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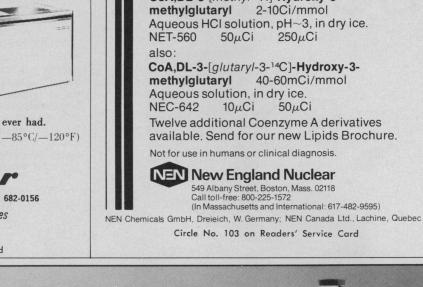
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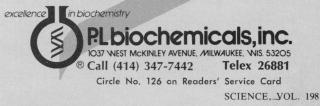
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### POSITIONS WANTED

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Biochemist/Biophysicist/Molecular Biologist, Ph.D. 1971 (biochemistry). Gene structure-function (chromatin/nucleoli). Biphysical/molecular biologi-cal approaches, for example, circular dichroism, fluorospectrophotometry, molecular hybridization and gels. Familiar with cell culture, cell prolifera-tion, membrane and computer programming. Ef-fective teaching. Seeks research/teaching position. Box 411, SCIENCE. X

Cell Biologist. Ph.D. 1976. Experience in developmental biology, transmission and scanning elec-tron microscopy, and morphometry. Interested in cell differentiation, cellular aging, and toxicology at the electron microscopic level. Teaching experience in histology. Postdoctoral experience. Seeks re-search/academic position. Box 416, SCIENCE. X

M.S. (microbiology), Ph.D. (history of science); ex-perience: industry, federal government, college teaching; publications; grants; seeks academic or in-dustrial position in history of science and/or micro-biology. Box 415, SCIENCE. X

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**18 NOVEMBER 1977** 

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ICHTHYOPLANKTON. M.S. degree, experience desirable. Successful applicant will be responsible for designing field studies, directing projects, sam-pling ichthyoplankton and macroplankton, data management, and report writing. Applicant must be interested in ecological problems with ichthyoplank-ton and doing original research. Send curriculum vitae and names of three references to: Dr. Robert J. Naiman, Academy of Natural Sciences of Phila-delphia, Benedict Estuarine Research Laboratory, Benedict, Maryland 20612. Equal Opportunity Em-ployer. ployer.

AQUATIC ECOLOGISTS. The Department of Bio-logical Sciences, State University College, Brockport, New York 14420, invites applications for two tenta-tive vacancies: (i) fishery biologist with a back-ground in water-quality analysis and (ii) phytoplank-ton ecologist with taxonomic expertise. Starting date: 25 January 1978. Rank: assistant professor. Duties include teaching supervision of graduate students include teaching, supervision of graduate students, and development of a research program. Send curriculum vitae, transcripts, and three letters of refer-ence to: **Dr. Theodore J. Starr, Chairperson.** Appli-cation deadline: 1 January 1978.

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ASSISTANT PROFESSORSHIP available March ASSISTANT PROFESSORSHIP available March 1978, in Department of Pharmacology and Tox-icology at University of Mississippi Medical Center. Candidates must have Ph.D. or equivalent and 1 or 2 years of postdoctoral experience. Research and teaching activities will be expected of the successful applicant. Research areas to be given primary con-sideration are drug metabolism and neuroendocri-alogy. Send curriculum with a normes of nology. Send curriculum vitae and the names of three references to: Dr. William O. Berndt, Chair-man, Department of Pharmacology and Toxicology University of Mississippi Medical Center, 2500 North State Street, Jackson, Miss. 39216. Equal Opportu-vity Employer MIS nity Employer, M/F.

#### ASSISTANT PROFESSOR-ANATOMY

Applications are invited for the position of assistant professor in the reorganized Department of Anato-my at the University of Ottawa.

The applicant should be prepared to conduct inde-pendent research in one of the following fields: mor-phological sciences, physiology, cell biology, or bio-chemistry. The candidate will be expected to partici-pate in the undergraduate and postgraduate teaching programs of the department.

Correspondence should be addressed to: Dr. J. A. Hinke, Chairman, Department of Anatomy, Faculty of Medicine, University of Ottawa, Ottawa, Canada K1N 9A9.

### POSITIONS OPEN

#### DARTMOUTH-BIOCHEMISTRY

Applications are requested for an appointment as ASSISTANT PROFESSOR OF BIOCHEMISTRY. ASSISTANT PROFESSOR OF BIOCHEMISTRY. Preference will be given to individuals seeking to es-tablish a vigorous research program in membrane biochemistry and to interact with colleagues study-ing membrane excitation, transport, bioenergetics, protein turnover, and lipid metabolism. Please send curriculum vitae, a brief description of research plans, and the names of references to: Search Com-mittee, Department of Biochemistry, Dartmouth Medical School, Hanover, N.H. 03755. Closing date for applications is 15 January 1978. Dartmouth Medi-cal School is an Equal Opportunity/Affirmative Ac-tion Employer. tion Employer.

# WASHINGTON UNIVERSITY ASSISTANT/ASSOCIATE PROFESSOR OF BIOLOGICAL CHEMISTRY

A position is open in the Department of Biological Chemistry at either the assistant or associate profes-sor level. Applicants should have demonstrated abil-ity in research. Preference will be given to applicants interested in physical biochemistry or in regulation of gene expression in eucaryotes. Applicants will be expected to participate in teaching of medical stu-dents as well as graduate students.

