

The only 1 gallon Blendor in the world is a Waring Blendor. The only Blendor designed especially for laboratory use is a Waring Blendor. For more information on the world's only Waring Laboratory Blendor write: Waring Products Division, Dynamics Corporation Of America, Route 44, New Hartford, Conn. 06057.

### waring (19)

Circle No. 402 on Readers' Service Card

### POPULATION: Dynamics Ethics

and Policy

The ethical issues of choice . . . the interrelationships of population size and economic development . . . the consequences of population growth . . . such are the issues debated in *Population: Dynamics, Ethics, and Policy,* a new compendium now available from AAAS. It contains a selection of articles, research reports, and policy debates that originally appeared in *Science* during a 10-year time span beginning in 1966. Together these papers provide a close look at population research as conducted and reported by American scientists, as well as a glimpse at the continuing debate between those who advocate the dissemination of contraceptives and those who advocate more drastic methods of population control.

If you are involved in population research or policy planning, be sure to have a copy of this compendium in your library. Retail price \$12.95 casebound, \$4.95 paperbound; AAAS member price \$11.95 casebound, \$4.45 paperbound.

Send orders to Dept. PC-3

AMERICAN ASSOCIATION for the ADVANCEMENT of SCIENCE

1515 Massachusetts Avenue, N.W. Washington, D. C. 20005

### Personnel Placement

Only those employers who will not discriminate on the basis of race, sex, religion, age, 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 quarter 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, 3-1/2 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, 1/6 page and larger, to:

Scherago Associates, Inc. 11 West 42nd 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

Effective I January 1976, the display rate (Positions Open, Market Place, Fellowships, and so forth) will be \$130 per inch, minimum, per insertion.

### **POSITIONS WANTED**

Agronomist/Botanist (physiology). Crop production, herbicide, and transpiration specialties. University-applied research experience. Ph.D. 1970. Box 496, SCI-ENCE.

Analytical Chemist: B.S. 1967. Seeking R & D position doing materials analysis and characterization. No agencies please. Box 487, SCIENCE. 12/26

**Aquatic Microbiologist**, Ph.D., specializing in freshwater bacteriology and microbial ecology. Desires position in research or teaching. Box 504, SCIENCE. X

Cell Biologist. M.S., M.A., experienced in cell culture, membranes, lipids, and general protein chemistry. Publications. Desires position in research/teaching. Box 505, SCIENCE.

Geneticist/Developmental Biologist, Ph.D., desires teaching/research position. Currently chairman of biology, small liberal arts college. Experience: department administration, curriculum planning. Teaching: general biology, genetics, development, biochemistry. Research: genetic control of protein synthesis in *Drosophila*. Publications. Box 506, SCIENCE.

Physiologist/Biomedical Engineer, Ph.D. (physics) 1966. Three years of postdoctoral, 7 years of medical school research and teaching. Research publications in electrophysiology, computer simulation, and instrumentation. Seeks research and teaching position. Box 508, SCIENCE.

#### **POSITIONS WANTED**

Physicist, Ph.D. (1973), desires immediate intern-type position in science writing/editing/reporting. Box 507, SCIENCE.

Serologist. M.D., D.Sc. Desires research position in United States/Canada. Fifteen years of experience in immunohematology, genetics, cytogenetics, blood groups, serum groups, H2 and HL-A system immunology, immunoelectrophoresis, radioimmunoassay, raising antisera, and so forth. Box 509, SCIENCE. X

### **POSITIONS OPEN**

WANTED—TWO ASSISTANTS whose training has been in microbiology and/or immunology. A B.S. or M.S. degree is desired. Work will consist of helping in and developing studies on radioactive tracers, viral and bacterial cultivation, purification and concentration of biologicals, and animal responses to various biologicals. This is primarily R & D work in a medical research foundation in Florida. If interested, indicate salary wanted. Box 503, SCIENCE.

ANIMAL PHYSIOLOGY/ASSISTANT PROFESSOR: Teach, coordinate beginning sequence in physiology for nonmajors, participate in undergraduate biology sequences, develop graduate course in specialty. Research in biomedical and/or environmental health physiology. Ph.D. required. Address inquiries to: Dr. K. L. Ewing, Box 3, Department of Biological Sciences, Kent State University, Kent, Ohio 44242. Equal Opportunity/Affirmative Action Employer.

University of New Brunswick, Department of Biology. It is expected that a position will become available at the ASSISTANT/ASSOCIATE PROFESSOR level starting 1 July 1976. Qualifications: candidates should have a Ph.D. in microbiology with some teaching and research experience. Salary: in the assistant/associate professor range, commensurate with experience. Responsibilities: microbiology. (i) To teach a two-term course with laboratory work, mainly to science students, in general microbiology and (ii) to teach a one-term course, at present without laboratory work, to more advanced students in microbial physiology. The successful candidate would be expected to develop a viable research program in his/her own area of specialization. Applications including curriculum vitae and names of three referees should be sent by 31 January 1976 to: Dr. M. D. B. Burt, Chairman, Department of Biology, University of New Brunswick, Fredericton, New Brunswick, Canada, F3B 5A3.

#### ASSISTANT PROFESSOR DEVELOPMENTAL BIOLOGY

Beginning August 1976, \$13,500 for 9 months, augmented by summer teaching, if desired. Applicant must have strong academic background in vertebrate morphogenesis. Responsibilities include an undergraduate vertebrate embryology course with emphasis on ontogeny of organ systems, a graduate-level course in field of competence, a productive research program, and direction of graduate students. Research may be at any level, molecular to whole animal, and in any relevant field from biochemistry to morphology. Qualified persons should submit a curriculum vitae, transcripts, names of three recommenders, reprints, and a statement of teaching and research interests to: Embryology Search Committee, Department of Zoology and Physiology, Louisiana State University, Baton Rouge, La. 70803. Closing date is February 1976.

### DEPARTMENT OF NUTRITION UNIVERSITY OF GUELPH COLLEGE OF BIOLOGICAL SCIENCE

Applications are invited for the position of assistant professor or associate professor. Applicants should have a background in experimental nutrition with strong training in biochemistry and physiology. Candidates with postdoctoral experience will receive preference. The position requires participation in undergraduate and graduate teaching as well as research. Salary is commensurate with qualifications and experience. Effective date of appointment: September 1976. Applications, including curriculum vitae and the names of three referees, should be addressed to: H. H. Draper, Chairman, Department of Nutrition, University of Guelph, Guelph, Ontario, Canada, N1G 2W1.

The University of California, Irvine, California College of Medicine, Department of Physiology, is recruiting for an ASSISTANT PROFESSOR.

Candidates should have demonstrated ability to conduct independent research in neurophysiology. Duties of job include the teaching of neurophysiology to medical students. Applications from qualified candidates are welcome; minorities and women are encouraged to apply. Send names of four references and curriculum vitae to: Dr. Peter F. Hall, Professor and Chair, Department of Physiology, University of California, Irvine, California 92717, by 15 February 1976.

#### UNIVERSITY OF FLORIDA

The Department of Zoology invites applications for several anticipated openings at the ASSISTANT PROseveral anticipated openings at the ASSISTANT PRO-FESSOR level, starting September 1976: (i) marine in-vertebrate ecologist; (ii) general vertebrate ecologist (preferably with tropical and/or amphibian interest); (iii) animal behaviorist (preferably with marine in-vertebrate interest); (iv) comparative invertebrate physi-ologist (preferably with marine interest). All appointees will be expected to lecture in large introductory zoolo-ary courses. Candidates must have a commitment. gy courses. Candidates must have a commitment to quality undergraduate and graduate teaching, and a demonstrated ability to pursue vigorous research programs. Closing date for applications is 15 January. Send letter outlining qualifications and brief statement of research plans, curriculum vitae, transcripts, and three letters of reference to: Chairman, Search Committee, Department of Zoology, University of Florida, Gainesville, Florida 32611. An Equal Opportunity/Affirmative Action Employer.

