellows. The position becomes available in September 1979. Interested persons should contact: **E. Novitski, Department of Biology, University of Oregon, Eugene, Oregon 97403** by 31 July 1979.

POSTDOCTORAL RESEARCH ASSOCIATE (FACULTY RANK)

Desire biochemist to participate in studies of pathogenesis of fatty liver, emphasizing correlation with morphology (light microscopy and electron microscopy) and immunocytochemistry. This position is available immediately and is of 2 to 3 years duration. These studies involve the isolation and characterizations of lipoprotein particles of plasma and from livers. Background in lipid and protein biochemistry, lipoprotein metabolism, and separation of subcellular organelles is required. Excellent environment for interactions with research colleagues and graduate students. First year salary about \$15,000. Please send curriculum vitae to: **Dr. P. M. Novikoff, Pathology Department, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, New York 10461.** *An Equal Opportunity/Affirmative Action Institution.*

POSTDOCTORAL/RESEARCH ASSOCIATE POSITIONS

The Nutrition and Metabolism Section of the new Cancer Center of the University of Louisville has two positions available at the postdoctoral/research associate level to conduct research on host/tumor metabolic interactions.

The requirements for one position are: Ph.D. in biochemistry, nutrition, or related field, with experience in small animal surgery, organ perfusion techniques, and metabolite assays.

The second position will be filled by either:

- 1) M.S./Ph.D. in chemistry, biochemistry, or related areas with experience in organic synthesis, GLC, and HPLC. Some knowledge of amino acid analysis and metabolism useful; or
- 2) M.S./Ph.D. in nutrition, biochemistry, or related field, experience in energy and protein metabolism, body composition analysis, balance studies in animals and/or man. Some experience in statistical analysis useful.

Salaries will vary from \$10,000 to \$15,000 depending on experience and qualifications.

Send curriculum vitae and names of three references to: **Dr. G. de Rosa, M.D., Ph.D., Cancer Center, University of Louisville, Health Sciences Center, P.O. Box 35260, Louisville, Kentucky 40232.**

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

POSITIONS OPEN

POSTDOCTORAL RESEARCH FELLOW—Position available 1 September 1979 for research on ion fluxes across cardiac subcellular membranes. A background in enzyme kinetics and/or basic immunological techniques is desirable. Recent Ph.D. in biochemistry preferred. Send résumé and names of three references to: **Dr. M. Kirchberger, Department of Physiology and Biophysics, THE MOUNT SINAI SCHOOL OF MEDICINE, One Gustave L. Levy Place, New York, N.Y. 10029.** *An Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH FELLOWSHIP for biochemist with background in lipid metabolism and enzymology to investigate the role of phospholipids and phospholipases in biological membranes with particular emphasis on myocardial cells under ischemic and infarcting conditions. Approximate starting salary: \$13,800. Send résumé, publication list, and names of three references to: **H. H. O. Schmid, The Hormel Institute, University of Minnesota, Austin, Minn. 55912.** *An Equal Opportunity/Affirmative Action Educator and Employer.*

POSTDOCTORAL RESEARCH OPPORTUNITY

Pollutant bioaccumulation. Argonne National Laboratory is seeking an individual with a strong interest in pursuing research on fish toxicology and kinetics of pollutant bioaccumulation. This 1-year, renewable position will focus on both the development of sensitive diagnostic indicators of stress at biochemical, individual, and community levels, and on the biological activity of pollutants in the Great Lakes. Appropriate Ph.D. and solid background in biochemistry and fish ecology preferred. Salary and benefits are fully commensurate with education and experience. For more details, send résumé and salary history to: **Ronald A. Johns, Manager, Professional Placement, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, Ill. 60439.** *An Equal Opportunity Employer, M/F.*