Interested applicants should send us a curriculum vitae and a brief summary of their research plans. They should also ask three scientists well acquainted with their work to send to us letters of recommendation. Address all correspondence to:

Chairman, Department of Biological Chemistry Washington University School of Medicine 660 South Euclid Avenue St. Louis, Missouri 63110

Washington University is an Equal Opportunity Employer.

UNIVERSITY OF CALIFORNIA, BERKELEY. An anticipated opening (fall 1978) pending budgetary ap-proval at the assistant professor level in biological psychology. Persons with research interests in neural plasticity (neural system development and behavior, or neutral mechanisms of learning and memory) are or neutral mechanisms of learning and memory) are especially encouraged to apply. Salary range: \$15,000 to \$16,600, depending on qualifications and experience. Please send by 1 February 1978, curric-ulum vitae material, for example, résumé, names of references, and research papers to: Dr. Arnold L. Leiman, Chair of the Search Committee, Department of Psychology, University of California, Berkeley, Calif. 94720. Equal Opportunity Employer. Minority and women candidates are urged to apply.

### CORNELL UNIVERSITY ASSISTANT PROFESSOR OF BOTANY

ASSISTANT PROFESSOR OF BOTANY Applications are invited for a teaching position in botany, in the Section of Botany, Genetics and De-velopment. Excellence in undergraduate teaching is a major consideration. The appointee will be ex-pected to accept, as primary teaching role, responsi-bility for a large course at the elementary level, with emphasis on morphology, anatomy, development, reproduction, evolution, and plant identification. The appointee will also be expected to contribute to ad-vanced undergraduate and graduate training in an

appointee will also be expected to contribute to ad-vanced undergraduate and graduate training in an area of research specialization and to undertake a vigorous research program. Inquiries are invited from all applicants qualified for the primary teaching role. Applicants should have a Ph.D. degree in botany or a related area. Women and minority candidates are encouraged to apply. Curriculum vitae, transcripts, and three let-ters of recommendation should arrive by 15 January 1978 addressed to: Dominick Paolillo, Search Com-mittee Chairman, Section of Botany, Genetics and De-velopment, 238 Plant Science Building, Cornell Uni-versity, Ithaca, New York 14853. Cornell University is an Equal Opportunity/Af-firmative Action Employer.

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BIOCHEMIST-At least 2 years of postdoctoral experience preferred; to work in a multidisciplinary group concerned with neural systems in marine forms. Particular emphasis on cellular mechanisms of learning and development. Broad background in biochemical techniques desired. Additional experience in electrophysiology and/or electronmicroscopy helpful. Send curriculum vitae, bibliography, and references to: H. P. Smith, Marine Biological Laboratory, Woods Hole, Massachusetts 02543. BIOCHEMIST-At least 2 years of postdoctoral ex-

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ASSISTANT PROFESSOR-BIOCHEMISTRY. To par ASSISTANT PROFESSOR-BIOCHEMISTRY. To par-ticipate in graduate and medical student teaching and de-velop an independent research program, cell biology (biochemistry), or molecular biology of nucleic acids pre-terred. Salary open. Submit résumé and names of three references by 1 January 1978 to: Carl Franzblau, Chair-man, Department of Biochemistry, Boston University School of Medicine, Boston, Mass. 02118. An Equal Opportunity Employer.

ASSOCIATE PROFESSOR OR PROFESSOR OF CHEMISTRY. Applicants should have university teaching experience in analytical chemistry and be recognized at the national and international levels as recognized at the national and international levels as an expert in analytical chemistry. Preference will be given to those whose research broadens rather than duplicates that presently under way in the depart-ment. Salary and rank will be commensurate with qualifications and experience. Qualified female and minority applicants are encouraged to apply. A complete curriculum vitae, which should include a list of publications and the names of three referees, should be sent to: Dr. Stanley Bruckenstein, Analyti-cal Search Committee. Department of Chemistry. cal Search Committee, Department of Chemistry, State University of New York at Buffalo, 3435 Main Street, Buffalo, New York 14214. The State University of New York is an Equal Opportu-nity/Affirmative Action Employer.

### ASSISTANT PROFESSOR OF PHARMACOKINETICS

Applications are invited from persons with training in pharmacokinetics and bioanalytical techniques. A Ph.D. degree is required and postdoctoral experi-ence is desirable. Responsibilities include participating in undergraduate and graduate teaching in phar-maceutics-pharmacokinetics. The opportunity to de-velop and implement a clinical pharmacokinetics laboratory is anticipated (relevant experience is con-sidered desirable). Maintenance of an active residered desirable). Maintenance of an active re-search program is required. Interaction with clinical practitioners is expected. Salary will be com-mensurate with qualifications and experience. The position is available February 1978. Send résumé, transcripts, a brief description of research interests, and three reference letters by 31 December 1977, to: **Professor René H. Levy, Department of Pharmaceuti-**cal Sciences, School of Pharmacy BG-20, University of Washington, Seattle, Washington 98195. The Univer-sity is an Equal Opportunity/Affirmative Action Emsity is an Equal Opportunity Affirmative Action Employer.