If outstanding candidates can be located, the Physics Department of the University of California, Berkeley, expects during the next few years to be making a small number of appointments at the ASSISTANT PROFESSOR level. The preferred fields are solid state experimental physics, experimental astrophysics, and particle physics. particle physics.

It is probable that no appointment will be made before I July 1977, although an earlier date is conceivable. Applicants should write to the Chairman of the Physics Department, University of California, Berkeley, Calif. 94720, giving curriculum vitae, publication list, and references. The University of California is an Affirmative Action Employer. Minority and women candidates are accordanced to early didates are encouraged to apply.

The University of California, Irvine, Department of Pathology is recruiting for a faculty position at the ASSOCIATE PROFESSOR OR PROFESSOR level who will also serve as CHIEF OF CLINICAL PATHOLOGY of the Long Beach Veterans Administration, a university teaching hospital. Candidates must be M.D.'s and clinical Board-certified. Service administrative responsibilities include direction and operation of Clinical Laboratory. Teaching responsibilities inof Clinical Laboratory. Teaching responsibilities involve medical students, residents, and paramedical training programs. Expected to develop independent research activities. Experience in operation of clinical laboratory is necessary prerequisite. Applications from all qualified candidates are welcome: minorities and women are encouraged to apply. Send curriculum vitae before 1976 to:

Dr. Edward R. Arquilla, Chairman Department of Pathology University of California, Irvine Irvine, California 92717

ASSISTANT RESEARCH BIOCHEMIST/CHEMIST. A position is available at UCLA Mental Retardation Research Center for an assistant research biochemist expected to supervise and coordinate work of mass spectrometry group of four. Work aims at development of techniques for analysis of body constituents with the aid of computer-assisted gas chromatograph/mass spectrometer. Experience in organic mass spectrometry, at low and high resolution, ability to interpret mass spectra and to supervise professional staff essential. Candidate expected also to undertake independent research on specific protein structures (galactose-phosphate uridyltransferase) in relation to enzyme\_deficiency diseases. Relevant experience essentose-phosphate uridyltransferase) in relation to enzyme deficiency diseases. Relevant experience essential. Ph.D. or equivalent qualification. UCLA is an Equal Opportunity/Affirmative Action Employer desirous of receiving applications and recommendations of minority and women candidates, as well as other qualified persons. Write: G. Popják, M.D., D.Sc., University of California Mental Retardation Research Center, 760 Westwood Plaza, Los Angeles, California 90024.

### **POSITIONS OPEN**

## UNIVERSITY OF CINCINNATI MEDICAL CENTER ASSOCIATE DEAN FOR

### BASIC SCIENCES AND RESEARCH

The University of Cincinnati's College of Medicine is seeking applicants to represent the basic medical sciences in the Dean's Office and to provide liaison between the Dean and basic science departments. Will be tween the Dean and basic science departments. Will be responsible for graduate education, research administration, research activity and funding. Applicants should have at least 10 years of postdoctoral academic experience in a basic biomedical science and demonstrated research productiveness and competence. Inquiries should be addressed to: Daniel L. Kline, Chairman, Search Committee, Department of Physiology, College of Medicine, University of Cincinnati, Cincinnati Ohio 45267 nati, Öhio 45267.

We are an Equal Opportunity Employer

### ASSOCIATE DEPUTY ASSISTANT ADMINISTRATOR FOR HEALTH AND ECOLOGICAL EFFECTS

The U.S. Environmental Protection Agency is seek-The U.S. Environmental Protection Agency is seek-ing a manager with a strong background in ecology to assist in the planning, management, and evaluation of a large multidisciplinary research and development of-fice made up of staff offices and field laboratories. The mission of the office is to develop health and ecological data needed for the establishment of standards and cri-teria for those components of the environment in which precific publicants or activities may require control the teria for those components of the environment in which specific pollutants or activities may require control; determine the fate, transport, and exposure effect of environmental pollutants; develop and verify methods and models for analyzing the socioeconomic impact of environmental degradation; assess the environmental and socioeconomic impacts of existing and proposed policies and standards; and coordinate Agency policies and programs related to carcinogens and similar agents. Candidates must have a bachelor's or higher degree (preferably Ph.D.) with a major study in ecological, biological, or physical sciences and extensive experience relating to the mission of the office.

Location: Washington, D.C.
Salary range: \$36,338 to \$37,800 plus Civil Service benefits.

Contact: Please send a detailed résumé or a com-pleted Standard Form 171 (Personal Qualifications Statement), which can be obtained from any federal government personnel office, to reach EPA no later than 31 December 1975, to:

Mrs. Brenda Cunningham (PM-212) Personnel Management Division Environmental Protection Agency 401 M Street, SW Washington, D.C. 20460

An Equal Opportunity Employer

### BIOCHEMIST

Immediate opening for recent Ph.D. in biochemistry with training in enzymology, protein isolation, and amino acids. Work involves basic research in the field of enzymes of amino acid biosynthesis. Salary \$11,000. Send curriculum vitae and references to: Dr Sarah Ratner, Department of Biochemistry, Public Health Research Institute, 455 First Avenue, New York, N.Y. 10016.

An Equal Opportunity Employer

### BIOPHARMACEUTICS-PHARMACOKINETICS

The Department of Pharmaceutics, College of Pharmacy, University of Houston, invites applications for a full-time faculty position as assistant professor of pharmaccuties. The position requires training in the bio-pharmaceuties-pharmacokinetics area. The duties would include participation in the department's under-graduate and graduate courses as well as initiation of a vigorous research program, with particular emphasis

on clinical investigations.

Send inquiries and résumés to: Dr. Stuart Feldman, Department of Pharmaceutics, College of Pharmacy, University of Houston, Houston, Texas 77004. The University of Houston is an Equal Opportunity/Affirmative Action Employer.

CELL BIOLOGY/HISTOLOGY. The Department of Anatomy at Boston University Medical School is seeking applicants for the position of either an assistant or associate professor. The position is open in 1976. Candidates will be required to teach cell biology and histology. They should have an active and ongoing research program, and preferably have had at least 3 years of postdoctoral experience. Interested candidates should forward a curriculum vitae to Dr. Alan Peters, Department of Anatomy, Boston University School of Medicine, 80 East Concord Street, Boston, Massachusetts 02118. An Equal Opportunity Employer. 02118. An Equal Opportunity Employer.

### **POSITIONS OPEN**

#### BIOLOGY DEPARTMENT AT UCLA

Opening for a faculty member with research inter-Opening for a faculty member with research interests in molecular, cellular, or biochemical aspects of plant development. Teaching duties at the undergraduate and graduate levels in related areas. Applicants should have postdoctoral research experience. Provide a curriculum vitae noting research and teaching interests and include names of three referees from whom references can be requested. Send materials to: Chairman, Biology Department, University of California, Los Angeles, California 90024. Deadline: 1 February 1976.

An Equal Opportunity Employer. Applications from women and members of minority groups are encouraged.

#### BIOLOGISTS

Three research teaching positions are available at the level of ASSISTANT PROFESSOR beginning fall 1976 in the fields of:

### Molecular or Microbial Biology Plant Development/Physiology Animal Behavior

Excellent research facilities are available, and the Excellent research facilities are available, and the teaching program includes both graduate and undergraduate courses. Curriculum vitae and names of at least three references should be sent to Dr. M. W. Strickberger, Search Committee, Biology Department, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, Missouri 63121. Telephone: 314-453-5811.

An Equal Opportunity/Affirmative Action Employer

### BIOMECHANICS POSTDOCTORAL POSITION

The Orthopaedic Biomechanics Laboratory at the University of Cincinnati has an immediate opening for a recent Ph.D. with strong interest and experience in the musculoskeletal system. The successful candidate will participate in a number of research projects includor research projects including mechanical studies of soft tissue and the development of new diagnostic devices to evaluate ligamentous injuries. Tenure is for 2 years with a stipend from \$10,000 to \$14,000 depending upon background. Interested candidates should send résumé and two letters of recommendation to Dr. Edward S. Grood, Co-Director, Orthopaedic Biomechanics Laboratory, Col-lege of Medicine, University of Cincinnati, Cincinnati, Ohio 45267. An Equal Opportunity/Affirmative Ac-tion Employer.

