

# Luminescence Measurement

The Pico-Lite determines adenosine triphosphate concentration by measuring chemiluminescence or bioluminescence. The device uses the luciferin-luciferase firefly system under control of a microprocessor. The detector system stores up to six samples. It operates above or below ambient temperature. A thermal printer and seven measurement programs are included and luminescence reagents and extracting media are available. Packard Instrument. Circle 766.

# **Programmable Dispensing Pump**

Model DP-200 features an optoelectronic system that counts and controls the pump revolutions in small increments with a special circuit. A digital control is used to set calibration factor and volume and the settings are stored. Flow rates from 0.2 to 13 milliliters per second may be obtained. Volumes up to 99.9 milliliters may be dispensed at intervals from 1 to 9 seconds. New Brunswick Scientific. Circle 767.

# Laser Scanning Densitometer

Nanogram quantities of protein may be detected in electrofocusing gels. The 3- to 10-micrometer bandwidth of this instrument accounts for its resolving power. There is a standard laser source that emits light at 630 nanometers and a tungsten source at 525 nanometers. Additional wavelengths may be obtained with tungsten lamp filters. The device will scan slab and tube gels, plates, autoradiographs, and photographs up to 20 by 20 centimeters. Response time is 0.003 second. A thermal recorder provides an accurate record rapidly. LKB Instruments. Circle 769.

# **Detector for Proteolytic Enzymes**

Protopath measures components of coagulation and fibrinolytic systems. Kinetic enzyme reactions are measured in a fluorometer with specialized reagent kits to determine rates of coagulation or fibrinolysis. Direct readout at specific excitation and emission wavelengths eliminates data reduction steps. Special synthetic substrates are used to measure each of three specific blood constituents. Dade Division, American Hospital Supply. Circle 770.

# **Pump for Small Volumes**

Model 1400 is designed for microperfusion, titration, and bioassays. Flow rates vary from 5 to 100 nanoliters per minute. Fluids are delivered through glass pipettes drawn to tip diameters of 3 to 10 micrometers. The miniature pump body contains a precise motor whose speed is controlled by an electronic feedback. The pump weighs 59 grams and is designed for mounting on a micromanipulator. W-P Instruments. Circle 771.

# **Blood Chemistry Analyzer**

CentrifiChem System 500 features EMIT chemistries with data handling and dual-reagent pipetting. Single pushbuttons activate 26 programmed standard tests and up to nine additional tests selected and programmed by the operator. Results are printed and may be transmitted to additional external data processors. Up to 450 tests may be run in an hour. Union Carbide, Medical Products Division. Circle 772.

# *p*H-Temperature Meter

Model 4 measures pH, electrical conductivity in millivolts, and temperature in degrees Celsius. Accuracy is to within 0.02 pH unit, 2 millivolts, and 1°C. The liquid crystal display is easy to read even in direct sunlight. Hand-held, model 4 is battery-powered for field use, but it may be operated from line current in the laboratory. A simple thumb control calibrates and performs compensation for temperature. Corning Glass Works. Circle 768.

# Literature

*Environmental Chamber Accessories* lists controllers and programmers for temperature, light, humidity, and other parameters; glove ports; shelves; terminal ports and others. Tenney Engineering. Circle 761.

*Stable Isotopes* describes chemicals for research in many disciplines. Prochem. Circle 762.

*Liquid Chromatography* offers chemicals, equipment, and accessories in over 100 pages. Rainin Instrument. Circle 763.

*Water Purification Systems* includes reverse osmosis, deionization, activated carbon adsorption, ultrafiltration, and microporous membrane filtration with a selection guide and a summary of current standards. Millipore. Circle 773.

Information Services for the Sciences features contents page lists, citation indices, abstract services, and other means of dissemination of scientific advances. Institute for Scientific Information. Circle 774.

*HPLC* describes detectors, accessories, columns, and complete systems. DuPont Instrument Products. Circle 775.

*Constant Temperature* is devoted to baths and circulators. Haake. Circle 779.

*Chemicals* lists biochemicals, analytic reagents, organic intermediates, high purity metals, and much more. Gallard-Schlesinger Chemical Mfg. Circle 776.

*Centrifuges* describes the CENTRA-7 and CENTRA-7R bench-model, highperformance units, their rotors, accessories, and specifications. Damon/IEC. Circle 777.

*Liquid Chromatograph* features the components of the 7500 system individually. The control module, solvent deliverer, solvent mixer, column compartment, and a choice of detectors are included for gradient and isocratic models. Micromeritics Instrument. Circle 778.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Reader Service Card (on pages 358A and 422A) and placing it in the mailbox. Postage is free. —RICHARD G. SOMMER







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# Personnel Placement

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Blind ad replies should be addressed as follows:

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# POSITIONS WANTED

**Biochemist/Plant Physiologist**, Ph.D., 29 years of experience in conducting and guiding research in physiology of cotton and linseed. More than 50 international publications. Presently heads research institute in India. Seeks research, teaching position. Box 200, SCIENCE. X

Biochemist/Virologist, Ph.D. 1974. Postdoctoral experience in nucleic acids, proteins, enzymes, RNA tumor viruses, and immunology. From New York City area. Will relocate. Seeks industrial or academic position. Box 213, SCIENCE. X

**Biologist**, Ph.D. Research in ultrastructure of algae and bioluminescent organs of fish. Extensive teaching experience in general biology for majors and nonmajors, phycology, microscopy. Postdoctoral experience; publications. Seeks combination research-teaching position with university or other institution. M. Watson, Department of Botany and Bacteriology, University of Arkansas, Fayetteville, Arkansas 72701. Telephone: 501-575-4901 or 501-442-8263. X

Cytogeneticist. Ph.D., 18 years of experience in human cytogenetics. Extensive medical school research, administrative, teaching, and service experience. Has developed and directed a human cytogenetics service which processes 1000 amniotic fluid, blood, bone marrow, tissue culture, and other specimens per year. Seeking senior level position in industry, government, or hospital, to develop or direct a human cytogenetics service and/or research facility. United States or abroad. Box 206, SCI-ENCE. X

Director/Administrator Research: M.S. ichthyology and fish physiology. Ph.D. endocrinology and reproduction. Basic knowledge of toxicology, teratology, and carcinogenesis. Seven years of experience in or ganizing laboratories and supervising research. Box 221, SCIENCE. X

Neurochemist. Experienced CNS peptide researcher seeks position to coordinate international quest for human/animal sleep peptide. Box 223, SCIENCE.

# POSITIONS WANTED

Haematologist/Blood Banker. D.Phil. (Oxon). Established, independent investigator seeks challenging directorship-research position in industry or academic community. Publications in leuca- and platelet-pheresis, blood storage, citrate anticoagulant formulations, neutrophil function tests and HES pharmacokinetics. Will relocate. Availability open. Please contact: Box 222, SCIENCE. X

Scientist, B.S. chemistry, seeks radical research group doing long-range theoretical and experimental work on space inversion, catastrophe theory, dimension travel, psychopharmacology, space/time collapse, harmonic audiographics. Write: Box L-25, 2311 LeConte Street, Berkeley, California 94709. X

Zoologist. Seeks research/teaching position. Ph.D. Publications in cancer biology, endocrinology, immunology. Teaching experience in cell biology, anatomy and physiology, and general biology. Box 224, SCIENCE. X

# POSITIONS OPEN

#### UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

MEDICAL SCHOOL The Department of Surgery at the University of Michigan is seeking a candidate for a position in AC-ADEMIC GENERAL SURGERY. The candidate should have completed a residency in general surgery at a university hospital in the United States or Canada, be certified by the American Board of Surgery or be eligible to take the qualifying examination for the American Board of Surgery, and have specialized training which qualifies him/her for laboratory research in a specific area of general surgery. The position will be based primarily at Veterans Administration Hospital, an affiliate with and staffed by the University of Michigan. This is an appointment for 1 year only. Reply to: Box 218, SCIENCE. Code 600HO. A nondiscriminatory, Affirmative Action Employer.

### DEPARTMENT OF ANATOMY WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE

Applications are invited from ANATOMISTS experienced in teaching functional gross anatomy. Applicants must have postdoctoral research experience and an established research program of high quality in the area of in vitro and in vivo measurements of bone strain and remodeling. Appointment will be made in conjunction with the Deparment of Orthopedic Surgery. Academic rank will be commensurate with qualifications. Closing date for applications is 15 September 1979. Submit curriculum vitae with complete bibliography and names of three references to: Dr. Robert S. McCuskey, Chairman, Department of Anatomy, West Virginia University Medical Center, Morgantown, West Virginia 26505. West Virginia University is an Equal Opportunity Affirmative Action Employer.

ANATOMIST. Assistant professor position in Biology Department available September 1979. Major teaching responsibility in human gross and neuroanatomy courses for health science students. Strong research commitment essential as successful applicant will be expected to participate in biology undergraduate and graduate (M.S. and Ph.D.) programs. Submit curriculum vitae, statement of research and teaching goals and interests, and three letters of recommendation to: Dr. C. A. Goodrich, Chairperson, Search Committee, Department of Biology, Cleveland State University, 1983 East 24 Street, Cleveland, Ohio 44115. Equal Opportunity Employer, M/F/H.

### ASSISTANT PROFESSORS

Applications are invited for two positions at the level of assistant professor in the Department of Pharmacology of Yale University School of Medicine. Applicants must have a doctoral degree and postdoctoral experience. Preference will be given to individuals with experience and research skills in the neural sciences, particularly at the molecular and cellular levels. Demonstrated potential to initiate a strong independent research program and to engage in the teaching activities of the department are expected. Interested candidates should send curriculum vitae, reprints, a brief description of research interests, and the names of three possible references by 15 August 1979 to: Dr. Alan C. Sartorelli, Chairman, Department of Pharmacology, Yale University School of Medicine, New Haven, Connecticut 06510. An Affirmative Action/Equal Opportunity Employer.

# POSITIONS OPEN

# ANATOMY

A FACULTY POSITION is available in the Department of Anatomy beginning September 1979. Principal responsibilities include gross anatomy and histology lecture and laboratory. Applicants must hold the Ph.D. or master's degree in the discipline and have a strong commitment to teaching. Research is encouraged and research experience in neuroscience is preferred. Send curriculum vitae and names of three references by 1 August 1979 to:

Pat Thomason, Ph.D. Chairperson of Search Committee Cleveland Chiropractic College 6401 Rockhill Road Kansas City, Missouri 64131

AQUATIC CHEMIST—Postdoctoral position available for 2 years starting on 1 September 1979 to work on nutrient dynamics in freshwater sediments. Sulfur experience helpful, but not required. Send résumé and names of three references to: Dr. Myron J. Mitchell, Department of Environmental and Forest Biology, State University of New York, College of Environmental Science and Forestry, Syracuse, N.Y. 13210.

