

Circle No. 4 on Readers' Service Card

Circle No. 139 on Readers' Service Card

# Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising closing for a particular Friday issue is Wednesday, 3½ weeks **before**. Advertising is accepted only in writing; no abbreviations. Also, person-nel advertising is accepted only with the understanding that the advertiser does not discriminate among appli-cants on the basis of race, sex, religion, age, color, na-tional origin, or handicap.

**POSITIONS WANTED:** 40¢ per word, plus \$4 for use of box number, per insertion. \$10 minimum, per insertion. Prepayment required. This rate is available only to individuals seeking jobs.

DISPLAY (POSITIONS OPEN, COURSES, FELLOW-SHIPS, MARKET PLACE, and so forth): \$6.40 per milli-meter; \$160 minimum, per insertion (minimum charge covers 25 millimeters on a single column; 25 millime-ters equals 10 lines of 50 spaces per line). No charge for use of box number. No agency commission for ads less than 103 millimeters (4 inches). No cash discount. Prepayment required for all foreign ads. Purchase or-ders and billing information required for all other adver-tising. tising.

Send copy for all **Positions Wanted** ads and **Display** ads less than 1/6 page in size (125 millimeters) to:

SCIENCE, Room 207 1515 Massachusetts Ave., N Washington, D.C. 20005 Telephone: 202-467-4456 NW

Send copy for Display ads 1/6 page and larger to:

Scherago Associates, Inc. 1515 Broadway New York, N.Y. 10036 Telephone: 212-730-1050

Blind ad replies should be addressed as follows:

Box (give number) SCIENCE 1515 Massachusetts Ave., NW Washington, D.C. 20005

#### POSITIONS WANTED

Innovative Aquatic Zoologist/Ecologist, Ph.D. seeks half-time teaching position. Experience in university instruction (8 years at a major institution) and re-search and water pollution consulting (7 years). Pub-lications. Recently completed an academic year with a U.S. government environmental group (familiar with new approved methodologies, resources, and regulations). Wishes to teach biology, zoology, and/ or environmental courses. Schedule can be flexible. Will be available January 1980. Box 283, SCIENCE. 10/12.19

**Electrophysiologist**, Ph.D., with 10 years of experi-ence recording human and animal evoked potentials and EEG desires interesting clinical or research po-sition; several publications. Box 285, SCIENCE. 10/12 19 26 11/2 10/12, 19, 26; 11/2

Marine Ecologist, M.S., 41/2 years of experience in zooplankton, ichthyoplankton, environmental bac-teriology, and fish tagging operations. Seeking posi-tion in research or industry. Box 286, SCIENCE. X

Pharmacologist/Toxicologist, Ph.D. Semi-retired pro-Pharmacologist / loxicologist, Ph.D. Semi-retired pro-fessor with extensive experience in drug screening, scientific writing, and prepublication editing. Col-lege laboratory facilities available. Desires position as consultant. J. F. Reinhard, 41 Bay View Road. Wellesley, Mass. 02181. Telephone: 617-238-1797 (home); 617-734-6700, extension 154 (office). 10/12 19 26 10/12, 19, 26

**Research Psychologist.** Experience in psychometrics, program atid systems evaluation, experimental de-sign, statistical analysis (univariate, multivariate), and human psychopharmacological research. Background ill computer programming and computer sta-tistical packages. Desires industrial position. R. Pas-cale, 360 Ocean Parkway, Brooklyn, N.Y. 11208. Telephone: 212-284-6026. X

Science Editor. Medicine, chemistry specialist. Now senior level in industry. Magazine, book, public information, newspaper background. Box 287, SCI-ENCE. 10/12, 19

#### POSITIONS OPEN

#### ANATOMIST-ELECTRON MICROSCOPIST

Ph.D. in anatomy or equivalent training and experience in teaching human microscopic anatomy re-quired. Postdoctoral experience and evidence of strong research interest and potential necessary. Re-search in neuroendocrinology-endocrinology, cansearch in neuroendoctinology endoctinology, can-cer or cell and molecular biology desirable, and in-teraction and collaboration with other investigators essential. Appointment at the assistant professor level effective 1 July 1980. Address applications, in-cluding curriculum vitae, to: **Dr. Bryant Benson**, **De** partment of Anatomy, University of Arizona, Tucson, Arizona 85724.

Equal Opportunity/Affirmative Action Employer

#### ANIMAL BEHAVIOR

The Section of Neurobiology and Behavior, Divi-sion of Biological Sciences, announces an opening of a tenure-track position starting at the level of AS-SISTANT PROFESSOR or ASSOCIATE PROFES-SIGN without tenure. The candidates should have carried out significant predoctoral and postdoctoral research in the area of field or social behavior. The position involves teaching in Cornell's under-graduate and graduate animal behavior curriculum, and the establishment of a vigorous research pro-gram gram.

gram. Applicants should provide a description of their experience in field behavior, curriculum vitae, and copies of recent reprints. Applicants also should request three referees familiar with both their teach-ing and research to send letters of recommendation directly to Cornell. Address all inquiries and appli-cations to: Dr. Stephen Emlen, Section of Neurobiol-can and Rehavior Cornell University (these New ogy and Behavior, Cornell University, Ithaca, New York 14853.

Applications should be received by 1 December. Cornell University is an Equal Opportunity/Affirma-tive Action Employer.

## ANIMAL CELL PHYSIOLOGIST GEORGETOWN UNIVERSITY DEPARTMENT OF BIOLOGY

Applications are invited for a tenure-track appointment at the rank of assistant professor, ef-fective 1 September 1980. Duties include teaching, each year, a one-semester undergraduate course in cell physiology and a one-semester graduate course in an area of physiology and mentoring under-graduate and graduate thesis research. The success-ful candidate will be expected to conduct a produc-tive research program. Please send curriculum vitae, reprints, a statement of research plans, and three letchairman, Search Committee, Department of Biol-ogy, Georgetown University, Washington, D.C. 20057.

Georgetown University is an Equal Opportunity/ Affirmative Action Employer.

ASSISTANT PROFESSOR—Applications and nomi-nations are invited for this 12-month, tenure-track position of assistant professor of pharmacology, with primary interest in biochemical pharmacology and toxicology. A doctoral degree and postdoctoral training, preferably in pharmacology, are required. All applicants should have demonstrated an out-standing potential for research and teaching. The successful candidate will be expected to establish an active research program and eventually seek exactive research program and eventually seek ex-ternal funding in due course. Earliest possible start-ing date will be 1 January 1980. Send curriculum ing date will be I January 1980. Send confection vitae, names of three references, and a statement of projected research activities to: D. M. Caspary, Chairman of Search Committee, Department of Phar-macology, Southern Illinois University School of Med-icine, P.O. Box 3926, Springfield, Ill. 62708. An Equal Opportunity/Affirmative Action Employer.

ENVIRONMENTAL RESOURCES DIRECTOR-Challenging opportunity for environmental managepartment of environmental resources. The department will: (i) coordinate environmental efforts of deevaluate county environmental resources, and (iii) promote citizen participation in environmental mat-ters. The successful candidate will possess a bac-calaureate degree with major coursework in environcalaureate degree with major coursework in environ-mental science, management or planning, and have experience in environmental management, planning, or regulation. Salary: approximately \$21,000 to \$24,000. To apply, contact: Sedgwick County Person-nel, 510 North Main, Wichita, Kansas 67203; tele-phone: 316-268-7178. Applications, résumés, and reference letters will be accepted at the above ad-dress until 5 p.m., 31 October 1979; or if postmarked prior to midnight 31 October 1979.

#### POSITIONS OPEN

#### ASSISTANT PROFESSOR POSITION Department of Geological Sciences The University of Texas at Austin

A tenure-track assistant professor position is now open in the field of sedimentary geology. This posi-tion is effective January 1980 or September 1980, de-pending on availability of successful applicant. Teaching responsibilities include undergraduate and graduate courses in depositional processes and facies and supervision of graduate research in the area of the person's special interest. Applicants for this position must have completed all requirements for the Ph.D. degree at the time of employment. Qualified persons should send a com-plete résumé, including names of three references, an abstract of the dissertation, statement of research interests, and planned research projects, to: **Dr. Robert E. Boyer, Chairman** A tenure-track assistant professor position is now

Dr. Robert E. Boyer, Chairman Dr. Robert E. Boyer, Chairman Department of Geological Sciences The University of Texas at Austin P.O. Box 7909 Austin, Texas 78712

Deadline for applications: 31 December 1979. Equal Opportunity/Affirmative Action Employer, M/F

VISITING ASSISTANT PROFESSOR IN ENVI-RONMENTAL TOXICOLOGY. Minimum require-ments include a Ph.D. in analytical, pharmacologic, toxicologic, or organic chemistry, with microbiology experience preferred. Project involves separation, characterization, and toxicological evaluations of or-ganic compounds from industrial waste water. Well-guinead loboratory provides on excellent encoder ganic compounds from industrial waste water. Well-equipped laboratory provides an excellent opportu-nity to gain experience in environmental toxicology. Salary: \$16,000 per year, plus fringe benefits. Con-tact (before 5 November 1979): Dr. Satu M. Somani, Southern Illinois University School of Medicine, P.O. Box 3926, Springfield, Ill. 62708; Telephone: 217-782-2875. An Equal Opportunity/Affirmative Action Em-loyer ployer.

ASSISTANT PROFESSOR—MARINE INVERTE-BRATE BIOLOGY. To teach invertebrate biology. Some interest in cell biology welcome but not re-quired. Applications processed beginning 15 No-vember. Send curriculum vitae, research plan, and three letters of recommendation to: Laura Liv-ingston Mays, Ph.D., Faculty Search Committee, De-partment of Biology, Occidental College, Los Angeles, Calif. 90041. An Equal Opportunity/Affirmative Ac-tion Employer. tion Employer

#### ASSOCIATE BIOCHEMIST

The Solar Energy Research Institute in Golden, Col-orado, has a staff research position available to in-vestigate the biochemistry of algal hydrogen metab-olism, photosynthetic process, and anaerobic me-tabolism.

Master's degree or equivalent in biochemistry, mi-crobiology, or biology required. Experience in algal and/or microbial techniques and protein purification desirable.

Please send résumés, including salary history and professional references (no telephone calls) to: Dept. **R-2**, Personnel Services,

## SOLAR ENERGY RESEARCH INSTITUTE

1617 Cole Boulevard, Golden, Colorado 80401 A Division of Midwest Research Institute. A Department of Energy contractor. An Equal Opportunity Employer, M/F/H/V.

#### CELL AND MOLECULAR BIOLOGIST

The Division of Biology has two tenure-earning positions available at the assistant professor level. Applications are invited from investigators with Applications are invited from investigators with postdoctoral experience in all areas of cell and mo-lecular biology but especially those with an active research interest in tumor cell biology, immuno-biology, regulation of transcription and/or trans-lation, and molecular approaches to cell structure and development. The successful candidates will be expected to establish vigorous and creative research programs and to participate in graduate the underprograms and to participate in graduate and under-graduate teaching. Applicants should apply by 23 November 1979 and submit curriculum vitae, three letters of reference, and a brief description of future research plans to:

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

Kansas State University is an Equal Opportunity/ Affirmative Action Employer

# ASSOCIATE DEAN FOR ACADEMIC AFFAIRS SCHOOL OF PUBLIC AND ENVIRONMENTAL AFFAIRS INDIANA UNIVERSITY

Associate dean to assist in the development and administration of undergraduate and graduate deadministration of undergraduate and graduate de-gree programs in statewide school. Requires ability to work in interdisciplinary programs with emphasis on applied science/technology and public affairs, demonstrated administrative capability, significant experience in development or direction of educascientific programs, national profes-sional recognition as evidenced by publications, membership on national boards or commissions, and prominence in activities of professional or scientific associations, Ph.D. or demonstration of equivalent associations. Ph.D. or demonstration of equivalent research ability required; full professor rank; com-pensation competitive and negotiable. Interested ap-plicants should send curriculum vitae to: Dr. York Willbern, Chairman, Search and Screen Committee, School of Public and Environmental Affairs, Indiana University, 400 East 7 Street, Bloomington, Ind. 47401 prior to 7 January 1980.