### CELLULAR IMMUNOLOGY MOLECULAR VIROLOGY

The cancer research program of the Department of Pathology, University of Kentucky Medical Center, is expanding its research faculty to include two positions at assistant or associate professor levels in the areas of assistant of associate professor levels in the areas of cellular immunology and molecular virology. Ph.D.'s and/or M.D.'s with research experience in cancer immunology or virology are invited to submit their résumés with three references to: Dr. D. M. Goldenberg, Department of Pathology, MDRF #3, University of Kentucky, Lexington, Ky. 40506. An Equal Opportunity Employer.

CHAIRPERSON, DEPARTMENT OF RADIOL-OGY. Applications are sought for the position of Chairperson, Department of Radiology, University of Southern California School of Medicine, and Radiolo-gist-in-Chief, Los Angeles County/USC Medical Cen-ter. Requirements include Board certification, previous ter. Requirements include Board certification, previous academic experience, and demonstrated capabilities as an educator, investigator, and clinical radiologist. Interested individuals should send updated curriculum vitae to Franz K. Bauer, M.D., Chairman, Radiology Search Committee, University of Southern California—Rancho Los Amigos Campus, 7601 East Imperial Highway, Downey, California 90242.

CHAIRPERSON POSITION, Mechanical Engineering Department at the University of New Mexico, will become vacant 1 July 1976. The department has 12 full-time faculty, 270 undergraduate and 30 graduate majors. Areas of specialization include applied mechanics, heat transfer, and energy programs. The applicant must have an earned doctorate servicines in discontinuous descriptions. cnanics, heat transfer, and energy programs. The applicant must have an earned doctorate, experience in directing doctoral dissertations, ability and interest in scholarly teaching and research, and administrative capabilities. Salary and rank will be commensurate with qualifications and experience. Send credentials to Chairman of Search Committee, Mechanical Engineering Department, University of New Mexico, Albuquerque, New Mexico 87131. An Equal Opportunity Employer.

### CHAIRMAN DEPARTMENT OF BIOCHEMISTRY MEDICAL COLLEGE OF VIRGINIA

The Department of Biochemistry in the School of Basic Sciences at the Medical College of Virginia branch of the Virginia Commonwealth University invites applications for the position of Chairman. The department has 15 faculty, 18 graduate students, and a teaching commitment to professional and graduate programs. Candidates should have an outstanding record of scientific accomplishment, substantial experience at pre- and postdoctoral training, and experience or interest in teaching professional students. Interested applicants should send a curriculum vitae and list of publications to: F. N. Briggs, Chairman, Department of Physiology, Medical College of Virginia, Virginia Commonwealth University, Box 608, Richmond, Va. 23298.

An Equal Opportunity/Affirmative Action Employer

### CHAIRPERSON, DEPARTMENT OF BIOCHEMISTRY

The West Virginia University Medical Center invites nominations and applications for the position of chairperson, Department of Biochemistry at the West Virginia University Medical Center. Applicants and nominees should have a Ph.D. and/or M.D. degree and must have experience and a strong commitment to teaching of graduate, medical, dental, and allied health students and to basic medical research. They must be willing to provide strong leadership in teaching and research. The position is available 1 July 1976. All applications received before 15 January will be considered. Nominations and applications should be sent to Dr. Irvin S. Snyder, Chairman, Search Committee, Department of Microbiology, West Virginia University Medical Center, Morgantown, West Virginia 26506. West Virginia University is an Affirmative Action/Equal Opportunity Employer.

#### DEAN

Clemson University, a state-supported land grant institution, is seeking candidates for Dean, College of Forest and Recreation Resources. Qualifications include a distinguished record of professional productivity and administrative experience. College activities include undergraduate and graduate teaching, research, extension, and public service in the fields of forest management, wood utilization, and recreation and park administration. Applicant should have a doctorate in one of the above named or closely related fields. Application deadline is 15 March 1976. Position to be filled by 1 July 1976. Contact: Dr. T. E. Wooten, Chairman, Search Committee, Department of Forestry, Clemson University, Clemson, South Carolina 29631.

Clemson University is an Equal Opportunity Employer.

### THE UNIVERSITY OF UTAH

invites applications for the position of **DEAN** of the College of Science. Responsibilities are those of administrative and academic head of the College of Science which is comprised of the departments of Biology, Chemistry, Mathematics, and Physics. The position calls for an individual with a strong record of scientific achievement and administrative experience. Candidates should meet the qualifications for a tenured academic position at the rank of full professor. Salary is to be negotiated. Applications or nominations should be submitted before 15 February 1976, and should include curriculum vitae, bibliography, and references. These data should be sent to:

Joseph L. Taylor Chairman, Dean Search Committee Department of Mathematics University of Utah Salt Lake City, Utah 84112

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

#### DIRECTOR OF WATER RESEARCH LABORATORY AND WATER RESOURCES RESEARCH CENTER

Desire Ph.D. in water-related field with demonstrated administrative ability and experience. National or international recognition with publications necessary. Academic experience desirable. Knowledge of research funding sources required. Application deadline: 31 December 1975. Submit to Doran Baker, Chairman of Screening Committee, College of Engineering, Utah State University, Logan, Utah 84322. We are an Equal Opportunity/Affirmative Action Employer.

### **POSITIONS OPEN**

#### DIVISION HEAD IN MEDICINE

Full-time position as head of a newly created Division of General Internal Medicine in the Department of Medicine. This Division will supervise a post-doctoral fellowship program in internal medicine, contribute to development of a modified curriculum for medical students, and play a major role in developing teaching-service models in ambulatory care. The applicant should be experienced in a number of areas of internal medicine including teaching of medicine, clinical research techniques, and direct patient care. Salary and rank commensurate with preparation and experience. Department of Medicine, Cornell University Medical College, 1300 York Avenue, New York, New York 10021. An Equal Opportunity Employer.

ELECTRON MICROSCOPY TECHNICIAN, experienced in embedding and sectioning of animal and human tissues. To start immediately. Salary negotiable. References necessary. Contact F. E. Cuppage, M.D., University of Kansas Medical Center, Rainbow Boulevard at 39 Street, Kansas City, Kansas 66103.

EXTENSION ENTOMOLOGY SPECIALIST on mosquitoes and related insect pests of man and animals. Ph.D. with minimum of 5 years of experience in biology and control. Must coordinate University mosquito research projects with 60 mosquito-control agencies. Organizational skills needed in program development, analysis, and evaluation of research technology and operational budgets, in communications and staff training, plus the ability to conduct applied research and demonstrations related to agriculture.

Send inquiries to: Assistant Director, Personnel, Division of Agricultural Sciences, University of California, 2200 University Avenue, Berkeley, Calif. 94720. An Equal Opportunity/Affirmative Action Employer.

The Department of Genetics at the John A. Burns School of Medicine, University of Hawaii, has two tenurable FACULTY POSITIONS vacant. The first is for a medical geneticist who must be qualified to teach medical students both basic and clinical genetics and whose research interests are in the field of genetic defects in metabolism and who should preferably have the M.D. degree.

The second is for a population geneticist who must be qualified to teach population genetics at the graduate level and whose research interests are preferably in behavior genetics.

havior genetics.

Both candidates will be expected to participate in graduate training in the Human Genetics Training Program.

graduate training in the Human Genetics Training Program.

The second position has already been advertised at the assistant professor level (*Science*, 17 October) and the first position would be expected to be at the associate or full professor level. Deadline: 31 December 1975. Applications should be sent to: Dr. John A. Hunt, Department of Genetics, University of Hawaii, Biomedical Sciences Building A-110, 1960 East-West Road, Honolulu, Hawaii 96822. *An Equal Opportunity/Affirmative Action Employer*.