### DEPARTMENT OF ZOOLOGY AND MUSEUM OF VERTEBRATE ZOOLOGY UNIVERSITY OF CALIFORNIA, BERKELEY

A joint position is available for an **advanced assis-**tant or beginning level associate professor of zoology/ curator of herpetology in the Museum of Vertebrate Zoology. Preference will be given to individuals with teaching and research specialization in physiological ecology, behavior, or related areas of organismal bi-ology, particularly as applied to reptiles. The suc-cessful candidate will teach courses in vertebrate bi-ology including natural history, develop graduate teaching and research programs, and have curatorial responsibilities. Applicants should send a curricu-lum vitae, copies of publications, a detailed state-ment of teaching and research accomplishments and objectives, and names and addresses of at least three references to: **Chairman, Herpetology Search Com-mittee, Department of Zoology, University of Califor-ia, Berkeley, Calif. 94720.** Review of applicants will begin 1 January 1978. The University of California is an Equal Opportu-nity/Affirmative Action Employer. Women and mi-nority candidates are encouraged to apply. A joint position is available for an advanced assist

ASSISTANT SCIENTIST to do full-time research on PHYSICAL MECHANISMS OF TRANSPORT PROCESSES IN PLANTS, including but not limited to, translocation of photosynthate in the phloem and transport of water and solutes across membranes. Ph.D. in engineering, chemistry, physics, or biol-ogy. Applicant should have a strong background in the physical sciences, particularly in thermodynam-ics, kinetics, applied mathematics and fluid mechan-ics, and must have a strong desire to apply these fun-damental skills to biology and to plants. Some tanics, and must have a strong desire to apply these fun-damental skills to biology and to plants. Some tan-gible indication of this interest in applying the physical sciences to a biological problem is required. Send application to: Dr. Donald Aylor, Chief, De-partment of Ecology and Climatology, Connecticut Agricultural Experiment Station, Box 1106, New Ha-ven, Connecticut 06504. An Equal Opportunity/Af-firmative Action Fundaver firmative Action Employer.

### POSITIONS OPEN

The University of South Carolina, School of Public Health, is seeking a Ph.D. or Dr. P.H. in **PUBLIC HEALTH ADMINISTRATION** at the **ASSISTANT PROFESSOR** level. Duties will include teaching graduate courses in public health administration and direction of graduate students at the M.P.H. level. Capacity for teamwork is essential. Opportunity for research and community services. Send curriculum vitae and names of three references to: E. K. Ay-cock, M.D., M.P.H., Chairman, Department of Pub-lic Health Administration, School of Public Health, University of South Carolina, Columbia, S.C. 29208. The University of South Carolina, School of Public University of South Carolina is an Equal Opportu-

nity/Affirmative Action Employer.

BIOCHEMIST/CLINICAL CHEMIST. Tenure-track position. \$15,624 to \$21,624. Fall 1978. Ph.D. re-quired. Prefer background in biochemistry with ex-perience in medical/hospital laboratory and teachperience in medical/hospital laboratory and teach-ing. Teaching duties: clinical, general, and biochem-istry. Deadline: 2 January 1978. Send résumé and four letters supplied by references to: Dr. William Rife, Head, Chemistry Department, California Poly-technic State University, San Luis Obispo, California 93407. Affirmative Action/Equal Opportunity/Title IX Employer.

#### BIOPHYSICIST

Immediate opening for individual with a Ph.D. in biophysics and three or more years of postdoctoral or job experience. Qualified candidates should have or job experience. Qualified candidates should have knowledge and experience derived from physical techniques, for example, electron microscopy, x-ray analysis, image analysis, and computer program-ming. Work will involve participation in existing programs and developing new research projects on skin. Research initially will concentrate on charac-terizing and improving skin. Excellent package of company-paid benefits. Call or send résumé to:

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### UNIVERSITY OF GUELPH BOTANIST

The Department of Botany and Genetics requires a botanist. Possible areas of specialization include aquatic biology, field botany, plant evolution, popu-lation genetics, or other. The candidate is expected to pursue an active research program in his/her area of specialization and to be involved in teaching at both the undergraduate and graduate level. The posi-tion will be filled as soon as suitable applicant is found. Ph.D. required; rank and salary negotiable. Submit curriculum vitae, résumé of research, and names of three referees to: Chairman, Department of Botany and Genetics, College of Biological Science, University of Guelph, Guelph, Ontario, Canada NIG 2W1.

### CHAIRPERSON DEPARTMENT OF GEOSCIENCES

Purdue University is seeking a nationally known scholar as **head** of the Department of Geosciences. Applicants must have demonstrated scientific excel-lence in one of the areas of geoscience and have attained an academic or professional level comparable to the rank of senior associate or full professor. Sala-

ry is open and competitive. The Department of Geosciences is a growing de-partment with 22 full-time faculty members partici-pating in undergraduate and graduate degree programs in atmospheric science, geology, geochemis-try, geophysics, engineering geology, and coastal try, geophysics, engineering geology dynamics.

dynamics. Interested applicants should send their résumé and the names and addresses of three references to: Dr. William L. Wood, Chairperson, Search Com-mittee, Department of Geosciences, Purdue Universi-ty, West Lafayette, Indiana 47907. Purdue University is an Equal Opportunity/Equal Access University.

### CHAIRMAN DEPARTMENT OF PSYCHOLOGY

Twenty-three member department seeks applicants with strong research and teaching records and dem-onstrated ability for administrative leadership. Send of Maryland Baltimore, Md. 21228. University of Maryland Baltimore, Md. 21228. University of Maryland Baltimore County is an Affirmative Ac-tion/Equal Opportunity Employer.