An Equal Opportunity/Affirmative Action Employer

A vacancy exists at the ASSOCIATE PROFES-SOR level for a person interested in developing an SOR level for a person interested in developing an independent research program in an aspect of immu-nobiology. The Trudeau Institute is a private, not-for-profit, basic research facility situated 10 miles from Lake Placid in the Adirondack Mountains of northern New York. It specializes in investigating mechanisms of immunity to infectious and parasitic diseases and cancer. The applicant will be judged mainly on the quality and quantity of his/her scien-tific publications. Immunophysiologists, molecular immunologists, immunogeneticists, and cell biolo-gists are encouraged to apply. Send curriculum vitae to: Dr. R. J. North, Director, Trudeau Institute, P.O. Box 59, Saranac Lake, N.Y. 12983.

ASSOCIATE/FULL PROFESSOR OF PATHOLO-ASSOCIATE/FULL PROFESSOR OF PATHOLO-GY available in the Department of Pathology of the George Washington University Medical Center, Washington, D.C. Full-time faculty position avail-able for academically oriented individual with exper-ise in surgical pathology. Candidate should be M.D. with Board-certification or -eligibility. Inquiries, curriculum vitae, and bibliographies should be sent to: Dr. H. Sidransky, Chairman, Department of Pa-thology, The George Washington University Medical Center, 2300 Eye Street, NW, Washington, D.C. 20037. An Equal Opportunity Employer.

#### **BIOCHEMISTRY FACULTY POSITION**

The Department of Biological Chemistry invites ap-The Department of Biological Chemistry invites ap-plications for a tenure-track position at the level of assistant professor. Ph.D. and postdoctoral experi-ence required. Applicants are expected to have dem-onstrated the potential for establishing an active re-search program and for excellence in teaching. Pref-erence will be given to those whose research involves applying molecular techniques to the study of current problems of biochemical or clinical interof current problems of biochemical or clinical inter-est. Such areas include, but are not restricted to protein structure and function, membranes and cell surfaces, the differentiation and function of cellular constituents, neoplasia, the cytoskeleton.

The department participates in the cytosteteth. The department participates in the training of medi-cal, graduate, and undergraduate students. The suc-cessful applicant will be appointed to the faculty of the School of Medicine and of the College of Science and Engineering.

Send curriculum vitae, a statement of research plans, and the names and addresses of three refer-ences to: Search Committee, Department of Biologi-cal Chemistry, Wright State University, Dayton, Ohio 45435. Applications received after 15 December 1979 may not be considered. Wright State University is an Equal Opportunity/Affirmative Action Employ

CURATORIAL ASSISTANT for biological resource collections in an ASC-recognized facility. M.S. with background in vertebrate systematics and familiarity with invertebrates and higher plants required. Curat-ing experience and training in SELGEM helpful. In-volvement in all aspects of collections management, including specimen preparation, cataloging, and storage; management of loans, correspondence, and library materials; and employee supervision. A mod-est research program is expected, 12-month salary; est research program is expected, 12-month satary. \$11,196. Submit curriculum vitae and have three ref-erences sent directly to: Dr. Arthur H. Harris, Labo-ratory for Environmental Biology, University of Texas at El Paso, El Paso, Texas 79968. Deadline for appli-cations is 1 November 1979. An Equal Opportunity Employer.

12 OCTOBER 1979

#### POSITIONS OPEN

BIOCHEMISTRY-Tenure-track position. Postdoctoral experience and a strong commitment to re-search and teaching required. Expertise in metabolic search and teaching required. Expertise in metadonic regulation or membrane structure/function pre-ferred, but all highly qualified candidates will be con-sidered. Rank open. Send curriculum vitae, a brief summary of research and teaching interests, and names of at least three references by 15 January to: Biochemistry Committee, Department of Chemistry, California State University, Fullerton, Calif. 92634. An Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST—Postdoctoral level appointment for biochemist to study the structure and function of connective tissue proteins. Successful candidate must possess a Ph.D. degree and must have a strong interest in protein chemistry. Preference will be giv-en to candidates with experience in peptide separa-tion and protein sequence analysis. Please send cur-tications witch in setting summary of particular structures. riculum vitae, including summary of pertinent expe-rience, to: Personnel Department, College of Medicine and Dentistry of New Jersey—Rutgers Med-ical School, P.O. Box 101, Piscataway, N.J. 08854. Equal Opportunity/Affirmative Action Employer,

## **BIOCHEMICAL—MEDICAL** GENETICS PROGRAM

Postdoctoral training positions for aggressive indi-viduals with the Ph.D. or M.D. An interdisciplinary program with 14 faculty members provides training in: (i) basic research; somatic cell, viral and molecu-lar genetics; recombinant DNA; and chromosome structure, or (ii) clinical genetics: genetic counsel-ing, cytogenetics, and biochemical genetics. Con-tact: Dr. Raymond Fenwick, Department of Medi-cine, Baylor College of Medicine, Houston, Texas 77030.

BIOLOGIST, CELL BIOLOGIST, or PHARMACOLOGIST. Assistant or associ-PHARMACOLOGIST. Assistant or associ-ate professor level for interdisciplinary re-search in regulation of mammalian organ growth and neoplasia. Solid scientific back-ground and proved productivity essential. Must be capable of obtaining competitive grants after initial period of appointment. Biochemical orientation desirable, but pri-mary experience should be in cellular func-tion. Some teaching possible. Start: January to July 1980. Harvard Medical School hospi-lal Minority groups and wome gencouraged tal. Minority groups and wome to apply. Box 279, SCIENCE. encouraged

#### **CELL BIOLOGY**

Several faculty-level positions are available in the Cell Biology Group of the Worcester Foundation for Experimental Biology. Research areas of particular interest are eukaryotic genome organization and transcription, the cytoskeleton (in its broadest sense), cell surface architecture and dynamics, and virology. Candidates pursuing molecular approaches to cell proliferation, the immune response, or neurobiology would also be of interest. Application mate-rials, including a brief synopsis of research plans and names of references, should be addressed to: Cell Biology Group, c/o Personnel Office, Worcester Foun-dation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITION IN MEDICINAL CHEMIS-**TRY**. Applications are invited from persons with a Ph.D. in medicinal chemistry or a related field for a full-time position as assistant or associate professor in the College of Pharmacy at the University of Minin the College of Pharmacy at the University of Min-nesota. Candidates for the position must have a strong background in organic chemistry and ade-quate training in biochemistry of pharmacology. Postdoctoral or equivalent job experience is desir-able. An undergraduate degree in pharmacy is pre-ferred. The successful candidate will be expected to develop an independent research program and par-ticipate in teaching in the professional and graduate programs of the college.

Interested candidates should send résumés and the names of three references to:

> Mahmoud M. Abdel-Monem, Ph.D College of Pharmacy University of Minnesota Minneapolis, Minn. 55455

Applications must be received by 22 October 1979. The University of Minnesota is an Affirmative Ac-tion Employer and welcomes applications from women and members of minority groups.

#### POSITIONS OPEN

#### BIOCHEMIST

**BIOCHEMIST** The Department of Biochemistry and Surgery are jointly seeking a faculty member (**RESEARCH AS-SISTANT PROFESSOR**) with research interests in carcinogenesis, steroids, and nutritional biochemis-try, as they relate to ongoing clinical research which deals with polyposis coli. Competitive salary, ex-cellent benefits, and well-equipped research facili-ties. Applicants with either an M.D. or Ph.D., and postdoctoral experience in biochemistry or a related area, should send their curriculum vitae, bibliogra-phy, and names of references to: Dr. Eugene G. Sander, Chairman, Department of Biochemistry, West Virginia 26506 no later than 1 November 1979. West Virginia University is an Equal Opportu-nity/Affirmative Action Employer. nity/Affirmative Action Employer.

**BIOCHEMIST.** Postdoctoral position available 1 December for research on the genetic control of cell differentiation. Our system utilizes eight mutants af-fecting pigment production in cultured chick embryo pigment cells. Electrophoretic approaches will be used including PAGE, isoelectric focusing and 2-D separations. Previous experience in electrophoretic techniques required. Appointment renewable annu-ally with beginning salary of \$13,000. Send curricu-lum vitae and three letters of recommendation by 1 November to: Dr. John Brumbauth. School of Life November to: Dr. John Brumbaugh, School of Life Sciences, The University of Nebraska-Lincoln, Lincoln, Nebraska 68588. Affirmative Action/Equal Opportunity Employer.

## BIOPSYCHOLOGIST AND PERCEPTION/ COGNITION PSYCHOLOGISTS

The Department of Psychology of the College of Arts and Sciences at Cornell University seeks can-didates for three tenure-track professorial positions, effective at the start of the 1980-1981 academic year. effective at the start of the 1980-1981 academic year. Rank of the appointments is open. Two of the ap-pointments will be in either perception or cognition; applications from candidates with a developmental perspective would be especially welcome for one of these two. The third position is for a biopsychologist with a major interest in the neural basis of behavior. For this third position, we are particularly looking for a person with a broad evolutionary or develop-mental perspective. Research interests for the latter position might include, but are not restricted to, neu-ral mechanisms underlying social behavior. includral mechanisms underlying social behavior, includ-ing all aspects of communicative behavior.

Candidates should submit complete curriculum vitae, reprints or preprints of completed research, and letters of recommendation sent directly from three referees to the appropriate search committee as soon as possible:

Biopsychology Search Committee Department of Psychology Uris Hall Cornell University Ithaca, New York 14853 Search Committee in Perception or Cognition Department of Psychology Uris Hall Cornell University Ithaca, New York 14853 Cornell University is an Equal Opportunity/Affirmative Action Employer.

TENURE-TRACK FACULTY POSITIONS. Assistant professorships in analytical and inorganic chemistry. Applicants for these positions must be com-mitted to excellence in research and teaching. Areas of research should complement those presently rep-resented in the department. Complete curriculum vitae, which includes a documented summary of vitae, which includes a documented summary of past accomplishments and professional references, should be submitted to: Chairman, Search Com-mittee, Department of Chemistry, State University of New York at Buffalo, Buffalo, New York 14214. Deadline for applications is 15 January 1980. The State University of New York at Buffalo is an Equal Opportunity/Affirmative Action Employer.

#### GENETICIST-CELL BIOLOGIST

Biology and Health Sciences Department of small Biology and Health Sciences Department of small co-ed college emphasizing excellence in teaching in-vites applications from candidates with teaching ex-perience in genetics, cell biology, and population bi-ology for January 1980. Master's degree minimum; Ph.D. preferred. Send curriculum vitae and three letters of recommendation to: Chairman, Biology and Health Sciences Department, Illinois Benedictine College, Lisle, Ill. 60532 by 15 November 1979. Equal Opportunity/Affirmative Action Employer and Educator, M/F. Educator, M/F.

CHAIRPERSON, DEPARTMENT OF OPH-THALMOLOGY, University of South Flor-ida College of Medicine, invites applications or nominations for position of professor and chairperson, Department of Ophthalmology. Candidates must have demonstrated skills in teaching administration concerned and clinic Candidates must have demonstrated skills in teaching, administration, research, and clini-cal ophthalmology. Please send recommen-dations and curriculum vitae to: Arthur D. Graham, M.D., Professor and Chairman, De-partment of Radiology, University of South Florida, Box 17, 12901 North 30 Street, Tam-pa, Fla. 33612. An Affirmative Action/Equal Opportunity Employer. Certain veterans and spouses of veterans receive preference in employment. employment.

#### UNIVERSITY OF OTAGO Dunedin, New Zealand CHAIR OF EXPERIMENTAL ORAL BIOLOGY

The Council of the University of Otago invites applications for appointment to the foundation Chair of Experimental Oral Biol-ogy, in the Department of Oral Biology in the Faculty of Dentistry, University of Otago.

Professorial salaries are fixed at various points within a present range from NZ\$23,865 to NZ\$33,865 per annum according to whether the appointee holds dental, medical, or other qualifications. Increases are pending.

Further particulars are available from: The Secretary-General, Association of Common-wealth Universities (Appointments), 36 Gor-don Square, London WC1H OPF, England, or from: The Registrar, University of Otago, P.O. Box 56, Dunedin, New Zealand.