FACULTY POSITION IN ELECTRON MICROS-COPY. Applications are invited for a position of assistant or associate professor, starting August 1976. Preference will be given to candidates who have had teaching experience, postdoctoral training, and research accomplishments. Primary responsibilities associated with this position are the operation and maintenance of an electron microscope facility, as well as teaching duties. The candidate's research interests should be in the area of biophysics, molecular biology, entomology, or environmental biology, utilizing electron microscopy as the primary research technique. The applicant will also be expected to direct graduate students. Please send a curriculum vitae and the names of three references to: Dr. Aelita J. Pinter, Chairman, Search Committee, Department of Biological Sciences, University of New Orleans, New Orleans, Louisiana 70122. (A member of the Louisiana State University System.) Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION IN BIOLOGY available for Ph.D. to teach lower-division courses in zoology and botany and upper-division courses in ecology, physiology, embryology, or others as needed. Coeducational institution, growing, on 4-1-4 calendar, in city of population 100,000. Send curriculum vitae and recommendations, by 15 February 1976, to Chairman, Department of Biology, Mount Mercy College, Cedar Rapids, Iowa 52402.

#### POSITIONS OPEN

### UNIVERSITY OF BRITISH COLUMBIA DEPARTMENT OF BIOCHEMISTRY

Applications are invited from qualified persons for a faculty position at the level of assistant professor. Applicants must have a strong interest in both teaching and research. An appointment for fall 1976 is anticipated. Send curriculum vitae, résumé of research interests, and names of three referees to:

Chairman, Department of Biochemistry University of British Columbia Vancouver, V6T 1W5, Canada

Closing date for receipt of applications is 15 April 1976.

### FACULTY POSITION DIVISION OF PHYSICAL OCEANOGRAPHY

The University of Miami's Rosenstiel School of Marine and Atmospheric Science invites applications for a position at the assistant or associate professor level with research and graduate teaching responsibilities in analytical and modeling aspects of ocean dynamics. We are seeking a person who has a strong interest in interpretation and design of field experiments as they relate to fundamental dynamic problems and who can complement our graduate teaching effort in one or several of the areas of advanced wave dynamics, turbulent transfer processes, or coastal dynamics. Please direct inquiries to Dr. Walter Düing, Chairman, Search Committee, Division of Physical Oceanography, Rosenstiel School of Marine and Atmospheric Science, Miami, Florida 33149.

An Equal Opportunity Employer

#### **FACULTY POSITIONS** in

Cardiology Endocrinology General Medicine Hematology Immunology Infectious Diseases Oncology Pulmonary Diseases

Apply to Chairman, Department of Medicine, University of North Carolina School of Medicine at Chapel Hill, Chapel Hill, N.C. 27514. The University of North Carolina is an Equal Opportunity/Affirmative Action Employee.

### FACULTY POSITIONS

The Oklahoma College of Osteopathic Medicine and Surgery, an expanding College under the Oklahoma Regents for Higher Education, is seeking qualified applicants to teach medical students in an integrated orgen-system-oriented curriculum. Strong preference will be given to individuals having prior faculty teaching experience. A Ph.D. is required and postdoctoral training is highly desirable. Faculty positions in clinical microbiology/immunology, clinical biochemistry, pharmacology, physiology, gross anatomy, neuroanatomy, pathology, and psychology will be available immediately and through July 1977. Professional rank and salary negotiable. Applicants should send a curriculum vitae, list of publications, and the names of three references to:

Dr. William G. Robertson Medical Biology Division Chairman Oklahoma College of Osteopathic Medicine and Surgery Ninth and Cincinnati Tulsa, Oklahoma 74119

An Equal Opportunity/Affirmative Action Employer

University of Wisconsin-Madison. FACULTY POSITION in theoretical physical chemistry in the Department of Chemistry and the Theoretical Chemistry Institute. Primary requirement is excellence in research and teaching. Research may be in the development of new a priori techniques in any field of theoretical chemistry complementary to the interests of present staff members. Teaching responsibilities are expected to include general chemistry as well as undergraduate- and graduate-level physical chemistry. Appointment at the assistant professorship level is envisioned but consideration will be given to exceptionally qualified applicants at higher levels. The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer and welcomes applications from women and minority candidates. Send résumé including description of research interests and three letters of reference to Professor J. O. Hirschfelder, Theoretical Chemistry Institute, University of Wisconsin, 1101 University Avenue, Madison, Wisconsin 53706.

FACULTY POSITION—BIOCHEMISTRY: The Department of Biochemistry has openings at the assistant or associate professor levels. Preferred fields are mitochondrial biochemistry, enzyme kinetics and regulation, neurochemistry, and nutrition. Candidates must have the Ph.D. or M.D. plus two or more years of post-doctoral experience. Salary and rank are contingent on qualifications and experience. Send curriculum vitae plus names of three references to: F. J. Behal, Chairman, Department of Biochemistry, Texas Tech University School of Medicine, P.O. Box 4569, Lubbock, Texas 79409. An Equal Opportunity Employer. FACULTY POSITION-BIOCHEMISTRY:

The Peoria School of Medicine, one of three clinical schools within the University of Illinois College of Medicine, is seeking a HEAD OR CHAIRPERSON for the Department of Family Practice. This position requires a physician who must be graduated from an approved medical school, must be licensed or eligible for licensure in the state of Illinois and preferably Board-certified in family practice. Applicants should possess administrative experience, knowledge of funding educational and research programs teaching experience. ing educational and research programs, teaching experience, and interpersonal skills. This position available at present, starting date to coincide with selection and approval of the candidate by the Dean of the Peoria School of Medicine. Salary open. The University of Illinois is an Affirmative Action/Equal Opportunity Employer and encourages applications from members of minority groups and women. Interested persons should send curriculum vitae to H. Hugh Rohrer, M.D., Should send curriculant viae to H. Hugh Rohler, M.D., Chairman, Search Committee for Head/Chairperson for the Department of Family Practice, Peoria School of Medicine, Room S-143, 1400 West Main Street, Peoria, Illinois 61606. Telephone: 309-674-8477, Ext. 217. Applications accepted until 31 March 1976.

### HEAD, DEPARTMENT OF ENTOMOLOGY OREGON STATE UNIVERSITY

The Department of Entomology, Oregon State University, invites applications for the position of department head. Position open I March 1976; completed applications should be received by 6 February 1976. For further information about the Department and the position requirements, write: John D. Lattin, Chairman of Naminations. Compiles. Possition of Entomology. Nominations Committee, Department of Entomology, Oregon State University, Corvallis, Oregon 97331.

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

### **IMMUNOLOGIST**

Hazleton Laboratories America, Inc., a leading contract research company specializing in the life sciences, is seeking a Ph.D. immunologist with three or more years of postdoctoral experience to participate in a program on cellular immune mechanisms. Direct experience in development and evaluation of immune mechanisms required. Experience in studies with tumor antigens helpful.

Opportunity exists to collaborate with excellent technical staff in modern research facilities located in a pleasant northern Virginia location. We offer competitive salaries, complete benefit program, relocation, and opportunity for continued professional growth.

Please send résumé, including salary history, in complete confidence to Michael J. Mackert, Personnel Manager, Hazleton Laboratories America, Inc., 9200 Leesburg Turnpike, Vienna, Virginia 22180. Equal Opportunity Employer, M/F.

### INVERTEBRATE NEUROPHYSIOLOGIST

The Department of Zoology, Arizona State University, invites applications for the position of assistant professor of zoology to begin 15 August 1976. Salary is negotiable. Candidates must hold a Ph.D. and be broadly trained in comparative invertebrate neurophysiology. Teaching responsibilities, other than in physiology, will depend on the candidate's interests. Send curriculum vitae, transcripts, a statement of research and teaching interests, and three letters of recommendation to: ommendation to:

Physiology Search Committee c/o Dr. R. A. Patterson Department of Zoology Arizona State University Tempe, Arizona 85281

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

#### **POSITIONS OPEN**

Universidad Venezolana solicita INGENIERO DE ALIMENTOS preferiblemente (no indispensable): M.S., experiencia profesional, hablar Castellano. Enviar curriculum: Apartado 17082-El Conde, Caracas, Venezuela.