### POSITIONS OPEN

### CHAIRMAN DEPARTMENT OF OCEANOGRAPHY University of Washington

The College of Arts and Sciences invites applications for the position of chairman of the Department of Oceanography. The department has a broad inter-disciplinary program including biological, chemical, geological, and physical oceanography. Degrees of B.Sc., M.Sc., and Ph.D. are offered. The faculty consists of 22 teaching and 30 research faculty. More than 100 graduate and 300 undergraduate students are enrolled in the program. The research program has a budget of \$6 million per year. Applicants should submit their curriculum vitae, list of publica-Jost A. Businger, Chairman of the Search Com-mittee, University of Washington AK-40, Seattle, Wash. 98195.

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#### CONSULTANTS WANTED

A new consulting service to the biomedical community needs consultants on a part-time basis. Those individuals who are presently employed or retired, who have the following training—biochemis-try, chemistry, immunology, medicine, microbi-ology, pathology, pharmacology, toxicology, and veterinary medicine—please send curriculum vitae, amount of time available, present consulting com-mitments, and area of expertise with documentation to:

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# DIRECTOR MINORITY GRADUATE CENTER IN SCIENCE AND ENGINEERING

The University of Illinois at Chicago Circle invites nominations and applications for the position of di-rector of the proposed Center in Science and Engi-neering. If the Center is funded, the director will organize and administer a major program to recruit, develop, and support minority students and students from low-income families to enter and succeed in from low-income families to enter and succeed in graduate studies in science and engineering. The di-rector should hold a Ph.D. in an area of the natural or social sciences or engineering and have appropri-ate administrative experience. Salary is dependent on background and experience. Send nominations and applications to: **Biology Bustomere** 

Richard Buchanan The Graduate College University of Illinois at Chicago Circle Box 4348

### Chicago, Illinois 60680

Nominations and applications should be received by 1 December 1977. The University of Illinois at Chicago Circle is an Equal Opportunity/Affirmative Action Employer.

The Department of Biological Sciences of Carnegie-Mellon University has the following positions avail-able: EUKARYOTIC GENETICIST; MOLECULAR able: EUKARYOTIC GENETICIST; MOLECULAR BIOLOGIST applying restriction endonuclease tech-nology in the area of structural studies of nucleic acids, genetic analyses, or recombinant DNA tech-niques. Candidates should have a Ph.D. (or equiva-lent) and preferably postdoctoral experience. Posi-tions are at the assistant professor level, although higher appointments will be considered. Duties in-clude teaching at the undergraduate and graduate level. Applicants should forward their curriculum vitae, three or more letters of reference, and a brief résumé of research plans to: Search Committee (1). vitaé, thrée or more fetters of reference, and a offici résumé of research plans to: Search Committee (1), Department of Biological Sciences, Carnegie-Mellon University, 4400 Fifth Avenue, Pittsburgh, Pa. 15213. Carnegie-Mellon University is an Equal Opportunity/Affirmative Action Employer.

SCIENCE, VOL. 198

CHAIRMAN. Department of Pathology. The University of Missouri Medical Center is recruiting for a chairman and professor of the Department of Pathology. The position includes (i) directing pathology teaching program in a major medical school plus re-sponsibilities for the house staff program in a major paramedical training program; (ii) directing and opparamedical training program; (ii) directing and op-erating a full-service specialty oriented clinical labo-ratory in the 500-bed university hospital, plus pro-viding professional service and direction for a 450-bed Veterans Administration hospital; and (iii) di-recting and expanding a research program. Can-didate must be M.D. Send curriculum vitae to: Dr. B. J. Campbell, Chairman, Pathology Search Com-mittee, University of Missouri Medical Center, Co-lumbia, Missouri 65201. An Equal Opportunity/Af-firmative Action Employer. firmative Action Employer.

### DEVELOPMENTAL BIOLOGIST AND PHYSIOLOGIST

Two positions to begin 21 August 1978:

- 1) Ph.D. with research interest in developmental biology; duties include teaching comparative em-bryology and freshman biology, and
- 2) Ph.D. with research interest in physiology; duties include teaching animal physiology, cell physiology, and freshman biology.

Please send curriculum vitae, statement of research Interest, reprints, and names of three references by 20 January 1978 to: Chairman, Developmental Biolo-gist and Physiologist Search Committee, Department of Biology, University of Southwestern Louisiana, La-fayette, La. 70504.

An Equal Opportunity/Affirmative Action Employer

### FACULTY POSITION IN ANATOMY

Applications invited for a position in the Depart-ment of Human Anatomy. The appointment will be at the assistant professor level with the primary teaching commitment being in the area of gross anatomy. Demonstrated commitment and excellence in research and teaching are essential and one or more years of experience after the doctorate is required. Send complete curriculum vitae including a state-ment of research interests and names of at least three references to: Dr. Allen C. Enders, Chairman, Department of Human Anatomy, School of Medicine, University of California, Davis, California 95616. Closing date for applications is 15 December 1977. University of California is an Equal Opportunity/Af-formation Action Employment firmative Action Employer.

