A Source Book in Medieval Science. Edward Grant, Ed. Harvard University Press, Cambridge, Mass., 1974. xviii, 864 pp., illus. \$32.50. Source Books in the History of the Sciences.

Springs of Missouri. Jerry D. Vineyard and Gerald L. Feder. With sections on fauna and flora by William L. Pflieger and Robert G. Lipscomb. Missouri Geological Survey and Water Resources, Rolla, 1974. vi, 266 pp., illus. Paper, \$4.

Synthesis of Life. Charles C. Price, Ed. Dowden, Hutchinson and Ross, Stroudsburg, Pa., 1974. xiv, 392 pp., illus. \$22. Benchmark Papers in Organic Chemistry.

Tall Timbers Conference on Ecological Animal Control by Habitat Management No. 4. Proceedings. Tallahassee, Fla., Feb. 1973. Tall Timbers Research Station, Tallahassee, 1973. viii, 244 pp., illus. Paper.

Tall Timbers Fire Ecology Conference No. 12. Proceedings. Lubbock, Texas, June 1972. Tall Timbers Research Station, Tallahassee, Fla., 1973. viii, 492 pp., illus. Paper.

Techniques of Extension of Analytic Objects. Yum-Tong Siu. Dekker, New York, 1974. vi, 256 pp. Paper, \$14.75. Lecture Notes in Pure and Applied Mathematics, No. 8.

**Theory in Practice.** Increasing Professional Effectiveness. Chris Argyris and Donald A. Schön. Jossey-Bass, San Francisco, 1974. xvi, 224 pp. \$10.95.

**Trace Element Metabolism in Animals** -2. Proceedings of a symposium, Madison, Wis., June 1973. W. G. Hoekstra, J. W. Suttie, H. E. Ganther, and Walter Merz, Eds. University Park Press, Baltimore, 1974. xxviii, 776 pp., illus. \$39.50.

Treatise on Materials Science and Technology. Vol. 5. Herbert Herman, Ed. Academic Press, New York, 1974. xii, 292 pp., illus. \$28.50.

**Trigonometry.** A Unitized Approach. Reuben W. Farley, David A. Schedler, and James A. Wood, with tests by Robert H. Johnston. Prentice-Hall, Englewood Cliffs, N.J., 1975. viii, 344 pp., illus. Paper, \$9.25.

UFO's. A Scientific Debate. An AAAS symposium, Boston, Dec. 1969. Carl Sagan and Thornton Page, Eds. Norton, New York, 1974. xxxii, 310 pp., illus. Paper, \$3.95. Reprint of the 1972 edition.

**Urban Environmental Management.** Planning for Pollution Control. Brian J. L. Berry and Frank E. Horton. Prentice-Hall, Englewood Cliffs, N.J., 1974. xviii, 426 pp., illus. \$14.95.

The Urohyal of Fishes. Takaya Kusaka. University of Tokyo Press, Tokyo, 1974 (U.S. distributor, International Scholarly Book Services, Portland, Ore.). xiv, 320 pp., illus. \$50.

The Variation Method in Quantum Chemistry. Saul T. Epstein. Academic Press, New York, 1974. x, 278 pp. \$34. Physical Chemistry, vol. 33. Wireless Telegraphy. Eric Eastwood, Ed.

Wireless Telegraphy. Eric Eastwood, Ed. Halsted (Wiley), New York, 1974. xii, 392 pp., illus. \$32.50.

Xenoglossy. A Review and Report of a Case. Ian Stevenson. University Press of Virginia, Charlottesville, 1974. viii, 268 pp. \$8.50. Also published as vol. 31 of Proceedings of the American Society for Psychical Research.

14 FEBRUARY 1975



Here's a small animal cage system called **see-through**<sup>®</sup>, incorporating all the features needed for convenient care: transparent cages, choice of flooring (solid, raised or dropthrough), removable excreta trays and automatic watering. All are efficiently integrated into a flexible stainless steel rollaround rack.

Cages are the heart of the system. You can have **seethrough** polycarbonate with wire walkfloor, or solid floor, available in two sizes:  $9\frac{1}{2}$ " x  $10\frac{1}{2}$ " or 19" x  $10\frac{1}{2}$ ", both 8" deep. All are interchangeable and can be modified at little added cost when your programs or research criteria change. The smaller ones give you 60 cages

• 1974 , Medic corporation

per rack, the larger ones 30 per rack.

Versatility, that's what the system offers. You can house a variety of colonies in a single roll-around stainless steel rack: mice, hamsters, rats or guinea pigs. And, you can do all this without readjusting the rack or changing support equipment.

Modern housing for you, the mice, and most important, for your budget. For complete details, prices and delivery, please write or call, Lab Products, 635 Midland Avenue, Garfield, New Jersey 07026, Phone (201) 478-2535.



Circle No. 482 on Readers' Service Card

## Physiological Adaptation to the Environment

## F. J. Vernberg, Editor

Admirably fulfills the need for a definitive review of recently acquired information on the mechanisms of physiological adaptation as they relate to molecular, organismic, and ecosystem levels of biological organization. This carefully edited treatise is based on the several sessions of the symposium on adaptive behavior held before standing-room-only audiences at the AIBS meetings at the University of Massachusetts in June of 1973. Many of the 40 participants would not normally have contact with each other, and the sections of the symposium were planned by representatives of 16 societies and research stations.

This volume, which should provide many useful insights and guides to future research, is comprised of six sections. Section I deals with the general nature of physiological adaptation. Sections II-IV cover organisms in desert, polar-alpine, and aquatic habitats. The fifth section focuses on the adaptive nature of biological time measurements, and the volume concludes with papers on the positive and negative aspects of modelling and on the interaction of multiple factors on plants and animals. April 1975—about 500 pages—\$27.50

Intext Educational Publishers 666 Fifth Avenue, New York, N.Y. 10019

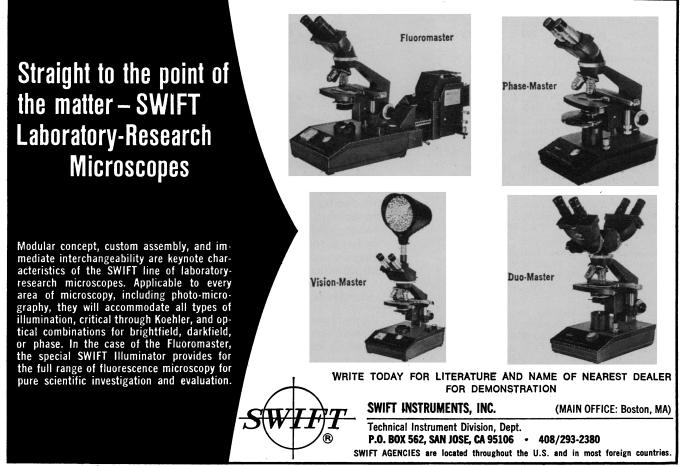
Circle No. 532 on Readers' Service Card

# Listen and Learn!

For the past six years, AAAS has recorded selected symposia at its annual meetings, many of which may be within your professional field of interest. This fine collection of audiotapes not only serves to enlarge the audience reached by our annual meetings, but also serves as a valuable aid to education, particularly in classroom or seminar-type settings. Why not send today for your free catalog of audiotapes, arranged by subject category?

Send catalog request to Dept. AT-1

AMERICAN ASSOCIATION for the ADVANCEMENT of SCIENCE 1515 Massachusetts Avenue, N.W. Washington, D. C. 20005



Circle No. 181 on Readers' Service Card

SCIENCE, VOL. 187



Only those employers who will not discriminate on the basis of race, sex, religion, color, or national origin should submit Personnel Placement advertising.

POSITIONS WANTED: 40¢ per word; use of Box Number counts as 10 additional words. Minimum charge \$10. Prepayment required. This rate applies to individuals only; personnel agencies and companies take display rate for all advertising.

DISPLAY (POSITIONS OPEN, MARKET PLACE, AND SO FORTH): \$110 per inch, minimum (1 inch is equivalent to 12 lines of 48 characters each). Ads over 1 inch billed to nearest guarter inch. No charge for Box Number. Rates net. No agency commission allowed for ads under 4 inches. No cash discount, Prepayment required for foreign advertising. Purchase orders and billing information must accompany all other advertising.

COPY for ads must reach SCIENCE by Wednesday, 31/2 weeks before issue date (Friday of each week) requested. Send copy for all positions wanted ads and display ads under 5 inches to:

SCIENCE, Room 207 1515 Massachusetts Ave., NW Washington, D.C. 20005 Send copy for display ads, ½ page and

larger, to: Scherago Associates, Inc.