### UNIVERSITY OF QUEENSLAND AUSTRALIA

### LECTURER IN ANATOMY

Applicants should be qualified in electron microscopy and/or histochemistry. Applications preferred by 31 December 1975, but will be accepted for a further 14 days

Salary: \$A12,063 to \$A16,193 per annum.

Other benefits: Superannuation similar to FSSU, housing assistance, study leave, traveling and removal expenses.

Additional information and application forms are obtainable from the Association of Commonwealth Universities (Appointments), 36 Gordon Square, London, WC1H OPF, England.



MEDICAL COLLEGE
OF VIRGINIA
VIRGINIA COMMONWEALTH UNIVERSITY
MANAGER, MCV DATA
ACQUISITION FACILITY

A manager is being sought for the Data Acquisition Facility (DAF) of the Virginia Commonwealth University University Computer Center which provides real-time research computing services to a number of laboratories and clinical research areas at the Medical College of Virginia. The principal resource is a Sigma 6 computer. computer.

The incumbent should possess at least a master's degree in science or engineering and have a minimum of 3 years of broad experience with real-time computer systems. Some biomedical and administrative experience would be helpful. Résumés may be sent to:

Data Acquisition Center Manager Search Committee Box 16 Medical College of Virginia Station Richmond, Virginia 23298

The Section of Neurobiology and Behavior in the Divison of Biological Sciences at Cornell University has an opening for a NEUROBIOLOGIST. The position will be filled at the assistant professor level. The candidate must have strong training and research commitment in fundamental problems involving cellular or molecular approaches to the nervous system. Areas of research could include, but are not restricted to, neurodayaloment, neural integration or expection training. research could include, but are not restricted to, neuro-development, neural integration, or synaptic transmis-sion. A curriculum vitae with bibliography, one or two recent reprints, and letters from three people who know the candidate's work well should be sent to: Dr. Jeffrey M. Camhi, Chairman, Neurobiology Search Com-mittee, Section of Neurobiology and Behavior, Lang-muir Laboratory, Cornell University, Ithaca, New York 14853. Deadline for receipt of applications is 1 March 1976.

#### **POSITIONS OPEN**

MICROBIAL GENETICIST. Assistant professor level, for fall 1976. Teaching includes undergraduate genetics and microbiology and graduate specialty courses. Research activity expected. Send curriculum vitae and three letters of recommendations to: Search Committee, Department of Biology, State University College, Fredonia, New York 14063. Closing date: 15 February 1976. An Equal Opportunity/Affirmative Action Employer.

Pathologist AP-CP, to complete hospitalbased group in university-affiliated teaching hospital. Upper Midwest. Financial arrangements open to negotiation. Stimulating situation, excellent working environment. Send résumé to Box 494, SCIENCE.

### PHARMACOLOGY/TOXICOLOGY/BIOCHEMISTRYPOSTDOCTORAL POSITION

Opening for a postdoctoral position to study toxicology and drug metabolism. Applicant should submit a curriculum vitae to Dr. James Way, 105 College Hall, Washington State University, Pullman, Wash. 99163. Washington State University is an Equal Employment Opportunity/Affirmative Action Employer. Application review will begin immediately.

PHYSIOLOGIST: research oriented, to contribute to PHYSIOLOGIST: research oriented, to contribute to doctoral program in life sciences and to offer undergraduate/graduate course in vertebrate physiology. Excellent facilities provided, rank and salary open. Preference will be given to applicants with established research programs in areas of electrophysiology such as neuro or comparative. Send curriculum vitae and names of references to Dr. C. P. Sword, Department of Life Sciences, Indiana State University, Terre Haute, Ind. 47809. Applications will be considered until 15 February 1976. Indiana State University is an Affirmative Action Eaual Opportunity Employer. tive Action/Equal Opportunity Employer.

### PHYSIOLOGISTS AND PHARMACOLOGISTS

The Department of Physiology and Pharmacology at Bowman Gray School of Medicine is in an active period of growth and development. New faculty positions are available at the junior and senior levels. Candidates must have a Ph.D., M.D., or equivalent degree and postdoctoral experience. Evidence of teaching experience and an active research program will be important considerations. Areas of particular interest are endocrinology, biochemical pharmacology, and neuropharmacology. Qualified candidates should submit a curriculum vitae, a brief description of current research program, and have three letters of reference sent to:

Dr. Alvin Brodish, Chairman Dr. Alvin Brodish, Chairman
Department of Physiology and Pharmacology
Bowman Gray School of Medicine of
Wake Forest University
Winston-Salem, North Carolina 27103

An Equal Opportunity/Affirmative Action Employer

### **PHOTOBIOLOGIST**

Here is your opportunity to remain in the forefront of your field. We are a large midwestern proprietary drug, tolletry, and cosmetic firm, currently expanding our Photobiology Research Program to include a professional scientist with a B.S. degree or higher.

The person we are seeking must have had experience in conducting studies relating to the modification of human responses to sunlight. Instrumentation and ability to work with rodents desirable.

Our Fortune 500 company is located in Memphis, Tennessee, one of the fastest growing cities in the nation offering a variety of recreational as well as cultural diversions.

This position offers a salary commensurate with experience as well as a comprehensive benefits package. Please submit your résumé, in strictest confidence, including salary history to

Professional Placement Administrator



Personnel Department P. O. Box 377 An Equal Opportunity Employer M/F Memphis, Tenn. 38151

### **INDUSTRIAL ENVIRONMENTAL TOXICOLOGIST**

San Francisco Bay Area



Stanford Research Institute's Center for Occupational and Environmental Safety and Health is seeking an Industrial Environmental Toxicologist to participate in its activities in contract research and consulting research and consulting services for government and commercial clients.

Initial assignments will be associated with the Center's activities in the preparation of NIOSH criteria documents for recommended occupational health standards in SRI's Washington, D.C. office; and in support of a contract with the National Cancer Institute in Environmental Carcinogenesis in SRI's main office at Menlo Park, California. Successful applicants will have solid background in inhalation toxicology and the toxicological aspects of Industrial Hygiene.

Emphasis will be given in evaluating applicants for their ability to critically review the biomedical literature and develop statements to support proposed standards. Previous experience is desirable but can be substituted by unusually strong academic background.



**SRI** Send resume in confidence to:

### STANFORD RESEARCH INSTITUTE

Center for Occupational and **Environmental Safety and Health** 333 Ravenswood Avenue Menlo Park, CA 94025

SRI is an equal opportunity employer

### **POSITIONS OPEN**

### OBS/GYN **PHYSICIAN**

Physician with considerable Obs/Gyn experience to expand family planning unit at:

#### THE MOUNT SINAI MEDICAL CENTER **FULL TIME**

9 a.m. to 5 p.m., Monday to Friday. Please send curriculum vitae and other pertinent material to: Thomas D. Kerenyi, M.D., 1176 Fifth Ave., New York, N.Y. 10029. An Equal Opportunity/Affirmative Action Employer.

PHYSIOLOGIST. Syntex's Research Division is seeking an experienced physiologist to supervise their bioassay laboratory and to develop bioassay systems necessary to their research efforts. Qualifications in-clude a Ph.D. in physiology and a minimum of 3 years of experience in performing and supervising bioassays. Industrial experience desirable. Interested individuals should send complete résumés including salary requiresnoulo send complete resumes including satiry requirements, in confidence, to Norman Brown, Syntex Corporation, Employment Department #4789, 3401 Hillview Avenue, Palo Alto, California 94304. Syntex is an Equal Opportunity/Affirmative Action Employer, Male and Female.

PHYSIOLOGIST needed to teach undergraduate PHYSIOLOGISI needed to teach undergraduate courses in vertebrate physiology, human anatomy and physiology, and biochemistry. Must have a strong background in health-related sciences. Position begins 25 January 1976. Send application and résumé by 31 December 1975 to:

> Halit M. Kosar, Ph.D., Dean Division of Science and Engineering Gannon College Erie, Pennsylvania 16501

### POSTDOCTORAL POSITIONS

Two postdoctoral positions available for research on the biochemical and toxicologic effects of halogenated antibacterial agents on mammalian systems.