Applications quoting Reference A.79/45 close in New Zealand and London on 31 October 1979.

#### DIRECTOR VACANCY **Office of Oceans Programs**

The Office of Research and Development, National The Office of Research and Development, National Oceanic and Atmospheric Administration (NOAA) has announced the vacancy of Staff Director for Ocean Programs to the Assistant Administrator for Research and Development in Rockville, Maryland. The Office of Research and Development, respon-sible for administering an integrated program of re-search technology, and advanced engineering de search, technology, and advanced engineering de-velopment and transfer relating to the oceans, the velopment and transfer relating to the oceans, the Great Lakes, the U.S. coastal waters, the lower and upper atmosphere and the solar and terrestrial envi-ronment to increase understanding of the environ-ment and human impact thereon, and thus provide the scientific basis for improved services, is seeking a **DIRECTOR** for its Office of Ocean Programs. This is an exciting and challenging opportunity for an in-dividual with demonstrated knowledge of various scientific disciplines pertinent to NOAA oceano-graphic research programs. These disciplines in-clude physical, chemical, geological, biological, me-teorological oceanography, marine acoustics, ocean engineering, and undersea research. In addition, the incumbent must have a national reputation in phys-ical marine sciences or related fields and significant experience in the management of ocean science proexperience in the management of ocean science programs.

Salary: This position will be filled under the new Senior Executive Service (SES).

Application: Interested persons should send U.S. Standard Form 171, Personal Qualifications State-ment, to: Claudia Brooks, Personnel Management Specialist, Office of Personnel, AD411, NOAA, 6001 Executive Boulevard, Rockville, Maryland 20852, by 15 November 1979. The Department of Commerce is an Equal Opportunity Employer.

Challenging position available immediately for person with background in IMMUNOLOGY/CELL BIOLOGY to develop a hybridoma program and col-laborate with investigators in several departments in the School of Medicine. Experience in immunothe School of Medicine. Experience in immuno-chemical methods and cell culture essential. Inter-ested applicants send inquiries with résumé and ref-erences to: Marylou Ingram, M.D., Institute For Cell Analysis (D-1), University of Miami Hospitals and Clinics/National Children's Cardiac Hospital, 1475 Northwest 12 Avenue, Miami, Florida 33101.

#### POSITIONS OPEN

#### **CHAIRPERSON** DEPARTMENT OF BIOLOGY UNIVERSITY OF HOUSTON

Applications are invited for the position of chairperson, Department of Biology, University of Houston College of Natural Sciences and Mathematics. We seek a candidate with a distinguished record of re-search and teaching whose credentials would qualify that individual for appointment as full professor of biology. Preference will be given to an individual having demonstrated excellence in providing leadership technique and the development of both re-search and training programs. Curriculum vitae, se-lected reprints, and names of three references should be sent to:

Joseph P. Buckley, Ph.D., Chairman Biology Chair Search Committee 141 SR2—University of Houston Houston, Texas 77004

The University of Houston is an Equal Opportunity Affirmative Action Employer.

Department of Pathology seeks an **ELECTRON MICROSCOPIST** (M.D. or Ph.D.) to supervise EM facility. Experience with TEM, SEM, and freeze-fracture is essential. Interest in applications of ultra-structural analysis to the study of disease is desir-able. Candidates should write: **David Lagunoff**, **M.D.**, **Department of Pathology**, **St. Louis University School of Medicine**, **1402** South Grand Boulevard, **St. Louis**, **Mo. 63104**, and include curriculum vitae with bibliography and two references.

EXTENSION ENTOMOLOGIST. Entomology Department, Rutgers University, seeks an entomolo-gist to conduct applied research and develop pest gist to conduct applied research and develop pest management procedures for vegetable crops, at the Rulgers Research and Development Center, Center-ton, N.J. Assistant professor rank: 12-month, ten-ure-track position available immediately. Appli-cations should be sent to: Herbert T. Streu, Chair-person, Department of Entomology and Economic Zoology, Rutgers—The State University, Cook Col-lege, P.O. Box 231, New Brunswick, N.J. 08903.

FACULTY POSITION (tenure-track) to start Sep-tember 1980 (in addition to physical biochemist posi-tion, Science, 10 and 17 August 1979). The Biochem-istry/Biophysics Program is seeking an ASSISTANT PROFESSOR with outstanding potential for re-search in biochemistry. Instructional responsibilities will be at both the graduate and undergraduate level. Send transcripts, a summary of qualifications (in-cluding grant support, if applicable), a brief (1 to 3 page) description of research plans, curriculum vitae, and reprints of your two most important arti-cles, and have four reference letters sent to: Dr. James A. Magnuson, Search Committee, Biochemis-try/Biophysics Program, Washington State Universi-ty, Pullman, Wash. 99164. Screening starts 1 Decem-ber 1979. FACULTY POSITION (tenure-track) to start Sepr 1979

Washington State University is an Equal Opportu-nity Employer. Women, minorities, and handi-capped persons are encouraged to apply and to identify themselves as such.

### THE UNIVERSITY OF SYDNEY FACULTY POSITION IN VERTEBRATE BIOLOGY

Applications are sought for a lecturer in biology with research interest in vertebrate biology. Preference may be given to applicants in developmental biology, physiology, behaviour, ecology, or evolution. Duties include research and teaching in vertebrate biology and teaching in general biology

Salary range: A\$16,291 to A\$21,401 per annum. Applications including curriculum vitae, list of pub-lications, and names of three referees by 9 Novem-ber 1979 to: The Registrar, University of Sydney, New South Wales 2006, Australia, from whom further in-formation is available.

## **BAYLOR COLLEGE OF MEDICINE** FACULTY POSITION IN BIOCHEMISTRY

The Department of Biochemistry invites outstanding applicants in any area of biochemistry for a position available now at the assistant/associate professor level. Selected candidates will have demonstrated their potential as an educator and as an independent researcher. Send curriculum vitae, statements of research interests, and names of three individuals for letters of recommendation to: Dr. Kirk C. Aune, Chairman, Faculty Search Committee, Department of Biochemistry, Baylor College of Medicine, Houston, Texas 77030. Affirmative Action/Equal Opportunity Employer

#### POSITIONS OPEN

# FACULTY POSITIONS AND POSTDOCTORAL FELLOWSHIPS IN BIOCHEMISTRY

Applications are invited for postdoctoral fellow-ships, research assistant professorships, and tenured faculty positions at the assistant, associate, or full racuity positions at the Department of Biochemistry, professor levels at the Department of Biochemistry, State University of New York (SUNY), Upstate Medical Center, Syracuse, New York. Candidates are expected to have demonstrated

promise or excellence in one of the following general areas of research: protein chemistry, molecular biol-ogy (with primary emphasis upon the regulation of protein synthesis in animal cells), or enzymology (active transport, rapid reaction kinetics, fluores-

cence spectroscopy). These positions are available in the fall of 1979. Send curriculum vitae, list of publications, and three letters of reference to:

Anthony N. Martonosi, M.D., Chairman Department of Biochemistry SUNY, Upstate Medical Center 766 Irving Avenue Syracuse, New York 13210

An Equal Opportunity/Affirmative Action Employer

## FACULTY POSITION OCCUPATIONAL HEALTH PROGRAM

The Division of Environmental and Nutritional Sciences, University of California, Los Angeles (UCLA), School of Public Health, invites appli-cations from qualified individuals for a faculty posi-tion work components with training and expension cations from qualified individuals for a faculty posi-tion, rank commensurate with training and experi-ence, in the area of occupational toxicology. The ap-plicant should have a doctoral degree and be trained in analytical chemistry and industrial toxicology, and have membership in professional occupational health organizations. The successful applicant will be responsible for developing and teaching courses in occupational toxicology and industrial hygiene, participating in a graduate curriculum in occupational health, and advising master's and doctoral level students. This person also must have an active pro-gram in an appropriate occupational toxicology area and be familiar with and develop relationships with federal, state, and local occupational health pro-grams and with industry. Curriculum vitae, bibliography, and three letters of recommendation should be submitted to: **Ralph** W. McKee, Chairman, Search Committee, Depart-ment of Biological Chemistry, UCLA School of Medi-cine, Los Angeles, Calif. 90024, by 1 February 1980. UCLA is an Equal Opportunity/Affirmative Action Employer and considers candidates without respect to race, sex, or religion, and is actively seeking mi-nority and wome applicants. tion, rank commensurate with training and experi-

to race, sex, or religion, and is actively seeking mi-nority and women applicants.

FIELD BIOLOGY-SUMMER FACULTY. The University of Virginia Mountain Lake Biological Station seeks applications for faculty openings for the summer of 1980 to offer 5-week graduate courses. Disciplines open are: animal behavior, ecology, plant taxonomy, and wildlife biology. Oth-er areas will be considered.

er areas will be considered. Preference will be given to assistant professors with interests in field biology research in the Appala-chians. Deadline: 31 October 1979. Write or tele-phone: J. L. Riopel, Director, Mountain Lake Biolog-ical Station, University of Virginia. Charlottesville, Va. 22901; telephone: 804-924-3981. Equal Opportu-nity/Affirmative Action Employer.

HEADS, Divisions of Clinical Immunology and Gas-troenterology, Department of Medicine, University of British Columbia (UBC), Vancouver, British Colum-bia. Applications are being received until 1 Decem-ber 1979 for heads of the Divisions of Clinical Immu-nology and Gastroenterology. Applicants should be experienced, clinically qualified specialists with a major research reputation in the fields of immunolo-gy and gastroenterology to head the Divisions of Clinical Immunology and Gastroenterology in the Department of Medicine at the University of British Columbia. The head of each division will be located in the new University Hospital to open in 1980 and will direct the academic aspects of his field in all the UBC teaching hospitals. The applicant should be able to develop a significant clinical and basic re-search program. Academic and personal arrange-ments to be negotiated. Applications should include a letter of previous experience, updated curriculum vitae, and three suggested names of reference. Send HEADS, Divisions of Clinical Immunology and Gastite; and three suggested names of reference. Send to: Dr. John H. Dirks, Professor and Head, Depart-ment of Medicine, University of British Columbia at Vancouver General Hospital, 700 West 10 Avenue, Vancouver, British Columbia, Canada V5Z 1M9.

SCIENCE, VOL. 206

#### STANFORD UNIVERSITY GEOCHEMIST—PETROLOGIST

The Department of Geology in the School of Earth Sciences invites applications for a faculty position beginning September 1980. Areas of interest include (but are not limited to) geochemical processes in the crust and mantle of the earth including isotope geochemistry, thermodynamics, kinetics, element distribution, and phase equilibria studies. Teaching responsibilities might include graduate and undergraduate courses in geochemistry and igneous petrology. Level of appointment is open, but we are particularly interested in a creative person with a well-established record in research. Applications should include (i) a ré sumé of education, professional experience, and published research; (ii) a brief statement of plans for future research; and (iii) the names of four references. Send to: **Professor J. G.** Liou, Department of Geology, Stanford University, Stanford, Calif. 94305 by 1 December 1979. Stanford University is an Equal Opportunity/Affirmative Action Employer.

Full-time position available for a certified eligible HEART-LUNG PERFUSIONIST. Responsibilities include operation of heart-lung machine, aortic balloon pump, inventory of pump supplies, verification that patients for extracorporeal perfusion have had proper tests, and performance of noninvasive peripheral vascular diagnostic procedures. We are a 612-bed facility with a 60-bed nursing home care unit and are actively affiliated with the Indiana University Medical Center. Excellent benefit program with retirement plan, health and life insurance, paid vacation, and sick leave. Correspond with or telephone: Veterans Administration Medical Center, 1481 West 10 Street, Indianapolis, Ind. 46202; telephone: 317-635-7401, extension 2260, Chris Spies, Personnel Management Specialist.