#### AQUATIC ECOLOGISTS

Battelle, one of the world's leaders in research and development, has two positions open for aquatic ecologists with Ph.D.'s (one Ph.D. with a minimum of 2 years of experience beyond Ph.D.; one Ph.D. —recent graduate). You should have a wide range of interests, ability to work with a multidisciplinary team, and an interest in applied research and development. Areas of potential research include environmental toxicology, entrainment studies, environmental assessment, and population and ecosystem studies. Excellent opportunities in career develop-

ment, professional atmosphere, excellent salaries, and generous benefits. Send résumé in complete confidence to: Employment Manager,

# Columbus Laboratories

505 King Avenue Columbus, Ohio 43201

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# ASSISTANT INHALATION RESEARCH TOXICOLOGIST

Position available at the Toxic Hazards Research Laboratory in Dayton, Ohio.

Requires a minimum of B.S. degree in biological sciences or chemistry and 2 years of experience in applied toxicology, or an equivalent combination of education and experience.

Closing date for accepting applications is 31 August 1979

Send résumé to:

### Lois A. Doncaster UNIVERSITY OF CALIFORNIA Overlook Branch, P.O. Box 3067 Dayton, Ohio 45431

An Affirmative Action Employer. Minorities and women are encouraged to apply.

### ASSISTANT PROFESSOR OF ANATOMY AND PHARMACOLOGY

The Departments of Anatomy and Pharmacology, Columbia University College of Physicians and Surgeons, seek applicants with research experience in cardiac ultrastructure and electrophysiology with at least 2 years of postdoctoral training in the use of immunological techniques.

Teaching duties will include active participation in the histology courses offered to medical and dental students and in graduate courses in both anatomy and pharmacology.

and pharmacology. Salary will be commensurate with experience. Candidate should submit curriculum vitae and the names of three references to: Dr. Brian F. Hoffman, Department of Pharmacology, Columbia University College of Physicians and Surgeons, 630 West 168 Street, New York, N.Y. 10032. Columbia University is an Affirmative Action/Equal Opportunity Employer.

### ASSISTANT PROFESSOR, BIOCHEMISTRY

Texas A & M University, College of Medicine, has a junior faculty opening in the Department of Medical Biochemistry. Candidate should have a Ph.D. or M.D. and postdoctoral research experi-ence. Duties will include research. course develop-ment, and teaching medical students in a new VA-related College of Medicine. Previous applications are being reactivated and need not be result with are being reactivated and need not be resubmitted Send complete curriculum vitae to: Search Com-mittee, Department of Medical Biochemistry, College of Medicine, Texas A & M University, 110 Herman Heep Building, College Station, Texas 77843.

Equal Employment Opportunity through Affirmative Action

### ASSISTANT PROFESSOR OF MICROBIOLOGY

Tenure-track position open for molecular biologist (2 to 5 years of postdoctoral) to do research and teaching in areas related to developmental biology of microorganisms at the University of Virginia School of Medicine. Active research, graduate, and post-doctoral training programs. Send résumé to: Chair-man, Department of Microbiology, University of Vir-ginia School of Medicine, Charlottesville, Va. 22908. An Equal Opportunity/Affirmative Action Employer.

Applications are invited for the position of **ASSIST-ANT PROFESSOR** in the Department of Pharmacol-ogy and Therapeutics, Section of Toxicology. The individual is expected to develop an independent reindividual is expected to develop an independent re-search program in environmental or industrial tox-icology to complement existing programs in forensic and clinical toxicology. Ph.D. degree or equivalant and postdoctoral experience are required. Teaching responsibilities include medical and graduate courses. Interested candidates should send curricu-lum vitae and description of research and teaching interests to: Joseph E. Manno, Ph.D., Chief, Section of Toxicology, Department of Pharmacology and Therapeutics, Louisiana State University Medical Center, P.O. Box 33932, Shreveport, Louisiana 71130. Center, 71130.

We are an Equal Opportunity Employer.

# POSITIONS OPEN

#### ASSISTANT PROFESSOR OF BIOMECHANICS

The Department of Bioengineering of the University In Department of Bioengineering of the University of Pennsylvania has an open tenure-track position as an assistant professor in biomechanics. An initial 4-year appointment is desired. Candidates must have an interest in the biomechanics of head injury re-search to be performed in conjunction with the De-partment of Neurosurgery. Applicants must have a Ph.D. in bioengineering (mechanics or biomechan-ics) and L or 2 years of everience is desirable (ics), and l or 2 years of experience is desirable. Qualified applicants should submit their résumés to: Professor S. R. Pollack, Chairman, Bioengineering Department, University of Pennsylvania, Towne Building/D3, Philadelphia, Pa. 19104.

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ASSISTANT/ASSOCIATE PROFESSOR OF GE-ASSISTANT/ASSOCIATE PROFESSOR OF GE-NETICS. Iowa State University is seeking a highly qualified Ph.D. for a tenure-track position open 1 September 1979. Postdoctoral research and pub-lications required. Research efforts of applicant must include genetic aspects of dinitrogen fixation, preferably in conjunction with plant cell-culture techniques. Duties equally divided between teaching and research. Candidates should submit curriculum vitae and three letters of reference by 15 August 1979 to: Dr. Donald S. Robertson, Department of Ge-netics, Iowa State University, 10 Curtiss Hall, Ames, Iowa 50011. Equal Opportunity/Affirmative Action Employer

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ASSISTANT PROFESSOR—IMMUNOLOGIST Full-time research, tenure-track position. Research responsibility to investigate Equine LA and to ex-plore application of EqLA system to identification, parentage, and disease susceptibility in purebred horses. Ph.D. in immunology, significant back-ground in immunogenetics, pre- or postdoctoral ex-perience in HLA or similar laboratory required. Send complete curriculum vitae, statement of inter-est, and names of three references before 1 Septem-ber 1979 to: Dr. John T. Bryans, Chairman, Depart-ment of Veterinary Science, University of Kentucky, College of Agriculture, Lexington, Ky. 40546. The University of Kentucky is an Equal Opportunity/Af-firmative Action Employer. ASSISTANT PROFESSOR—IMMUNOLOGIST

### CSIRO **RESEARCH SCIENTIST** DIVISION OF FISHERIES AND OCEANOGRAPHY SYDNEY, NEW SOUTH WALES

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

FIELD: PHYSICAL OCEANOGRAPHY.

**GENERAL:** The division is Australia's principal marine research institution with over 80 scientists investigating the physical, chemical, and biological features, including fisheries, of the seas around Australia. Headquarters of the division are in Sydney with regional laboratories in Perth and Brisbane. On-line access to a CYBER 76 computer is available. Seagoing facilities include two medium-sized chartered vessels and several smaller vessels. The appointee will be located in Sydney.

**DUTIES**: As head of the Physical Oceanography Group of ten scientists, the appointee will be a senior physicist who will be responsible to the chief of the division for the overall planning, organization, and execution of the division's programs in physical oceanography, and will be expected to ensure that these are closely coordinated with work in chemical and biological oceanography and in fisheries.

The appointee will also initiate and personally carry out research in physical oceanography in a field to be agreed on with the chief of the division.

QUALIFICATIONS: For such a senior appointment, a person with extensive research experience, and with managerial ability is sought. Minimum qualifications are a Ph.D. or equivalent in an appro-priate branch of science (physics, mathematics, or engineering), together with considerable experience most of which should be in physical oceanography. It would be an advantage if this experience were in one of the fields presently regarded as directly relevant to the division's work, namely dynamics of mesoscale water movements and dynamics of circulation over continental shelves and slopes. Ability to work at sea is essential.

Prospective applicants are encouraged to contact: D. J. Rochford, Chief of the Division, for further details of the division's facilities and programs

SALARY: Dependent upon experience, but within the ranges: Principal Research Scientist: A\$23,247 to A\$26,368 per annum, Senior Principal Research Scientist: A\$27,790 to A\$30,530 per annum. TENURE: Indefinite with superannuation.

Applications in writing, quoting reference number 320/626 should state full name, age, date, and place of birth, details of qualifications and experience and the names of at least two persons from whom an employment reference could be obtained should be sent to:

The Chief The Chier, Division of Fisheries and Oceanography, CSIRO, P.O. Box 21 Cronulla, New South Wales 2230 Australia

by 31 August 1979.

### POSITIONS OPEN

ASSISTANT PROFESSOR (tenure-track). Section of Genetics in the Department of Medicine. Back-ground in biochemistry or molecular biology pre-ferred. Minimum teaching required. Salary competitive.

Send résumé to: Dr. Henry Rothschild, Department of Medicine, Louisiana State University Medical Cen-ter, 1542 Tulane Avenue, New Orleans, La. 70112. An Equal Opportunity/Affirmative Action Employer

ASSISTANT OR ASSOCIATE PROFESSOR OF PHARMACOLOGY

We have a position for a Ph.D., M.D., or M.D./ Ph.D. with talent in biochemical pharmacology and mass spectroscopy with interest in teaching and re-search in drug metabolism. Require evidence of experience in the analysis of drugs by means of com-puter-guided GC/MS and similar evidence of experience in computer-related programming end related analytical technology. Must have broad knowledge of pharmacology, toxicology, drug metabolism, pharmacokinetics and organic synthesis; special in-terest in synthesis of stable labeled drugs. Salary competitive. Send curriculum vitae and correspon-dence to: Dr. Joseph R. Bianchine, Chairman, De-partment of Pharmacology, The Ohio State University College of Medicine, Columbus, Ohio 43210.