11 West 42 Street New York, N.Y. 10036

BLIND AD replies should be addressed as follows: Box (give number)

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

## POSITIONS WANTED

Biochemist, Ph.D. Biological psychiatry, neurochemical action of psychotropic drugs. Established research program, publications. Research with/ without teaching wanted. Box 57, SCIENCE. X

Biochemist, Ph.D. 1971. Postdoctoral experience: cell-free protein synthesis (2 years); and biochemical studies of regulation of human interferon induction-cell-free interferon messenger RNA translation, tissue culture, virology (2 years); publications, grant; seeks research and/or teaching position; academic, government, industrial; available June. Box 58, SCIENCE. X

Biologist, Ph.D. 1967, German immigrant, trained in microbiology, biochemistry, with broad interests, seeks research/teaching, administrative career in microbiology, immunology, biochemistry, zoology, hydrobiology, radiation protection, contamination control, plant pathology, health science, marine biology. Box 59, SCIENCE. X

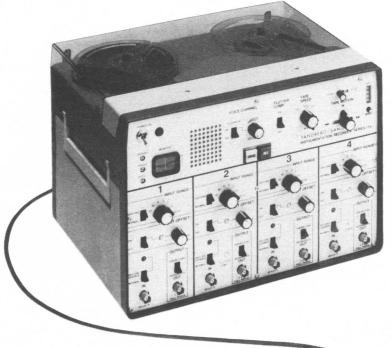
Environmental Health Scientist, Ph.D., seeking position in teaching, research, or administration, Fifteen years of experience includes teaching/ research at two large state universifies; state and county environmental control administration; consulting firm. Dr. J. D. Phaup, 1290 Plum Avenue, Merritt Island, Florida 32952. X

Environmental Physiologist. Ph.D. in biology, 1973, plus 2 years of postdoctoral research (hibernation) in France. Well-organized, dynamic teacher. Seeks teaching position, with research, in environmental, comparative, mammalian physiology and/or environmental, comparative zoology. Box 60, SCIENCE. 3/7

Broadly trained Geneticist, Ph.D. (1965). Two years postdoctoral. Sixteen years professional experience (11 years full-time at university). Particular interest all aspects undergraduate program. Seeks academic position for September. Box 34, SCIENCE. X

Husband and wife team: Food Microbiologists. Ph.D. and M.S., respectively. Desire industrial position. Research, industrial experience, and publications. Box 61, SCIENCE. X

Some budget-busting recorder/reproducers wish they had what the Sangamo/Tandberg TIR Series has.



Many of the expensive recorder/reproducers don't even offer as options what we offer as standard. For instance: Built-in CRT monitor which monitors and displays P/P percentage of center frequency deviation on all four channels simultaneously. A DC input offset control. Built-in voice annotation. Individual record, reproduce and erase heads. Selective "record disable" switches. Linear footage counter. And system to system copy capability. All standard features.

The TIR series records on four IRIG Standard FM tracks on 1/4" tape at 15, 3-3/4, and 15/16 ips or 7-1/2, 3-3/4 and 1-7/8 ips. Channel four operates three ways: data only, voice only or data interrupted by voice. Low flutter can be reduced even more with electronic flutter compensation.

For more information call or write: C. B. Callicoatte, Sangamo Electric Company, C-6 Data Systems, P.O. Box 3347, Springfield, Illinois 62714, (217) 544-6411. Telex: 406-421.

## SANGAMO RECORDERS

THE INNOVATORS IN TAPE INSTRUMENTATION Circle No. 552 on Readers' Service Card

14 FEBRUARY 1975

## POSITIONS WANTED

Hybrid Biologist, B.S. biology, M.S. systems ecol-ogy, Ph.D. remote sensing. Seeks postdoctoral or research associate position. Academic interests: vegetational remote sensing, natural resource in-ventories, automatic image processing, computer simulation, technology assessment. Publications. Box 62, SCIENCE. 2/21

Mineralogist-Mineral Physicist, Ph.D. 1968, semi-empirical thermodynamic modeling of mineral systems with electronic, solid-earth, and ceramic application; innovative and adaptive experimenta-tion with x-ray, thermal and TEM methods; in-ternational teaching and research experience, pub-lications, U.S. citizen, seeking interesting posi-tion after June 1975. Box 63, SCIENCE. 2/21

Physiologist, Ph.D. 1974. Training in endocrine physiology. Publications and teaching experience. Desires teaching and/or research position in academic, government, or industrial environment. Box 64, SCIENCE. X

Physiologist, Ph.D. 1961. Experience: research and teaching in endocrinology and cardiovascular. Research in cholesterol, hemodynamics, myocar-dial contractility, digitalis, arrhythmia, exercise. Seeks teaching position with research or industry. Box 65, SCIENCE.

Toxicologist, Ph.D. 1968. Publications in drug metabolism and identification. Graduate teaching and research experience in environmental, indus-trial and forensic applications. Seeking position with government, academic or forensic institu-tion. Available immediately. Box 66, SCIENCE. 2/28; 3/14, 28

Zoologist, Ph.D. Seeks teaching or teaching-research position. Interests include invertebrate zoology, invertebrate physiology, parasitology. Box 54, SCIENCE. 2/14, 21, 28; 3/7, 14, 21, 28; 4/4, 11

## POSITIONS OPEN

#### ANATOMIST

Ph.D. with postdoctorat training and/or teaching experience. Teach neuroanatomy to medical stu-dents and assist in gross anatomy. Develop in-dependent and/or collaborative research program. Assistant Professor level. Submit curriculum vitae and letters of reference to: Dr. Frank S. Newman, Coordinator, WAMI Medical School, Montana State University, Bozeman, Montana 59715. An Affirmative Action/Equal Opportunity Employer.

## APPLIED PHYSIOLOGIST

Department of Kinesiology requires 1-year visiting professor in physiology or applied physiology with interests and developed research in cardio-respira-tory, metabolic, or environmental physiology. Ap-pointment will take effect 1 September 1975 and terminate August 1976. Appointment at any rank, salary by negotiation depending upon qualifica-tions. Send curriculum vitae and inquiries to Dr. E. W. Banister, Kinesiology, Simon Fraser Uni-versity, Burnaby 2, B.C., Canada.

The **DEPARTMENT OF BIOLOGY** anticipates an opening for an **ASSISTANT PROFESSOR** in September 1975. Primary duties will include de-veloping and teaching freshman biology courses for both biology majors and nonmajors. The ap-plicant must have teaching experience and an ability to organize and coordinate introductory courses. Interested persons should send curriculum vitae and three letters of reference to Dr. J. J. Gauthier, Department of Biology, University Col-lege, University of Alabama, Birmingham, Ala. 35294. Affirmative Action/Equal Opportunity Employer.

DEPARTMENT OF ASTRONOMY, HAR-varget of the position of Assistant Professor to begin in the fall of 1975. The initial term will be 5 years. The terms of application should be accompanied by a résumé of experience in teaching and re-versed, a statement of research interests, and a bilography. The applicant should request three astronomers or physicists to write directly to **Prof. A. Dalgarno, Chairman**, giving their evalua-tion of the applicant's abilities. (Applications usubnitted last year have been retained. They need only to be updated.) Applicants are expected to have received their Ph.D. at least 1 year before taking up this post. Harvard University is an Equal Opportunity Employer with an Afirmative Action Program, and it encourages applications from women and the applications to the Department of Astron-morder, Mass. 02138 for receipt by 1 March 1975.

## POSITIONS OPEN

#### AGRICULTURAL METEOROLOGY

Research Assistantships in aid of graduate study to the M.S. and Ph.D. degrees in Agricultural Meteorology now available. Meteorology, clima-tology, geography, physics, ecology, fluid dynam-ics, and plant and soil science majors are en-couraged to apply. Thesis research opportunities open in projects on turbulent transport, carbon dioxide balance, field photosynthesis, evapotran-spiration, drought impact on food production, For further information write Norman J. Rosenberg, Agricultural Meteorology Section, Institute of Agricultural Meteorology Section, Institute of Nebraska, Lincoln, Nebraska 68503.

The GENETICS DEPARTMENT AT THE UNIVERSITY OF WISCONSIN hopes to make an appointment at the assistant professor rank in mathematical population genetics. Depending on qualifications and interests of the person, a joint affiliation with another department will be considered. Send curriculum vitae and names of three references to: James F. Crow, 509 Genetics Building, University of Wisconsin, Madison, Wis, 53706. An Equal Opportunity/Affirmative Action Employer. Employer.

Applications from and nominations of interested and qualified individuals are invited for the posi-tion of ASSISTANT PROFESSOR OF PHAR. MACOLOGY AND TOXICOLOGY in the De-partment of Physiological Sciences, School of Veterinary Medicine, University of California, Davis Campus, effective July 1975 or September 1975. The applicant should have research train-ing in toxicology and pharmacology with an ad-vanced degree (Ph.D.) in toxicology or pharma-cology. Duties of the position include participation in teaching veterinary toxicology in the Doctor of Veterinary Medicine professional curriculum and participation in toxicology and pharmacology courses offered by the School of Veterinary Med-icine. The candidate would function as a consult-ant on clinical toxicological problems presented at the Veterinary Medical Teaching Hospital. This person might also be responsible for setting up and supervising a toxicology diagnostic labo-pratory at the Veterinary Medical Teaching Hospital. The position would also offer the op-program. The position would also offer the op-program. The position would also offer the op-protrunity for collaborative research with the Food Protection and Toxicology Center and/or Veteri-nary Extension. Please direct all correspondence to Dr. R. A. Freedland, Department Chairman, Department of Physiological Sciences, School of Veterinary Medicine, University of California, Davis, California 95616. The University of Cali-fornia is an Equal Opportunity/Affirmative Action femployer and encourages applications from wom-en and/or members of minority groups.

## ASSISTANT PROFESSOR OF PHYSIOLOGY

The Department of Physiology-Anatomy, Uni-versity of California, Berkeley, invites qualified in-dividuals to apply for the position of Assistant Professor of Physiology. Teaching responsibilities will be in mammalian physiology, primarily at the advanced undergraduate and graduate school levels for our physiology and health sciences programs.