POSTDOCTORAL RESEARCH POSITION available immediately involving mechanistic and protein chemistry studies on folate enzymes, such as thymidylate synthetase. One-year appointment; renewable. Stipend: \$11,000 for first year. Send curriculum vitae and three references to: **Dr. R. Bruce Dunlap, Department of Chemistry, University of South Carolina, Columbia, S.C. 29208.** *Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH POSITION is available immediately for 2 years to work on biological control of termites. Applicants should have experience in insect control and interest in working with bacterial and fungal pathogens. Send curriculum vitae and references to: **Dr. Kenneth R. Kramm, Department of Biological Sciences, Michigan Technological University, Houghton, Michigan 49931; telephone 906-487-2286 or 906-487-2464.**

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UNIVERSITY OF MARYLAND SCHOOLS OF MEDICINE AND PHARMACY

RADIOPHARMACEUTICAL CHEMIST: the University of Maryland is soliciting applicants for a joint appointment in the Departments of Medicinal Chemistry/Pharmacognosy and Medicine. Applicants must be experienced in the development of new radiopharmaceuticals. Salary and academic rank dependent on background and experience. Please send curriculum vitae to: **Dr. Ralph Blomster, Chairman, Department of Medicinal Chemistry and Pharmacognosy, School of Pharmacy, University of Maryland at Baltimore, 636 West Lombard Street, Baltimore, Maryland 21201.**

RESEARCH BIOCHEMIST/PROTEIN CHEMIST—Ph.D. interested in alcohol studies and application of two-dimensional electrophoresis to search for genetic markers in alcoholism and to study effects of alcohol on polypeptide metabolism. Must have university affiliation and be interested in a 1- or 2-year assignment. Individual would retain all university affiliations and benefits. The National Institute of Alcohol Abuse and Alcoholism will reimburse the university for salary and benefits through the Inter-governmental Personnel Act. Send résumé to or contact: **Dr. Carl R. Merrill, Laboratory of General and Comparative Biochemistry, National Institute of Mental Health, Alcohol, Drug Abuse, and Mental Health Administration, Public Health Service, Building 36, Room 3A-15, 9000 Rockville Pike, Bethesda, Maryland 20205; telephone: 301-496-6961.** *Equal Opportunity Employer.*



National Research Council Canada
Conseil national de recherches Canada

MICROWAVE BIOPHYSICIST

The Division of Biological Sciences seeks a research scientist to investigate the effects of nonionizing electromagnetic radiation (radio-frequencies through microwaves) on higher organisms. Additionally, the incumbent would advise and assist colleagues in biology in dosimetry measurements necessary for conduct of physiological experiments with opportunities for full collaboration in such work.

Preferred qualifications are: a Ph.D., sound knowledge of microwave physics and related instrumentation, and a demonstrated ability to vigorously and effectively perform independent research on biophysical problems.

Salary will be commensurate with qualifications.

NRC

Please apply, giving complete details of your education and experience and letters from referees, to: the Employment Office, National Research Council of Canada, Ottawa, Ontario, Canada K1A 0R6. In reply, please quote BY-79-4.

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Expansion of our research effort creates this outstanding career opportunity. If you have at least five years' postdoctoral experience within the areas of immunology/anti-inflammatory or biochemical pharmacology, plus demonstrated supervisory skills, you're an eligible candidate.

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SUPERVISORY BIOLOGICAL SCIENTIST HEALTH SCIENTIST (BRANCH CHIEF)

The U.S. Environmental Protection Agency (EPA), Office of Toxic Substances, Health Review Division, is seeking to fill the position of branch chief, Oncology Branch. The branch is responsible for: development of guidelines and/or standards for chronic toxicity and oncogenicity tests under sections 4 and 5 of TSCA; annual review of standards and modification where appropriate; conducting chronic toxicity and oncogenicity risk assessments of data submitted to OTS (TSCA, sections 4, 5 and 8) to support other TSCA assessment activities under section 6, in consultation with other appropriate groups; conducting cancer risk assessments based on supplied information to support registration or cancellation reviews of pesticides; provides expertise in chronic toxicity and oncogenicity testing and assessment; planning, originating and supporting the development of assessment methodologies and test procedures in the agency, interagency, nationally, and internationally; and providing expertise to the Assessment Division and the Office of Chemical Control on the national capabilities in training and utilization of chronic toxicity resources (both manpower and laboratory facilities) to meet future TSCA needs.