Equal Opportunity/Affirmative Action Employer

ASSISTANT PROFESSOR OF PHARMACOLOGY. ASSISTANT PROFESSOR OF PHARMACOLOGY. Applications are invited from qualified candidates with a Ph.D. or M.D. degree. Opportunity exists for a joint appointment in clinical pharmacology. Appli-cants must have a minimum of 2 years of post-doctorate experience. Position offers opportunities to develop a research program and to participate in the teaching of graduate and medical pharmacology courses. Submit a résumé of research interests, curriculum vitae, and three letters of recommendation to: Dr. Michael J. Peach, Department of Pharmacolo-gy, Box 448, University of Virginia School of Medi-cine, Charlottesville, Virginia 22908. An Affirmative Action/Equal Opportunity Employer

#### ASSISTANT PROFESSOR OF PLANT BIOLOGY

A well-equipped modern Department of Biological Sciences located outside Baltimore is seeking a plant biologist with postdoctoral experience, who has demonstrated an ability to initiate a vigorous re-search program and has a commitment to quality graduate and undergraduate teaching. Candidates should have a strong background in physiology and/ or biochemistry of plant systems, specializing in areas such as morphogenesis, tissue culture, plant hormones, water relations, algology, or virology. Submit curriculum vitae, bibliography, names of suggested referees, and a description of research in-terests to: Dr. Thomas F. Roth, Chairman, Faculty Search Committee. Department of Biological Sci-ences, University of Maryland Baltimore County, Ca-tonsville, Maryland 21228. An Equal Opportunity/Af-firmative Action Employer. Sciences located outside Baltimore is seeking a plant

ASSOCIATE DEAN OF HEALTH PROGRAMS. Sangamon State University, Springfield, Illinois, in-vites applications to fill the position of associate dean of health programs who will be the principal administrative and academic officer responsible for coordinating 27 faculty in six programs of Geron-tology, Health Services Administration, Medical Technology, Nurse Anesthesia, Nursing, and Nutri-tion. Candidates must hold a doctorate degree in a health-related area: have administrative experience in higher education; and have demonstrative experience ership capabilities and scholarship. Submit appli-cations by 15 August 1979 to: Search Committee for the Associate Dean of Health Programs, Vice President for Academic Affairs, Sangamon State Universi-ty, Springfield, Illinois 62708. Affirmative Action/ Equal Opportunity Employer.

**BIOCHEMIST**-Assistant research biochemist with training in microbiology. Applicant should have a Ph.D. (or equivalent) and experience in modern pro-Ph.D. (or equivalent) and experience in modern pro-tein purification procedures and carbohydrate chem-istry. A good working knowledge of microbial ge-netics and human red cell antigens would be desir-able. This position requires independent and team research. Starting October 1979. Salary range: \$18,000 to \$20,000. Send résumé with list of pub-lications and references by 15 September to: Direc-tor, Naval Biosciences Laboratory, University of Cali-fornia, Building 844, Naval Supply Center, Oakland, Calif. 94625. The University of California is an Af-firmative Action Employer. firmative Action Employer.

SCIENCE, VOL. 205

# Oceanographer/Deputy Director

NOAA, Pacific Marine Environmental Laboratory, Seattle WA is looking for a scientist to serve as its Deputy Director. U.S. citizenship is required for appointment, which will be in the Federal Civil Service at the GS-13 to GS-14 grade level (\$27,453-42,171 per annum) depending upon the present salary and qualifications of the candidate selected. The person selected will serve as a general line manager or executive officer for the laboratory, will share in the overall management and administration with the Director. and will supervise much of its day-today operations. Some opportunity to carry out individual research will be available. Applicants must have a strong background in management and supervision. A doctoral degree in oceanography, physics, chemistry, or atmospheric science is desired, with at least 3 years of appropriate research experience.

Applicants should send a government application (Standard Form 171), available at most federal offices, a curriculum vitae with references, and a list of publications to: NOAA/PMEL, Area Personnel Officer, 3711 15th Ave NE, Seattle, WA 98105. Inquiries and applications will be accepted until Aug 12, 1979. An Equal Opportunity/Affirmative Action Employer.

### \*

Two positions are available under the Inter-governmental Personnel Act of 1970 for persons now employed in state/local government or in colleges and universities. These positions are within the Environmental Observation Division of the Office of Space and Terrestrial Applications, National Aero-nautics and Space Administration (NASA) Head-quarters. Both positions are for 1 year with the pos-sibility for renewal for an additional year. Pay will be at a level commensurate with experience, and will be established after a review of qualifications.

Candidates must have been employed by the univer-sity in a permanent position for at least 90 days or be a career employee of a state or local government. Candidates must also meet the federal qualification standards for the position. These are as follows: a degree in an appropriate field of science, plus 3 years of progressively responsible experience in duties re-bard to the application. lated to the position.

## **OCEANOGRAPHER** (one position)

This individual will provide scientific guidance to NASA management in the development and imple-mentation of a scientific research program in remote satellite sensing of occanic processes in coastal re-gions. A background in coastal occanography or occan optics is preferred, with experience in phys-ical, biological and/or geological occanography. A Ph.D. or equivalent training and experience is mandatory. Experience in remote sensing is desirable, especially as related to ocean color.

METEOROLOGIST/CLIMATOLOGIST (one position)

This individual will provide technical and scientific expertise to NASA management in the applications program in remote satellite sensing of atmospheric processes. A background in meteorology, climatolo-gy, or atmospheric physics is required. A back-ground in remote sensing is desirable. A Ph.D. or the equivalent training and experience is mondatory. equivalent training and experience is mandatory

Interested parties should send a current résumé to: NASA Headquarters, Attention: Sarah Keegan, Code EPM-3, Washington, D.C. 20546.

in the planning, evaluation, and synthesis of multi-disciplinary research programs, projects, or studies. Additional technical information may be obtained from: Dr. Harris, telephone: 206-442-5590 or FTS 323-5590. TO APPLY: Current or former federal em-ployees should submit SF-171, CD-332 (Employee Appraisal), and a transcript. Form CD-332 may be obtained by telephoning: 303-499-1000, extension 6332 or FTS 323-6332. Applicants not employed by the federal government should submit a complete application package for "Physical Science Positions-1300" if applying for the oceanography or physical science options and an application package for "Senior Level Positions, No. 408" if applying for the ecology option. These forms may be obtained from the nearest Office of Personnel Management (formerly U.S. Civil Service Commission). All appli-cations should be submitted to: DOC/NTIA, Person-nel Services Division (R566), attention: Ms. Straight,

nel Services Division (R566), attention: Ms. Straight, Boulder, Colorado 80303. Reference Vacancy No. NOAA/ERL 79–223 (1). Applications must be post-marked no later than 1 September 1979 to receive consideration. An Equal Opportunity Employer.

\*

MARINE ECOLOGIST, PHYSICAL SCIENTIST, or OCEANOGRAPHER. The U.S. Department of Commerce, National Oceanic and Atmospheric Ad-ministration (NOAA), Office of Marine Pollution As-sessment in Seattle, Washington, is seeking a senior level scientist to conduct and coordinate multi-disciplinary planning in marine pollution research, monitoring, and development. Incumbent prepares and coordinates planning documents, staff reviews on research proposals, and synthesis or other special reports on marine pollution and marine ecosystem uses. Incumbent interacts extensively with state.

reports on marine pollution and marine ecosystem uses. Incumbent interacts extensively with state, federal agencies, universities, and the private sector. This position is in the competitive Civil Service and may be filled at either the GS-14 or GS-13 level. En-trance level salaries are \$32,442 or \$27,453 per an-num, respectively. QUALIFICATIONS: B.S. or higher degree in marine ecology, physical science, or occanography with a primary emphasis in pollu-tion chemistry and effects. In addition, 3 years of professional experience which has equipped the can-didate with the knowledges necessary to perform the above duties. SELECTIVE FACTORS: Applicants must have academic preparation and/or experience

must have academic preparation and/or experience in the planning, evaluation, and synthesis of multi-

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# **General Motors Research Laboratories**

The Transportation and **Traffic Science Department** of the **General Motors Research Laboratories** 

# has openings for:

Ph.D. Transportation Engineers, Transportation System En-gineers, Planners, Economists, Statisticians, and Physical Scientists with backgrounds and interests in transportation system and policy analysis, traffic flow theory, nicro-economics, econometrics, operations research or applied statistics

Successful candidates would contribute to on-going projects on automobile usage, freight transportation, highway financing, traffic safety and efficiency, energy consumption, and driver behavior. Applicants must demonstrate the ability to conduct research and communicate results effectively

Interested professionals with U.S. Citizenship or Visa Status that permits legal acceptance of permanent employment un-der U.S. Immigration Laws, should send their resume to:

> Mr. J. Burt Sparhawk **GM** Technical Center Personnel Placement TS-1 **Engineering Staff North** Warren, Michigan 48090

An Equal Opportunity Employer



DIRECTOR AGRICULTURAL EXTENSION SERVICE UNIVERSITY OF MINNESOTA ST. PAUL, MINNESOTA

The University of Minnesota invites nominations, applications, or expressions of interest for the positions of director of the Agricultural Extension Service.

The Minnesota Agricultural Extension Service is part of the University of Minnesota's Institute of Agriculture, Forestry and Home Economics. The director of the Extension Service reports directly to the deputy vice president-dean of the Institute of Agriculture, Forestry and Home Economics

The director of the Extension Service is responsible for administrative, fiscal, and personnel management of all phases of the Agricultural Extension Service in Minnesota. The Agricultural Extension Service in Minnesota presently has a staff of approximately 870 persons. Fiscal year 1978-1979 budget for the Minnesota Agricultural Extension Service to the degenerate of the Minnesota Agricultural Extension Service to the degenerate of the Minnesota Agricultural Extension Service to the degenerate of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the Minnesota Agricultural Extension Service to the degree of the d ice totaled approximately \$16 million.

Qualifications include demonstrated program leadership, administrative ability, personnel-financial management, and communication skills.

Preference will be given to persons with a Ph.D. or equivalent degree; however, persons with outstanding records and a minimum of a master's degree will be considered.

Salary competitive. Federal retirement.

Applications should include a résumé, letter of application, and names of three to five references.

Nominations due by 1 August 1979.

Applications due by 1 September 1979

Send nominations and applications to:

Harold A. Miller, Chair Search Committee for Director of Agricultural Extension Service University of Minnesota 150 Wesbrook Hall 77 Pleasant Street, SE Minneapolis, Minnesota 55455

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

GM

BIOCHEMIST RESEARCH ASSOCIATE (Ph.D.) to join group studying gastrointestinal peptide hor-mone-receptor interactions in large teaching hospi-tal affiliated with State University of New York, tal affiliated with State University of New York, Stony Brook. Experience in cell isolation or hor-mone-receptor binding studies essential. The ap-pointment will be initially for 2 years with the oppor-tunity to develop long-term collaboration. Salary: \$16,000 to \$18,000 per year. Please forward curricu-lum vitae and the names of three references to: Dr. Mel Praissman, Nassau County Medical Center, East Meadow, New York 11554. An Faul Opportunity Employer

An Equal Opportunity Employer

#### **BIOCHEMICAL VIROLOGY**

A junior or senior postdoctoral position is avail-able to study biochemical aspects of influenza virus replication and antigenic variation in influenza virus-es. Successful candidates must have strong back-ground in biochemistry. Send curriculum vitae and a statement of career goals to: Dr. R. G. Webster, Division of Virology, St. Jude Children's Research Hospital, P.O. Box 318, Memphis, Tenn. 38101. An Equal Opportunity/Affirmative Action Employer.