The advance undergraduate and graduate schedes programs. The particular research field is not specified but should be in some area of systemic function such as cardiovascular, pulmonary, renal, or gas-trointestinal physiology. Candidates should be thoroughly involved in an ongoing active research project, be successful contributors to that area, and be prepared to develop a vigorous research program within the department. Interested persons should write a letter ex-plaining their qualifications and enclosing a cur-rent curriculum vitae and a list of three or more persons who could act as referees to: **Physiology Search Committee Chairman, Depart-ment of Physiology-Anatomy, University of Cali-fornia, Berkeley, California 94720.** The University of California is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

ASSISTANT PROFESSOR OF VETERINARY PATHOLOGY. Applicants must have D.V.M. and Ph.D. degrees, and interest in both teaching and research; ACVP Diplomate preferred. Duties con-sist of teaching anatomic pathology in the depart-ment (50 percent) and participating in the research program of the Radiobiology Laboratory (50 per-cent). Starting salary approximately \$20,000. Send inquiries to: D. L. Dungworth, Veterinary Pathol-ogy, University of California Javis, Calif. 95616. The University of California is an Afirmative Action/Equal Opportunity Employer and encour-ages applications from members of minority groups and women.

## POSITIONS OPEN

## **AQUATIC ECOLOGIST**

The Department of Biological Sciences, Bowling Green State University is seeking an Aquatic Ecologist with training in Fisheries Biology for a position beginning in September 1975. This posi-tion is a renewable term appointment at the Assistant Professor level and includes teaching at the undergraduate level and the development of a research program. Applicants please submit curriculum vitae and names of three references to: Dr. Rex L. Lowe, Chairman, Search Commit-tee, Department of Biological Sciences, Bowling Green State University, Bowling Green, Ohio 43403. Deadline for applications is 20 March 1975. An Equal Opportunity Employer.

The **BIOCHEMISTRY DEPARTMENT** of the University of Alabama in Birmingham needs a faculty member with research and teaching ex-perience in the field of bone and dental biochem-istry, and an interest in oral biology and dentistry. Preference, rank and salary commensurate with experience. An Equal Opportunity/Affirmative Action Employer. Application should include a résumé of academic history including teaching experience and publications. Send to:

Dr. John McKibbin Department of Biochemistry University of Alabama in Birmingham Birmingham, Alabama 35294

#### BIOCHEMIST

Assistant Professor with a Ph.D. and postdoc-toral experience. Teaching and research. Start-ing date September 1975. Send curriculum vitae and references before 1 April 1975 to Dr. F. H. Radke, Chairman, Department of Biochemistry, University of Maine, Orono, Maine 04473.

Applications are invited for faculty positions in the Department of Biological Sciences, Wright State University in the following areas.

MICROBIOLOGY-Environmental/Public

- Health VASCULAR PLANT BIOLOGY—Ecology/

VASCULTT Taxonomy VERTEBRATE BIOLOGY—Aquatic DEVELOPMENTAL BIOLOGY—Cell/

Molecular Candidates should have a strong interest in un-dergraduate and graduate education and be pre-pared to develop a vigorous research program. Ph.D. required. Rank and salary open. Position available 1 September 1975. Applications, includ-ing a résumé and a list of three references, should be sent by 1 March 1975 to **Dr. John D. Ross-miller, Department of Biological Sciences, Wright State University, Dayton, Ohio 45431**. An Equal Opportunity/Affirmative Action Employer.

#### SIMON FRASER UNIVERSITY BRITISH COLUMBIA, CANADA DEPARTMENT OF BIOLOGICAL SCIENCES ENDOCRINOLOGIST/PHYSIOLOGIST

Applications are invited from suitably qualified persons. Qualifications: Ph.D. plus subsequent re-search experience. Nature of duties: teach com-parative endocrinology and develop a vigorous research program in vertebrate endocrinology in relation to the environment. Salary and rank negotiable. It is anticipated that the position will be available from September 1975. Letters of ap-plication, including curriculum vitae and the names and addresses of three referees, should be sent to Dr. J. M. Webster, Chairman, Department of Biological Sciences, Simon Fraser University, Burnaby, B.C., Canada V5A 186. Closing date for applications will be when the position is filled.

#### SIMON FRASER UNIVERSITY BRITISH COLUMBIA, CANADA DEPARTMENT OF BIOLOGICAL SCIENCES **GENETICIST/DEVELOPMENTAL BIOLOGIST**

Applications are invited from suitably qualified persons. Qualifications: Ph.D. plus subsequent re-search experience. Nature of duties: teach courses in genetics and developmental biology and devel-op a strong research program in these areas. Salary and rank negotiable. It is anticipated that the position will be available from September 1975. Letters of application, including curriculum vitae and the names and addresses of three re-ferees, should be sent to Dr. J. M. Webster, Chair-man, Department of Biological Sciences, Simon Fraser University, Burnaby, B.C., Canada, V5A, 156. Closing date for applications will be when the position is filled.

SCIENCE, VOL. 187

## POSITIONS OPEN

#### UNIVERSITY OF VICTORIA VICTORIA, B.C., CANADA, V8W 2Y2 DEPARTMENT OF BACTERIOLOGY AND BIOCHEMISTRY VISITING ASSISTANT PROFESSOR **OR SESSIONAL LECTURER**

Applications are invited for a 1-year appoint-ment as a Visiting Assistant Professor or Sessional Lecturer in this department, effective 1 July 1975. Applications, including a full curriculum vitae and undergraduate and graduate transcripts, must reach the Secretary, Appointments Committee, before 1 March 1975.

#### DEPARTMENT OF BIOLOGY, UNIVERSITY OF CALIFORNIA **RIVERSIDE, CALIFORNIA 92502**

UNIVERSITY OF CALIFORNIA RIVERSIDE, CALIFORNIA 92502 Applications are invited from all qualified in-dividuals and especially women and minority candidates for four faculty positions (Assistant Professor) to begin 1 July 1975. Duties will in-clude participation in the new Biomedical Sci-ences Program. This cooperative program of UC Riverside, UCLA School of Medicine and the San Bernardino County Medical Center consists of 5 years of primary studies in college subjects, the basic sciences and the introductory years in medical studies at UCR-SBCMC and two final years of study for the M.D. degree at the UCLA School of Medicine. It is anticipated that faculty will develop an independent research program as well as participating in graduate training. **Population Biologist**. Ph.D. or equivalent de-gree in ecology or population genetics or closely related disciplines. Duties: teaching introductory courses in population biology and a more advanced course such as population or systems. **Hum and Medical Geneticist**, Ph.D. or equiva-alent degree in human genetics or closely related disciplines. Postdoctoral and/or teaching and re-search experience should be in one of the follow-ing: somatic cell genetics, developmental genetics. Juties: teaching responsibility for a curse in human genetics. **Molegnet or equiva-alent in mammalian physiology or closely related discipline. Duties: teaching responsibility for a curse in human genetics. Ph.D. degree or equiva-alent in mammalian physiology or closely related discipline. Duties: participation in a biology course for sophomores in the program as well as course. <b>Development Biologist/Experimental Cytologis**, Ph.D. degree or equivalent with teaching and program.

belowing: Development Biologist/Experimental Cytologist. Development Biologist/Experimental Cytologist. Ph.D. degree or equivalent with teaching and research emphasis in one (or more) of the fol-lowing: animal morphogenesis, cell organization and development, membrane structure and func-tion. Duties to include instruction in courses according to qualifications and special interests. Applicants should submit curriculum vitae, three letters of recommendation, transcripts and résumé of teaching and research goals to Dr, Irwin Sherman, Chairman, Department of Biol-portunity/Affirmative Action Employer.

## **BIOMEDICAL ENGINEERING POSITIONS** AT RENSSELAER POLYTECHNIC INSTITUTE

Several ASSISTANT and ASSOCIATE PRO-FESSOR appointments are available immediately. Applicants must be committed to innovative teaching and must provide clear evidence of ability to initiate and perform research of significance in: clinical instrumentation/biomedical electronics; bio-polymers/surface properties; bio-transport/thermodynamics; biomechanics/spinal cord. Applica-tions from distinguished candidates for more senior positions are also welcome. Professor J. Lawrence Katz, Director, Center for Biomedical Engineering, Rensselaer Polytechnic Institute, Troy, N.Y. 12181. An Equal Opportunity/Affirma-tive Action Employer.

#### BIOPSYCHOLOGIST

Assistant Professor, beginning September 1975. We are particularly interested in candidates specializing in hormone-brain-behavior interrela-tionships, sensory (especially visual) neurophysiol-ogy, or central nervous system development and plasticity.

plasticity. Applications from members of minority groups and women are most welcome. Send curriculum vitae and at least three letters of reference to: Dr. Robert E. Johnson, Chairman, Biopsychology Search Committee, Department of Psychology, Cornell University, Ithaca, New York 14850, Cornell University is an Equal Opportunity Employer. M/F.

14 FEBRUARY 1975

## POSITIONS OPEN

Marquette University School of Dentistry is seeking a CHAIRPERSON for its DEPART-MENT OF BASIC SCIENCES, Should have in-terest in administration, teaching, and research. Interested individuals should send curriculum vitae to Dr. Joseph Abramowitz, Associate Dean, Marquette University School of Dentistry, 604 North 16 Street, Milwaukee, Wis, 53233. Mar-guette University is an Equal Opportunity Em-ployer. ployer.