# UNIVERSITY OF WISCONSIN-MADISON CENTER FOR HEALTH SCIENCES DEPARTMENT OF PHYSIOLOGY

A faculty position at the assistant professor level is currently available. Applications are invited from persons with postdoctoral experience and a demonstrated interest in mem-brane transport and biophysics. Duties will include responsibility for teaching renal physiology in core courses of the depart-ment. Interested candidates should send curriculum vitae, reprints, and the names of three references to:

### Chairman Department of Physiology UNIVERSITY OF WISCONSIN-MADISON 470 North Charter Street Madison, Wisconsin 53706

To receive full consideration applications should be received by 1 January 1978. The University is an Equal Opportunity/Affirma-tive Action Employer. Women and minorities are encouraged to apply.

### FACULTY POSITION

The Department of Pathology (Division of Experi-mental Pathology) at the University of Pittsburgh, School of Medicine, invites applications for a posi-School of Medicine, invites applications for a posi-tion at the assistant professor level. Applicants (M.D. or Ph.D. in biochemistry or cell biology) should have research experience and interest in chemical carcinogenesis. He or she would be ex-pected to participate in a graduate teaching program in biochemical pathology and to establish indepen-dent and collaborative research in the department. Send curriculum vitae and names of three references to: H. Shinozuka, M.D., Ph.D., Department of Pa-thology, University of Pittsburgh, School of Medicine, Pittsburgh, Pa. 15261. An Equal Opportunity/Affirm-ative Action Employer. ative Action Employer

18 NOVEMBER 1977

### POSITIONS OPEN

### FACULTY POSITION-MOLECULAR BIOLOGY

The Department of Biochemistry and Molecular Biology of the College of Arts and Sciences of Northwestern University is seeking an individual Northwestern University is seeking an individual with a Ph.D., or equivalent degree, and postdoctoral experience to establish a research program in the area of eucaryotic cell DNA organization and gene expression. This individual will be expected to par-ticipate in the teaching of molecular biology at the undergraduate and graduate levels. The appointment will be at the level of assistant professor. Preference will be given to candidates who show promise of dewill be given to candidates who show promise of developing research programs of exceptionally high quality. Candidates should submit curriculum vitae and reprints, a statement of research interests, and three letters of reference to: Dr. David Shemin, De-Northwestern University, Evanston, Illinois 60201. An Equal Opportunity/Affirmative Action Employer.

The University of Missouri-Columbia School of Medicine has FACULTY POSITIONS open in the Departments of Anesthesiology, Biochemistry, Family Medicine, Internal Medicine, Pharmacology, Psychiatry, Radiology, and Surgery. Inquiries should be directed to individual department chair-men at: University of Missouri, Columbia Medical Center, 807 Stadium Road, Columbia, Missouri 65201. 65201.

#### FACULTY POSITION

Assistant professor. Tenure-track, beginning August 1978, to teach medical microbiology, virology (ani-mal and plant), and general biology. Minimum re-quirements: Ph.D. with teaching and/or postdoctoral experience. Application deadline: 15 December 1977. Applicants should send curriculum vitae and list of references to: Dr. Lewis C. Goldstein, Biology Department, Virginia Commonwealth University, Richmond, Virginia 23284. An Affirmative Action/ Eaual Opportunity Employer. Equal Opportunity Employer

### ALBERT EINSTEIN COLLEGE OF MEDICINE DEPARTMENT OF GENETICS

The Genetics Department of the Albert Einstein Col-lege of Medicine has openings for FACULTY, prilege of Medicine has openings for FACULTY, pri-marily at the assistant professor level. Ability to conduct independent research in genetics and to teach genetics at the graduate and medical school level is required. The department is particularly in-terested in obtaining faculty in the areas of: behav-ioral or neurological genetics, structure and function of eukaryotic chromosomes, genetics of prokaryotic organisms, and population genetics. However, high-ly qualified candidates in all areas of genetic re-search are encouraged to apply. Send curriculum vitae and the names of three references to: Adminis-trator, Department of Genetics, Albert Einstein Col-lege of Medicine, Bronx, New York 10461. An Equal Opportunity/Affirmative Action Employer.

#### UNIVERSITY OF WASHINGTON

A GENERAL DIAGNOSTIC RADIOLOGIST is being sought at Harborview Medical Center to fill a position which is available immediately. Candidates should have board certification in diagnostic radiology and eligibility for licensure in this state. A firm commitment to teaching and investigation is essental. Appointment at the assistant professor level in the School of Medicine with competitive income and full fringe benefits are offered.

Harboryiew Medical Center is a 300-bed general hospital situated near the business center of metro-politan Seattle. It is operated by the University of Washington as part of a comprehensive under-graduate and graduate medical education program. The University of Washington has a strong com-mitment to Affirmative Action in employment of mi-The University of Washington has a strong com-mitment to Affirmative Action in employment of minority members and women. Individuals interested in this position should submit a résumé to: John W. Loop, M.D., Search Committee Chairman, Depart-ment of Radiology, Harborview Medical Center, 325 Ninth Avenue, Seattle, Wash. 98104.

North Carolina State University has openings for a GEOLOGICAL OCEANOGRAPHER and a CHEM-ICAL OCEANOGRAPHER to teach graduate courses and conduct research. They would interface courses and conduct research. They would interface with a strong physical oceanography, geological, chemical, and coastal engineer group. The position is at the assistant or associate level on a tenure track. Ph. D. would normally be required. Please re-spond with a biographical sketch, list of publica-tions, and list of references by 15 December to: Dr. Jay Langfelder, Director, Center for Marine and Coastal Studies, North Carolina State University, Raleigh, N.C. 27607.