BIOLOGIST, in the Center for Environmental Stud-BIOLOGIST, in the Center for Environmental Stud-ies, for research on chemical aspects of micro-biology and ecology, teaching, and assisting in ad-ministration. Fixed-term (1-year) appointment be-ginning 4 September 1979 as assistant or associate professor, with possibility of renewal. Bemidji State University is a liberal arts school, with about 4000 students, attractively located in north central Minne-verter for a formic renewal in the posterior and these students, attractively located in hold central Minicessota. Send résumé, academic transcript, and three letters of reference by 8 August to: Dr. G. E. Lind-gren, Head, Division of Science and Mathematics, Be-midji State University, Bemidji, Minnesota 56601. Additional information available on request.

Affirmative Action/Equal Opportunity Employer

### **BIOLOGY POSITION**

Southwestern At Memphis, an urban liberal arts col-lege, invites applications for a position starting ei-ther January 1980 or September 1980. Applicants should have a general biology background, an inter-est and commitment to quality undergraduate teach-ing, and an ability to relate to students. Teaching duties will be general biology and animal physiology. Opportunities for research and for supervising stu-dent projects. Ph.D. required; rank and salary nego-tiable. Deadline for receiving applications is 1 Octo-ber 1979. Interested individuals should send letter of annlication, curriculum vitae, transcripts, and three application, curriculum vitae, transcripts, and three letters of recommendation to:

Dr. Bobby R. Jones Biology Department Southwestern At Memphis 2000 North Parkway Memphis, Tennessee 38112

An Equal Opportunity/Affirmative Action Employer

#### **BIOPHYSICAL GENETICIST**

BIOPHYSICAL GENETICIST RESEARCH ASSOCIATE. Position available fall 1979 in the laboratory of Dr. John Vournakis to study the secondary structure of eukaryotic messen-ger RNA, and its role in the control of protein syn-thesis, using the globin and histone mRNA's as mod-el systems. Applicants are required to have a Ph.D. or M.D. with research experience in RNA biochem-istry and sequence analysis, research experience in computer-modeling of biological systems with knowledge of programming in Fortran and APL, and a strong background in biophysical aspects of nucle-ic acid structure and conformation. Candidates must demonstrate clear evidence of productivity and dedi-cation to scientific research. Send curriculum vitae and names of three references to: Dr. John N. Vour-nakis, Department of Biology, Syracuse University, and names of three references to. Dr. John N. Volt-nakis, Department of Biology, Syracuse University, 130 College Place, Syracuse, N.Y. 13210 by 31 August 1979, Syracuse University is an Equal Opportunity/ Affirmative Action Employer.

CHAIRPERSON, Department of Medicine, University of Miami School of Medicine. Appointments include professor and chairperson at the university and chief of medicine at the Jackson Memorial Hospital. Candidates should have achieved academic stature and have demonstrated capabilities for leadership, management, and planning. Application or recommendation for the position should be accompanied by curriculum vitae and be sent to: Robert Zeppa, M.D., Chairman, Search Committee for a Chairperson, Department of Medicine, University of Miami School of Medicine, P.O. Box 016310, Miami, Florida 33101. Florida 33101.

# CHAIRPERSON PSYCHOLOGY DEPARTMEN NORTHEASTERN UNIVERSITY

The department is seeking an **experimental psycholo-gist** to serve as its chairperson. He or she is also ex-pected to pursue a program of research, supervise doctoral students, and contribute to formal instruc-tion. The candidate must possess excellent qualifications in experimental psychology. A brochure de-scribing the faculty and their research is available on request. Applicants will normally have senior stand-ing in experimental psychology (associate or full professor). The salary is negotiable. Please send résumés to: Helen Mahut, Chairwoman, Search Com-mittee, Psychology Department, 409 MU, North-eastern University, Boston, Mass. 02115.

Northeastern University is an Equal Opportunity/ Affirmative Action Employer.

#### CHEMIST

We have a small business to run and build. Specifically to purify a line of polymerases, ligases, restric-tion endonucleases and nucleotide kinases, useful in box and RNA manipulation. If you think you have what it takes to develop these products from the bench to the customer, send a letter about yourself and a résumé to:

**Box 219, SCIENCE** 

An Equal Opportunity Employer, M/F

# DIRECTOR, ENVIRONMENTAL DATA AND INFORMATION SERVICE

The National Oceanic and Atmospheric Administra-tion, U.S. Department of Commerce, announces a vacancy in the career Senior Executive Service as director, Environmental Data and Information Service, a scientific/technical organization of over 600 employees, in Washington, D.C. Applicants will be evaluated on: experience in positions of major man-agement responsibility in a scientific/technical or-ganization to include successful execution of major ograms in one or more of the following fields: programs in one or more of the following helds; physical sciences, oceanography, meteorology, earth sciences, and data or information manage-ment; experience in interdisciplinary environmental service programs to meet the needs of a wide range of users; ability to give oral and written presenta-tions and/or explanations in such forums as the U.S. Congress, national and interrational symposia bud-Congress, national and international symposia, bud-get hearings, and so forth; successful personal interaction with superiors, peers, and subordinates in the exercise of job responsibility; experience in the appli-cation of computers to scientific/technical fields and in administrative fields; successful operation of an effective Affirmative Action and Equal Opportunity program; understanding of the organization and op-eration of the federal executive and legislative branches; and familiarity with federal personnel, budget, and procurement processes. At least 1 year of experience must have been at a level of difficulty comparable to that of a GS-17 in federal service. Please submit your application by 15 August 1979, to: Personnel Branch, AD412, Page Building 2, 3300 Whitehaven Street, NW, Washington, D.C. 20235, at-tention: Elizabeth A. Fitchijian.

An Equal Opportunity Employer

# SIMON FRASER UNIVERSITY BURNABY, BRITISH COLUMBIA, CANADA DEPARTMENT OF BIOLOGICAL SCIENCES ENTOMOLOGIST

Applications are invited for a tenure-track posi-tion as an assistant professor in entomology. The strong research program and to participate in the teaching program at both the undergraduate and graduate level including the Master of Pest Manage-ment Program. Candidates must have a Ph.D. de-gree in entomology or a related subject. The position is available immediately, subject to budgetary ap-proval. The initial appointment will be for a period of 2 years, renewable. The salary scale is under revi-sion; the current salary base for the assistant profes-sor rank is \$18,604 per annum. Applications should include up-to-date curriculum vitae, a brief statement of research interests and should request a confidential assessment of their re-search and teaching ability from three referees, to be forwarded directly to: Dr. M. Mackauer, Chairman, Department of Biological Sciences, Simon Fraser Uni-versity, Burnaby, British Columbia, Canada VSA Loc. Applications are invited for a tenure-track posi-

Deadline for receipt of applications is 15 September 1979 or when position is filled.

# POSITIONS OPEN

# CENTER FOR ENVIRONMENTAL RESEARCH STOCKTON STATE COLLEGE

The center promotes faculty research, stu-dent project work, and community service. Stockton is a 4-year undergraduate college of 4000 students on a 1600-acre campus, 12 miles inland from Atlantic City, New Jersey. DIRECTOR-The director will help faculty develop and prepare grant proposals and will coordinate a program of environmental research and community service projects. The director will also help guide the 2-year-old center in its development. Skill in working with faculty and students in an academic set-ting is essential. An advanced degree plus experience in obtaining grants are required. Salary: \$22,500. Available 1 October 1979. Closing date: 15 August.

Closing date: 15 August. **ADMINISTRATIVE ASSISTANT**—Respon-sibilities include managing various center projects including a water-testing laboratory, coordinating student internships and com-munity services, aiding faculty in adminis-tering grant funds, and helping the director in the development of the center. Energy, en-thusiasm and experience in working within a thusiasm, and experience in working within a bureaucracy are needed. An advanced de-gree is preferred. Salary: \$14,000. Available 1 November 1979. Closing date: 30 August. Write or call for further information. Send letter of interest, résumé, and names, addresses, and telephone numbers of three refer-ences to: Edward S. Paul, Dean, Faculty of Natural Sciences and Mathematics, Stockton State College, Pomona, N.J. **08240.** Applications for women and minor-ities are encouraged. An Equal Opportunity Employer.

#### ENVIRONMENTAL TOXICOLOGY

The Board on Toxicology and Environmental Health Hazards of the National Academy of Sciences is seeking a senior professional in the area of environmental toxicology. Responsibilities will in-clude coordination and implementation of a broad program aimed at the assessment of scientific data to determine risks to human health, with emphasis on chemical etiologies, extrapolation and molecular mechanisms, development of areas of evaluative in-vestigations, determination of technical approaches, and participation with a study group to provide ex-pert judgmental analysis for the resolution of scienpert judgmental analysis for the resolution of scien-tific problems. A Ph.D. degree, or equivalent, with evidence of significant experience as well as scholar-ly contributions to the area of toxicology are re-quired. Demonstrated proficiency in and knowledge of dermal and inhalation toxicology will be given pri-ority consideration. Applicants should submit cur-riculum vitae to: Dr. Gordon W. Newell, Associate Executive Director, Board on Toxicology and Envi-ronmental Health Hazards, National Academy of Sci-ences, 2101 Constitution Avenue, NW, Washington, D.C. 20418. An Equal Opportunity Employer D.C. 20418. An Equal Opportunity Employer

FACULTY POSITION. Ph.D. physiologist or biolo-FACULTY POSITION. Ph.D. physiologist or biologist to conduct research in experimental ischemic myocardial disease and participate in clinical research projects. Experience with government grant writing and administration helpful. Please contact: Director of Cardiology, St. Louis University Medical School, 1325 South Grand Boulevard, St. Louis, Missouri 63104; telephone: 314-771-2074. An Equal Opportunity/Affirmative Action Employer, M/F/H.