This position may be filled by Civil Service or Public Health Service appointment. Applicants must have at least a bachelor's degree in a health-related field, plus 3 years of appropriate professional experience in a health-related field. Salary ranges from \$38,160 to \$47,500 depending on qualifications. You should send a Civil Service Commission Standard Form 171 (please do not send résumés) which can be acquired at any Civil Service Commission Job Information Center or any federal agency to:

Environmental Protection Agency
Personnel Management Division
Attention: Sharon E. Wilson (PM-212)
Announcement No. EPA-9-OTS-990
Washington, D.C. 20460

If you are now or have ever been employed in the federal service, you must also submit a performance appraisal and an appraisal of supervisory potential dated within 1 year of the closing date of the announcement. The closing date for acceptance of applications is 28 June 1979. All SF 171's must be postmarked by this date. All applications (SF 171's) postmarked after the above date will be returned.

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POSITIONS OPEN

POSTDOCTORAL RESEARCH IN KIDNEY TUBULE PHYSIOLOGY. Two openings for training in studies of isolated perfused renal tubules. Send curriculum vitae and names of three references to: **Dr. Jared Grantham, Department of Medicine, University of Kansas Medical Center, 39th and Rainbow, Kansas City, Kansas 66103. An Equal Opportunity/Affirmative Action Employer.**

PROFESSOR AND CHAIRMAN DEPARTMENT OF MEDICINE

The Department of Medicine at the Harvard Medical School and the Beth Israel Hospital are jointly seeking to fill the professorship of medicine with an individual who will serve simultaneously as chairman of the Department of Medicine at the Beth Israel Hospital. The person to be appointed will be expected to direct the activities of the department in teaching, research, and patient care and will also be responsible for the administration of the department. *Both institutions are Equal Opportunity/Affirmative Action Employers.* Please send curriculum vitae and references to: **Dr. William Silen, Professor of Surgery, 330 Brookline Avenue, Boston, Massachusetts 02215.**

RESEARCH ASSISTANT POSITION available immediately to assist in neuroanatomy research program directed by William L. R. Cruce, Ph.D., associate professor of neurobiology. Training and experience required in light and/or electron microscopic techniques, including embedding, sectioning and staining of tissues. Send curriculum vitae by 15 July to: **Personnel Office, Northeastern Ohio Universities College of Medicine, 2409 State Route 44, Rootstown, Ohio 44272. An Equal Opportunity/Affirmative Action Employer.**

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

CORNELL UNIVERSITY DEPARTMENT OF FOOD SCIENCE RESEARCH POSITION

Postdoctoral research position to conduct research on effects of dietary fatty acids on prostaglandin synthesis. Required Ph.D. in nutrition/biochemistry with experience in lipids/enzymology.

Résumé with three references by 10 July to: **John E. Kinsella, Department of Food Science, Cornell University, Ithaca, N.Y. 14853. Cornell University is an Equal Opportunity/Affirmative Action Employer.**

CORNELL UNIVERSITY

RESEARCH SUPPORT SPECIALIST to assist in electrophysiological studies of sensory processing in the auditory nervous system and in behavioral studies of animal sound communication. Should have at least a B.S. with several years of experience in neurobiology or physiology or bioengineering, or else an advanced degree (M.S. or Ph.D.) in these areas. Position available 15 August 1979. Send curriculum vitae and names of three references to: **Dr. Robert R. Capranica, Langmuir Laboratory, Section of Neurobiology and Behavior, Cornell University, Ithaca, N.Y. 14853. Affirmative Action/Equal Opportunity Employer.**