Equal Employment Opportunity

#### IMMUNOLOGIST/MICROBIOLOGIST

Faculty appointment, tenure-track, Ph.D. required, postdoctoral experience in immunochemistry of cell receptors preferred, not excluding marine or neural interests. Strong background in general microbiology. To establish independent research program and collaborate with other investigators. Teaching in advanced general microbiology and specialty area. Submit curriculum vitae, statement of research interests, and three letters of recommendation by 1 January 1980 to:

#### Bernard C. Abbott, Ph.D., Chairman, Department of Biological Sciences UNIVERSITY OF SOUTHERN CALIFORNIA University Park Los Angeles, California 90007

An Equal Opportunity/Affirmative Action Institution

#### NEUROBIOLOGIST

Applications are invited for a tenure-track position at the level of assistant professor. We are particularly, but not exclusively, interested in applicants with research interests in the development of simpler nervous systems. The successful candidate will be expected to establish an active research program, and to teach at the graduate and undergraduate level. The department offers wide interdisciplinary contacts, including the University of Southern California (USC) Neuroscience Group, the USC Medical Center, and the Catalina Island Marine Science Center. Applicants should send curriculum vitae, statement of research plans and interests, and three letters of recommendation by 16 November 1979 to:

#### W. O. McClure, Director Section of Cellular Biology Department of Biological Sciences UNIVERSITY OF SOUTHERN CALIFORNIA Los Angeles, California 90007

An Equal Opportunity/Affirmative Action Institution

NEUROPHYSIOLOGIST. An anticipated tenuretrack position for a broadly trained animal physiologist with research interests in neurophysiology. Duties include teaching a course in general physiology and one in neurophysiology and directing a tutorial for one semester at the senior level. An active research program is expected. Ph.D. required. Completed application, containing résumé, description of research interests, and three letters of recommendation, must be received by 15 December. Send to: Dr. W. DeWitt, Chairman, Biology Department, Williams College, Williamstown, Mass. 01267. Equal Opportunity/Affirmative Action Employer.

#### **POSITIONS OPEN**

HEAD, DEPARTMENT OF ENTOMOLOGY, North Carolina State University. Candidates should have an established professional reputation in entomology as well as academic experience in teaching, research, and/or extension. Send curriculum vitae and the names of three references to: Dr. John G. Vandenbergh, Box 5577, North Carolina State University, Raleigh, N.C. 27650.

An Equal Opportunity/Affirmative Action Employer.

HEAD, DEPARTMENT OF FOOD SCIENCE, North Carolina State University. Candidates should have an established professional reputation in food science as well as academic experience in teaching, research, and/or extension. Send curriculum vitae and the names of three references to: Dr. C. A. Lassiter, Box 5127, North Carolina State University, Raleigh, N.C. 27650.

An Equal Opportunity/Affirmative Action Employer.

#### **INSECT ECOLOGIST**

The Department of Entomology of the University of Illinois at Urbana-Champaign, a unit of the College of Liberal Arts and Sciences, invites applications for a tenure-track position of assistant professor of entomology, to begin 21 August 1980 subject to university budgetary approval. Research interests must lie in insect ecology, with emphasis on both conceptual and field studies. A Ph. D. degree is necessary: postdoctoral work is desirable but not required. Salary will be commensurate with experience. Responsibilities include teaching an insect ecology course as part of the entomology and ecology programs, and teaching and directing research programs of graduate and undergraduate students in entomology and other curricula in bjology.

In order to assure full consideration, applications must be received by 15 December 1979. Send curriculum vitae, personal bibliography, statement of research interests, and three letters of reference to:

Dr. James G. Sternburg Search Committee Chairman Department of Entomology 320 Morrill Hall University of Illinois Urbana, Illinois 61801 Telephone: 217-333-2910

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

THE AUSTRALIAN NATIONAL UNIVERSITY invites applications for the following positions in the Department of Prehistory and Anthropology: (i) LECTURER, ANTHROPOLOGY. Good scholarly record in research/teaching in social or cultural anthropology required. Experience in the field of Melanesia may be an advantage. (ii) LECTURER, BIO-LOGICAL ANTHROPOLOGY. Research interests and teaching experience in biological anthropology which fit the needs of the department in prehistory and social anthropology. Appointee to teach in fields which aid the integration of these subjects, certainly including human adaptability, nutrition and growth, epidemiology, human variation, and genetics. Salary: A\$16,291 to A\$21,401 (A\$1 = U.K. SoNP; U.S.\$1.13). Appointment: 3 years with possibility of reappointment to age 65. Travel costs. Superannuation. Further particulars from: **Registrar, P.O. Box 4, Canberra ACT 2600, Australia**. Closing date: 16 November 1979.

#### MASS SPECTROSCOPIST-RICE UNIVERSITY

The Department of Biochemistry of Rice University announces the availability of a staff position for an experienced bioorganic mass spectroscopist to operate GC-MS unit and to participate in research on sterol biosynthesis and chemistry of complex lipids. Additional experience in IR and NMR desired but not essential. Salary dependent on qualifications and experience. Position available immediately. Interested persons should send résumé and the names of three references to: G. J. Schroepfer, Jr., Biochemistry Department, Rice University, Houston, Texas 77001. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOW/RESEARCH ASSO-CIATE to work on molecular aspects of DNA repair in eukaryotes including enzymology, chromatin structure, and genetics. Strong background in nucleic acids, enzymology, or chromatin required. Flexible starting date. Send curriculum vitae and names of two references to: Michael W. Lieberman, M.D., Ph.D., Department of Pathology (Box 8118), Washington University School of Medicine, St. Louis, Missouri 63110.

#### **POSITIONS OPEN**

#### **INSECT VECTOR BIOLOGIST**

Assistant professor (new tenure-track position) to conduct active research program in the biology of insect vectors, to interact with others in this area, to teach a course (Evolution, Ecology and Man) to nonmajors every spring semester, and to offer a specialty graduate course every fall. Appointment effective September 1980. Vector biologists with one of the following backgrounds are of special interest: **arbovirologist; population ecologist;** and **population geneticist**. Strong programs exist in aquatic biology, mosquito biology, and parasitology. New building; excellent EM and biocomputing facilities. Submit curriculum vitae, undergraduate and graduate transcripts, publications, three letters of recommendation, and statement of research and teaching interests to: Dr. Theodore J. Crovello, Chairman, Department of Biology, University of Notre Dame, Notre Dame, Indiana 46556. Notre Dame is an Afirmative Action Employer. Qualified women and minority group candidates are urged to apply.

Applications are sought from M.D.'s and Ph.D.'s for full-time positions in the DEPARTMENT OF PA-THOLOGY at the level of either assistant, associate, or full professor, depending on qualifications and experience. Responsibilities will include teaching and hospital service. Pursuit of individual research interests as well as participation in ongoing research is encouraged. Send curriculum vitae and references to:

#### Joseph Wiener, M.D., Chairman Department of Pathology Wayne State University School of Medicine 540 East Canfield Avenue Detroit, Michigan 48201

An Equal Opportunity/Affirmative Action Employer

MICROBIOLOGISTS: Two tenure-track faculty positions beginning August 1980. **Rank**: assistant or associate professor, either position. **Requirements**: completed Ph.D. and publications; postdoctoral experience preferred. The successful candidates should expect to carry on an active research program, to secure research funding from outside agencies, to direct the work of graduate students specializing in microbiology, and to teach introductory and advanced microbiology courses. **Applications**: send complete curriculum vitae, including copies of publications and names and addresses of three references, to: Dr. H. Bailey Ward, **Chairman, Microbiology Search Committee, Department of Biology, University of Mississippi, University, Miss. 38677.** To ensure consideration, applications should be received before 1 March 1980.

The University of Mississippi is an Equal Opportunity Employer, M/F/H.

#### **NEUROSCIENTISTS**

The Long Island Research Institute (LIRI) is initating a program in chronopsychiatry and will be hiring two or three investigators who study cyclic changes in neurobehavioral function. Both psychiatrists and basic scientists trained in neurochemistry/ neuropharmacology or psychopharmacology are encouraged to apply. Clinical as well as basic research facilities are available, and the Institute works in close collaboration with the Department of Psychiatry and Behavioral Science. Preference will be given to younger investigators, although senior scientists are also encouraged to apply. Send a statement of research interests and plans with curriculum vitae to: **R. E. Whalen, LIRI, Health Sciences Center 10T, State University of New York, Stony Brook, N.Y. 11794.** We are an Equal Opportunity Employer.

PEST MANAGEMENT ENTOMOLOGIST. Twelvemonth appointment at rank of associate or full professor, depending on qualifications. Available 1 January 1980. Duties: (i) research on field-crop systems with emphasis on cotton and soybean, (ii) participation in a research team to develop and apply pest management models, (iii) guidance of graduate research, and (iv) teaching in the areas of insect ecology and/ or population dynamics. Ph.D. in entomolgy or relevant life science and experience in field-crop research are required. Experience in field-crop research are required. Experience in modeling and programming is desirable. Salary is negotiable and competitive. Application deadline: 15 December 1980. Send résumé and list of publications and arrange for three letters of reference to be sent to: Dr. E. P. Pieters, Chairman, Search Committee, Entomology Department, Drawer EM, Mississippi State, Miss. 39762. Mississippi State University is an Affirmative Action/Equal Opportunity Employer.

#### PHARMACOLOGY

The Department of Pharmacology and Therapeu-tics, Schools of Medicine and Dentistry, State Uni-versity of New York (SUNY) at Buffalo, invites ap-plications for a full-time faculty position as assistant professor. Candidates must have a Ph.D. or M.D. degree with clear evidence of interest and expertise in pharmacology. Strong preference will be given to those with at least 2 years of research experience and publications in cardiovascular pharmacology, including whole animal research. including whole animal research. Duties include teaching (graduate and professional

programs), research, and participation in depart-mental program development. The broad scope of the present faculty offers an opportunity for inter-action with both molecular and clinical pharmacologists.

Send curriculum vitae and also request that three letters of recommendation be sent to:

Dr. Edward A. Carr, Jr. SUNY at Buffalo School of Medicine 127 Farber Hall Buffalo, New York 14214

An Equal Opportunity/Affirmative Action Employer

#### PHYSIOLOGY/ZOOLOGY

Tenure-track position starting winter quarter (26 No-vember) in a Catholic college for the liberal arts and professions. Duties include teaching upper-division courses in physiology, histology, embryology, and comparative anatomy. Ph. D. preferred, but will con-sider master's with substantial experience. Apply with curriculum vitae, including transcripts and names of three or four referees, to: Dr. Richard J. Welland, Vice President for Academic Affairs, Col-lege of Saint Teresa, Winona, Minnesota 55937. Rank and salary dependent upon background. The College of Saint Teresa is an Equal Opportunity/Affirmative Action Employer that encourages women appli-cants. cants.

#### PHYSICAL OCEANOGRAPHER

The Chesapeake Bay Institute of The Johns Hopkins The Chesapeake Bay Institute of The Johns Hopkins University has a position available for a physical oceanographer with interests in shelf and estuarine circulation dynamics. Applicant should have a Ph.D. or equivalent plus 1 or 2 years as postdoctorate. Ex-perience in one or more of the large, international oceanographic research programs desirable. Ap-pointment will be made at the intermediate or senior level. Rank and salary will be commensurate with qualifications. Send curriculum vitae, bibliography, and names of three professional references to: **W. B**. quaincations. Send curriculum vitae, bibliography, and names of three professional references to: W. R. Taylor, Acting Director, Chesapeake Bay Institute, The Johns Hopkins University, 4800 Atwell Road, Shady Side, Md. 20867. The Johns Hopkins Univer-sity is an Equal Opportunity/Affirmative Action Employer.

#### PHYSIOLOGY FACULTY (Two Positions Available) **Baylor College of Medicine**

Available 1 January 1980, or later; appointments as assistant professor preferred; associate professor will be considered. Postdoctoral research experience is highly desirable. Preference will be given to ence is highly desirable. Preference will be given to applicants having interests and experience in metab-olism and metabolic control or cellular physiology. An applicant will be expected to have an indepen-dent, vigorous research program, capable of com-petitive support from granting agencies. Appointees will be expected to participate in the instruction of medical, graduate, and allied health science stu-dents. Salary depends on qualifications. Send cur-riculum vitae, statement of research and teaching background and interests and arrange to have three background and interests, and arrange to have three letters of recommendation sent to: Dr. Robert L. Vick, Physiology Department, Baylor College of Med-icine, 1200 Moursund Avenue, Houston, Texas 77030, by 1 December 1979. An Equal Opportunity/Affirm-ting Action Employee ative Action Employer

PATHOLOGIST. Full-time position. Veterans Ad-ministration Medical and Regional Office Center, White River Junctions, Vt., component of Dart-mouth-Hitchcock Medical Center, invites inquiries from Board-qualified or -certified pathologists who are actively interested in academic pathology, with particular inclination toward anatomic pathology. Position involves participation in teaching medical students and residents, clinical service activities, and an active interest in research. Direct inquiries, including curriculum vitae, to: Dr. Martha Stauffer, Secretary to Search Committee, Department of Pa-thology, Dartmouth Medical School, Hanover, N.H. 03755.