The Department of Biological Sciences at Stanford University is seeking qualified applicants for a FAC-ULTY POSITION, probably at the nontenured level, in the general area of ORGANISMAL BIOLOGY. accomplishments. Duties will include participation accomplishments. Duties will include participation in both graduate and undergraduate teaching as well as developing an active research program in animal behavior, animal physiology, or neurobiology. Whereas we are searching primarily at the non-tenured level, consideration may be given to truly outstanding senior candidates as well. Nominations or curriculum vitae should include the names of three references and should be sent to: Allan M. Campbell, Search Committee Chairperson, Depart-ment of Biological Sciences, Stanford University, Stanford, California 94305. To be considered, mate-rial should reach Stanford by 15 October 1979. rial should reach Stanford by 15 October 1979

Stanford University is an Equal Opportunity/Affirmative Action Employer.

# Clinical Pharmacologist

# The Squibb Institute for Medical Research

We have a challenging opening in our Princeton, New Jersey, laboratories for an experienced clinical pharmacologist to participate in our new drug development program. The main thrust of our research effort is in the cardiovascular, anti-flammatory (systemic and topical) and anti-infective areas. A clinical pharmacology unit, affiliated with a local medical center, is available for the conduct of human investigation. The position also carries with it the opportunity to work closely with preclinical scientists at all levels.

tists at all levels. Candidates should preferably possess an M.D. degree although especially qualified Ph.D. degree holders will also be considered. The ideal candidate will have 2 or more years of research experience in an industrial or academic setting and a strong record of achievement including publication in refereed journals. The position offers excellent salary, ben-

The position offers excellent salary, benefits and opportunity for advancement. Please send curriculum vitae and complete details of your experience including salary history, in confidence, to:

> Mr. J. R. Convery, E. R. Squibb and Sons, Inc., Department DNM, P. O. Box 4000, Princeton, New Jersey 08540.

SQUIBB An Equal Opportunity Employer—M/F

# An EPA sponsored National Conference:

# Cardiovascular Disease and Drinking Water

October 9—11, 1979 at the University of Massachusetts/ Amherst

Recognized authorities will present their latest research concerning the role of drinking water factors as etiologic agents in cardiovascular disease. The following three specific areas will be addressed in detail:

- 1. The influence of elevated levels of sodium in drinking water on human health.
- 2. The influence of selected heavy metals (e.g. cadmium, copper, lead, selenium, and zinc) in drinking water on cardiovascular disease.
- 3. The influence of hard and soft water on cardiovascular disease.

For further information concerning conference attendance write to:

Edward J. Calabrese, Ph.D.

or Gary S. Moore, Dr. P.H. Conference Directors Division of Public Health University of Massachusetts Amherst, Massachusetts 01003

# MEDICAL OFFICER/ HEALTH SCIENTIST ADMINISTRATOR

# **Division of Blood Diseases and Resources**

The National Heart, Lung, and Blood Institute is seeking applicants for the position of Chief of the Blood Resources and Transplantation Branch of the Institute's Division of Blood Diseases and Resources with an annual salary ranging from \$38,160 to \$47,500 (GS-15 salary range) dependent upon qualifications. The Branch has responsibility for planning, conducting, and directing an extramural program of basic and applied, clinical and non-clinical research in areas of blood supply, components, safety, and distribution, as well as for studies in organ preservation and storage. The Branch also receives and evaluates national and international developments in these program areas. The position requires the individual to participate with the Director and other members of his staff in the establishment of priorities and in the implementation and conduct of specific grant and contract programs.

An applicant should be a Medical Doctor or Ph.D. (or qualitative equivalent) with experience in the overall functions of a blood transfusion service. Other requirements include a background in the field of hematology, a working knowledge of blood banking activities, and experience in clinical and research disciplines. The position to be filled is in the career Civil Service. Those currently serving in the Public Health Service Commissioned Corps are also encouraged to apply. Those interested in being considered for this position should submit a completed Form SF-171 (Personal Qualifications Statement), along with a Curriculum Vitae and Bibliography by August 31, 1979, to the NHLBI Personnel Office, National Institutes of Health, Public Health Service, 9000 Rockville Pike, Building 31, Room 5A-32, Bethesda, Maryland 20205. For additional information, please call (301) 496-6477. An Equal Opportunity Employer.

NATIONAL INSTITUTES OF HEALTH

# SENIOR SUPERVISORY OCEANOGRAPHERS (TWO POSITIONS)

NOAA, Pacific Marine Environmental Laboratory, Seattle, WA is looking for Group Leaders for its Coastal Physics Group and Deep Sea Physics Group. Applicants for these staff positions must have management or supervisory experience. US citizenship is required for appointment, which will be in the Federal Civil Service at the GS-14 to GS-15 grade level (\$32,442 to \$47,500 per annum) depending upon the present salary and qualifications of the candidate selected for each position.

Applicants for the position of Leader, Coastal Physics Group must have a strong research background in field studies of coastal and estuarine physical processes, and a good grasp of the theoretical basis for nearshore dynamics. The group is engaged in process-oriented studies of coastal Pacific waters. A doctoral degree in physical oceanography, physics, or atmospheric science is desired, with at least 3 years of appropriate research experience.

Applicants for the position of Leader, Deep Sea Physics Group must have a strong research background in field studies of openocean physical processes and a good grasp of the theoretical basis for large-scale ocean/climate dynamical interactions. The group is engaged in process-oriented studies of equatorial and southern Pacific waters, with a view toward understanding the role of the tropical and subpolar ocean in establishing climate variability. A doctoral de-gree in physical oceanography, physics, or atmospheric science is desired, with at least three years of appropriate research experience.

Applicants should send a government application (Standard Form 171), available at most federal offices, a curriculum vitae with references, and a list of publications to: NOAA/PMEL, Area Personnel Officer, 3711 15th Ave. NE, Seattle, WA 98105. Inquiries and applications will be accepted until Aug. 12, 1979; entry on duty around October 1, 1979. An Equal Opportunity/Affirmative Action Employer.

# STATE UNIVERSITY OF NEW YORK EMPIRE STATE COLLEGE

Title: FACULTY OPENING/Science, Mathematics and Technology Location: Genesee Valley Regional Center (Roches-

ter Duties: A faculty member in Science, Mathematics and Technology to take responsibility for the super-vision of independent study activities, for degree program advisement, and for the evaluation of prior

learning.

Qualifications: Appropriate disciplinary background might include academic training, including a Ph.D. in physical science or engineering or applied mathe-matics. An important selection consideration will be the breadth of the candidate's experience in teaching and/or industry in areas such as applied mathemat-ics, computer science, applied physics, electrical or mechanical engineering, and industrial technology. mechanical engineering, and industrial technology. Must be able to work comfortably with a diverse, adult student population.

Salary: Depending on background and experience. Anticipated hiring date: This full-time, tenure-track position at the assistant professor level will begin 1 September 1979.

Interested persons must submit letter of application, résumé, letters of reference, and placement file before 8 August 1979 to:

Janet Zimmer Director of Personnel and Affirmative Action State University of New York Empire State College 2 Union Avenue Department 36 Saratoga Springs, New York 12866

An Affirmative Action/Equal Opportunity Employer

# HEAD, DEPARTMENT OF BIOCHEMISTRY SCHOOL OF BASIC MEDICAL SCIENCES, CHICAGO, UNIVERSITY OF ILLINOIS

A search has been initiated for an established in-vestigator interested in research and teaching of graduate and health science students to serve as head, Department of Biochemistry. The present de-partment consists of faculty with funded, indepen-dent research programs. Responsibilities include re-cruitment of additional faculty. Applications and nominations of individuals committed to excellence in research and education should be addressed to: Dr. H. Feinberg, Chairman, Search Committee, De-partment of Pharmacology, 835 South Wolcott Ave-nue, P.O. Box 6998, Chicago, Illinois 60680; tele-phone: 312-996-3541. In order to receive full consid-eration, applications should be submitted by 15 September 1979. The University of Illinois is an Af-firmative Action Employer. graduate and health science students to serve as firmative Action Employer.

# UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

Position available at INSTRUCTOR/ASSISTANT PROFESSOR level in the Section of Pediatric Sur-gery with appropriate distribution of time between clinical activity, teaching, research, and administra-tion. Must have M.D. degree and be Board-certified in pediatric surgery. Reply to: Box 229, SCIENCE. Code 100D0. A nondiscriminatory, Affirmative Ac-tion Employer tion Employer

LIPID BIOCHEMIST/RESEARCH ASSOCIATE. Arteriosclerosis Research Center seeking lipid bio-chemist for ongoing studies to determine mecha-nisms of individuality in plasma cholesterol response to dietary cholesterol in nonhuman primates. Indeto dietary cholesterol in nonhuman primates. Inde-pendent research in same problem area also encour-aged. Applicant should have graduate research or postdoctoral experience oriented toward whole body cholesterol metabolism and/or lipid or lipopro-tein metabolism. Salary range higher than that of-fered through traditional postdoctoral fellowship. Position guaranteed for 2 years with opportunity for more long-term support. Send curriculum vitae with names of three references to: Dr. Richard St. Clair, Department of Pathology, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, N.C. 27103. Equal Opportunity Employeer. N.C. 27103. Equal Opportunity Employer.

MICROBIOLOGIST. Assistant professor, Ph.D. Teaching, research. Full-time. Medical micro-biology with interest in bacterial physiology and ge-netics. Position open November 1979. Contact: Chairperson, Department of Microbiology, Catholic University of Puerto Rico, School of Medicine, Ponce, P.R. 00731.

# POSITIONS OPEN

# CARNEGIE-MELLON UNIVERSITY COMPUTER SCIENCE DEPARTMENT HEAD

Nominations and applications are invited for the po-Nominations and applications are invited for the po-sition of professor and head of the Department of Computer Science. The position involves major ad-ministrative and leadership responsibilities for re-search and academic programs in an established re-search-oriented department. Nominees and appli-cants must have an outstanding record of intellectual achievement and leadership, indicativé of senior rank in any area of computer science. Send pomi rank, in any area of computer science. Send nomi-nations or résumé by 15 September 1979 to: Professor D. Raj Reddy, Chairman Search Committee, De-partment of Computer Science, Carnegie-Mellon Uni-versity, Schenley Park, Pittsburgh, Pa. 15213.

Carnegie-Mellon University is an Equal Opportunity/Affirmative Action Employer.