1) Biochemist: Ph.D. in biochemistry to study interactions of antibacterials with proteins, enzymes, and biological membranes.

2) Biochemical Pharmacologist: Ph.D. in biochemistry or pharmacology to investigate the pharmacologic and toxicologic effects of antibacterials and their metabolites, especially on the nervous system.

Salaries up to \$11,000 will be dependent on experience and qualifications. Applications with curriculum vitae and naming three references should be sent to:

### Dr. Donald R. Buhler Environmental Health Sciences Center Oregon State University Corvallis, Oregon 97331

The closing date on these positions is 15 January

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION, available 1 May. Quantitative plant ecologist with strong computer background and interests in plant community relations—to study production, structure, and dynamics in western hemlock—Douglas fir forests of coastal British Columbia, Washington, Oregon, and California. This research will involve designing and interpreting computer analyses of forest relations based on forest inventory data. Limited fieldwork in areas designated. ventory uata. Limited fieldwork in areas designated. Send résumé and three letters of recommendation to Dr. Allan Auclair, Biology Department, McGill University, P.O. Box 6070, Montreal, Quebec, H3C 3G1, Canada.

### POSTDOCTORAL RESEARCH ASSOCIATES IN CANCER BIOLOGY

Positions are available for recent graduates (Ph.D.) in-Positions are available for recent graduates (Ph.D.) interested in tumor immunobiology, cell kinetics, and control processes governing hematopoietic stem cell differentiation and proliferation, macrophage function and biochemical actions of anticancer agents. Reply to: Dr. Fred Valeriote, Section of Cancer Biology, Department of Radiology, Washington University School of Medicine, St. Louis, Mo. 63110.

### **POSITIONS OPEN**

# THREE POSITIONS AVAILABLE: PLANT PHYSIOLOGIST/BIOCHEMIST WEED SCIENTIST GENETICIST/PLANT BREEDER

Department of Plant Sciences, University of Califor-Department of Plant Sciences, University of California, Riverside, announces three positions at assistant professor level, available 1 July 1976. Mainly research with some teaching. Expected to teach at undergraduate and graduate level and to direct M.S. and Ph.D. students. Ph.D. required; postdoctoral experience preferred, but all qualified candidates will be considered. Salary commensurate with education and experience. Applicants should send curriculum vitae and official transcripts and arrange to have at least three confidential letters of recommendation sent to the indicated search committee chairman. Department of commendation sent to the in-dicated search committee chairman, Department of Plant Sciences, University of California, Riverside, Cal-if. 92502. Application deadline, 15 February 1976. An Affirmative Action/Equal Opportunity Employer.

- 1) Assistant Professor and Assistant Plant Physiologist in the Experiment Station. Plant scientist with strong training in biochemistry and with a research commitment to the use of plant cell culture techniques for crop improvement. Candidates with extensive training in plant cell and tissue culture, plant molecular biology, or hormonal control of plant growth and development are encouraged to apply, but consideration is not restricted to these areas. Supporting materials should be sent to **Dr. R. T. Leonard.**
- 2) Assistant Professor and Assistant Plant Physiologist in the Experiment Station. Research on physiology and ecology of weeds and herbicide action. Weed control in annual crops. Expertise in weed science and plant physiology, ecology, or biochemistry required. Supporting materials should be sent to Dr. L. S. Jordan
- 3) Assistant Professor and Assistant Geneticist in the Experiment Station. Research in genetics related to plant breeding and the utilization of gene resources of plant populations, with emphasis on quantitative inheritance. Strong training in quantitative genetics and plant breeding required. Supporting materials should be sent to Dr. R. K. Soost.

### POSTDOCTORAL POSITION

Available immediately. Isolation and characterization of invertebrate collagenases. Experience in biochemistry essential. Stipend is \$10,000. Send curriculum vitae to: Dr. Marc H. Dresden, Department of Biochemistry, Baylor College of Medicine, Houston, Texas 77025. Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL RESEARCH ASSOCIATE position available immediately. Steroid biochemist. Participate in unique project exploring a new concept in reproductive biology. Study steroidogenic capacity (using labeled precursors) of and steroid content (using RIA) in preimplantation embryos. Background in reproductive biology desirable but not necessary. Salary \$12,000 to \$14,000. Call or send curriculum vitae plus three references to Dr. Z. Dickmann, Department of Gynecology and Obstetrics, University of Kansas Medical Center, Kansas City, Kansas 66103. Telephone: 913-831-5709.

POSTDOCTORAL TRAINEE to participate in rOSIDUCIORAL TRAINEE to participate in projects dealing with metabolic aspects of shock and trauma. Appointment available for up to 3 years. Send curriculum vitae to: John J. Spitzer, M.D., Professor and Head, Department of Physiology, Louisiana State University Medical Center, 1542 Tulane Avenue, New Orleans, Louisiana 70112.

TOXICOLOGIST. Assistant professor. The Food Research Institute (Department of Food Microbiology and Toxicology), University of Wisconsin, is seeking an individual with a Ph.D. or professional degree in the area of toxicology, toxicopathology, or related field to conduct research relating to mode of action of food-borne toxicants. An individual whose training has emphasized biochemistry and morphological pathology including electron microscopy is desirable. In addition to developing an independent research program, a portion of the time will be spent in cooperative research. Send curriculum vitae and three letters of recommendation to E. M. Foster, Director, Food Research Institute, University of Wisconsin, Madison, Wisconsin 53706. An Equal Opportunity/Affirmative Action Employer.

### MINIPULS PERISTALTIC PUMPS

miniature pumps with superior performance



- Continuous flow adjustment 1-1300 ml/hr.
- Digital speed control
   Tubing can be replaced while motor is running Very low pulsation

Available in 1-, 4-, 8- and 16-channel models **CALL OR WRITE** 

Gilson Medical Electronics, Inc. P.O. BOX 27. MIDDLETON. WIS. 53562 • PHONE 608/836-1551

Circle No. 466 on Readers' Service Card

Exclusive from NEN

### High Specific Activity Tested for Agglutination

For the investigation of viral transformation, cell-cell interaction and cell differentiation

Wheat germ agglutinin [3H(G)] 5-15Ci/mmol 0.05N HCl solution, shipped in dry ice NET-502 \$125/50  $\mu$ Ci \$385/250  $\mu$ Ci

Concanavalin A [3H(G)] 50-80Ci/mmol 0.45M Sodium chloride solution NET-491 \$110/50 $\mu$ Ci \$350/250 $\mu$ Ci

Concanavalin A, N-Acetylated [acetyl-3H] 5-25Ci/mmol

0.5M Sodium chloride solution NET-452 \$88/50  $\mu$ Ci \$292/250 $\mu$ Ci

Soy bean agglutinin [3H(G)] 5-15Ci/mmol Price and packaging information available on request.



NEN Canada Ltd., Lachine, Quebec; NEN Chemicals GmbH, Dreieichenhain, W. Germany.

Circle No. 543 on Readers' Service Card

# EDITOR/WRITER

Challenging position editing reports, proposals, grant applications and journal articles for biomedical research department of large research and development facility. Active programs include automated chromosome research, biochemistry, biophysics, cancer research, state-of-the-art automated systems for cytological research, marine and terrestrial ecology, and ecological aspects of energy alternatives. Editor works closely with scientists and engineers not only helping to verbalize new concepts, but critically analyzing technical content and logical development. Experience in editing scientific/technical material plus doctorate in biology, medicine, biophysics, biochemistry, pharmacology or other related field required.

The Lawrence Livermore Laboratory is situated in a pleasant valley close to the San Francisco Bay Area of northern California.