An Equal Opportunity Employer

#### POSITIONS OPEN

POSTDOCTORAL APPOINTMENT IN CYTO-GENETICS. Research associate position available in the Institute for Environmental Studies at the University of Illinois at Urbana-Champaign to study inversity of Illinois at Urbana-Champaign to study in-duced sister chromatid exchanges in animals and plants. Ph.D. in genetics or related discipline. Two-year position, about \$13,000 annual salary starting immediately. Send curriculum vitae by 30 October 1979 to: Dr. Michael Plewa, Institute for Environ-mental Studies, University of Illinois, Urbana, Illinois 61801, telephone: 217-333-3614. The University of Il-inois, is an Affirmating Action Facul Operating. linois is an Affirmative Action/Equal Opportunity Employer.

The Australian National University invites appli-cations for appointment as POSTDOCTORAL FEL-LOW, RESEARCH FELLOW/SENIOR RESEARCH FELLOW in the Department of Theoretical Physics, Research School of Physical Sciences. The depart-ment would prefer to make the appointment in the research area of statistical mechanics, but appli-cations from theoretical physicists with research in-terests in other areas will be considered. The depart-ment's main current interests are in fundamental asterests in other areas will be considered. The depart-ment's main current interests are in fundamental as-pects of statistical mechanics, solid-state physics, plasma physics, nuclear physics, elementary-par-ticle physics, and field theory. Applications would be welcomed from persons on leave from their insti-tutions for shorter periods (but for at least 2 years for institutions outside Australia). Closing date: 30 No-vember 1979. The Research School of Physical Sci-ences is also seeking to appoint **POSTDOCTORAL OR RESEARCH FELLOWS** in other departments such as Mathematics, Engineering Physics, Nuclear Physics, Solid-State Physics and Theoretical Phys-ics. Diffusion Research. Electron and Ion Diffusion Physics, Solid-State Physics and Theoretical Phys-ics, Diffusion Research, Electron and Ion Diffusion and Ultraviolet Physics, Plasma Research and As-tronomy. Closing date: 31 October 1979. Salaries in accordance with qualifications and experience with-in the range: senior research fellow A\$22,755 to A\$27,143; research fellow A\$16,291 to A\$21,265; postdoctoral fellow (fixed point) A\$16,291 to A\$20, 768. Present exchange rate: A\$1 = U.S.\$1.12. Ap-pointment: 3 to 5 years for research fellow/senior re-search fellow; 2 years for postdoctoral fellow. Trav-el costs. Superannuation. Further particulars from: **Registrar, P.O. Box 4, Canberra ACT 2600, Austra-lia.** 

POSTDOCTORAL POSITION: PLANT BIOCHEM-POSTDOCTORAL POSITION: PLANT BIOCHEM-IST to investigate metabolism in isolated leaf peroxisomes. Experience in separation of radio-labeled photosynthetic compounds, isolation of or-ganelles, or measurement of membrane transport de-sirable but not necessary. Salary: \$12,000 per year (or higher depending on experience) plus fringe ben-efits. Available immediately. Contact: Dr. Anthony Huang, Biology Department, University of South Car-olina, Columbia, S.C. 29208; telephone: 803-777-2331. Affirmative Action/Equal Opportunity Employ-er.

POSTDOCTORAL POSITION at the Johns Hopkins University School of Medicine. Available between January and July 1980. Research and training in the neurobiology of cardiovascular control. Strong background in modern techniques of neurophysiol-ogy or neuroanatomy recommended. Applicants should sent their curriculum vitae and bibliography to: Dr. Lawrence Schramm, The Johns Hopkins Uni-versity School of Medicine, 226 Traylor Building, 1721 East Madison Street, Baltimore, Maryland 21205. 21205

POSTDOCTORAL POSITION available for research on biochemical approaches to epilepsy begin-ning winter-spring 1980. Approach will center on biochemical experiments which provide direct opportunity for correlative pharmacologic, elec-trophysiologic, and morphological study. Send cur-riculum vitae and names of three references to: **Dr**. James O. McNamara, Director, Epilepsy Center, Box 2900, Duke University Medical Center, Durham, N.C. 27710. Duke University is an Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available January 1980 or later, for research on the mechanisms of rep-licative senescence and terminal differentiation in licative senescence and terminal differentiation in cultured human fibroblasts, epidermal keratino-cytes, and hybrids. A background in genetics, hu-man cell culture, or developmental biology is de-sired. Salary: \$11,500 plus benefits and joint appoint-ment to Harvard Medical School Department of Physiology. Send curriculum vitae plus names of three references to: J. G. Rheinwald, Dana 840C, Laboratory of Tumor Biology, SIDNEY FARBER CANCER INSTITUTE, 44 Binney Street, Boston, Mass. 02115. An Equal Opportunity/Affirmative Ac-tion Employer. tion Employer.

#### POSITIONS OPEN

POSTDOCTORAL POSITION available 1 November 1979 for (i) the development of new techniques for the isolation of viruses and viral precursors and the study of bacteriophage assembly. Experience with electron microscopy is preferred. Salary: \$13,000 per year. Send curriculum vitae and two let-ters of reference to: **Dr. Phillip Server, Department** of Biochemistry, The University of Texas Health Sci-ence Center, San Antonio, Texas 78284. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION-MEMBRANE BI-OLOGY. Available January 1980, to investigate the membrane proteins of red cells infected with malaria and malarial parasites. Preference will be given to candidates with previous experience in membrane isolation and characterization of membrane proteins using biochemical, immunologic, and/or electron mi-croscopic techniques. Send three letters of recommendation, curriculum vitae, and a statement of re-search interests to:

Dr. Irwin W. Sherman Department of Biology University of California Riverside, Calif. 92521

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION available immediate-19. For studies in oceanography and meteorology. Research activities will involve data analysis and nu-merical model simulations using the GATE and MONEX/INDEX data sets. Applicants should have experience in data analysis (primary oceanographic data data data data data data). experience in data analysis (primary oceanographic data; secondary meteorological data); and computer programming (FORTRAN). Salary: \$17,000 to \$18,000 per year, depending on experience. One-year appointment minimum, with 2 years or longer possible. Advancement of position within organiza-tion will be encouraged. Send curriculum vitae and names of three references to: Dr. Clifford A. Jacobs, The Center for the Environment and Man, Inc., 275 Windsor Street Hartford Connecticut 66120 An Windsor Street, Hartford, Connecticut 06120. An Equal Opportuntiy/Affirmative Action Employer.

#### POSTDOCTORAL POSITION

Ph.D. in biochemistry or M.D., for 2-year research appointment with group working on cholesterol-lipoappointment with group working on cholesterol-lipo-protein-atherosclerosis interactions and on mem-brane phospholipids. Salary range: \$11,000 to \$13,000, depending on experience. Send curriculum vitae and three letters of reference to: **Dr. D. B. Zil-**versmith, 202 Savage Hall, Cornell University, Ith-aca, N.Y. 14853. An Equal Opportunity/Affirmative Action Fundover Action Employer.

POSTDOCTORAL POSITION/RESEARCH ASSO-CIATE. Available immediately. Research will involve molecular aspects of influenza virus, replicavoive indication aspects of initial virus, replica-tion, and studies on nucleic acids of influenza virus-es. Contact: Dr. Peter Palese, Department of Microbiology, THE MOUNT SINAI SCHOOL OF MEDICINE, One Gustave L. Levy Place, New York, N.Y. 10029. An Equal Opportunity/Employer.

**POSTDOCTORAL POSITION** in cardiovas cular research with emphasis on engineering or physics. Some knowledge of electronics and computers. At least 1 year. Contact: Dr. A. Noordergraaf, Moore /D2, or Dr. J. Mel-bin, Vet/HI, University of Pennsylvania, Philadelphia, Pennsylvania 19104.

Two POSTDOCTORAL POSITIONS for Ph.D. biotwo POSIDOCIONAL POSITIONS for Ph.D. bio-chemists or insect toxicologists to study detoxica-tion mechanisms in insects. Research background in enzyme characterization and cytochrome P-450 studies desirable. Available 1 January and 1 March research associate at \$12,000 to \$15,000. Send cur-riculum vitae and two references to: L. C. Terriere, Doportment of Entroplay. Overan State University Department of Entomology, Oregon State University, Corvallis, Oregon 97331. Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the 1973 Rehabili-tation Act tation Act.

#### **POSTDOCTORAL POSITIONS**

Postdoctoral positions are available immediately in of myelin membranes and regulation of assembly of myelin membranes and regulation of brain lipid synthesis. A Ph.D. in biochemistry with some expe-rience in enzymology and lipid biochemistry is desir-able. Send résumé with names of three referees to: Dr. F. B. Jungalwala, Eunice Kennedy Shriver Cen-ter for Mental Retardation, 200 Trapelo Road, Wal-tham, Mass. 02154.

SCIENCE, VOL. 206

**POSTDOCTORAL POSITION** involving studies of gene expression in erythroleukemia cells and the se-quence organization of fetal and adult goat globin genes. Send résumé to: Dr. Jerry B. Lingrel, Depart-ment of Biological Chemistry (522), University of Cin-cinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, Ohio 45267. Equal Opportunity/Affirma-tive Action Employer tive Action Employer.

**POSTDOCTORAL POSITION** available for fall 1979, for a recent Ph.D. in biochemistry. The role of protein kinases and the phosphorylation of their endogenous substrates as possible control molecules for proliferation and/or differentiation in the epi-dermis is the area of research. Salary of \$11,000 to \$13,000 is negotiable. Interested candidates should send curriculum vitae and two letters of reference

Dr. Elizabeth A. Duell Dir Einzbein A. Daen Department of Dermatology University of Michigan Medical School R 6558 Kresge I Ann Arbor, Mich. 48109 A nondiscriminatory, Affirmative Action Employer

rOSIDOCTORAL POSITION available immediate-ly. Organic or medicinal chemistry Ph.D. with strong background in synthesis to join multidiscipli-nary group working in the areas of chemical carcino-genesis and organ imaging agents. Send résumé and names of three references to: Dr. Thomas J. Cur-phey, Department of Pathology, Dartmouth Medical School, Hanover, N.H. 03755. **POSTDOCTORAL POSITION** available immediate

**POSTDOCTORAL POSITION** available immediroshbot local rosal rosh available immedi-ately in an interlaboratory project involving cloning, modification, and expression of DNAs coding for human immunoglobulins having specificities useful for eventual clinical applications. Position involves cloning and characterization of human immunoglob-ulin cDNA, modification by substitution of novel hy-neuranishle region sequences (supplied by others) unin CDNA, incontraction by substitution of novel ny-pervariable region sequences (supplied by others), and analysis of bacterial expression. Ph.D. in molec-ular biology preferred. Salary: \$12,500 to 14,000 per year. Send curriculum vitae and names of three references to: Dr. Catherine Squires or Dr. John Har-ding, Department of Biological Sciences, Columbia University, New York, New York 10027.

**POSTDOCTORAL RESEARCH ASSOCIATE** available immediately to study the mode of action of opiates and opioid peptides in the CNS using elec-trophysiological techniques. Send curriculum vitae and letters of reference to: Dr. Graeme Henderson, Department of Pharmacology, Loyola University, 2160 South First Avenue, Maywood, Ill. 60153.

#### **POSTDOCTORAL RESEARCH**

Applications are invited for a **postgraduate research biophysicist** position which will become available in the Department of Physics 1 January 1980 for studies on the molecular mechanism of rhodopsin actin and/ or of induced membrane permeability using purified receptors and model membranes. Candidates should have experience in biochemical and biophysical techniques. Please send curriculum vitae and three recommendation letters no later than 1 November to: M. Montal, University of California, San Diego, B-019, La Jolla, California 92093.