HART METABOLISM POSTDOCTORAL POSITION available in the areas of cardiac metabolism, creatine kinase, and mito-chondrial bioenergetics. Position open to Ph.D. in biochemistry or M.D. with strong research back-ground. Salary: \$12,000. Send résumé and three let-ters of recommendation to: Dr. William E. Jacobus, 509 Blalock Building, The Johns Hopkins University School of Medicine, 600 North Wolfe Street, Balti-more, Md. 21205. An Equal Opportunity/Affirmative Action Employer. Action Employer

An IMMUNOBIOLOGIST-IMMUNOGENETICIST (Ph.D.) with several years of experience is invited to apply for an assistant professor faculty position that requires research and teaching abilities. Participa-tion is expected in the Bone Marrow Trans-plantation-Natural Resistance Basic Research Proplantation—Natural Resistance Basic Research Pro-grams, Immunobiology Training Program, and class-room teaching. Salary: \$20,000 to \$25,000 per year. Send résumé to: Dr. Gustavo Cudkowicz, Depart-ment of Pathology, State University of New York, School of Medicine, Buffalo, N.Y. 14214. Affirmative Action/Equal Opportunity Employer.

## NEUROPHYSIOLOGIST

Position available for neurophysiologist. Ph.D. re-Position available for neurophysiologist. Ph.D. re-quired and minimum of 2 years of experience. Ap-pointment subject to approval by the University of Minnesota. Please send curriculum vitae, refer-ences, and transcripts to: Chief, Personnel Service (05A), VA Medical Center, 54th Street and 48th Ave-nue South, Minneapolis, Minn. 55417. An Equal Op-portunity Employer.

# NUTRITIONIST DEPARTMENT OF FOOD SCIENCE AND HUMAN NUTRITION UNIVERSITY OF FLORIDA

An assistant professorship is available in the area of human nutrition effective September 1979. The applicants must have a doctoral degree in nutrition or closely related area with a strong background in basic biological sciences and research experience in intermediary metabolism. The appointee will be ex-pected to teach undergraduate and graduate courses in nutrition, supervise undergraduate and graduate programs, and develop a strong research program in nutritional biochemistry/physiology. Opportunity exists to develop intradepartmental research programs

Applicants should send curriculum vitae, a brief description of research interests, official transcripts, and three letters of reference to:

Dr. H. Appledorf Search and Screen Committee for Nutrition Position Food Science and Human Nutrition Department University of Florida Gainesville, Fla. 32611

The University of Florida is an Affirmative Action/ Equal Opportunity Employer

The **DEPARTMENT** OF **OBSTETRICS AND GYNE**-**COLOGY** at the University of Michigan, School of Medicine, in Ann Arbor is undergoing a major re-building program and is seeking applicants who have an M.D. degree and postdoctoral training in peri-natal medicine, endocrinology, psychosomatic med-icine, infertility with expertise in microsurgery, and oncology. Positions at any academic level will be considered. Send curriculum vitae, brief summary of present and future research, and names and addresspresent and future research, and names and addresspresent and interfesearch, and mantes and address-es of three references to: Alan E. Beer, M.D., Profes-sor and Chairman of the Department of Obstetrics and Gynecology, Women's Hospital, University of Michigan Medical School, Ann Arbor, Michigan 48109. A nondiscriminatory, Affirmative Action Em-ployer. Code 500B0.

# POSITIONS OPEN

MANAGER OF MASS SPECTROMETER LABO-**RATORY**. A staff position available beginning September 1979. Will be responsible for maintenance, upgrading, and development in the area of mass upgrading, and development in the area of mass spectrometric instrumentation. Applicant should be familiar with analog electronics. Experience with computer systems is desirable. Send inquiries to: Dr. Richard A. Day, Department of Chemistry, Uni-versity of Cincinnati, Cincinnati, Ohio 45221. An Affirmative Action/Equal Opportunity Employer.

**MOLECULAR GENETICIST.** The University of Louisville, Department of Biology, is seeking a mo-lecular geneticist for a tenure-track position at the assistant professor level beginning 1 January 1980. Individuals with postdoctoral and teaching experi-ence will be given preference. Teaching responsibili-ties include participation in a undergraduate course ties include participation in an undergraduate course in genetics, direction of an undergraduate course in bacteriology, and development of graduate-level courses in the area of specialty. Candidates must have the Ph.D. degree and have ucunoidates must have the Ph.D. degree and have demonstrates must ty to carry on an active research program. Salary level commensurate with experience. Send curricu-lum vitae, reprints of publications, and at least three letters of recommendation to: Dr. William S. Davis, Chairperson, Search Committee, Department of Biol-ogy, University of Louisville, Louisville, Ky. 40208 prior to 1 September 1979. An Equal Opportunity/ Affirmative Action Employee Affirmative Action Employer.

The State University of New York (SUNY) at Stony Brook is developing a new DEPARTMENT OF NEUROBIOLOGY AND BEHAVIOR and is seeking candidates for approximately two senior and two junior positions for the 1980-1981 academic year. The senior positions carry tenure and the junior are tenure-track.

Areas of particular interest include development and Areas of particular interest include development and plasticity, synaptic mechanisms (morphology, bio-chemistry and/or physiology), integrative neurobiol-ogy, the cellular basis of behavior (vertebrate and invertebrate), and vision. Candidates for the junior positions should have at least 2 years of postdoctoral training. Letters of application should be accom-panied by curriculum vitae statement of receiver training. Letters of application should be accom-panied by curriculum vitae, statement of research and teaching interests, and the names of at least three references. Please send all materials to: Dr. David H. Cohen, Department of Neurobiology and Behavior, SUNY at Stony Brook, Long Island, N.Y. 11794. The University is an Equal Opportunity/Af-firmative Action Employer.

PLANT PHYSIOLOGIST (assistant or associate professor). The Department of Life Sciences, Indiana State University, will have a teaching-research posi-State University, will nave a reaching-research posi-tion in plant physiology to begin January or Septem-ber 1980. The successful applicant will be expected to be active in the graduate program (both Ph.D. and master's degrees are offered). Teaching responsibili-ties will include plant physiology and participation in other botanical offerings by the department. Inter-ested individuals should submit curriculum vitae, in-cluding evidence of an active research program and ested individuals should submit curriculum vitae, in-cluding evidence of an active research program, and have three letters of recommendation sent to: Dr. William J. Brett, Chairperson, Department of Life Sciences, Indiana State University, Terre Haute, In-diana 47809. Applications will be accepted until 30 September 1979. Indiana State University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL ASSOCIATE—Neuropharma-cologist with interest in the effects of CNS-active drugs on neurotransmitter synthesis, turniover, me-tabolism, and receptors. Two-year position, with possibility for renewal, available immediately at sal-ary of \$13,500 to \$15,000. Send detailed curriculum vitae, names of three references, and relevant pub-lications to: Stanley Fahn, M.D., Department of Neu-rology, Columbia University, College of Physicians and Surgeons, 710 West 168 Street, New York, N.Y. 10032. An Affirmative Action/Equal Opportunity Employer. POSTDOCTORAL ASSOCIATE-Neuropharma-

POSTDOCTORAL POSITION available immediately in a strong and active laboratory investigating the fundamentals of tissue-biomaterial interactions. the fundamentals of tissue-biomaterial interactions. The adsorption of specific plasma proteins to bioma-terials will be studied in order to understand how the organization of the adsorbed layer controls the cellu-lar response to these materials in vitro and in vivo. A biochemist with some immunochemical experience will be preferred. Salary: \$11,000 to \$15,000. Send curriculum vitae and names of references to: Profes-sor Thomas A. Horbett, Department of Chemical En-gineering BF-10, University of Washington, Seattle, Washington 9815. An Affirmative Action/Equal Op-portunity Employer. portunity Employer.

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# Overseas Opportunities in Agriculture & Research

The Kuwait Institute for Scientific Research, a rapidly expanding institute for applied science and technology, is seeking professionals interested in challenging careers in agriculture and research.

# **Range Specialist**

You should have an M.SC in range management; a minimum of three years' experience in range improvement practices and sheep production; and a knowledge of range machinery and equipment.

# Researcher

You should have a Ph.D. in agronomy or equivalent; a minimum of four years' experience in forage production management of pasture harvested crops and nurseries; and academic training or experience in arid region development. Knowledge of irrigation systems is desirable. Kuwait Institute offers attractive salaries commensurate with qualifications and experience, furnished housing, liberal fringe benefits including round trip air tickets, and free medical benefits.

Please airmail your resume to the Personnel Manager, Kuwait Institute for Scientific Research, P.O. Box 24485, Safat, Kuwait, State of Kuwait, no later than one month from the date of this publication.

Kuwait Institute for Scientific Research

**POSTDOCTORAL ASSOCIATE**—To analyze the genetics and molecular basis of an unusual mutator in yeast that causes deletions. Experience with restriction site mapping and hybridization preferred. Full-time, guaranteed funding for 1 year at \$12,500, available immediately. Send résumé and names of three references to: Dr. Susan Liebman, Biology Department, University of Illinois at Chicago Circle, P.O. Box 4348, Chicago, Ill. 60680. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available. Neuropsychopharmacology research position open for recent Ph.D. with laboratory experience in brain chemistry. Will involve assays of neurotransmitters, enzymes, peptides and receptors in rat brain after drug treatments and brain lesions. Knowledge of neuroanatomy and stereotaxic surgery desirable; \$11,000 to \$13,000 per year. Starting date: late 1979early 1980. Contact: Dr. K. Gale, Pharmacology Department, Georgetown University, School of Medicine, Washington, D.C. 20007.

**POSTDOCTORAL POSITION** available immediately to study unusual DNA sequences in eukaryotic chromatin. Experience with cell culture and characterization of nucleic acids and proteins is desirable. Send curriculum vitae, transcripts, and three letters of reference to: Dr. Kenneth A. Marx, Department of Chemistry, Dartmouth College, Hanover, New Hampshire 03755. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS in molecular genetics.

Two positions will be available 1 January 1980, or possibly sooner, to work in *Drosophila* biochemical genetics. Previous experience with *Drosophila* not required.

 Work will involve isolation and structural analysis of specific genes. Experience in restriction mapping, recombinant DNA technology and/or DNA sequencing desired.

2) Work will involve isolation and characterization of membrane proteins. Experience with protein biochemistry and tissue culture techniques desired.

Send résumé, summary of past research, and names of three references to: Dr. David Sullivan, Department of Biology, Syracuse University, Syracuse, New York 13210, by 1 October 1979.

Syracuse University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS—In molecular biology, virology, and cell biology. Research areas include molecular biology of carcinogenesis by environmental agents; DNA damage and repair in eukaryotes; mechanisms of retrovirus leukemogenesis; genetics of human repair defects. Contact: William A. Haseltine, SIDNEY FARBER CANCER INSTI-TUTE, Harvard Medical School, 44 Binney Street, Boston, Mass. 02115. An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL/RESEARCH ASSOCIATE** to join three PD's studying the structure, enzymology, and cytoskeletal interactions in coated vesicle mediated protein transport. Biochemical or cell biological background required; \$11,000 to \$14,000. University of Maryland Baltimore County is an Affirmative Action/Equal Opportunity Employer.