#### CHIEF OF PEDIATRICS

Opening for position of Chief of Pediatrics at Baltimore City Hospitals. This is a major teach-ing hospital with affiliations with the two Medical Schools in Baltimore. The Pediatric Unit has 39 in-patient pediatric beds, 25 neonatal bassinettes, and 38 newborn bassinettes, plus 30,000 ambula-tory visits. House Staff training program fully accredited. The Search Committee will be receiv-ing applications until 1 March 1975. If interested address correspondence to:

# Dr. John Littlefield Chairman, Department of Pediatrics Johns Hopkins School of Medicine 725 North Wolfe Street Baltimore, Maryland 21205

**DEAN, SCHOOL OF HOME ECONOMICS** Baccalaureate and Masters Programs in Child Development and Family Relations, Clothing, Textiles and Interior Design, Foods and Nutri-tion, General Home Economics and in coopera-tion with the School of Education, Teacher Edu-cation. Send résumé to: Vice President for Aca-demic Affairs, Box U-166, The University of Connecticut, Storrs, Connecticut 06268. An Equal Opportunity Employer.

## THE DEPARTMENT OF ANESTHESIOLOGY UNIVERSITY OF WASHINGTON

is seeking a Director, Hyperbaric Physiology Re-

is seeking a Director, Hyperbaric Physiology Ke-search Group. The individual should possess a Ph.D. in en-vironmental or hyperbaric physiology, a back-ground in medicine and/or veterinary medicine, ability to deal with mixed gas decompression, experience with therapeutic use of hyperbaric oxygen, and demonstrated ability to sustain the research program through self-attained grant sup-port port

The University of Washington is an Equal Opportunity/Affirmative Action Employer. When writing, send curriculum vitae to:

John J. Bonica, M.D. Professor and Chairman Department of Anesthesiology RN-10 University of Washington School of Medicine Seattle, Washington 98195

FISHERIES BIOLOGY/AQUATIC ECOLOGY position available August 1975, for individual with strong theoretical and applied research experience in fish population dynamics and fish physiology, demonstrated competence to train graduate stu-dents in field-oriented research and interest in cooperative studies on southwestern surface wa-ters. Teaching: fish population dynamics, ichthy-ology, general ecology, and zoology. Rank and salary open. Send curriculum vitae, reprints, and have three letters of support sent to Dr. L. C. Fitzpatrick, Department of Biological Sciences, North Texas State University, Denton, Texas 76263, before 15 March 1975. An Equal Opportunity Af-firmative Action Employer.

#### FISHERIES BIOLOGIST

Applications are invited for faculty position in the Department of Zoology. Competence and in-terests in General Fisheries Biology, Population Dynamics, Aquaculture and/or Fisheries Manage-ment desirable. Rank and salary open. Applica-tions, curriculum vitae, and a list of three refer-ences should be sent by 15 March 1975 to Chair-man, Department of Zoology, 2538 The Mall, Uni-versity of Hawaii, Honolulu, Hawaii 96822. An Equal Opportunity Employer.

## HERPETOLOGIST/BEHAVIORAL BIOLOGIST

Ph.D. to teach a one-semester graduate course in herpetology and an undergraduate course in animal behavior. Participation in lecture and lab-oratory of the principles of biology course and some departmental assignments are part of the duties. Ability to aid students with photography and biological illustrations is desirable. For in-formation address letters to: W. R. West, Jr., De-partment of Biology, University of Richmond, Va. 23173. An Equal Opportunity Employer.

## POSITIONS OPEN

DIRECTOR, DENTAL RESEARCH INSTITUTE, UNIVERSITY OF MICHIGAN. Applications and nominations are invited for the position of Direc-tor, Dental Research Institute. Responsibilities will include the continuance of the current operational strategy of the Dental Research Institute. The Director should be qualified for professorial rank in the School of Dentistry, possess outstanding research accomplishments in dentally related sci-ences, and demonstrate capacity for leadership and administration in a university. A nondiscrim-inatory affirmative action employer. Send nomina-tions or applications with curriculum vitae to Dr. Brien R. Lang, Chairman, Search Committee for Director, Dental Research Institute, School of Dentistry, University of Michigan, Ann Arbor, Michigan 48104.

FACULTY POSITIONS AVAILABLE. The Okla-homa College of Osteopathic Medicine and Sur-gery, a state institution governed by the Oklahoma State Regents for Higher Education, invites appli-cations for faculty appointments available May to September 1975 in Physiology, Gross Anatomy/ Histology, Pharmacology, and Virology/Immunol-ogy. Teaching/Research experience and an earned doctorate required. Rank, tenure, and salary com-mensurate with experience. The OkCOMS is an expanding medical college utilizing a 3-year spiral curriculum to provide the educational experience to prepare physicians for general practice in small communities. Submit letters of application, cur-riculum vitae, bibliography, and names of three references to: Dr. W. G. Robertson, Chairman, Medical Biology Division, Oklahoma College of Osteopathic Medicine and Surgery, Ninth and Cincinnati, Tulsa, Oklahoma 74119. An Equal Opportunity/Affirmative Action Employer.

## FACULTY VACANCY

The Department of Geology and Geological Engineering, University of Mississippi, has a faculty vacancy in geomorphology, geohydrology, or related fields. The appointment will be for 2 years, but may become permanent. The Ph.D. is desired, but outstanding candidates with the M.Sc. will be considered. The appointment could start as early as January 1975. Please send in-quiries to Dr. Velon H. Minshew, University, Miss. 38677. The University of Mississippi is an Equal Opportunity/Affirmative Action Employer.

## FERMENTATION RESEARCH

#### -Antibiotics----

An excellent opportunity at the group leader level is now available on our antibiotics research staff. Responsibili-ties include direct laboratory partici-pation and supervision of that portion of the fermentation staff assigned to the isolation and taxonomic classifica-tion of micro-organisms, sensitive de-tection of new antibiotics, production of shake flasks and chromatographic identification of active substances which are discovered.

Which are discovered. We are requiring at least 5 years of experience beyond the doctorate in a field related to fermentation, for ex-ample, process research, strain im-provement, microbial genetics, taxon-omy. Because of the supervisory and multidisciplinary responsibilities, we are also requiring some industrial and supervisory experience and above av-erage personal skills, for example, communication, motivation. Knowledge of computer technology will be an asset. asset.

Position is in our modern suburban laboratories located near Valley Forge, Pa. Send information to F. J. Beston, Employment Manager, 1544 Spring Garden Street, Philadelphia, Pennsyl-vania 19101.

SmithKline CORPORATION Equal Opportunity Employer M/F

## vrije universiteit amsterdam

The department of Physics and Astronomy of the Free University, Amsterdam, has a vacancy for a

## associate professor in experimental physics

An experimental physicist is required with experience in Solid State Physics and with particular interest in the studies of metals and alloys at low temperatures.

The person appointed is expected to take charge of the experimental research in the solid state section, but in collaboration with present members of staff. The solid state group is currently making measurements on metals using the magneto-acoustic, the Haas-van Alphen and the r.f. size effects. He is also expected to contribute to the future development of research within this section.

Teaching duties will involve introductory (undergraduate) lectures and advanced lectures in his specialized field. He is also required to supervise students undertaking research projects in the section.

Applicants should agree with the Christian aims and objectives of the Free University.

Interested persons or those wishing to recommend others for the post should write to the Chairman of the appointing committee, Prof. Dr. J. Blok (P.O. Box 7161, Amsterdam, the Netherlands) not later than one month after the publication of the advertisement. A curriculum vitae should be included with the application.



Vacancies for teaching computer science

Kuwait University invites applica-tions for teaching posts in computer science. Contracts start on 1 Septem-ber 1975 for a period of 2 years, re-newable if convenient to both appli-cant and University.

- Ph.D. in computer science with experience of not less than 3 1) years, or
- Masters degree in computer sci-ence with experience of not less than 6 years. 2)
- Applicant must have degrees in Business Administration, Account-ing or Economics. 3)
- Applicant must have teachin experience in computer science teaching 4)
- Applicant must have knowledge of Arabic language. 5)

Candidates are also entitled to the following privileges:

- Annual return air tickets to his country, would be issued to him, his wife and three of his children provided that the age of each does not exceed 20 years. 1)
- Free furnished flat would be pro-vided with water and electric 2) vided with supplies.

supplies. Application and Curriculum Vitae forms are obtainable from Kuwait Embassies in London (Cultural At-tache's Office, Al-Jahra House, 3 Stratford Place, London W1N, 9AE), and Washington, (4301 Connecticut Avenue, NW, Suite 158, Washington, D.C. 20008), or from Kuwait Univer-sity. Completed applications, together with unreturnable copy of the candi-date's publications, to be received by "Kuwait University, Kuwait," not later than 28 February 1975.

## UNIVERSITY OF PAPUA **NEW GUINEA** (Port Moresby)

PROFEDENCIAL Control of the second metal status of the substitue status of the second metal status date status of the second metal status date status of the substitue status of the substitue status of the second metal status date status of the substitue status date status of the substitue status of the substitue

## **UNIVERSITY OF** HONG KONG

Applications are invited for Lectureships/Assistant Lectureships in the following subjects:

following subjects: PSYCHOLOGY, ONE POST IN PSY-CHOLOGY (ERGONOMICS) AND ONE IN CLINICAL PSYCHOLOGY: Qualifica-tions acceptable to the British Psy-chological Society or the Hong Kong Psychology (Ergonomics), prefer-ably a qualification in some branch of ergonomics (human factors) and abili-ty to teach undergraduate courses in experimental psychology and psycho-logical statistics and design, and to contribute to a postgraduate master's degree programme in Industrial Psy-chology to be introduced later in the Quadrennium; for the post in Clinical Psychology, relevant professional ex-perience preferably in the area of be-haviour therapy and learning and its application in clinical practice, prefer-ably knowledge of spoken Cantonese (the appointee will teach undergrad-uate courses, contribute to the post-graduate M.Soc.Sc. programme in Clinical Psychology as well as super-vise students in Clinical settings).