STRUCTURAL BIOPHYSICIST. A postdoctoral research associate available immediately for studies of three-dimensional structures of thin protein crystals by low dose electron microscopy. Experience in computer image processing, electron or x-ray diffraction desirable. Please send curriculum vitae and three references to: **Dr. W. Chiu, Department of Cellular and Developmental Biology, University of Arizona, Tucson, Arizona 85721. An Equal Opportunity/Affirmative Action Employer.**

TEACH SCIENCES IN AN INDEPENDENT SCHOOL

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

PERIODICAL SEARCH

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

SYMPOSIUM

THE THIRD PHILADELPHIA SYMPOSIUM ON AGING

11 and 12 October 1979
Hilton Hotel, Valley Forge, Pa.

Topic: **Neural Regulatory Mechanisms during Aging.** This has been approved for Category I Continuing Education Credit. Write to: **Dr. Richard C. Adelman, Temple University, Institute on Aging, 3420 North Broad Street, Philadelphia, Pa. 19140.**

TRAINING PROGRAMS

INTERNSHIP IN PHILOSOPHY AND DESIGN OF INTERACTIVE SCIENCE EXHIBITRY

The Exploratorium, a science and perception museum, has a study program available for faculty and technicians interested in learning the philosophy and techniques of interactive exhibit design, pedagogy, and construction for postsecondary institutions and the general public. Primarily designed to help others organize centers like ours, both on campus and in their community, these "internships" last from 2 to 5 weeks. Visitors should have ideas for potential projects at their home institutions and some funds are available for travel and stipends. For information contact: **Dr. Robert J. Semper, The Exploratorium, 3601 Lyon Street, San Francisco, Calif. 94123.**

STUDENT FELLOWSHIPS available for U.S. citizens and permanent residents toward Ph.D. in pharmacology. Diversified training related to the pharmacological and biochemical basis for drug action with emphasis on cancer therapeutics: inhibition of nucleic acid, protein and membrane components, enzyme activity regulation, coenzyme action and inhibition, basis for selective toxicity, pharmacokinetics and drug metabolism in animals and cells, medicinal chemistry of nucleosides, carbohydrates and antifolates, immunotherapy, immunosuppression, experimental chemotherapy, molecular pharmacology, endocrine pharmacology and metabolic regulators, hematology, preclinical and clinical pharmacology. Stipends average \$5000 per annum. Write to: **E. Mihich, M.D., Chairman, Graduate Pharmacology Program, Roswell Park Memorial Institute, Buffalo, N.Y. 14263. An Equal Opportunity Employer, M/F.**

FELLOWSHIPS

POSTDOCTORAL PROGRAM. Applications are invited for positions in a postdoctoral fellowship program in the immunopathology of neoplastic diseases. Candidates must have a Ph.D. or M.D. degree and have prior experience in immunology, experimental pathology, and/or diagnostic pathology. A background in cellular immunity is especially desirable. The salary range is \$10,000 to \$13,200 per year, depending upon level of training. Inquiries should be addressed to the program director:

**Stanley Cohen, M.D.
Professor and Associate Chairman
Department of Pathology
University of Connecticut Health Center
Farmington, Conn. 06032**

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FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP. Projects involve pharmacology of CNS cardiovascular control and hypertension. Background in cardiovascular physiology or pharmacology. Experience in CV measurements on cats and rats, intracerebroventricular injection and sympathetic nerve recording useful. Starts 1 July 1979 for 3 years. NIH support. **Dr. Elliott Mills, Department of Pharmacology, Duke University Medical School, Durham, N.C. 27710, telephone: 919-684-4276. Duke University is an Equal Opportunity/Affirmative Action Employer.**