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

#### POSTDOCTORAL RESEARCH ASSOCIATE

An immediate opportunity for a Ph.D. to study An immediate opportunity for a Ph.D. to study chemical toxicology and chemical carcinogenesis in human cells cultured in vitro. Applicant should have background in toxicology or biochemistry with an interest in learning in vitro carcinogenesis tech-niques. Tissue culture experience desirable but not required. Salary: \$12,000 to \$18,000 per year. Send curriculum vitae with three letters of reference to: Comprehensive Cancer Center, McCampbell Hall, The Ohio State University, 1580 Cannon Drive, Co-lumbus, Ohio 43210.

#### TISSUE CULTURE TECHNICIAN

Candidate should have tissue culture experience in Candidate should have tissue culture experience in an established laboratory or a formal course at the Alton Jones Cell Science Center. Background in es-tablishing primary cultures and in quantitative chem-ical procedures preferred. Salary commensurate with experience whether B.A., B.S., or M.S. Send curriculum vitae with three letters of reference to: Comprehensive Cancer Center, McCampbell Hall, The Ohio State University, 1580 Cannon Drive., Co-lumbus, Ohio 43210.

12 OCTOBER 1979

#### **POSITIONS OPEN**

POSTDOCTORAL POSITIONS in the Division of Nutritional Sciences at Cornell University are available periodically in several aspects of nutritional sciacce and nutritional biochemistry. Interested indi-viduals should inquire as to availability and send curriculum vitae to: M. C. Nesheim, Director, Divi-sion of Nutritional Sciences, Cornell University, Ith-aca, New York 14853. Cornell University is an Equal Opportunity/Affirma-tive Action Femployer.

tive Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE POSTDOCTORAL RESEARCH ASSOCIATE Available in regulation of carbohydrate metabolism and protein turnover. Ph.D. in biochemistry or re-lated area required. Salary: \$12,000 and up, plus fringes. Send curriculum vitae and names of three references by 15 November 1979 to: Dr. George Dun-away, Department of Pharmacology, Southern Illi-nois University School of Medicine, Springfield, Ill. 62702. An Equal Opportunity/Affirmative Action Employee Employer.

## POSTDOCTORAL/RESEARCH ASSOCIATE POSITION AVAILABLE IMMEDIATELY

or up to 2 to 3 years for an individual with expertise in biochemistry and interested in research and train-ing in the area of molecular endocrinology. Existing studies include steroid receptor interaction with nustudies include steroid receptor interaction with nu-cleotides, receptor purification, and modification of receptor structure and function with inhibitors. Sal-ary: \$11,000 to \$12,000, depending upon experience, with additional fringe benefits.

Send curriculum vitae and three letters/names of references to:

## Dr. Virinder K. Moudgil Department of Biological Sciences Oakland University Rochester, Mich. 48063

Oakland University is an Affirmative Action Employer.

## PROFESSOR—GENERAL MICROBIOLOGY University of California, Los Angeles

The Department of Microbiology, College of Let-ters and Science, University of California, Los An-geles, has the authority to recruit a general micro-biologist to replace a retiring senior staff member. The appointment may be made at any academic level The appointment may be made at any academic level (assistant to full professor). Duties will include a ma-jor teaching assignment in the introductory bacte-riology course for the major, plus participation in graduate instruction and supervision of graduate re-search students. The appointee will be expected to maintain a vigorous research program within the broad area of general procaryotic microbiology. Ap-plicants must have demonstrated outstanding re-search achievements and have a dedication to teach-ine.

ing. Send curriculum vitae, reprints of publications, letters of recommendation by 15 and at least three letters of recommendation by 15 January 1980 to: Search Committee, Department of Microbiology, 5304 Life Science, University of Cali-fornia, Los Angeles, Calif. 90024. The University is an Equal Opportunity Employer.

**RESEARCH ASSOCIATE IN MEMBRANE PHYSI-RESEARCH ASSOCIATE IN MEMBRANE PHYSI-OLOGY.** Postdoctoral position available immediate-ly to study H ion transport and intracellular pH regu-lation, employing microelectrode and radioactive tracer methodologies. The laboratory is part of an active group concerned with the mechanisms of ion regulation in cells. Interested candidates should send résumé and three letters of recommendation to: Dr. Albert Roos, Department of Physiology, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, Missouri 63110. An Equal Opportunity/Affirmative Action Employer.

WOMEN'S STUDIES. Possible openings for two tenure-track faculty positions, to start in fall 1980. Rank of the appointments is open. Applications wel-come from candidates in the behavioral sciences, humanities, and biological sciences whose major re-search focus is in women's studies. Possibility exists for an appointment in women's studies alone or jointly with a second department and for a half-time or shared position if desired. Submit curriculum vitae (including a statement of research and teaching interests), samples of best published or unpublished scholarly work, and letters of recommendation sent directly from three referees to: Search Committee, Women's Studies Program, Box B, 431 White Hall, Cornell University, Ithaca, New York 14853. Cornell University is an Equal Opportunity/Affirmative Ac-tion Employer.

#### **POSITIONS OPEN**

POSTDOCTORAL/RESEARCH ASSOCIATE PER-SON available to study problems of membrane struc-ture and fucntion in tissue culture cells with altered lipid compositions. Experience in enzymology or biophysical techniques preferred. Send résumé and names of three references to: **Dr. M. Glaser, Depart**ment of Biochemistry, University of Illinois, Urbana, Illinois 61801. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH FELLOW-Department of Research seeks a postdoctoral research fellow/associate to join an active group interested in structure and function of normal and abnormal blood structure and function of normal and abnormal blood cell membranes. The applicant should have a back-ground in preparation of cell membranes, protein and lipid characterization, and/or electron micros-copy. Academic appointment at TUFTS UNIVER-SITY School of Medicine depending on background and qualifications. Position open immediately.

Send curriculum vitae to: Jiri Palek, M.D., Depart-ment of Research, St. Elizabeth's Hospital of Boston, 736 Cambridge Street, Boston, Mass. 02135. Equal Opportunity Employer, M/F.

POSTDOCTORAL RESEARCH FELLOW OR RE-POSTDOCTORAL RESEARCH FELLOW OR RE-SEARCH ASSOCIATE. Two positions available starting immediately for studies on regulation of al-cohol metabolism. Applicants should have a strong background in biochemistry or pharmacology. Sal-ary dependent on experience. Please forward cur-riculum vitae, reprints, and three letters of recom-mendation to: Dr. Arthur I. Cederbaum, Department of Biochemistry, THE MOUNT SINAI SCHOOL OF MEDICINE, One Gustave L. Levy Place, New York, N.Y. 10029. An Equal Opportunity Employer.

RESEARCH ASSISTANT—Immediate opening for a qualified research assistant in Electron Microscopy Service. Candidates must be capable of maintaining and operating scanning and transmission electron microscopes. The position involves collaboration on various projects with staff members. Training in cell biology desirable. Send curriculum vitae in con-fidence to: P. J. Farr, Director of Personnel, The Jackson Laboratory, Bar Harbor, Maine 04609. An Equal Opportunity Employer, M/F

#### **POSITION AVAILABLE: ATMOSPHERIC SCIENCE**

An individual specializing in atmospheric chemistry/air quality is being sought to fill a tenure-track academic position in atmo-spheric science at Colorado State University. The position is available immediately and will be filled by February 1980. Professional

will be filled by February 1980. Professional title and salary shall be commensurate with the experience of the successful applicant. Applicants must hold a Ph.D. in atmo-spheric science, chemistry, physics, or a re-lated field. Since the position duties require independent research and graduate-level teaching, postdoctoral experience is valued highly. A dedication to graduate, and occa-sional undergraduate, teaching and advising is a definite requirement for the position is a definite requirement for the position. The ability to originate and carry out inde-pendent research involving graduate assist-ants and to collaborate in some research with other faculty members shall be prime

considerations. Applicants should demonstrate a thorough background in the physical chemistry of at-mospheric constituents. These persons should also be dedicated to the application of

should also be dedicated to the application of research results to practical problems of lo-cal and regional air quality. A research ex-periment approach using both laboratory and atmospheric observations is favored. Qualified applicants should send a com-plete résumé with list of journal pub-lications, reports, and oral presentations at conferences, together with the names of three references, to: **Professor Thomes H. Vonder Hear Head** 

Professor Thomas H. Vonder Haar, Head Department of Atmospheric Science Colorado State University Fort Collins, Colorado 80523

The closing date for applications is 22 October 1979

Colorado State University is an Equal Op-portunity/Title IX Employer. Equal Opportu-nity Office: 314 Student Services Building.

#### ENDOWED PROFESSORSHIP BABCOCK PROFESSOR OF BOTANY

Beginning in fall 1980. Must have distinguished background in research and teaching. Will be exbackground in research and teaching. Will be ex-pected to teach at both graduate and undergraduate levels and to maintain an active research program. Salary open. Any area of botanical science will be considered. Application deadline: 31 December 1979. Send résumé and names of three references to: Dr. Robert L. Sullivan, Chairman, Departmental Search Committee, Wake Forest University, Winston-Salem, N.C. 27109. An Equal Opportunity/Affirma-tive Action Employer.

The Harvard School of Public Health is seeking an The Harvard School of Public Health is seeking an outstanding scholar in the population sciences to fill the newly created CLARENCE JAMES GAMBLE PROFESSORSHIP. In addition, the incumbent will be the CHAIRPERSON of the Department of Popu-lation Sciences. According to the terms of the gift, the incumbent should be a person highly qualified and involved in the development of programs which have relevance for human population control and/or the investigation of social, cultural, ethnic, religious, economic, or other factors which influence the rela-tionship between human populations and resources. tionship between human populations and resources. The Search Committee is particularly anxious to fill the chair with an individual having a broad outlook on the role of population sciences and problems of population control. *Women and members of minor*ity groups are especially invited to apply.

Qualified individuals are invited to apply by send-ing current curriculum vitae and the names of five references to:

M. Zelen, Chairman Gamble Search Committee Department of Biostatistics Harvard School of Public Health 677 Huntington Avenue Boston, Mass. 02115

Harvard University is an Equal Opportunity Em-ployer with an Affirmative Action Program.

**RESEARCH ASSOCIATE**-Department of Bio-**RESEARCH ASSOCIATE**—Department of Bio-chemistry. To assist in research investigating the synthesis of procollagen by fibroblasts from normal human subjects and from patients with genetic dis-eases of connective tissues. Ph.D. in biochemistry, cell biology, or related biological sciences, or M.S. plus 2 years of experience, preferably in culture of fibroblasts and protein chemistry. Please send ré-sumé to: Personnel Department, College of Medicine and Dentistry of New Jersey—Rutgers Medical School, P.O. Box 101, Piscataway, N.J. 08854. Equal Opportunity/Affirmative Action Employer, M/F.

**RESEARCH ASSOCIATE** position available for Ph.D biochemist or cell biologist with experience in immunology. Research involves the isolation and characterization of nuclear antigens from tumor cells. Applicant should also have experience in pro-tein chemistry. Salary: \$18,000, with opportunity for advancement. Send résumé to: Dr. Lynn C. Yeo-man, Department of Pharmacology, Baylor College of Medicine, Houston, Texas 77030. An Equal Opportunity Employer

**RESEARCH SCIENTISTS—IMMUNOLOGY.** The University of Massachusetts Medical Center has an immediate opening for a scientist (Ph.D. preferred) with immunology experience in the area of com-plement work with a primary concentration in the research of blood preservation. Send curriculum vitac to: Lois Swenson, Employment Office, UNI-VERSITY OF MASSACHUSETTS MEDICAL CEN-TER, 55 Lake Avenue North, Worcester, Mass. 01605. An Affirmative Action/Equal Opportunity Employer.