Please contact: Katherine Smith Personnel Department LAWRENCE LAWRENCE LIVERMORE LABORATORY P. O. Box 808 (SC-125) Livermore, California 94550 (415) 455-5200



U.S. Citizenship Required

Equal Opportunity Employer M/F

LAWRENCE LIVERMORE LABORATORY

### **AAAS Memberships** and Subscriptions

- Whenever you write us about your membership or subscription, please attach a Science address label to assure prompt
- 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.)
- ☐ Membership rates (individual only)
  - □ \$25 USA □ \$31 Canada, PUAS □ \$32 Foreign
  - ☐ \$55 Airlift to Europe, North Africa, Near East
- □ **Subscriber rates**□ \$50 USA □ \$57 Canada. PUAS □ \$58 Foreign
  - ☐ \$80 Airlift to Europe, North Africa, Near East
- ☐ Payment enclosed

☐ Bill me later

Zip

Name

Please print

Address

City

State

1237

MT12

ATTACH LABEL

**HERE** 

19 DECEMBER 1975

### UNIVERSITY OF PETROLEUM AND MINERALS DHAHRAN, SAUDI ARABIA

OVERSEAS OPPORTUNITIES for academic year OVERSEAS OPPORTUNITIES for academic year 1976–77 in a new science and engineering university for faculty in civil, electrical, chemical, mechanical, systems, and petroleum engineering. Ph.D. degrees and teaching experience required. Also opportunities at various academic levels for engineering technologists and technicians, and in chemistry, English (M.A. in English and/or in TEFL with 2 to 3 years of teaching experience preferably at college level), geology, mathematics, and physics. Challenging assignments in undergraduate programs, some of which are evolving into research and graduate levels. Minimum regular contract for 2 years renewable. Competitive salaries, free airsearch and graduate levels. Minimum regular contract for 2 years renewable. Competitive salaries, free airconditioned furnished housing, free air transportation to and from Dhahran each 2-year tour. Attractive educational assistance grants for school-age children. Local transportation allowance in cash each month. All earned income without Saudi taxes. Ten-month duty each year with 2-month paid vacation and possibility of participating in university's ongoing summer program. participating in university's ongoing summer program with additional compensation. Apply with résumé including ages and sexes of children, nationality, list of references, and home and office telephone numbers to:

University of Petroleum and Minerals c/o Saudi Arabian Educational Mission 17th Floor, 880 Third Avenue New York, New York 10022

Prospective candidates to be interviewed by university recruiter early in 1976.

### UNIVERSITY OF PENNSYLVANIA SCHOOL OF VETERINARY MEDICINE DEPARTMENT OF PATHOBIOLOGY

#### POULTRY PATHOLOGIST

Applications are invited for the position of Head, Poultry Diagnostic Laboratory, School of Veterinary Medicine, University of Pennsylvania. The Laboratory is situated at the School's rural campus at New Bolton Center, Kennett Square, Pa.

Applicants must possess a D.V.M. degree and be eligible for State Board Registration in Pennsylvania. Faculty rank and salary negotiable.

Applications, including curriculum vitae and the names of at least three referees, should be sent to: Dr. E. J. L. Soulsby, Department of Pathobiology, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, Pa. 19174.

An Equal Opportunity Employer

DISTINGUISHED PROFESSORSHIP. The School of Chemical Engineering at Cornell University is seeking nominations of candidates for its Herbert Fisk Johnson Professorship of Industrial Chemistry. Nominees are expected to present a record of outstanding research accomplishment; evidence of interest in innovative teaching in chemical engineering; and a Ph.D. in chemical engineering or chemistry. Candidates should have research interests in one or more aspects of applied chemistry and chemical engineering, including applied chemistry and chemical engineering, including (but not limited to) surface chemistry, catalysis, and reaction kinetics. The committee welcomes candidates from industry or government laboratories, as well as from the academic community. An appointment to the professorship carries tenure, professional travel and support funds, and excellent fringe benefits. Please for-ward suggestions or résumés to Professor Julian C. Smith, Director, School of Chemical Engineering, Cor-nell University, Ithaca, New York 14853.

An Equal Opportunity/Affirmative Action Employer

PROTEIN SEQUENCE LAB SUPERVISOR — Peptide and protein sequencing lab of optimal use to biologists and biochemists to be organized: to include peptide separation, amino acid analysis, consultation and collaboration with staff scientists. Send résumé to Personnel Department, The Institute for Cancer Research, 7701 Burholme Avenue, Philadelphia, Pa. 19111. An Equal Opportunity Employer.

VIROLOGIST position available for 2-year study of diarrheal diseases in Bangladesh. Appointment in Department of Pathobiology dependent upon experience. Send applications to: Frederik B. Bang, M.D., Department of Pathobiology, The Johns Hopkins University School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, Maryland 21205.

#### **PROGRAMS**

#### TEACHING ASSISTANTSHIPS AVAILABLE Doctoral Program in Environmental Science-Physics

This multidisciplinary program is designed to provide an opportunity for students interested in an academic graduate physics program to participate 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 environment. We arrow annionity for the environment of the enviro lems of the environment. We encourage applications from women and members of minority groups.

Appointments effective fall 1976. Contact:

Dr. Mark Gurevitch, Chairman Department of Physics Portland State University P.O. Box 751 Portland, Oregon 97207

#### **FELLOWSHIPS**

# POSTDOCTORAL FELLOWSHIP IN MEMBRANE TRANSPORT WITH APPLICATION TO CANCER CHEMOTHERAPY

Positions available for M.D.'s or Ph.D.'s who desire a comprehensive background in membrane physiology a comprehensive background in membrane physiology with application to the study of anticancer agents—membrane transport; kinetics of drug-target interactions within the cell; correlation with biochemical and cytotoxic effects. This research area is a component of an NIH-supported training program in membrane physiology. Trainees participate in this program as well as in activities of the Cancer Center at the Medical College of Virginia. Fellowships will be awarded for 2 years beginning 1 July 1976; other starting dates are possible. Stipend is \$10,000 to \$11,500 depending upon experience. American citizenship or perpending upon experience. American citizenship or permanent visa required. For further information send curriculum vitae to Dr. I. David Goldman, Department of Medicine, Medical College of Virginia, Richmond, Virginia 23298.

POSTDOCTORAL (M.D. or Ph.D.) NIH-SPON-SORED FELLOWSHIPS in blood banking and re-lated areas of hemostasis are being offered by Wash-ington University School of Medicine, at Barnes Hos-pital and the Missouri-Illinois Red Cross Regional Blood Center. Research includes platelet and coagu-lation protein biochemistry and turnover, tissue typing, hepatitis, autoimmune anemias and so forth Contact hepatitis, autoimmune anemias, and so forth. Contact Laurence Sherman, M.D., Director, Blood Bank, Barnes Hospital, St. Louis, Missouri 63110.

### RENAL RESEARCH FELLOWSHIP

Fellowship position (postdoctoral or senior post-doctoral) for research training in following major

doctoral) for research training in following major areas:

1) Pathophysiology of renal handling of electrolytes (sodium/phosphate/micropuncture/microanalysis)

2) Mechanism of hormone and drug action on kidney (ADH/PTH/cyclic nucleotides/membranes/microtubules/experimental tubular syndromes)

3) Experimental hypertension (catecholamines/renin/agniatensin/prestaglanding)

nin/angiotensin/prostaglandins)
4) Pathogenesis of urolithiasis (physical chemistry/crystal growth inhibition/calcium-PTH-vitamin D metabolism)

tabolism)
Position available immediately for candidates with M.D. or Ph.D., stipend of \$12,000 and up, depending on experience. Combination with advanced clinical training in nephrology possible.
Contact: Franklyn G. Knox, M.D., Ph.D., Kidney Disease Training Program Director, Mayo Clinic and Foundation, Rochester, Minnesota 55901. Telephone: 507-282-2511. An Equal Opportunity Employer.

### POSTDOCTORAL FELLOWSHIPS IN HUMAN AND MEDICAL GENETICS

Training available in clinical, biochemical, immunological, and population genetics. Candidates must have Ph.D., M.D., D.V.M., or comparable degree and be U.S. citizens or permanent residents. Fellowships will begin 1 July 1976. The stipend is \$10,000 to \$13,200, depending upon previous postdoctoral experience. Send curriculum vitae and the names of three references to a proper process of the property of the prope

ences to: Dr. Arthur G. Steinberg, Case Western Reserve University, Cleveland, Ohio 44106.