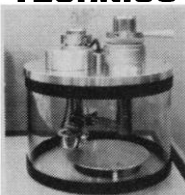
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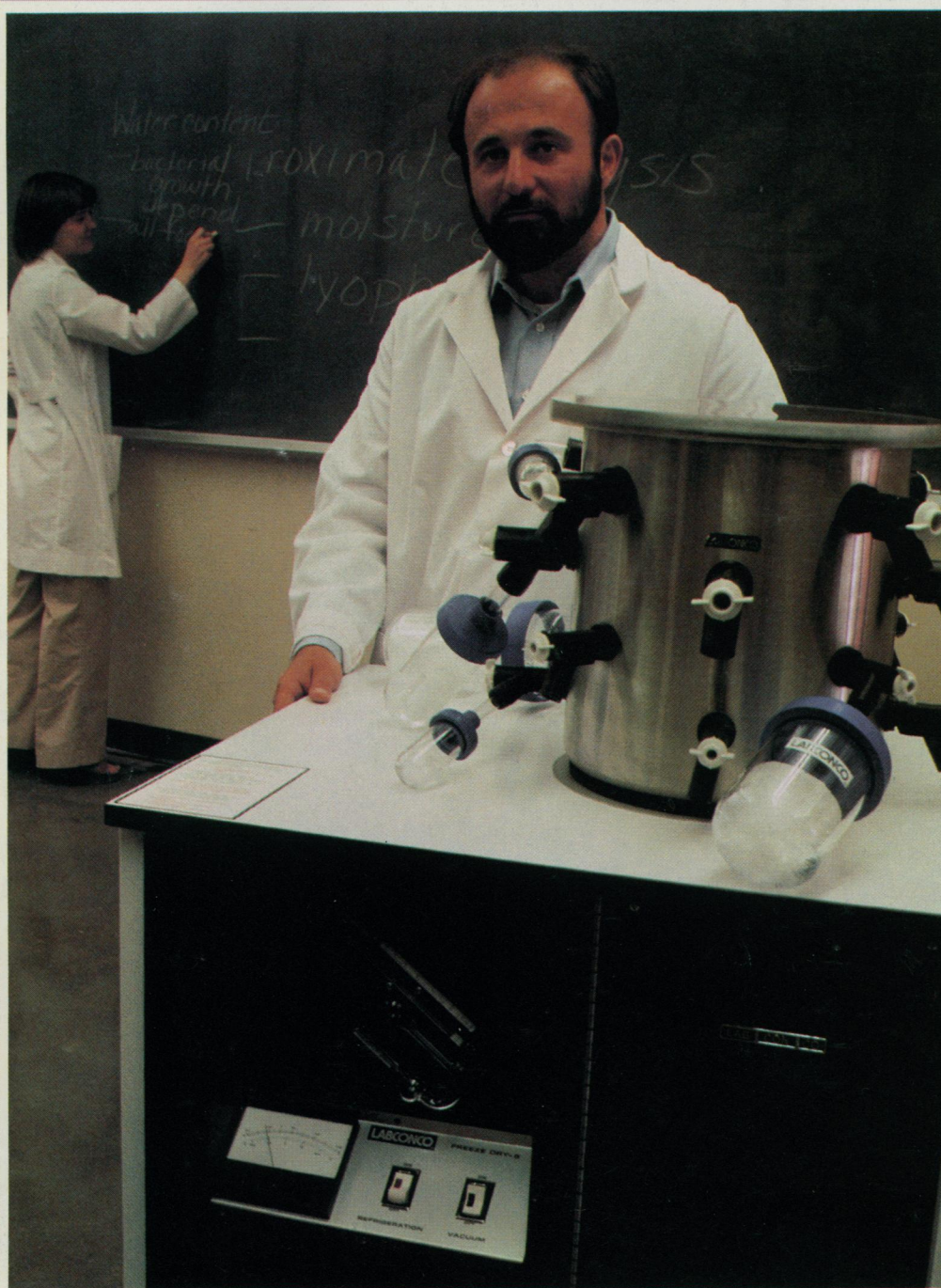