The University of California, Irvine, College of Medicine seeks Board-certified/eligible THERA-PEUTIC RADIOLOGISTS for positions at the assist-ant or associate professor level in the DIVISION OF RADIATION ONCOLOGY. Responsibilities include undergraduate and graduate-level teaching, clinical service and research, and participation in the Radia-tion Therapy Oncology Group and Gynecologic On-cologic Group; postcertification experience pre-ferred. ferred

Applications from all qualified candidates are wel-come; minorities and women are encouraged to apply.

p(y). Send applications, including a short biography and copies of publications, to: Harris S. Moyed, Ph.D., Acting Chairman, Department of Radiological Sci-ences, University of California, Irvine, College of Medicine, Irvine, California 92717. Closing date: 15 November 1979.

#### POSITIONS OPEN

**RESEARCH ASSOCIATE** to investigate regulation of the immune response in vivo. Cell culture and/or biochemical separation techniques required. Pre-vious experience with regulatory factors or hybrid-oma techniques advantageous. Position available immediately. Closing date: 1 November 1979. Send curriculum vitae, description of experience, and pro-fessional aspirations to: Dr. Leonard English, De-partment of Microbiology, School of Medicine, East Carolina University, Greenville, N.C. 27834. Equal Opportunity through Affirmative Action.

RESEARCHER IN ENVIRONMENTAL TOX-RESEARCHER IN ENVIRONMENTAL TOX-ICOLOGY. Position for a self-motivated individual interested in drug metabolism and toxicokinetics. Minimum qualifications include master's degree in pharmacology, or related field and 2 years of labora-tory experience. Project involves separation, char-acterization, and toxicokinetic studies of organic pollutants. Well-equipped laboratory provides an excellent opportunity to gain experience in environpointants. went-equipped laboratory provides an excellent opportunity to gain experience in environ-mental toxicology and disposition of compounds in the animal. Salary: \$12,000 per year plus fringe ben-efits. Contact (before 5 November 1979): Dr. Satu M. Somani, Southern Illinois University School of Medicine. P.O. Box 3926, Springfield, Ill. 62708; tele-phone 217-782-2875. An Equal Opportunity/Affirm-ative Action Fundaver. ative Action Employer.

**RESEARCH TECHNICIAN.** Challenging position in biochemistry/cell biology laboratory studying fetal hormones; requiring experience in protein and nunormones; requiring experience in protein and nu-cleic acid purification and analysis. B.S. required; M.S. preferred. Additional experience in EM tech-niques, tissue culture, or RIA would be beneficial but not essential. Send résumé and names of two references to: Dr. Patricia K. Donahoe, Division of Pediatric Surgery, Massachusetts General Hospital, Boston, Mass. 02114.

#### **RESOURCE SCIENTIST/ECONOMIST**

Scientist or engineer with strong economics back-Scientist or engineer with strong economics back-ground, to develop programs and strategies on ener-gy and water policy for national environmental or-ganization. Position requires Ph.D. or equivalent ex-perience, and work in energy production and/or water management. The candidate must be an artic-ulate political strategist. Salary competitive. Send résumé and special qualifications to: **Box E-1**, **Envi-ronmental Defense Fund**, **475 Park Avenue South**, **New York**, N.Y. **10016**.

SUPERVISOR OF DEPARTMENTAL ELECTRON SUPERVISOR OF DEPARTMENTAL ELECTRON MICROSCOPE LABORATORY which includes three transmission (Philips 301, Philips 201, and RCA 3H) and two scanning (Coates/Welter HPS-50 and JEOL JSM-2) electron microscopes. The suc-cessful candidate should have a thorough knowledge of electron microscopy and be willing to assume re-sponsibilities associated with general operations of the laboratory. Scale avergout we use the test between the second sponsionities associated with general operations of the laboratory. Send curriculum vitae and three let-ters of recommendation to: Dr. John D. Taylor, Chairman, Department of Biology, Wayne State Uni-versity, Detroit, Michigan 48202.

Equal Opportunity/Affirmative Action Employer

#### TUMOR BIOLOGIST

To work in the general area of cell movements. in-To work in the general area of cell movements, in-vasion, and metastasis. Level of appointment appro-priate to experience. Apply to: Dr. Leonard Weiss, Director, Department of Experimental Pathology, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, New York 14263.

An Equal Opportunity Employer, M/F

#### VIROLOGY

POSTDOCTORAL TRAINEESHIPS in biochemical POSTDOCTORAL TRAINEESHIPS in biochemical genetics of phage and tumor viruses at the Universi-ty of Michigan Medical School are available now through an NIH-funded interdisciplinary program. Research interests include animal cell transforma-tion by papova and herpes viruses, virus and phage DNA replication and recombination, regulation of gene expression, morphogenesis and virus-cell inter-ections Applicants need not have research expansion gene expression, morphogenesis and virus-cell inter-actions. Applicants need not have research experi-ence in virology. An appointment as lecturer in the Medical School is possible, if desired. Submit cur-riculum vitae and a list of three references to the Virology Postdoctoral Training Program Committee (Department of Biological Chemistry) or to one of the following faculty: Dr. Wm. R. Folk, Dr. G. R. Greenberg (Department of Biological Chemistry); Dr. Wm. Brockman, Dr. D. I. Friedman, Dr. D. Jackson, Dr. E. Jackson (Microbiology); Dr. M. Levine (Human Genetics) at the University of Mich-igan Medical School, Ann Arbor, Mich. 48109. A nondiscriminatory. Affirmative Action Employer

A nondiscriminatory, Affirmative Action Employer

#### POSITIONS OPEN

**RESEARCH ASSOCIATE IN IMMUNOLOGY** 

M.S. with 2 years or B.S. with 3 to 4 years of experience in biological sciences, with major emphasis on immunology. Specialization: human and/or animal histocompatibility systems, tissue culture methods, (MLC, CMI), some teaching.

New position, open now in existing immunology lab-oratory in the Department of Medicine. Salary from \$12,000 depending on qualifications.

Send curriculum vitae and two references to:

Dr. A. Biegel and Dr. Z. Brahmi Riley Surgery S-09 Indiana University Medical Center 1100 West Michigan Street Indianapolis, Indiana 46223

Indiana University is an Equal Opportunity/Affirmative Action Employer.

**RESEARCH ASSOCIATE**. A 2- to 3-year appointment, with annual salary at \$15,000, is available immediately to study hormonal regulation on gene expression in mammary cancer cells. Position may lead to more permanent employment. Necessary qualifications include a Ph.D. or equivalent in biochemistry or molecular biology. Interested and qualified persons are invited to send curriculum vitae and three letters of recommendation to: Dr. Benjamin Leung, Department of Obstetrics/Gynecology, University of Minnesota, Minneapolis, Minn. 55455.

#### POSITIONS OPEN

at BIOASSAY SYSTEMS CORPORATION Cambridge, Massachusetts

Toxicologist/Teratologist
Genetic Toxicologist

Bioassay Systems in vivo and in vitro toxicology programs will expand significantly in January 1980 when the company moves to a new 21,000 sq. ft. fa-cility in Woburn, Mass. Two Ph.D.-level individuals are being sought to serve as study directors; one in acute and subchronic animal toxicology, the other in genetic toxicology genetic toxicology. The applicant should have at least 3 years of expe-

rience beyond graduate training and be conversant in his/her respective area of specialization. Bioassay Systems is an independent testing labo-ratory offering excellent career opportunities for highly motivated individuals.

Send résumé and names of three references to:

F. H. Schneider Bioassay Systems Corporation 100 Inman Street Cambridge, Mass. 02139 A PEDCo GROUP COMPANY Equal Opportunity Employer

#### SYMPOSIUM

## UNIVERSITY OF CALIFORNIA JERRY LEWIS NEUROMUSCULAR RESEARCH CENTER'S INAUGURAL SYMPOSIUM ON EXCITATION-CONTRACTION COUPLING

Will be held 4 to 7 December 1979, at UCLA. Topics for discussion: Electrophysiological Analysis of EC Coupling; Mechanisms at the Level of the T-SR Junction; Molecular Aspects of the Contractile Response.

For program and registration information, write:

Alan D. Grinnell, Ph.D., Director Jerry Lewis Neuromuscular Research Center UCLA School of Medicine Los Angeles, California 90024

#### CONFERENCE

A conference devoted to recent advances in the BIOCHEMISTRY OF LIGAND-RECEPTOR IN-TERACTIONS with special emphasis on receptor structure will be held on 16 November 1979 at the University of Louisville. Selected topics will include the interaction of prolactin, angiotensin-II, and bra-dykinin with their specific receptors, the association of neural-transmitters with the *B*-adrenergic recep-tor, and the interaction of steroid hormones with their serum binding proteins. Posters dealing with related topics are welcome. For further information and registration, contact: Dr. Robert D. Gray, De-partment of Biochemistry, University of Louisville, Health Sciences Center, P.O. Box 35260, Louisville, Ky. 40232; telephone 502-588-5226. A conference devoted to recent advances in the

SCIENCE, VOL. 206

National Academy of Sciences National Academy of Engineering National Research Council

## POSTDOCTORAL RESEARCH

Regular and senior postdoctoral research associateships at the U.S. Army Medical Bioengineering R & D Laboratory at Ft. Detrick, Frederick, Md., are available in the fields of:

#### **ENVIRONMENTAL CHEMISTRY**

(to include degradation of explosives, toxic waste disposal, pesticide degradation chemistry, kinetics and mechanisms of water disinfection, and wastewater treatment and reuse), and

#### ENVIRONMENTAL MICROBIOLOGY

(to include nature and fate of pathogefs in the environment, effectiveness of and criteria for disinfection, microbial degradation of munitions and related wastes).

For information on program details and application materials, write, giving research area of interest, to:

Associateship Office (JH 608-B) National Research Council 2101 Constitution Avenue, NW Washington, D.C. 20418

To discuss specific research ideas, telephone:

Dr. David H. Rosenblatt, BRDL Telephone: 301-663-2014

## **CARNEGIE-MELLON UNIVERSITY**

## DEPARTMENT OF CHEMICAL ENGINEERING

The Mobay Chemical Corporation has established within the Department of Chemical Engineering a tenured professorship designated as the

MOBAY PROFESSOR OF CHEMICAL ENGINEERING

The Department is seeking applications and/or nominations of candidates who have demonstrated outstanding abilities in teaching and research.

Resumes and/or nominating letters should be sent before December 15, 1979 to:

The Mobay Professorship Search Committee c/o S.J. Fenves, University Professor 123 C Porter Hall Carriegie-Mellon University Pittsburgh, PA 15213

Equal Opportunity, Affirmative Action Employer

#### UNIVERSITY OF SINGAPORE PROFESSORSHIP IN ZOOLOGY

Applications are invited for the post of Professor in the Department of Zoology. Applicants should possess outstanding academic qualifications, have considerable University teaching and research experience, supported by authoritative publications. The successful candidate will be expected to provide leadership to the teaching and research programmes of the department. The major areas of research are ecology (with an emphasis on aquatic aspects) and comparative physiology, but developing lines of research include taxonomy, biometrics and genetics. Gross monthly emoluments range from \$4500-6080/-, the initial amount depending on the candidate's qualifications and experience. In addition, the University pays a 13th month annual allowance of one month's solary in December of each year. For staff appointed on normal contract, emplacement on the permanent establishment will be considered after two 3-year contracts. Leave, medical and provident fund benefits are provided. The University contributes to the staff member's provident fund at the present rate of 201/2% of his monthly solary (the sum standing to the staff member's credit in the fund may be withdrawn when he leaves Singapore/ Malaysia permanently). Other benefits include: a settling-in allowance of S\$1000-2000 depending on circumstances, subsidised housing at rentals ranging from S\$100-350 p.m., passage assistance and baggage allowance for transportation of personal effects to Singapore. For appointments at very senior level, short-term visiting contracts may be offered. For such appointments, additional benefits will include local transport and children's educational allowances. Candidates should write to: The *Registrar University, Kent Ridge, Singapore* 0511, giving their curriculum vitae and also the names an addresses of three referees. (U.S.\$1 = S\$2.15)



Growing multi disciplinary environmental consulting firm needs terrestrial and aquatic ecologists to plan, conduct, and manage ecological and environmental assessment studies related to power and mining industries and other industrial and resource development.