Annual salaries (superannuable) are: Lecturer: HK\$48,960 x 3,300—55,560 BAR 58,860 x 3,300—75,360 x 3,36— 82,080; Assistant Lecturer: HK\$35,760 x 3,300—45,660. At the time of issue the rate of exchange is £1 = HK\$11.00 approx. Starting salary will depend on qualifications and experience.

Further particulars and application Further particulars and application forms may be obtained from the As-sociation of Commonwealth Universi-ties (Appts), 36 Gordon Square, Lon-don WCIH OPF, or the Secretary to the Council, University of Hong Kong, Hong Kong.

Closing date for applications is 22 February 1975, but will be accepted for a further 14 days.

THE INTERNATIONAL LABO-RATORY OF MARINE RADIO-ACTIVITY OF THE INTER-NATIONAL ATOMIC ENERGY AGENCY in MONACO has an opening at the Assistant Officer's level. The successful candidate should have knowledge and some experience in marine radioecological research and related techniques. Experience in studying the effects of stresses on marine organisms is desirable. Ph.D. or equivalent in biological oceanography or marine radioecology necessary.

Emoluments U.S.\$11,522 per annum if single, additional benefits if married. Travel and removal expenses paid. Contract period 2 years. Send curriculum vitae to Division of Personnel, International Atomic Energy Agency, P.O. Box 590, A-1011 Vienna, Austria, not later than ten days from today.



## POSITIONS OPEN

## EPIDEMIOLOGIST-BIOSTATISTICIAN

**EPIDEMIOLOGIST-BIOSTATISTICIAN** A full-time faculty position is available in the Department of Community Medicine, College of Osteopathic Medicine, Michigan State University, for an epidemiologist-biostatistician. Doctorate required in either discipline with strong secondary background in remaining field, Requirements will include: (i) teaching biostatistics and epidemiology to medical students; (ii) the ability to generate and carry out research projects in epidemiology and health care delivery; and (iii) consultation and assistance to other faculty members. Rank and salary commensurate with qualifications and experience. Curriculum vitae and names of three references to: Dr. Howard W. Stoudt, Chairman, Department of Community Medicine, College of Osteopathic Medicine, Michigan State University, East Lansing, Michigan State University is an Equal Op-portunity/Affirmative Action Employer.

# JUNIOR AND SENIOR FACULTY POSITIONS IN CELL BIOLOGY, VIROLOGY, MOLECULAR BIOLOGY, IMMUNOLOGY, ENDOCRINOLOGY, PARASITOLOGY

ENDOCRINOLOGY, PARASITOLOGY A growing, well-equipped modern research de-partment of Cell and Molecular Biology in new science building of the National Institute of Car-diology located in southern Mexico City is seek-ing several scientists (Ph.D., M.D.) with postdoc-toral experience who have demonstrated ability to initiate a vigorous research program. Fields of interest include molecular biology of eukaryotic cells. However, applications from outstanding candidates in related areas are welcome. No teaching obligation. Salary and beginning of ap-pointment are negotiable. Submit curriculum vitae and names of suggested referees, as well as de-scription of research interests, by 31 March. Box 67, SCIENCE.

A JUNIOR FACULTY POSITION may become available beginning in the fall of 1975. If so, it is planned to fill it in experimental solid-state physics with emphasis on surface physics, al-though other exceptionally qualified applicants will also be considered. Send résumé to the Search Committee, Department of Physics (Mail Code B-019), University of California, San Diego, La Jolla, California 92037. An Equal Opportunity/ Affirmative Action Employer.

## HUMAN PHYSIOLOGIST VIROLOGIST

Two positions available, must possess doctorate, Joint appointment, Medical School. To develop and coordinate instruction at undergraduate, grad-uate, and professional level, Research competence expected. Send curriculum vitae and three refer-ences to Chairman, Department of Biology, Uni-versity of Missouri-Kansas City, 5100 Rockhill Road, Kansas City, Missouri 64110. Deadline for receipt of applications extended to 1 March 1975. UMKC is an Equal Employment and Educational Opportunity Institution.

The Georgetown University Department of Biology has a faculty position available in the field of IMMUNOBIOCHEMISTRY or INSECT BEHAVIOR AND PHYSIOLOGY. Applications are sought from scholarly, young scientists pre-pared to mentor graduate students and who have reasonable promise of obtaining outside funding. Faculty members teach a one-semester under-graduate laboratory course and a one-semester graduate laboratory course each year. Salary and rank are open. Georgetown University is an Equal Opportunity/Afirmative Action Employer. Please send curriculum vitae, sampling of publications and references to: Dr. David M. Robinson, De-partment of Biology, Georgetown University, Washington, D.C. 20057.

**INVERTEBRATE ZOOLOGIST** to teach under-graduate courses in invertebrate zoology, parasi-tology, and possibly introductory biology. Re-search encouraged; area open. Assistant Professor. Two-year position with possibility that it may become permanent. September 1975. Send three letters of reference and curriculum vitae to: **Search Committee, Department of Biology, St. Louis University, St. Louis, Mo. 63103** by 1 March. An Equal Opportunity/Affirmative Action Employer.

Multidisciplinary ENVIRONMENTAL STUD-**IES** program requires candidate having science or applied science background and strong commitment to undergraduate teaching. Canadian experience desirable. Send curriculum vitae, statement of experience and interests by 21 February 1975 to: Prof. S. C. Lerner, Department of Man-Environment Studies, University of Waterloo, Environment Studies, Canada N2L 3G1.

14 FEBRUARY 1975

## POSITIONS OPEN

## MARINE ZOOLOGIST

Ph.D., 3 to 10 years of professional experience in invertebrate zoology and biological oceanog-raphy. Vertebrate zoology also necessary. Desir-able related academic experience will include im-nunology, embryology and/or parasitology. Duties will begin 1 July 1975 and will include research and some teaching. Salary commensurate with experience. experience.

## MARINE/ESTUARINE ECOLOGIST

Ph.D., strong background in biometry, zoology, and community ecology. Benthic ecologist pre-ferred. Familiarity with sedimentology desirable. Assistant Professor level, salary \$16,000. Two-year appointment, beginning 1 July 1975. Duties will include research only. Send résumé and three references to

Dr. Barry A. Vittor University of Alabama Marine Science Programs P.O. Box 386 Dauphin Island, Ala. 36528 An Equal Opportunity Employer

#### MEDICINAL CHEMISTRY

MEDICINAL CHEMISTRY Two positions available for 1 September 1975. (i) An Assistant Professor to teach drug analysis (undergraduate and graduate levels) and partici-pate in some lectures in medicinal chemistry. Must be interested in research in the area of drug metabolism with a desire to learn mass fragmentography. A degree in pharmacy or pharmacokinetics is also desired. (ii) Requires a position for an M.S. who wishes to continue towards a Ph.D. in medicinal chemistry (Assistant Instructor, \$4000 for 8 months). Write to Dr. D. J. Abraham, 725 Salk Hall, Medicinal Chemistry Department, School of Pharmacy. University of Pittsburgh, Pittsburgh, Pa. 15261. The University is an Equal Opportunity/Affirmative Action Em-ployer. plover.

MICROBIOLOGIST, Ph.D. Teaching-research position made available through Minority Bio-medical Support Grant (NIH). Teach graduate and undergraduate courses in immunology and pathogenic microbiology, Duties will include di-recting graduate and undergraduate research prob-lems and theses, Department has strong micro-biology program. Position previously advertised as Immunologist-Virologist, readvertised due to very recent staff changes. Submit curriculum vitae and three letters of recommendation by 1 May to: Dr. Larry P. Jones, Chairman, Search Com-mittee, Department of Biological Sciences, The University of Texas at El Paso, El Paso, Texas 79968. Equal Opportunity/Affirmative Action Employer. Employer.

#### NEUROPATHOLOGIST

RECROPATHOLOGIST Faculty position available in the Department of Pathology, University of California, San Fran-cisco, for a Neuropathologist with good clinical orientation, ability as a teacher as well as inter-est and accomplishment in one area of research. Address curriculum vitae to Search Committee, Department of Pathology, University of California, San Francisco, California 94143. A Nondiscrimina-tory Affirmative Action Employer.

## YALE UNIVERSITY Department of Pharmacology

Several positions are available for Assistant Professors, or, with exceptionally qualified indi-viduals, Associate Professors, in the following areas: (i) Differentiation and replication control in relation to membranes; cancer chemotherapy and immunotherapy; (ii) cellular aspects of neural function; (iii) and studies of drug metabolism and action in experimental or clinical therapy.

Assistance in establishment of chincal infrapy. Assistance in establishment of new laboratories and limited support of research is available. Candidates must be prepared to teach in Pharma-cology programs. We welcome applications from minority group members and women in these

areas. Please send a curriculum vitae, bibliography, three reference names, a summary of past research, and a brief outline of proposed research projects to: Dr. Robert E. Handschumacher, Chairman, Department of Pharmacoloy, Yale University School of Medicine, New Haven, Conn. 06510, before 30 April 1975.

#### POSTDOCTORAL INVESTIGATOR WOODS HOLE OCEANOGRAPHIC INSTITUTION

The Woods Hole Oceanographic Institution, an institution devoted to research and graduate edu-cation, is seeking two Postdoctoral Investigators with a background in benthic marine ecology or experimental marine biology, for bioassay studies of plankton, larvae, and benthic communities exposed to toxicants. Send detailed résumés to: Personnel Manager, Woods Hole Oceanographic Institution, Woods Hole, Mass. 02543. An Equal Opportunity Em-ployer.