### POSITIONS OPEN

University of South Carolina School of Medicine, Department of Medicine, is recruiting FACULTY in fields including cardiology, hematology-oncology, rheumatology, nephrology, metabolism, pulmonary disease, and clinical pharmacology. Certification is preferrred; teaching and clinical expertise are re-quired; and research accomplishments required in certain of the specialities. Academic rank will be a certain of the specialties. Academic rank will be a function of past accomplishments. The University of South Carolina is an Affirmative Action/Equal Opportunity Employer

Appropriate information should be submitted to:

H. V. Murdaugh, Jr., M.D. University of South Carolina School of Medicine VA Enclave Columbia, South Carolina 29201

UNIVERSITY OF DALLAS DEPARTMENT OF BIOLOGY

Applications invited from individuals with a strong commitment to teaching and research for a FACUL-TY POSITION available fall 1978. Ph.D. and teaching experience required. Candidates must have ex-perience in the areas of plant physiology and the de-velopment of plants from a biochemical perspective, be willing to participate in team teaching of general biology or well as teach plants the biochemical biology, as well as teach electives in the biochemistry curriculum. Rank and salary dependent upon qualifications and experience. Send curriculum vitae, summary of professional goals in teaching and research, and three letters of reference to:

Chairman Department of Biology University of Dallas Irving, Texas 75061

Deadline: 15 December 1977 Affirmative Action/Equal Opportunity Employer

IMMUNOLOGIST: Ph.D. in zoology with back-ground in parasitology preferred. Tenure-track posi-tion at assistant professor level beginning late Au-gust 1978. Teaching responsibilities include immunology, parasitology, and zoology courses for undergraduates with graduate courses in specialty. Undergraduates with graduate courses in specially. Directing master's level graduate students and de-velopment of research program expected. Submit curriculum vitae and three letters of recommenda-tion by 15 March 1978 to: Search Committee, Biology Department, State University College, Fredonia, New York 14063. An Afirmative Action/Equal Opportu-nity Employer nity Employer.

The Laboratories of Diagnostic Medicine, College of Veterinary Medicine, University of Illinois, is ac-cepting applications for an IMMUNOLOGIST-BIO-CHEMIST. Applicants must have a D.V.M. or Ph.D. degree and advanced training and experience in immunology or immunochemistry. Candidates should have experience in the purification of pro-teins and the development of immunochemical tests for use in research and diagnostic medicine. Re-search experience with viral diseases of domestic animals is desirable. Duties for the position will in-clude the planning and supervision of the devel-opment of immunological techniques, teaching, and

service work in the diagnostic serology laboratory. The position is permanently funded with rank of The position is permanently funded with rank of instructor or assistant professor. The salary is open. To be assured of full consideration, interested individuals should submit current résumé and the names of three references by 1 January 1977, to: Dr. Robert A. Crandell, Laboratories of Diagnostic Medicine, College of Veterinary Medicine, University of Illinois, Box U, Urbana, Ill. 61801; telephone: 217-333-1620. The University of Illinois is an Affirmative Action/ Equal Opportunity Employer and encourages applications from minorities and women. cations from minorities and women.

**IMMUNOLOGY/IMMUNOGENETICS.** Applica-tions are invited for a position in the Faculty of Med-icine at Memorial University of Newfoundland. The successful candidate will be expected to conduct re-search within the field of immunology or immuno-genetics and to teach undergraduate and graduate students. The main interests of the immunology group at Memorial are: (i) HLA in a broad sense (HLA and other chromosome-six markers, HLA and disease), (ii) immunodeficiency, and (iii) immu-nology and family studies. Other current active reand disease), (ii) immunodeficiency, and (iii) immu-nology and family studies. Other current active re-search programs at Memorial include such areas as gene regulation, endocrine systems, growth and dif-ferentiation, microbiology, and neurosciences. Ap-plication, with the names of three referees, should be sent as soon as possible to: Dr. Bodil Larsen, Chairman of the Search Committee, Faculty of Medi-cine, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1B 3V6.

**DEPARTMENT HEAD** Food Science, Nutrition, and Food Systems Admin-istration, College of Home Economics (50 percent) and Agricultural Experiment Station (50 percent), the University of Tennessee, Knoxville. Doctorate in food science, nutrition, food systems administra-tion or related field; evidence of administrative abilition for related held; evidence of administrative abil-ty and of competence in teaching and research re-quired. Send curriculum vitae to: Jane R. Savage, College of Home Economics, University of Tennessee, Knoxville, Tenn. 37916, by 25 November 1977. Equal Opportunity/Affirmative Action/Title IX/Sec-tion SM Employee tion 504 Employer

**INSTRUCTOR, BIOCHEMISTRY**. February 1978. INSTRUCTOR, BIOCHEMISTRY. February 1978. To team teach biochemistry and biochemistry labo-ratory and conduct research on the biochemical mechanism of excitation-secretion coupling in the CNS. Starting at \$13,000 to \$14,000. Position avail-able for 5 years. Send curriculum vitae, bibliogra-phy, and names of three references to: Dr. Joseph A. Babitch, Chemistry Department, Texas Christian University, Fort Worth, Texas 76129 by 15 December 1977. GRADUATE STUDENT STIPENDS for spring and fall 1978 also available. Texas Christian Univerand fall 1978 also available. Texas Christian Univer-sity does not discriminate on the basis of sex, reli-gion, handicap, race, or ethnic origin.