Duties include project management, report and proposal writing and client development. Positions available in Gainsville and Tampa, Florida and St. Louis, Missouri offices. Requires an MS or PhD in ecology/ environmental studies, zoology, wildlife management, fisheries biology, or estaurine and fresh water ecology. Previous environmental consulting or agency experience desired.

Starting salary range \$16,500 to \$27,000 depending on education and experience. Send resume in confidence to:



## Department Head Position

Nominations and applications are invited for the position of Head, Electrical Engineering Department, Carnegie-Mellon University. Qualifications sought include earned doctorate, established reputation in Electrical Engineering, experience in teaching and education, leadership and administrative abilities. Candidates should qualify for the rank of Full Professor. Applications, including resume, list of publications and references should be received prior to November 15, 1979.

#### Contact:

Dr. M.H. Kryder Chairman, Search Committee Electrical Engineering Department Carnegie-Mellon University Pittsburgh, PA 15213

Carnegie-Mellon University is an Equal Opportunity Employer.

#### CONFERENCE

#### INTERNATIONAL CONFERENCE ON HUMAN HERPESVIRUSES

Emory University, 17 to 21 March 1980. This meeting is aimed at developing an overall view of all human Herpesviruses (Herpes Simplex 1 and 2, Varicella-zoster, Cytomegalovirus, and Epstein-Barr virus) from the molecular to the epidemiological and from diagnosis to treatment, by providing a forum for exchange on recent basic and clinical information. For further information contact: Dr. André Nahmias, Emory University, 69 Butler Street, SE, Atlanta, Georgia 30303, or telephone: 404-588-4997.

#### CONVOCATION

The Center for Immunology, State University of New York at Buffalo, announces the Seventh International Convocation on Immunology to be held 6 to 10 July 1980 at Niagara Falls, New York. The theme of the program, "Immunology of the Major Histocompatibility Complex," will include presentation of papers by distinguished scientists internationally recognized as experts on the topics: The H-2 System; The H-2 System and the Immune Response; The HLA System; Major Histocompatibility Complex of Other Species; Major Histocompatibility Complex Associated Phenomena; Major Histocompatibility Complex in Transplantation; and Major Histocompatibility Complex and Oncogenesis. Further information may be obtained by contacting: **Dr. James F. Mohn, Director, The Center for Immunology, Room 210 Sherman Hall, State University of** New York at Buffalo, Buffalo, New York 14214.

#### PROGRAMS

#### DOCTORAL PROGRAM—PHARMACOLOGY

Medical University of South Carolina, Department of Pharmacology, seeks qualified candidates for Ph.D. program. Interdisciplinary environment with research capabilities ranging from gas chromatography-mass spectrometry through cell cultures and animal studies to clinical studies of patients with disease. Research training is available in biochemical pharmacology, cardiovascular pharmacology, drug metabolism, toxicology, analytical chemistry, clinical pharmacology. Stipends available. Contact: Graduate Training Director, Department of Pharmacology, Medical University of South Carolina, Charleston, S.C. 29403.

#### POSTDOCTORAL TRAINING PROGRAM BIOLOGY AND CHEMISTRY OF CONNECTIVE TISSUES

Postdoctoral traineeships are available in a new NIH-supported program. Trainees with doctorates of any type will participate in an interdisciplinary program encompassing nine faculty members in seven departments. The basic science division and medical and dental divisions of a growing University Health Center will participate. The major areas of focus include:

- Collagen structure, properties, metabolism and regulation of biosynthesis in normal and disease processes;
- 2) Factors influencing bone formation and resorption;
- 3) Effects of hormones, mechanical and electrical perturbations on bone growth;
- 4) Pathophysiology of peridontitis;
- 5) Mechanisms of degeneration in osteoarthritis; and

6) Mechanisms of chondrogenesis.

Participation is restricted to U.S. citizens or to individuals holding a permanent immigrant visa. For detailed information and application forms contact:

#### Dr. Marvin L. Tanzer Department of Biochemistry University of Connecticut Health Center Farmington, Conn. 06032

#### **FELLOWSHIPS**

FRIEDRICH MIESCHER-INSTITUT. A POST-DOCTORAL FELLOWSHIP is available for the area of  $\beta$ -adrenergic receptor-mediated effects in tissue culture cells. The fellowship will run for 2 to 3 years. Candidates should send curriculum vitae and three names of referees to: Dr. M. Staehelin, Friedrich Miescher-Institut, P.O. Box 273, CH-4002 Basel, Switzerland.

#### **FELLOWSHIPS**

POSTDOCTORAL FELLOWSHIPS TO STUDY GENETIC AND DEVELOPMENTAL DISEASES Postdoctoral fellowships are available at the Eleanor Roosevelt Institute for Cancer Research and the Florence R. Sabin Laboratories for Genetic and Developmental Medicine located at the University of Colorado Health Sciences Center to study human developmental and genetic diseases using techniques of molecular and theoretical biology and biochemical and somatic cell genetics. Candidates must have the M. D. or Ph. D. degree. Faculty include Drs. Stephen Goodman, Carol Jones, Fa-Ten Kao, David Patterson, Theodore T. Puck, Arthur Robinson, Michael Sinensky, and Charles Waldren. Collaborative opportunities also exist for study with members of the Theoretical Division of the Los Alamos Scientific Laboratory. Stipends will be commensurate with prior training and experience. Candidates should send curriculum vitae and names of three references to: Postdoctoral Selection Committee, c/o Dr. David Patterson, Eleanor Roosevelt Institute, Box B-129, University of Colorado Health Sciences Center, 4200 East 9 Avenue, Denver, Colorado 80262. An Equal Opportunity/Affirmative Action Employer.

#### PREDOCTORAL FELLOWSHIPS

Available in systems and integrative biology for Ph.D. candidates with either life sciences or natural sciences background. Program emphasizes courses, tailored to the particular doctoral research requirements. Personal stipend and full tuition provided. Interested graduate, professional, and undergraduate senior students should contact: Dr. Abraham Noordergraff or Dr. Herman Schwan, Department of Bioengineering D2, or Dr. Jules Melbin, Department of Animal Biology, University of Pennsylvania, Philadelphia, Pa. 19041.

#### **RESEARCH FELLOWSHIP**

Imperial Cancer Research Fund, Mill Hill Laboratories, London NW7 1AD, England.

A postdoctoral fellow is sought to join a group working on the control of differentiation of stalk and spore cells in Dictyostelium discoideum. The fellow would be expected to employ genetical and biochemical techniques to analyze the cell interactions involved in differentiation in this organism.

Appointment will be for 3 years. Salary with entry according to qualifications and experience within range  $\pounds 5,823$ . to  $\pounds 7,129$ .

Further information from: Dr. J. Gross; telephone 01-959-3236. Application, with curriculum vitae and names of two referees, should be sent to: The Secretary, Imperial Cancer Research Fund, Lincoln's Inn Fields, London WC2A 3PX, England, quoting reference 345/79.

#### POSTDOCTORAL FELLOWSHIPS IN PATHOBIOLOGY UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE

Research opportunities are offered to candidates interested in a variety of fields of biomedical research. In order to maximize the interdisciplinary nature of the research projects, a trainee will work jointly with a member of the Department of Pathology and Cell Biology, Biochemistry, Microbiology or Physiology. Some of the major areas of research include: (i) immunogenetics, (ii) immunology and genetics of reproduction, (iii) regulation of DNA synthesis in malignant and normal cells, (iv) somatic cell genetics, (v) metabolism of carbohydrates in normal and transformed cells, (vi) chemical carcinogens, (vii) temperature sensitive virus mutants in neurological infection, (viii) pathogenesis of Hemophilus influenza infections and the genetics of susceptibility, (ix) intestinal ion transport and its alteration by hormones and bile salts, (x) pathogenesis and physiology of inflammatory bowel disease, (xi) biochemistry of carbohydrates in congenital storage diseases, and (xii) biochemical, ultrastructural, and immunochemical studies on cell membranes with particular emphasis on cell surface antigens.

emphasis on cell surface antigens. The program is administered by a committee composed of R. E. Basford (biochemistry), Thomas J. Gill, III (pathology) (chairman), Christopher C. Widnell (anatomy and cell biology), and Julius S. Youngner (microbiology). Stipends, travel, and supplies will be provided by an NIH training grant in pathobiology. Applications indicating the area of research interest should be sent to: Dr. Thomas J. Gill, III, Department of Pathology, University of Pittsburgh School of Medicine, Pittsburgh, Pa. 15261. The decisions will be made as soon as possible for the academic year beginning 1 July 1980. An Equal Opportunity/Affirmative Action Employer.

#### **FELLOWSHIPS**

**GRADUATE TRAINING IN PHARMACOLOGY.** Research training and course work leading to the Ph.D. degree and realistically designed for career opportunities in this expanding field are offered. Major departmental research programs include: molecular, cardiovascular, renal, or nervous system pharmacology; the toxicology of therapeutic and environmental agents including drugs of abuse; and clinical pharmacology. A limited number of fellowships offering stipend and tuition are available. Early application for August 1980 is advised. Apply to: Director of Graduate Studies, Department of Pharmacology and Therapeutics, Medical School, State University of New York at Buffalo, 127 Farber Hall, Buffalo, N.Y. 14214. An Equal Opportunity/Affinative Action Employer.

COMPUTER-ASSISTED NEUROMORPHOLOGY. The Department of Neuroscience, Albert Einstein College of Medicine, invites applications for an NIMH postdoctoral fellowship in neurobiology. The position is available immediately and minimum qualifications include a Ph.D., U.S. residency (or permanent visa), and experience in computer science (Fortran/assembly language programming). The successful applicant will be expected to continue computerized morphometric studies involving the branching patterns of cortical neurons from both normally and aberrantly developed human immature brains. The initial appointment will be for 1 year with the possibility of renewal. Salary range: \$11,000 to \$14,000 depending µpon qualifications. Applicants should submit curriculum vitae, bibliography, the names of at least three references, and any other supporting material to: Dr. Albert M. Paldino, Department of Neuroscience, Rose F. Kennedy Center, 1410 Pelham Parkway South, Bronx, N.Y. 10461. An Equal Opportunity Employer.

#### MARKET PLACE





Circle No. 2 on Readers' Service Card

# **BREAK THE GLASS HABIT**



## Nalgene® PMP Volumetric Flasks are as transparent as glass.

Nalgene® PMP Volumetric Flasks are just as clear as glass. PMP (polymethylpentene) construction gives them the clarity of glass without the breakability.

That makes Nalgene Volumetric Flasks safer than glass to use. When you drop one, it bounces instead of shattering. And the leakproof screw closure is easier to handle than a fragile penny head stopper.

Nalgene Volumetric Flasks are just as accurate as their glass equivalents, too. They're calibrated gravimetrically to guaranteed limits of error and individually marked. Unlike glass, Nalgene Labware is non-wetting, so these flasks deliver the amount of solution measured (TC = TD). Nothing is left on flask walls.

And because Nalgene Volumetric Flasks last longer than glass, you reduce replacement costs.

Put Nalgene Labware to the test, and see why so many laboratories are breaking the glass habit. Send for our current Nalgene Labware catalog, featuring over 250 products for professional use. Write: Nalge Company, Division of Sybron Corporation, Nalgene Labware Department, Box 365, Rochester, N.Y. 14602.

And unbreakable Nalgene Labware lasts longer.



Circle No. 93 on Readers' Service Card

Glass Labware

0

# At last. An inverted microscope that's not a modified upright.

AO presents the new BIOSTAR™ inverted biological microscope...unexcelled in optical performance, convenience and design.

Every component of the new BIOSTAR Microscope has been specifically designed for optimum performance in the inverted mode. So there are no compromises. The result is the smoothest-handling inverted microscope ever. With superb AO optics. And unparalleled fixed stage stability.

A focusable, spring-loaded nosepiece eliminates objective and specimen damage. There's a quick-set Autofocus stop for easier coarse focusing. An exclusive built-in 20W high-intensity Halogen lamp, and a built-in continuously variable transformer. Plus optional three, four and five station viewing systems—also exclusive with the BIOSTAR Microscope. And much, much more.

See your AO representative for complete details. Or write for a brochure. American Optical, Scientific Instrument Division, Buffalo, NY 14215.



Circle No. 58 on Readers' Service Card