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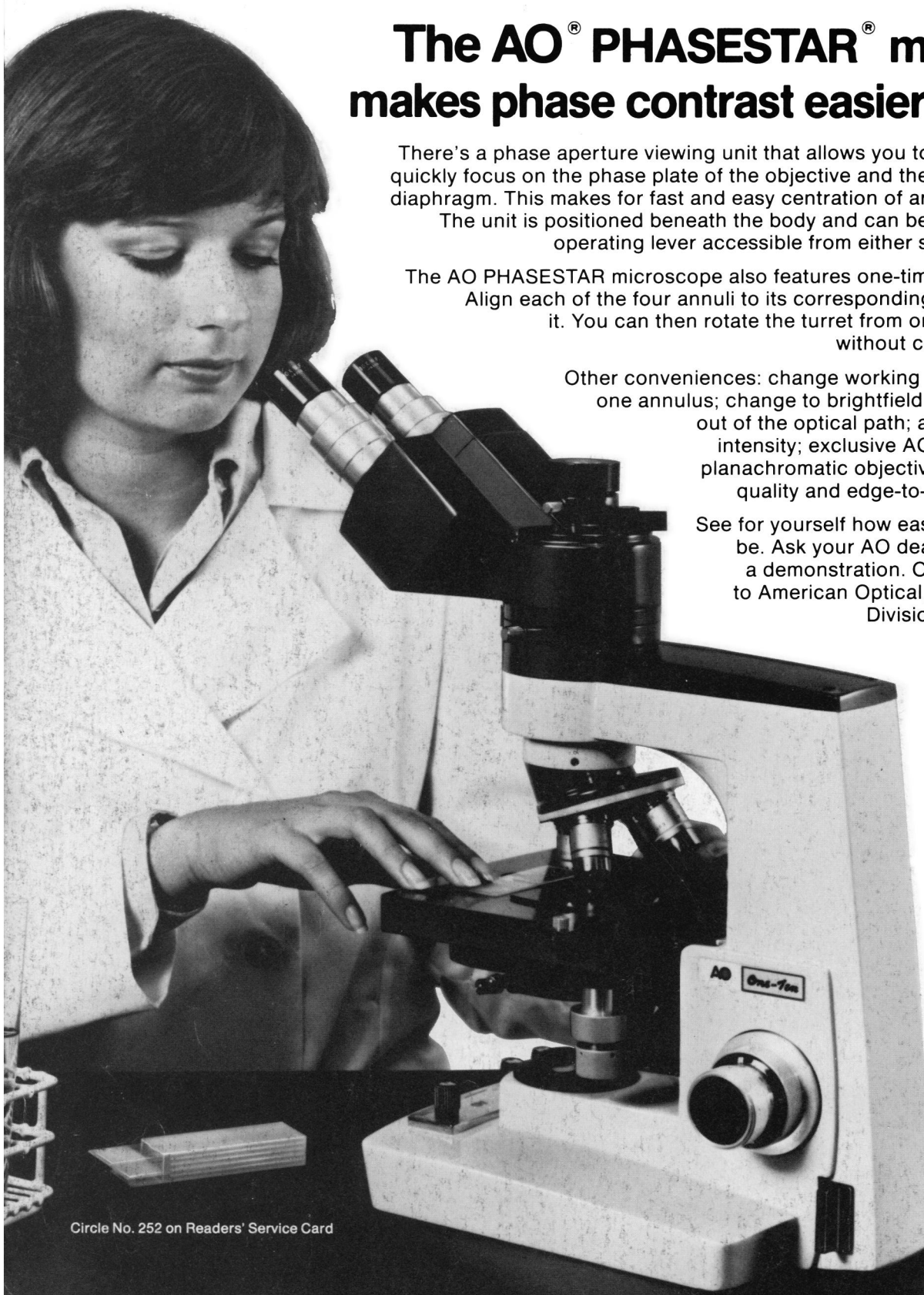
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