There will be an opening in the Department of Pathology, University of Oregon Health Sciences Cen-ter, in July 1978 for an **INSTRUCTOR**. The individter, in July 19/8 for an INSTRUCTOR. The individ-ual will be restricted to anatomic pathology with in-terests in teaching, surgical pathology, and research. The candidate must have an M.D., be Board-quali-fied or -certified in anatomic pathology with special interest in Ob-Gyn pathology and cytology. Training in electron microscopy, tissue culture, and tissue im-munofluorescence is desirable. Interested individ-uels with the above cultificance should cand their uals with the above qualifications should send their curriculum vitae, bibliography, and the names of three references to:

## Richard D. Moore, M.D. Richard D. Moore, M.D. Professor and Chairman Department of Pathology University of Oregon Health Sciences Center 3181 S.W. Sam Jackson Park Road Portland, Oregon 97201

Applications must be received by 1 January 1978. An Equal Opportunity/Affirmative Action Employer.

MAMMALIAN GENETICIST. A position as instruc-tor or assistant professor is available, depending up-on qualifications, beginning 1 July 1978. The can-didate should be interested in developing a research program in immunogenetics in the rat. A portion of this work will include assistance in developing and overseeing the maintenance of a large colony of in-bred, congenic, and recombinant rats. Teaching re-sponsibilities will include participation in courses in bred, congenic, and recombinant rats. Teaching re-sponsibilities will include participation in courses in immunogenetics and in other areas of genetics, de-pending upon the candidate's specific background. Send curriculum vitae and the names of three refer-ences with the letter of application to: Dr. Thomas J. Gill, III, Department of Pathology, University of Pittsburgh, School of Medicine, Pittsburgh, Pa. 15261. An Equal Opportunity/Affirmative Action Employer. Employer

# MARINE GEOPHYSICIST-GEOLOGIST MARINE SCIENCE INSTITUTE UNIVERSITY OF TEXAS AT AUSTIN

Five positions available at Galveston Laborato Five positions available at Galveston Laborato-ry—three academic and two research according to qualifications and desires. Training preference: geo-physics, structural geology, stratigraphy, and tec-tonics. New modern research laboratory with pier facilities alongside. Modern computer laboratory with PDP 15 and Interdata mini computers for gener-al nurnoses and Tempus dedicated to multichannel al purposes and Tempus dedicated to multichannel seismic observations. IBM 370 is available when needed. Research Vessel *Ida Green* fully equipped needed. Research Vessel *Ida Green* fully equipped for 48 channel seismic reflection-refraction methods, sonobuoys, Texas Ocean Bottom Seismographs for refraction and earthquake observations, sonobuoy refraction and reflection, 3.5 and 12 khz sounding, magnetometer, deep sea coring and dredging, ocean bottom photography, Loran A and C, Omega, and satellite navigation. Ability to work on group proj-ects and leadership qualities for project conception, initiation, sea observations, data reduction, and pub-lication required. If you are interested in a great op-portunity in the forefront of marine research send portunity in the forefront of marine research a gleat Op-portunity in the forefront of marine research send your qualifications and references to: Director, Geo-physics Laboratory, Marine Science Institute, Univer-sity of Texas, Austin, 700 The Strand, Galveston, Tex-as 77550. The University of Texas is an Equal Oppor-tunity/Affirmative Action Employer.

### POSITIONS OPEN

IMMUNOPATHOLOGIST. Full-time position. The Dartmouth-Hitchcock Medical Center invites inquiries from Board-qualified or certified pathologists who are actively interested in the area of immunopathology and who, preferably, have had both post-graduate training and some experience in this field. Additional postgraduate training in internal medicine Additional postgraduate training in internal medicine desirable. Position involves participation in teaching medical students and residents, clinical service ac-tivities, and an active interest in immuno-pathological research. Direct inquiries (including curriculum vitae) to: George D. Sorenson, M.D., Chairman, Department of Pathology, Dartmouth Medical School, Hanover, N.H. 03755. Equal Opportunity/Affirmative Action Employer

### The University of Toledo is on the affirmative INFORMATION SPECIALIST

Physical or biological sciences. Duties will involve Physical or biological sciences. Duties will involve bibliographic instruction, collection development, departmental liaison, and some reference-biblio-graphic work. Qualifications: Ph.D. in subject area and M.L.S. from A.L.A. accredited school pre-ferred. Subject M.A. with M.L.S. will be consid-ered. Academic library experience and teaching skill preferred. Faculty status, 12-month contract, salary \$15,000 plus. Position available 1 July 1978. Send ré-sumé and names of references to: Dr. Sharon Rog-ers. Search Committee Secretary. Carlson Library. ers, Search Committee Secretary, Carlson Library, The University of Toledo, 2801 West Bancroft Street, Toledo, Ohio 43606. The University of Toledo is an Equal Opportunity/Affirmative Action Employer.

### MATERIALS RECYCLING

Financial assistance is available for a graduate stu-Financial assistance is available for a graduate stu-dent wishing to pursue a master of science degree in engineering. Candidates must have a bachelor's de-gree in engineering or physical science and experi-ence or interest in materials recycling. The stipend will be approximately \$7,000 for 12 months. The as-sistantship could begin in January 1978, but applica-tions for September 1978 will be considered. Con-tact: Professors A. H. Purcell or C. M. Gilmore, School of Engineering and Applied Science, The George Washington University, Washington, D.C. 20052. An Equal Opportunity Employer.