Dr. Thomas F. Roth Department of Biological Sciences University of Maryland Baltimore County Catonsville, Md. 21228 Telephone: 301-455-2254

## POSTDOCTORAL RESEARCH POSITION

A position is available to study lymphocyte membrane recognition structures involved in lymph node homing using an in vitro system which permits investigation of this phenomenon in animals and humans. Background in immunology, biochemistry or cell biology desired. Send curriculum vitae to: Dr. Judith J. Woodruff, Department of Microbiology and Immunology, State University of New York, Downstate Medical Center, Brooklyn, New York 11203. An Equal Opportunity/Affirmative Action Employer

# POSITIONS OPEN

POSTDOCTORAL POSITION—Available 1 September, for studies on enzymology of brain hexokinase, its specific interaction with the outer mitochondrial membrane, and role of that interaction in regulation of hexokinase activity. Salary: \$11,000, plus fringes. Send résumé and two letters of recommendation to: Dr. John E. Wilson, Department of Biochemistry, Michigan State University, East Lansing, Mich. 48824. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately to isolate, culture, and characterize mucin-producing cells from mammalian trachea. Salary: \$10,000, plus fringe benefits. Cell culture experience preferred. Send résumé and three letters of recomment of Anatomy, Tufts University School of Medicine, 136 Harrison Avenue, Boston, Massachusetts 02111.

**POSTDOCTORAL POSITION** available immediately for recent Ph.D. to study gene regulation in a model developmental system (*Dictyostelium*) using recombinant DNA and genetic techniques. Expertise in protein purification and generation of antibodies helpful. Send curriculum vitae and references to: Dr. Carl Palatnik, Department of Anatomical Sciences, State University of New York at Stony Brook, Health Sciences Center, Long Island, New York 11794. Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL RESEARCH** in chemical carcinogenesis studies are being conducted into the mechanisms underlying the carcinogenetic effects of chronic alcohol consumption. The research involves determining in animal models the effects of ethanol consumption on carcinogen metabolism, DNA repair in target tissues, and tumor promotion. Stipends range from \$10,000 upward, depending on experience. Applicants must be U.S. citizens or permanent residents. Send curriculum vitae and names of references to: Dr. A. Garro, Department of Microbiology, THE MOUNT SINAI SCHOOL OF MEDICINE, One Gustave L. Levey Place, New York, N.Y. 10029. An Equal Opportunity Employer.

**POSTDOCTORAL/RESEARCH SCIENTIST** positions. Immediately available to study mechanism of shedding and degradation of cell surface macromolecules and tumor antigens by malignant cells; \$14,000 to \$18,000, depending on experience. Submit curriculum vitae and references to: Dr. J. C. Bystryn, Department of Dermatology, New York University School of Medicine, 566 First Avenue, New York, N.Y. 10016. An Equal Opportunity/Affirmative Action Employer, M/F.

# PROGRAM MANAGER (\$32,442 to \$47,500 per annum)

The National Science Foundation is seeking qualified applicants for a 2-year rotational appointment as program manager. Responsibilities include making awards for research and other activities of national significance that are concerned with the ethical and value issues associated with the conduct of science and technology. Directs program activities, including allocation of resources establishing overall goals and objectives, evaluating proposals, preparing recommendations for grants, and monitoring the progress funded projects. Position is excepted from the competitive civil service. Salary is negotiable based on qualifications and experience within salary range shown above. Health, life insurance, and leave benefits are available. Applicants must have a Ph.D. or its equivalent in one of the natural or social sciences, engineering, or philosophy and demonstrated experience. Send résumés to: National Science Foundation, DPM, EMPB 79-14, 1800 G Street, NW, Washinformation telephone: Catherine Hobek at 202-632-4124.

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**RESEARCH** on the effects of ethanol on mammalian membrane structure and function, hepatic protein metabolism or pharmakinetics of alcohol. The position is available September 1979 for 2 to 3 years. Please submit curriculum vitae, statement of research interest, and three letters of recommendation to: Charles S. Lieber, M.D., Alcoholism Research and Treatment Center, BRONX VA HOSPITAL, 130 West Kingsbridge Road, Bronx, N.Y. 10468. An Equal Opportunity Employer.

### POSITIONS OPEN

The University of California, Irvine, College of Medicine, invites applications for **RADIOLOGISTS**. Board-eligibility in diagnostic radiology and eligibility for appointment at the assistant or associate professor level are required. Preference will be given to those individuals who are Board-certified or equivalent. Additional preference given to individuals with evidence of competence in pediatric, gastrointestinal, skeletal, or chest radiology and in angiography. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply*. Applications, which must include a short biography and copies of any publications, should be sent to:

Harris S. Moyed, Ph.D. Acting Chair, Department of Radiological Sciences University of California, Irvine College of Medicine Irvine, California 92717

Closing date: 31 August 1979.

## RESEARCH ON THE MECHANISM OF THE SODIUM PUMP

POSTDOCTORAL ASSOCIATE, available immediately, suitable for recently qualified Ph.D. in biochemistry or physiology. The laboratory is engaged in the study of the sodium pump using reconstituted human red cell ghosts and the purified Na, K-ATPase. The position is available for up to 3 years; initial salary approximately \$12,000. Candidates interested in combining tracer techniques with biochemical and chemical approaches to the study of cellular transport are encouraged to apply. Applications with curriculum vitae and names of three references to: Dr. Jack H. Kaplan, Department of Physiology and Biophysics, The University of Iowa, Iowa City, Iowa 52242. The University of Iowa is an Equal Opportunity/Affirmative Action Employer.

**RESEARCH ASSISTANT—BIOCHEMISTRY** Seeking individual with a graduate degree in a biochemical discipline, preferably a Ph.D., or M.S. with experience. Research involves neurochemical techniques to examine neurotransmitter and endocrine receptors in both clinical and basic studies. Qualified individuals please send curriculum vitae and references to: Dr. Robert H. Lenox, Neuroscience Research Unit, Department of Psychiatry, University of Vermont College of Medicine, Burlington, Vermont 05405. Position available immediately. An Equal Opportunity Employer.

**RESEARCH ASSOCIATE**—A postdoctoral position is available immediately for a Ph.D to study intestinal electrolyte transport in isolated and reconstituted intestinal brush border and basolateral membranes. Experience in membrane isolation techniques is desirable. Send curriculum vitae, two references, and supporting material to: Dr. Don W. Powell, Department of Medicine, University of North Carolina School of Medicine, Chapel Hill, N.C. 27514. Affirmative Action/Equal Opportunity Employer.

The Department of Morphology, University of Geneva Medical School, Geneva, Switzerland, invites applications for a position of **RESEARCH ASSOCI-ATE** in developmental biology. Candidates should be M.D. or Ph.D. with experience in teaching embryology to medical students and be able to set up an active research unit in the department. Ability to teach in French is mandatory. Salary, before income tax, starts at SFr.57,000 per annum. Send complete résumé to: Dr. L. Orci, Chairman, Department of Morphology, Medical School, rue Ecole de Médecine, 1211 Geneva 4, Switzerland.

### **RESEARCH ASSOCIATE REPRODUCTIVE BIOLOGY**

Available 1 September 1979 for anatomist to study the ultrastructure of the hemomonochorial placenta. Experience in electron microscopy (TEM and SEM), freeze fracture techniques, and light microscopy desirable. Salary: approximately \$14,000 per year. Position renewable for an additional year. Send curriculum vitae and three references to:

Dr. Carl R. Morgan Professor and Chairman East Carolina University School of Medicine Greenville, North Carolina 27834

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SCIENCE, VOL. 205

# NATO ADVANCED RESEARCH INSTITUTE IN VITRO TOXICITY TESTING: CURRENT AND FUTURE POSSIBILITIES

# Monte Carlo, September 22-28 inclusive, 1979

Organizing Committee: L. Grant, S. Harris, A. Kolber (Chairman), J. McLachlan, T. Wong.

*Topics: In vitro*Carcinogenesis, Mutagenesis, End-Organ and Behavioral Toxicity Testing. Molecular Mechanisms, Human Criteria and Health Risk Assessment Methodologies. Epidemiology and Development of Environmental/Health Policy.

*Faculty*: B. Ames, H. Bartsch, J. Cavanagh, B. Commoner, J. A. DiPaolo, A. P. Dyban, R. Fahrig, L. Friberg, L. Golberg, R. Goyer, C. Heidelberger, G. Hueter, A. Hsie, P. T. Iype, T. Kada, P. Kleihues, T. Kuroki, P. D. Lawley, N. Loprieno, R. Merrill, R. Morgan, Q. Myrvik, D. Neubert, B. W. O'Malley, M. Radman, M. F. Rajewsky, D. Rall, L. Sachs, L. Saxen, H. F. Stich, P. O. Ts'o, J. M. Vasiliev, E. Vogel, M. Waters, B. Weiss, S. Wolfe and others.

Applications should reach A. Kolber, Chairman, Organizing Committee, Research Triangle Institute, Research Triangle Park, North Carolina 27709, U.S.A., before August 10, 1979. Please include a curriculum vitae, brief summary of applicant's background, current interests, and reasons for attendance. A small number of fellowships are available.

# MEDICAL OFFICER

The National Heart, Lung, and Blood Institute is seeking applicants for the position of Medical Officer in the Devices and Technology Branch of the Institute's Division of Heart and Vascular Diseases with an annual salary ranging from \$40,009—\$47,500. The Branch, part of the Division's Cardiology Program, has responsibility for planning, developing and administering research and development programs dealing with diagnostic and therapeutic cardiovascular devices and instruments. It currently supports biomedical, clinical and technical research with a budget of about \$20 million, equally divided between grants and contracts. Targeted, contract-supported activities are directed towards the research, development, and evaluation of circulatory assist devices, biomaterials, and noninvasive methods of detecting, characterizing, and quantifying atheroschlerotic lesions. Grant-supported activities are ongoing in these program areas as well as other types of cardiovascular devices and instruments. The Branch requires a physician to participate with the Branch Chief and other members of his staff in the establishment of medical priorities and implementation and conduct of specific grant and contract programs.