#### **FELLOWSHIPS**

Two POSTDOCTORAL FELLOWSHIPS available in information science. One is for a person well trained in engineering systems analysis, information science, and biological systems analysis who has performed creative research in nonlinear identification theory and had at least 2 years of experience in this subject area. The other is for a person trained in computer science, biology, biological systems analysis, and computer-based image processing. Must have at least 3 years of experience in these areas. Curricultum vitae, including telephone number, must be sent to: Dr. G. D. cluding telephone number, must be sent to: Dr. G. D. McCann, California Institute of Technology, 286-80, Pasadena, Calif. 91125, by 1 January 1976. Equal Opportunity/Affirmative Action Employer.

Candidates holding the Ph.D. or M.D. degree will be considered for POSTDOCTORAL TRAINEESHIP OR STAFF ASSOCIATE in neurophysiology and neuropharmacology beginning early in 1976. This program provides research training under experienced sponsorhip appropriate for an investigative or academic career. The emphasis is on the use of microelectrode recording of single neurons in the CNS. For further information, write: S. C. Wang, M.D., College of Physicians and Surgeons, Columbia University, 630 West 168 Street, New York, N.Y. 10032.

### **CONFERENCE**

The Carcinogenesis Program of the Division of Cancer Cause and Prevention, National Cancer Institute, will hold a Conference on Perinatal Carcinogenesis, 19 to 21 January 1976 at the Holiday Inn-Central, Tampa, Florida.

The scientific program, which will consist of invited papers, will review the current knowledge and present state of research regarding the special susceptibility of the fetus and neonate to carcinogenic agents, including hormones. Experimental studies will be emphasized. The conference will be open to the public but attendance will be limited to available space.

Hotel reservations must be made by 12 January 1976 with the Holiday Inn-Central, Tampa, Fla. Telephone: 813-223-1351. You must indicate to the hotel that you are attending the Perinatal Carcinogenesis Conference.

Additional information is available from Dr. Jerry Rice, National Cancer Institute, Building 37, Room 2C13, NIH, Bethesda, Md. 20014. Telephone: 301-496-4366.

### **COURSES**

### W. ALTON JONES CELL SCIENCE CENTER CONTINUING EDUCATION IN CELL BIOLOGY AND TISSUE CULTURE

Two courses offered in January 1976

5 to 16 January: Phototechniques in Cell Biology

22 to 23 January: Ethics and Human Value Implications of Science and Technology

For information on the above and a copy of the 1976 Program Brochure write or call:

Marion Thomas W. Alton Jones Cell Science Center P.O. Box 631 Lake Placid, N.Y. 12946 Telephone: 518-523-2427

### MARKET PLACE

JEOLCO MODEL JLC-6AH AMINO ACID AN-ALYZER WITH TAPE PROGRAMMER; automatic sampler, capacity 12 samples; sensitivity is 1 nanomole. Will handle eight buffers/column and program column temperature changes during run. Equipped with auto-matic safety devices to protect samples and instrument. For further information contact: Dr. A. J. Johnson, New York University Medical Center, 550 First Ave-nue, New York, New York 10016.



# Our liquid scintillation leadership line keeps growing.

As the leader in fine LS counting systems, we could probably rest on our state-of-the-art laurels. But we don't think that way.

So, meet the new Series 3100, an extension of our well-proven line. Modular, highly reliable, low-cost-per-sample instrumentation. Easy to operate, and available in eight different configurations. That's so you can buy exactly the capabilities you need and have the most cost-effective system.

Most fine Beckman features are standard, of course. Like three-channel capability. And our Iso-Set modules—convenient, factory-calibrated plug-in units that reduce setup time in selecting optimum windows of isotopes of interest.

But take some

examples of Series 3100 optional modularity:

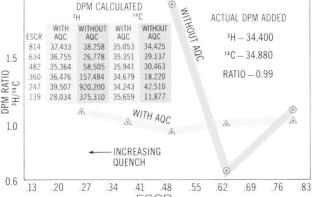
If you do dual-label sampling, for instance, our Automatic Quench Compensation accessory adjusts instrument gain for the level of quench present in the counting vial measured by the External Standard Channels Ratio method. The result: a far more reliable DPM number (see graph).

If prospective user volume is a concern, add our multiple-user accessory and have 12 additional windows for single-, dual-, or triple-label experiments.

And you have a choice of output mode: an exceptionally quiet basic printer, or a teletype interface.

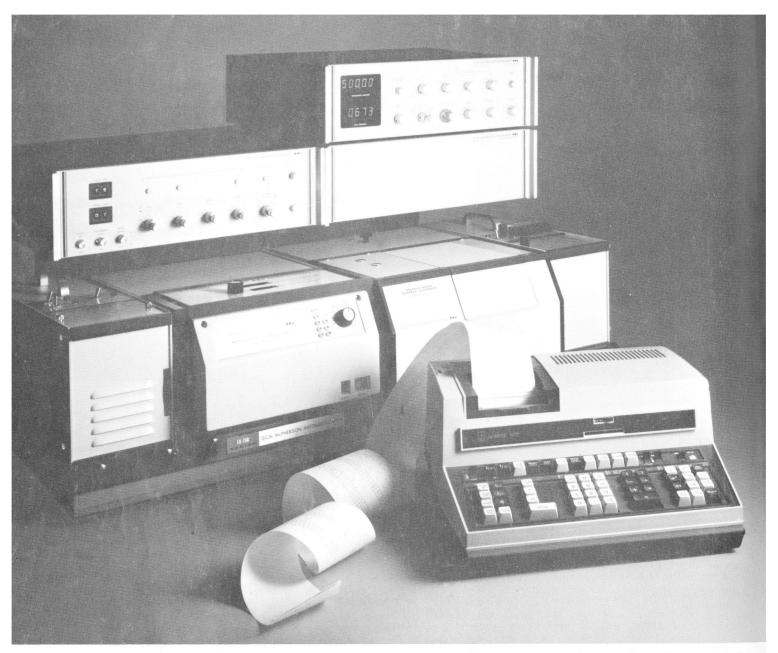
Series 3100. The modular LS system you personally design for greatest flexibility at the best price.

Get full information from your local Beckman representative. Or write to Scientific Instruments Division, Beckman Instruments, Inc., Box D-W, Irvine, CA 92664.



### Beckman®

Circle No. 531 on Readers' Service Card



# Introducing the only spectrophotometer designed to free you for designing experiments.

The Super 700: A moderately priced digital UV-Visible spectrophotometer automatically controlled by a programmable desk-top calculator.

Here at last is a fully automated and programmable spectrophotometer that allows you to spend your time designing experiments rather than running them.

The Super 700 from GCA/McPherson.

It's the only spectrophotometer system that allows true and easy interaction between man and machine.

And it's available for a price that's surprisingly reasonable. Especially when you consider all that it offers.

The Super 700 combines the advantages of a powerful statistical calculator with a superior UV-Visible spectrophotometer.

It's equipped with magnetic card input/output.

Library programs are available.

And you can easily write your own programs because no special language is required.

The calculator has a number of useful functions: logarithms, exponentiation, factorial, standard deviation, linear regression, t-statistic, chi-square, z-statistic, and more. And when the calculator is in control, The Super 700 can start, stop, and slew the monochromator in both directions. And control, monitor, and record either total elapsed time or programmable intervals.

This calculator control feature is truly unique. It allows complex experimental tasks to be performed automatically and unattended. Which means far more efficiency than manual operation permits.

Applications for The Super 700 include kinetics, melting point studies, gel scanning, stop-flow, flame photometry, integration, and the programming of quality control techniques.

The possibilities, however, are endless.

If you'd like more information on this remarkable new system, call or write GCA/McPherson Instrument, 530 Main Street, Acton, Massachusetts 01720. Phone: 617-263-7733. Telex: 928435. ANS: GCA/McPHER ACTO.

GCA/McPHERSON INSTRUMENT

THE SPECTROSCOPY PEOPLE