## WESTERN AUSTRALIAN MUSEUM CURATOR OF MOLLUSCS **DIVISION OF NATURAL** SCIENCE

Applications are invited for the above position.

#### **OUALIFICATIONS:**

A degree in zoology with a higher degree in some aspect of malacology. Museum curatorial experi-ence and research experience in some area of molluscan systematics is desirable.

## DUTIES:

The appointee will be responsible to the Head of the Division of Natural Science for the collec-tions of the department, the em-ployment of the collections in education and research, the conduct of taxonomic research on the collections and the propagation of information about mol-luscs to the public. The appointee will also advise and assist the Curator of Display on displays within his field.

#### SALARY:

Curators are employed at Levels 3 & 4 Professional Division (Curatorial Officers) Salaries Agreement 1973. Present salary range Level 3 \$(Aust)11146-12220 (by 3 in-crements), Level 4 \$(Aust)12562-14317 (by 3 increments). Appointments are usually made, within Level 3, but if an appointee has the requisite seniority an appointment may be made in the higher Level.

## **CONDITIONS OF SALARY:**

Museum staff are employees of the Western Australian Museum under the Museum Act, 1969. Staff are entitled to the same leave and superannuation benefits as are Public Servants emfits as are Public Servants em-ployed under the Public Service Act. Other conditions of service are fixed by the Trustees, but are similar to those applying in the Public Service. All appoint-ments are subject to confirma-tion after a probationary period of three months. Salary scales are fixed by arbitration.

## **APPLICATIONS:**

Applications must include information as to nationality, date of birth, particulars of education and degrees. Applicants should also include the names of three referees competent to give information on professional ability and character. The successful applicant will be expected to pro-vide evidence of good health before appointment. A recent photograph would be useful.

## INFORMATION

Further information on duties and conditions of service may be obtained on application to the Director.

## **CLOSING DATE:**

Applications will close with the Director on 14 March 1975.

W. D. L. RIDE Director.



Vignet R. U. Leiden LEIDEN STATE UNIVERSITY DEPARTMENT OF **SEDIMENTOLOGY** 

Applications are invited for the vacant position of

## LECTURER OR SENIOR LECTURER IN SEDIMENTOLOGY

Applicants are expected to hold a Ph.D. degree. The appointee will be expected to take an active part in teaching duties, including supervision of field work as well as in the research of the Department. In this respect experience of the appointee in sedimentary petrology and/or mathematical analysis of sedimentological data will be appreciated.

The Department of Sedimentology at Leiden at present also forms part of the Geological Institute of the State University at Utrecht. Within a few years it will be integrated in a new Geological Institute to be built here. The appointee will then be required to move with the Department to its new location.

Salary in the range of Dfl. 28,860,- to Dfl. 63.180,- p.a. Further information can be obtained from Dr. W. Nijman, Department of Sedimentology, Geologisch Institutut, Garenmarkt lb, Leiden, The Netherlands.

Applications should be sent before 1 March to Rijksuniversiteit Leiden, Afdeling Personeelszaken, Stationsweg 46, Leiden, The Netherlands. (Vakature nr. 74.348).

## POSITIONS OPEN

## PHARMACOLOGIST

With interest in toxicology for vacancy in sixperson group. Rank and salary dependent upon qualifications. Send curriculum vitae and reprints of three publications to Dean, School of Pharmacology, University of Wisconsin, Madison 53706. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

#### PHYSIOLOGIST

The Department of Surgery at the Peter Bent Brigham Hospital (Harvard Medical School) in-vites applications from Ph.D. physiologist inter-ested in clinical and experimental circulatory physiology. The position is with an ongoing hos-pital-centered program; opportunities and facilities for independent work; faculty appointment accord-ing to experience. Reply to: Alfred P. Morgan, M.D., Peter Bent Brigham Hospital, 721 Hunting-ton Ave., Boston, Mass. 02115.

#### PHYSIOLOGIST

East Tennessee State University College of Medi-East remessee state University Conege of Medi-cine invites applications for a faculty appointment in the Department of Physiology at Associate Professor or Professor level. Applications are in-vited by persons holding the Ph.D. and/or M.D. degree and working in the areas of neurophysiol-ogy, endocrine physiology, renal physiology or cardiovascular physiology. Applicants must have at least 3 years of research experience beyond the doctorate. The department is especially inter-ested in individuals involved in "systems analyested in individuals involved in "systems analy-sis" of physiological systems but will consider other applicants. Responsibilities will include teaching in the Medical Physiology course, and carrying on a strong independent research pro-gram. A curriculum vitae and the names of three references should be submitted to: H. T. Milhorn, Jr., Chairman, Department of Physiology, Col-lege of Medicine, East Tennessee State Univer-sity, Johnson City, Tennessee 37601. East Tennes-see State University is an Equal Opportunity/ Affirmative Action Employer. Affirmative Action Employer.

PLANT TAXONOMIST. Applications are invited for the position of Assistant Professor of Botany and Director of the Marion Ownbey Herbarium at Washington State University beginning 16 Sep-tember 1975. The successful candidate will be expected to teach plant taxonomy at both the undergraduate and graduate levels and to pursue a vigorous and continuing program of research. A full description of the position is available upon request. Applicants should send a complete curriculum vitae, including reprints of published papers, and should arrange to have letters of recommendation from at least three persons sent to Adolph Hecht, Chairman, Search Committee, Department of Botany, Washington State Univer-sity, Pullman, Wash. 99163; these should arrive by 15 April 1975. An Equal Opportunity and an Affirmative Action Employer.

POPULATION GENETICIST/EVOLUTIONARY BIOLOGIST, Department of Zoology, University of Montana. Assistant Professor starting Septem-ber 1975. Ph.D., training in population and basic genetics and evolutionary biology required. Clos-ing date is 10 March 1975. Applicants may write for more information or send curriculum vitae, references, and supporting material to: Dr. Donald A. Jenni, Chairman, Department of Zoology, Uni-versity of Montana, Missoula 59801. An Equal Opportunity Employer.

POSTDOCTORAL FELLOW. University of New Hampshire, Durham. Research on metabolic in-dicators of chemical carcinogenesis. Requires Ph.D., preferably biochemistry. Salary: \$10,000. National Cancer Institute Research Grant, re-newal possible for 1 to 2 years. Application dead-line: 21 February 1975. Duties to begin immedi-ately. Send applications to: Professor E. J. Herbst, Biochemistry Department, Spaulding Life Science Building, University of New Hampshire, Durham, N.H. 03824. An Equal Opportunity Employee. Durham, Employer.

#### POSTDOCTORAL POSITION IN BIOCHEMISTRY

Position as Research Associate currently open in membrane transport research. An established pro-gram studying the mechanisms of glucose and calcium transport in bacterial membrane vesicles. Salary approximately \$8500 plus fringe benefits. Send complete curriculum vitae to Dr. Eugene Barnes, Department of Biochemistry, Baylor College of Medicine, Houston, Texas 77025. An Equal Opportunity Employer.

## POSITIONS OPEN

PHARMACOLOGIST

PHARMACOLOGIST The Basic Science Department of the Peoria School of Medicine is seeking a pharmacologist to teach medical students and conduct an in-dependent research program. Duties will include assisting in the development and integration of pharmacology in the instructional program of a 3-year, innovative medical curriculum. Applicant should have a Ph.D. or M.D. degree, teaching experience, and a record of interest in research. Rank and salary are negotiable and commensurate with experience. Send curriculum vitae to Acting Chairman, Department of Basic Science, Peoria School of Medicine, 1400 West Main Street, Peoria, III. 61606. This school is a division of the University of Illinois, is an Affirmative Action/Equal Op-portunity Employer, and encourages applications from members of minority groups and women.

**PREDOCTORAL TEACHING ASSISTANT-SHIPS IN GROSS ANATOMY.** Applications are invited from qualified students who would be trained to assist in laboratory teaching of gross anatomy while studying for the Ph.D. degree in Cell Biology. Assistantships carry a salary of 3800 per year and begin in June 1975. For details and application materials write to: Gradu-ate Program in Cell Biology, The University of Texas Health Science Center, Dallas, Texas 75235. Equal Opportunity/Affirmative Action Employer.

PREDOCTORAL ASSISTANTSHIPS AND TRAINEESHIPS. In Oncology, Immunology, Microbiology, Virology, and Molecular and Cel-lular Biology. Prerequisites: B.S. degree in biology, chemistry, or related fields with B average or better and high G.R.E. score. U.S. citizenship required. Traineeships and assistant-ships available. Inquiries should be submitted to: Dr. Sheldon Dray, Head, Department of Microbiology, University of Illinois Medical Center, P.O. Box 6998, Chicago, Illinois 60680.

Applications are invited for a **RESEARCH PO-SITION IN LUNG BIOCHEMISTRY** with a faculty appointment at the Assistant- Professor level. The candidate will be expected to initiate and sustain an independent research program. Previous experience with lung systems is desirable but not necessary. A curriculum vitae and the names of three references should be sent to: Search Committee B, B-300 Annex, Department of Radiation Biology and Biophysics, University of Rochester Medical Center, Rochester, N.Y. 14642.

University of Wisconsin-Madison. SCIENTIFIC GLASSBLOWER. Applications are invited from scientific glassblowers who have experience in the fabrication of research glass apparatus for chemical applications. The University of Wiscon-sin is an Affirmative Action/Equal Opportunity Employer and welcomes applications from women and minority candidates. Applications, including résumé and three references, should be sent to br. D. F. Gaines, Department of Chemistry, The University of Wisconsin-Madison, 1101 Univer-sity Avenue, Madison, Wisconsin 53706.