Applicants should have an M.D. and Ph.D., or M.D. degree with demonstrated independence in basic or clinical research supported by grants and/or contracts. Medical training related to heart and vascular diseases is an important consideration; in addition, competence in either the chemical, physical or engineering sciences is desirable. The position to be filled is in the career Civil Service. Those interested in being considered for this position should submit an SF-171 (Personal Qualifications Statement) along with a Curriculum Vitae and Bibliography by Aug 17, 1979 to: Mr. Philip Lowengart, NHLBI Personnel Office, NATIONAL INSTITUTES OF HEALTH, Public Health Service, 9000 Rockville Pike, Building 31, Room 5A-32, Bethesda, MD 20205 or call (301) 496-6477. An Equal Opportunity Employer.

# NATIONAL INSTITUTES OF HEALTH

# Microbial Physiologist

# OVERSEAS ASSIGNMENT

The Kuwait Institute for Scientific Research, a rapidly expanding institute for applied science and technology, is seeking a Microbial Physiologist who is interested in the opportunity for a career challenge.

In this position, you will be repsonsible for the yield coefficient and productivity studies of SCP production from LPG and methanol in bench-scale fermenters.

We required a PhD in Microbiology or Biochemistry with at least 3 years' experience in continuous culture techniques, microbial growth efficiency or hydrocarbon microbiology.

Kuwait Institute offers attractive salaries commensurate with qualifications and experience, furnished housing, liberal fringe benefits including round trip air tickets and free medical benefits.

Please airmail complete resume by August 27, 1979 to: Mr. Habib Al-Sahhaf, Personnel Manager, Kuwait Institute for Scientific Research, P.O. Box 24885, Safat, Kuwait, State of Kuwait.

# Kuwait Institute for Scientific Research

# **BIOMEDICAL SCIENCES TECHNICAL WRITER**

This is a challenging opportunity for a successful Biomedical Scientist to become involved in science administration. You will coordinate the efforts from a broad range of scientific disciplines in preparing and submitting documents to the Food & Drug Administration. If you have a PhD and at least 2 years of successful research experience in pharmacology, toxicology, biochemistry or other biomedical science, 2 years of technical writing experience, are articulate, and able to pull data from various sources into a comprehensive report, this could be the right opportunity for you.

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**RESEARCH ASSOCIATE** position open for experienced steroid biochemist to join in multifaceted analysis of functional zonation in adrenal cortices of young versus older animals. Research to be carried out in laboratory situated in Cell Biology Department equipped with cell fractionation, biochemistry, tissue culture, and electron microscopy. Please submit résumés and references no later than 17 August 1979 for a 1 September 1979 starting date to: Dr. Virginia H. Black, Department of Cell Biology, New York University School of Medicine, 550 First Avenue, New York, N.Y. 10016.

### **RESEARCH ASSOCIATE CORNELL UNIVERSITY**

Research associate position available 1 September 1979 investigating hemoglobin rapid reaction kinetics. Ph.D. in physics or physical chemistry. Previous experience in biology not necessary. Starting salary: \$15,970. Send résumé and list of references to:

Dr. Quentin Gibson Section of Biochemistry, Molecular and Cell Biology Wing Hall Cornell University Ithaca, New York 14853

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# **RESEARCH ASSOCIATES**

Two nontenured positions supported by NSF grant: "Effects of Agroecosystem Structures on Population Dynamics of Selected Arthropods." Ph.D. with emphasis on ecology and interest in entomology and agriculture are necessary. One position requires some experience in agriculture and research in population ecology. The other requires strengths in community ecology including multivariate analysis. Positions are in cooperative project providing some opportunity for independent research. Send academic transcripts, list of publications, and three letters of reference to: **R. L. Rabb, Department of Entomology, North Carolina State University, Raleigh, N.C. 27650.** Applications will be received through 15 October 1979 or until a suitable applicant is found, and employment date will be late 1979 or early 1980.

**RESEARCH ASSOCIATE.** Will isolate SV40 mutants using biochemical and tissue culture techniques and study their tumorigenicity in rats. Experiments include autopsy and detailed histological examination of large number of virus-infected animals. Must have Ph.D. in biological science; formal training in and a strong working knowledge of anatomy, pathology, and histology; minimum of 4 years of experience in nucleic acid research and cell culture at the postdoctoral level, \$16,000 yearly. Lauren Sompayrac, Department of Molecular, Cellular and Developmental Biology, University of Colorado, Boulder, Colorado 80309.

RESEARCH ASSOCIATE position available in active nutrition/metabolism group for Ph.D. in pharmacology or nutrition to study mechanisms of anorexia-cachexia in tumor-bearing animals. Send résumé to: Howard James, Department of Surgery, University of Cincinnati Medical Center, 231 Bethesda Avenue, Cincinnati, Ohio 45467.

**RESEARCH SCIENTIST.** Conduct research on three-dimensional biological structures at the cellular and molecular levels. Applicants should be expert in development and use of instrumentation for synchrotron radiation studies and physiology of in vivo specimens. Use of computational, reconstruction electron micrscopy. Ph.D. in molecular biology and 3 years of experience required. Salary: \$25,000. Send résumé to: Dr. Britton Chance, Johnson Research Foundation, D-501 Richards/G4, University of Pennsylvania, Philadelphia, Pa. 19104. An Equal Opportunity Employer.

TEACHING POSITION available September 1979. Microbiologist preferable, with a cell biology orientation. Applicants must show strong teaching credentials in microbiology and general biology at the introductory level. Appointment will be at the instructor or assistant professor level. Master's degree minimum. Closing date: 15 August 1979. Applicants must send curriculum vitae, transcripts, and three letters of recommendation to: Dr. Donald M. Meismer, Chairman, Biology Department, Raymond Walters General and Technical College, University of Cincinnati, 9555 Plainfield Road, Cincinnati, Ohio 54236. Equal Opportunity/Affirmative Action Employer.

# POSITIONS OPEN

SENIOR RESEARCH ASSISTANT—M.S. or equivalent and 4 years of experience. Lipid biochemistry research, specifically light-sensitive lipids (carotenoids). To independently evaluate research objectives and to establish the design parameters within which research will be performed. Salary: \$12,600, 40 hours per week. Send curriculum vitae to: St. Louis University Medical Center, Personnel Services, 3556 Caroline Street, St. Louis, Mo. 63104. Equal Opportunity Employer, M/F/H.

TOXICOLOGY SPECIALIST (University of California)—DAVIS CAMPUS. Provide expertise in dealing with problems of agriculture and the extension of educational programs in the area of environmental toxicology and pollution. Subjects included are natural toxicants (plants, heavy metals, mycotoxins), food additives, residues of pesticides in food, feed and fiber, and pesticide applications and/or residues which affect worker safety. Position requires a generalist. Ph.D. in pharmacology and toxicology and 2 years of experience is required. Contact: Personnel Administrator, Cooperative Extension, University of California, Berkeley, Calif. 94720. Closing date: 31 August 1979. Refer to Number 7902.

### VICE PRESIDENT FOR HEALTH AFFAIRS

The University of Connecticut is seeking candidates for the position of vice president for health affairs. This senior officer reports directly to the president and is responsible for all university health-related programs including the Schools of Medicine and Dental Medicine, the Dempsey Hospital, and clinical programs located primarily on the University Health Center campus in Farmington; and the schools of Allied Health Professions, Nursing, Pharmacy, and the Student Health Service, all on the Storrs campus. Candidates should have doctoral level professional qualifications, preferably in a field and of a quality suitable for professional appointment in a university department, plus substantial senior administrative experience, preferably in an academic health center or its equivalent.

Résumés and the names and addresses of at least three references should be sent no later than 15 October 1979 to: Office of the Vice President, The University of Connecticut Health Center, Farmington, Connecticut 06032.

### **FELLOWSHIPS**

#### POSTDOCTORAL FELLOWSHIPS IMMUNOBIOLOGY OF AGING-TUMOR BIOLOGY

Postdoctoral fellowships are available in a joint program between the Sloan-Kettering Institute for Cancer Research and Cornell University Medical College to study the immunobiology of aging. Applicants should send curriculum vitae to: Dr. Gregory W. Siskind, Cornell University Medical College, 1300 York Avenue, New York, N.Y. 10021. Postdoctoral fellowships are also available for the study of tumor biology at the Sloan-Kettering Institute for Cancer Research. Applicants should send curriculum vitae to: Dr. Malcolm A. S. Moore, The Sloan-Kettering Institute, 1275 York Avenue, New York, N.Y. 10021. Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL FELLOWSHIP in tumor immunology is available immediately. The 1- or 2-year position is open for M.D. or Ph.D. to study the humoral immunity to breast tumor specific antigen and isolate antigens from tumor tissues. Send curriculum vitae to: Dr. William Niedermeier, University of Alabama in Birmingham, LHR 407, Birmingham, Ala. 35294.

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Two **POSTDOCTORAL FELLOWSHIPS** are available immediately to study the immune response of hamsters to syphilitic infection. Experience in immunology, host-parasite relationships, or biochemistry is desired. Fellows will have the unique opportunity to participate in a research group composed of a cellular immunologist (David A. Lawrence), toxicologist (Leland D. Loose), host-parasite person (Ronald F. Schell), and a specialist in infectious diseases (Jack L. LeFrock). In addition, opportunity to develop or collaborate in research in clinical and diagnostic microbiology is available. Salary is negotiable. Send curriculum vitae and supporting material to: Dr. Ronald F. Schell, Director of Clinical Microbiology Laboratory, Albany Medical Center Hospital, Albany, N.Y. 12208.

#### FELLOWSHIPS

**RESEARCH FELLOWSHIP** for Ph.D. with extensive experience in ion transport studies, preferably with cultured mammalian cells. Individual will study ion transport in normal and variant cells including those derived from individuals with diseases that may involve ion transport. Salary: \$11,500 per year, Harvard Medical School fellowship appointment. Contact: Dr. J. L. Breslow, Children's Hospital, 300 Longwood Avenue, Boston, Mass. 02115. An Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL POSITIONS ENDOCRINE-REPRODUCTIVE BIOLOGY

The Endocrine-Reproductive Biology Group at the Worcester Foundation for Experimental Biology announces the availability of postdoctoral fellowships. These are for 1 year with possible renewal; the initial stipend is \$11,000. Applicants should submit curriculum vitae, a brief summary of research interests, a synopsis of their Ph.D. thesis research, and the names of three persons from whom references may be requested. Candidates should indicate the research areas in which they would wish to work if a fellowship is awarded. Applications should be sent to: Endocrine-Reproductive Biology Fellowship **Program**, c'o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545.

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SCIENCE, VOL. 205



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