#### **TECHNICAL DIRECTOR OF** HARRY DIAMOND LABORATORIES **U.S. ARMY MATERIEL COMMAND**

Responsible for Research, Development, Pro-duction Engineering, and initial procurement in the fields of electronics, mechanics, nuclear ef-fects, fluid mechanics, and related fields of sci-ence, mathematics, and technology. Duties con-sist of active leadership of about 900 professional scientists, engineers and supporting technical per-sonnel sonnel

Programs include: development of fuzing and safing systems, radars, specialized instrumenta-tion, and control systems; simulation of adverse influences (for example, mechanical, nuclear, elec-tronic, and environmental) on broad range of items; analysis, detection, and correction of sys-tems problems and deficiencies; preparation of documentation to permit competitive procurement. Candidate must have demonstrated a high capa-bility for leadership of an organization engaged in diverse scientific and technological fields. In-dividual scie

Applicants should submit CSC form SF 171 to:

Commander Harry Diamond Laboratories 2800 Powder Mill Road Adelphi, Maryland 20783

SCIENCE, VOL. 187

## CARCINOGENESIS PROGRAM

Group Leader for In vitro Carcinogenesis Studies: Doctorate level or equivalent experience biomedical scientist with extensive experience in in vitro studies of chemical carcinogenesis, to develop in vitro carcinogenesis group in the existing interdisciplinary carcinogenesis program with the following objective: (1) study mechanisms of in vitro transformation by chemical carcinogens, and (2) examine and improve existing systems for in vitro carcinogenicity testing.

**Electron Microscopist-Cell Biologist:** The carcinogenesis program has an immediate opening for an electron microscopist-cell biologist to work with Dr. Paul Nettesheim. We are seeking a Ph.D. or equivalent experience with interest in structure and biochemistry of membranes of normal and neoplastic cells or in cell surface antigens.

Postdoctoral training positions are also available for candidates with interest in tumor cell biology, differentiation and transformation **in vitro**.

Oak Ridge National Laboratory is operated by the Nuclear Division of Union Carbide Corporation for the Atomic Energy Commission.

Oak Ridge is located 20 miles west of Knoxville in the heart of east Tennessee's mountain and lake region. Living conditions as well as working conditions are excellent.

Send detailed résumé and salary requirements to:

Immunopharmacologist

The Pfizer Central Research Laboratories has

an opening for a Pharmacologist whose training

encompasses modern immunological theory and

technique. This position offers the opportunity to assume responsibility associated with the study of drugs affecting acue and chronic in-

Candidates should have a PhD in Pharmacol-

ogy or a related discipline. Some research experience is desired but not required.

Excellent employee benefits are associated with this position which allows one to work

and live in an attractive Connecticut shore

Please send resume to: Mr. L. H. Bentley, Personnel Department, Pfizer Central Research,

Eastern Point Road, Groton, Connecticut 06340.

An equal opportunity

employer, m/f



flammations.

location.

DR. J. J. Pinajian Employee Relations Division Oak Ridge National Laboratory P. O. Box X Oak Ridge, Tennessee 37830

An Equal Opportunity Employer

## Immunologist

۹° ۲

**4** " •

le Aed

**1**%/

MERCH C

A E C K

*<b>R* 

٦°

I:P

ATTACH

LABEL

HERE

This is a unique opportunity to join a newly formed department in the Merck Institute for Therapeutic Research located in Rahway, New Jersey. The department has been created to do fundamental research into basic immunological processes. The individual we want must have expertise in lymphocyte interactions and/or lymphocyte-macrophage cooperation. A Ph.D. and at least 2 years of postdoctoral experience required. This is a high level career opportunity. You will find it offers an excellent compensation package and a highly professional working environment. Send résumé indicating salary requirements, in confidence, to: W. T. Jackson, Employment Supervisor.

## MERCK & CO., INC Rahway, N.J. 07065

Equal Opportunity Employer M/F

## AAAS Memberships and Subscriptions

- Whenever you write us about your membership or subscription, please attach a Science address label to assure prompt service.
- Mail to: Membership and Subscription Records, AAAS, 1515 Massachusetts Ave., NW, Washington, D.C. 20005.
- □ Change of Address: Please provide 6 weeks' notice. Paste an address label from a recent issue in the space provided. Print new address below.
- Query: If you have a question, place your address label here and attach this form to your letter.
- To join or subscribe: Mail this form with your payment, mark the appropriate boxes, and print your name and address in the space below. (For renewals, attach label.)

Subscriber rates

\$40 USA \$\$46 Canada, PUAS \$\$48 Foreign

\$60 Airlift to Europe, North Africa, Near East

Payment enclosed \$\$Bill me later

Name Please print

City	State	Zip	MT02

## POSITIONS OPEN

## **RESEARCH COORDINATOR**

A position is available for an individual hold-ing an M.Sc, or a Ph.D. degree to coordinate a contract-sponsored cancer chemotherapy program. The research involves coordinating a project to study the interaction of drugs and radiation on normal and tumor cell populations. The starting salary will be between \$11,000 and \$15,000 per year depending on experience and qualification. Please submit your curriculum vitae to Dr. Fred Valeriote, Section of Cancer Biology, Department of Radiology, Washington University School of Medicine, 510 S. Kingshighway, St. Louis, Mis-souri 63110. Medicine, 5 souri 63110.

## SOIL SCIENTIST

Soil SCIENTIST Scnior Staff Position available at Argonne Na-tional Laboratory for established Soil Chemist or Soil Biologist with broad background in ter-restrial ecology. Responsibilities of the position will be: (i) To develop a strong research pro-gram on some aspect of the impact, or use, of energy production on natural and/or agricultural ccosystems, (ii) To provide overall leadership for the terrestrial ecology program at Argonne. For additional information, send résumé to Mr. Ron-ald A. Johns, Personnel Division, Argonne Na-tional Laboratory, 9700 South Cass Avenue, Ar-gonne, Illinois 60439. An Equal Opportunity Em-ployer, M/F.

#### VACCINE SPECIALIST-FOOT-AND-MOUTH DISEASE

Veterinarian, minimum of 3 years experience in research and/or production, development, and qual-ity control of foot-and-mouth disease vaccines, including inoculation of cattle and swine in the laboratory and in field trials. Knowledge of pa-thology essential so as to conduct necropsy and examine reactions at sites of inoculation with experimental products. FMD vaccine production experience required. U.S. citizens will be con-sidered without regard to race, color, religion, sex, age, or national origin. U.S. Department of Agriculture, Agricultural Research Service, Plum Island Animal Disease Center, P.O. Box 848, Greenport, New York 11944, Attention: W. E. Burgess, Personnel Officer.

FELLOWSHIPS

NEUROSCIENCE POSTDOCTORAL FELLOW-SHIPS for U.S. citizens or resident aliens; lipid neurochemistry (with N. Radin or A. Hajra), neuronal RNA and protein processing (with O. Z. Sellinger), gonadal hormones and social behavior (with R. Davis). An unusual opportunity for in-terdisciplinary training, Write relevant research director at Mental Health Research Institute, University of Michigan, Ann Arbor, Michigan 48104.

## POSTDOCTORAL FELLOWSHIP

To study estuarine geochemistry at the Graduate School of Oceanography, University of Rhode Island, Kingston, R.I. Position is for 1 to 2 years, Experience in geochemistry and analytical chemistry is desirable. Send résumé to Dr. Mi-chael Bender, Graduate School of Oceanography, University of Rhode Island, Kingston, R.I. 02881, An Equal Opportunity/Affirmative Action Em-ployer. Minorities and women are encouraged to apply. apply.

POSTDOCTORAL FELLOWSHIP available im-mediately in NEUROCHEMISTRY. Candidate should be trained in biochemistry or biochemical psychopharmacology. Appointment for 1 or 2 years. Send curriculum vitae specifying Depart-ment of Psychiatry position to: Miss M. Kerans, Personnel Department, New York University Medical Center, 587 First Ave., New York, N.Y. 10016. An Equal Opportunity Employer M/F.

## SUMMER PROGRAM

#### SUMMER

#### ENVIRONMENTAL EDUCATION CAMP

Exploration of human and natural environments of the Sierra and Great Basin: ecology, Western history, art, life crafts, gardening, cooking, music, dance, riding, swimming, environmental sensitivity. Multiracial learning open to 40 boys and girls, 10 to 15 years old. 5-week session: 16 June to 19 July. Dr. Richard G. Miller, 6205 Franktown Road, Carson City, Nevada 89701. Telephone: 702-882-6361. Washoe Pines Ranch.

## SUMMER COURSES

Marine Science, Duke University Marine Labor-atory SUMMER COURSES: Undergraduate: 12 May-Introduction to Biological Oceanography. Graduate/Advanced Undergraduate: 16 June-Ecology, Comparative and Evolutionary Biochem-istry, Phytoplankton Systematics, Physiological Ecology of Marine Animals, Chemical Oceanog-raphy, Geological Oceanography. 21 July-Com-parative Behavior, Membrane Physiology and Osmoregulation, Marine Invertebrate Zoology, Biological Oceanography, Chemical Pollution of Coastal Waters, Marine Microbiology, Marine Phycology, Write: Director, Duke University Marine Laboratory, Beaufort, North Carolina 28516. 28516.

## RESEARCH PROPOSALS

**RESEARCH PROPOSALS** are invited by a large corporation.

**AREA OF RESEARCH:** Canine taste/odor perception.

**METHOD:** 

Psychophysical, physiological or biochemical, and so forth

## OBJECTIVE:

Increase basic understanding of dogs' response to taste/odor stimuli For further information, write Box 68, SCIENCE.

PROGRAM

## Ph.D. PROGRAM IN **NEUROPSYCHOPHARMACOLOGY** The Department of Psychiatry and Behavioral Sciences, School of Medicine, University of Louisville, Louisville, Kentucky

University of Louisville, Louisville, Kentucky Beginning 1 July 1975 will offer a combined pro-gram leading to completion of the requirements for certification by the American Board of Psy-chiatry and Neurology and a Ph.D. degree in Clinical Neuropsychopharmacology. Candidates must hold the M.D. degree and have preferably completed an internship, although this is not obli-gatory. Laboratories will be used in the Depart-ments of Pharmacology, Psychology, and Psy-chiatry. Clinical facilities are available at the Louisville General Hospital, the Louisville VA Hospital, the Norton-Children's Infirmary, the Jefferson Alcoholism and Drug Abuse Center for Treatment and Research, and the River Region Hospital (formerly the Central State Hospital). Didactic courses will be offered in both the School Meplications are invited from interested candi-

of Medicine and the Graduate School. Applications are invited from interested candi-dates and should be addressed to John J. Schwab, M.D., Professor and Chairman, Department of Psychiatry and Behavioral Sciences, School of Medicine, University of Louisville, Health Sci-ences Center, Louisville, Kentucky 40201.

#### **DOCTORAL PROGRAM IN** ENVIRONMENTAL SCIENCE-PHYSICS TEACHING ASSISTANTSHIPS AVAILABLE

This multidisciplinary program is designed to provide an opportunity for students interested in an academic graduate physics program to partici-pate in environment-related research. Formal course work emphasizes sound training in physics coupled with seminar and course work designed to familiarize students with problems of the en-vironment. We encourage applications from wom-en and members of minority groups.

Appointments effective: Fall 1975.

Contact Dr. Mark Gurevitch, Chairman, De-partment of Physics, Portland State University, P.O. Box 751, Portland, Oregon 97207.

## GRADUATE STUDY

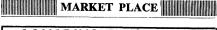
#### GRADUATE STUDY IN ANATOMY UNIVERSITY OF ILLINOIS

Applicants are invited for enrollment in the gradu-ate program in anatomy, leading to the Ph.D. degree and a career in teaching and research. Modern programs in electron microscopy, cell biology, neuroanatomy-neurophysiology, and func-tional morphology are offered. Teaching assistant-ships are available, with a stipend plus tuition costs. For application forms and further informa-tion write to Dr. L. A. Benevento, Chairman, Graduate Studies Committee, Department of Anatomy, University of Illinois at the Medical Center, Box 6998, Chicago, Ill. 60680. The Univer-sity of Illinois is an Equal Opportunity Employer.

## REQUEST FOR INFORMATION

#### A REQUEST FOR INFORMATION

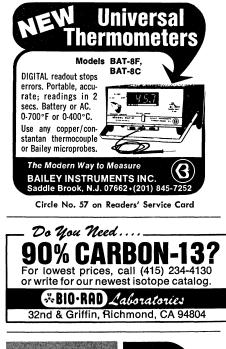
A REQUEST FOR INFORMATION The Russell Sage Foundation is funding a study of events and problems concerning the confi-dentiality of social science research sources and data. The study is sponsored by the American Anthropological Association, the American Eco-nomic Association, the American Historical As-sociation, the American Political Science Associa-tion, the American Psychological Association, the American Sociological Association, the Associa-tion of American Law Schools. Individuals and organizations are invited to send to the director of the study a statement of (i) any events or (ii) any problems they have encountered that have involved questions concerning the confi-dentiality of social science research sources and data. Information provided in response to this request will be treated as confidential. Send statements to the principal investigator: James D. Carroll, Director, Department of Public Administration, 200 Maxwell Hall, Syracuse Uni-versity, Syracuse, New York 13210. Telephone: 315-423-2687.





Can you sell a full line of patented passive and active Vibration Isolation Equipment? Sales Organizations having engineering know-how and presently calling on Scientific and Industrial Fa-cilities are desired. Our Isolation Systems are made for R & D and on-line production. Please write:

Instruments P.O. Box 353 Westbury, N.Y. 11590





Circle No. 523 on Readers' Service Card

# First at the top.

On April 6, 1909, Robert Edwin Peary and his assistant Matthew Henson reached the top of the world after crossing more than 400 miles of drifting and broken ice. Against seemingly insurmountable obstacles they were finally successful in reaching the North Pole.

Almost 30 years later Revco began manufacturing freezers. Since then Revco has grown until today they, too, are "first at the top". Advanced concepts in design and engineering have made Revco the world's largest manufacturer of ULTra-Low® temperature equipment—now LISTED BY UNDERWRITERS' LABORATORIES, INC. This, plus a world-wide renown for dependability and economy, is your guarantee of the finest that modern technology can produce. When you specify Revco, you've bought the best.

For more information on Revco uprights, chest freezers and nation-wide service centers, write for our latest catalog or contact: Curtin-Matheson, Fisher Scientific, Scientific Products, VWR. In Canada: Allied Scientific, Can Lab, Fisher Scientific.

**KEVUU**, **INC.** The world's leader in ULTra-Low<sup>®</sup> temperature freezers. 100 Memorial Drive, West Columbia, S.C. 29169 Telephone: 803/796-1700 TWX: 810-666-2103 Cable: Revco

Circle No. 476 on Readers' Service Card

# **SAVE up to 60% on Radiochemicals...** and get a FREE Micro BIOPETTE Pipetting System.

Select \$300.00 worth, or more, of the radiochemicals listed (they're all specially priced for this offer—up to 60% discounts). We will then give you one of our Micro BIOPETTE Pipettors and a case of BIOTIP Disposable Glass Pipette Tips (1000 ea.) A \$98.95 value!

Quite an offer. Particularly when you consider that this is no ordinary pipettor. It's both accurate and



To order: Write to Free BIOPETTE Offer, Schwarz/Mann, Division of Becton, Dickinson and Company 🗐 at either Mountainview Avenue, Orangeburg, New York 10962 or P.O. Box 1126, Rockville, Maryland 20850...or call collect (914) 359-2700 (Orangeburg, N.Y.)-(301) 762-0882 (Rockville, Md.).

## Offer expires March 15, 1975

B-D Laboratory Divisions reproducible. Which means that you set the lambda gauge, then deliver exactly the same amount of liquid every time. (Until you re-set the gauge). You can have your choice of either Micro BIOPETTE. Our 100-lambda size Catalog #0010-39 (which pipettes 50, 70 and 100 lambdas), or our 30lambda size Catalog #0010-49 (which pipettes 10, 15, 25 and 30 lambdas).

	Pyrimidine	25			
CATALOG # COMPOUND		SPEC. ACT. MC/MM	PRICE		
253386	Thymidine [methyl <sup>3</sup> H] (St. Ag. Sol.)	6,000	\$70./5 mCi 300./25 mCi		
253388	Thymidine (methyl <sup>3</sup> H)	40,000-60,000	70./5 mCi 300./25 mCi		
<sup>3</sup> H-Triphosphates					
143309	Adenosine 5' Triphosphate [8- <sup>3</sup> H]	12,000-25,000	\$40./1 mCi 165./5 mCi		
143339	Cytidine 5' Triphosphate [5- <sup>3</sup> H]	5,000-15,000	40./1 mCi 165./5 mCi		
143360	Guanosine 5' Triphosphate [8- <sup>3</sup> H]	5,000-15,000	40./1 mCi 165./5 mCi		
143390	Uridine 5' Triphosphate [5- <sup>3</sup> H]	10.000-25,000	40./1 mCi 165./5 mCi		
243307	Deoxyadenosine 5 <sup>+</sup> Triphosphate [8- <sup>3</sup> H]	5,000-15,000	40./1 mCi 165./5 mCi		
243334	Deoxycytidine 5' Triphosphate [5- <sup>3</sup> H]	15,000-30,000	40./1 mCi 165./5 mCi		
243356	Deoxyguanosine 5' Triphosphate [8- <sup>3</sup> H]	5,000-15,000	40./1 mCi 165./5 mCi		
243392	Thymidine 5' Triphosphate [methyl- <sup>8</sup> H]	5,000-15,000	40./1 mCi 165./5 mCi		
243395	Thymidine 5' Triphosphate [methyl- <sup>3</sup> H]	>40,000	40./1 mCi 165./5 mCi		
14C Amino Acids					
312231	Glycine <sup>14</sup> C (U)	95-100	\$60./500 uCi 110./1 mCi		
312241	L-Leucine 14C (U)	270-320	170./500 uC 320./1 mCi		
312245	L-Lysine <sup>14</sup> C (U)	270-300	170./500 uC 320./1 mCi		
312249	L-Phenylalanine <sup>14</sup> C (U)	405-495	170./500 uC 320./1 mCi		
312251	L-Proline <sup>14</sup> C (U)	225-265	170./500 uC 320./1 mCi		
312259	L-Tyrosine <sup>14</sup> C (U)	405-495	170./500 uC 320./1 mCi		
312261	L-Valine <sup>14</sup> C (U)	225-265	140./500 uC 300./1 mCi		

Schwarz/Mann Science for Mankind.

Division of Becton, Dickinson and Company (E) Mountain View Ave., Orangeburg, N.Y. 10962 (914) 359-2700. (9), Schwarz/ Mann, BIOPETTE, BIOTIP and B-D are trademarks of

Becton, Dickinson and Company Circle No. 450 on Readers' Service Card