### THE UNIVERSITY OF THE WEST INDIES ST. AUGUSTINE POST OF MEDICAL LABORATORY TECHNICIAN (RANGE 34) EASTERN CARIBBEAN MEDICAL SCHEME

Applications are invited for the post of medical laboratory technician (Range 34) in the Eastern Car-ibbean Medical Scheme, General Hospital, Port of Spain, Trinidad, West Indies.

Qualification for the post is possession of the AIMLT/FIMLT or a B.Sc. degree or its equivalent. The person appointed to fill this vacancy will be expected: (i) to have some experience in general labo-ratory investigations, (ii) to handle standard labora-tory equipment, and (iii) to be able to work on his/ her own. Experience in protein chemistry and/or im-munology would be a distinct advantage.

Salary scale: TT\$1,084  $\times$  56-\$1,420 per month.

The names of two referees should accompany the applications prepared in duplicate and should reach the Assistant Registrar (Personnel), University of the West Indies, St. Augustine, Trinidad, not later than 15 December 1977.

### POSTDOCTORAL FELLOW/ RESEARCH AFFILIATE

Immediate for a Ph.D. in biochemistry or biochemi-Immediate for a Ph.D. in biochemistry of biochemi-cal pharmacology to participate in a project con-cerning interrelationships between mitochondrial functions, mtDNA, and cell proliferation. Back-ground in cell culture, tumor cell fractionation, mtDNA isolation/characterization, and DNA dam-age and repair is desirable. Salary commensurate with NIH scales. Send résumé, a statement of re-search interest, and two letters of reference to: Dr. C. Dave, Grace Cancer Drug Center, Roswell Park Memorial Institute, Buffalo, New York 14263.

**POSTDOCTORAL POSITIONS (TWO) IN REPRO-DUCTIVE BIOLOGY**. Available immediately. To work on: (i) mechanisms of mucus production by mammalian endocervical cells in vitro, and (ii) bio mammalian endocervical cells in vitro, and (ii) blo-chemistry of sperm-egg interaction. Send curriculum vitae and three letters of reference to: Dr. S. V. Ni-cosia or Dr. D. P. Wolf, Department of Obstetrics and Gynecology, University of Pennsylvania School of Medicine, Philadelphia, Pa. 19104.

### POSITIONS OPEN

MEDICAL ONCOLOGIST (junior). An ap-pointment as assistant professor is available to a laboratory investigator clinician to join a major academic program. Candidate should have independent investigative capability and be board qualified in medical oncology. and be board qualified in medical oncology. Stanford is an Equal Opportunity Employer and welcomes nominations of women and minority group members and applications from them. Send résumé, which will be treated confidentially, to: Dr. Saul A. Rosen-berg, Chief, Division of Oncology, Stanford University, School of Medicine, Stanford, Calif. 94305.

### MICROBIOLOGIST

A faculty appointment in microbiology beginning September 1978 still exists in the Department of Bi-ology. Duties include teaching an undergraduate course in general microbiology and graduate courses in their area of expertise preferably, but not limited to the medical area. Applicants must have a doctor-tate and are expected to conduct an active research ate and are expected to conduct an active research program.

program. Résumés and reference letters should be forward-ed by 31 December 1977 to: Dr. Marvin J. Rosen-berg, Chairman, Department of Biology, California State University, Fullerton, California 92634. Affirmative Action/Equal Opportunity/Title IX

Employer.

### MOLECULAR BIOLOGY FACULTY APPOINTMENTS

Two positions, one assistant, one full professorship, to begin July 1978. The two areas are immuno-biology or molecular immunogenetics, with research on molecular aspects of immunogeneucs, with research and **nucleic acid enzymology**, with research in any area, including gene expression, using this expertise. The area of the senior appointment will remain open for classroom and graduate research instruction is required. Applicants should send curriculum vitae, required. Applicants should send curriculum vitae, bibliography, two representative publications, and a statement of future research goals and teaching areas. Candidates should also have three reference letters sent. Materials should be addressed to the ap-propriate person, either: Dr. Gale A. Granger, Im-munology Search Committee, or Dr. R. C. Warner, Nucleic Acids Search Committee, Department of Mo-lecular Biology and Biochemistry, University of Cali-fornia, Irvine, Irvine, Calif. 92717. Material should be received by 15 January 1978. The University of California is an Equal Opportunity/Affirmative Ac-tion Employer. tion Employer.

### MOLECULAR BIOLOGIST/BIOCHEMIST NEW YORK UNIVERSITY

The Department of Biology wishes to appoint a tenure-track assistant professor starting September 1978. Postdoctoral experience, research interests in molecular genetics and enzymology, and potential to develop an independent research program are required. Candidate's lecturing duties include partici-pation in team-taught, interdepartmental biochemistry program, with emphasis on nu-lais and a program with emphasis on pubiochemistry program, with emphasis on nu-cleic acid enzymology and metabolic regula-tion. Qualified applicants should submit résumé and three letters of recommenda-tion to: Dr. P. S. Coleman, Laboratory of Biochemistry, Department of Biology, New York University, New York, N.Y. 10003. An Equal Opportunity/Affirmative Action Em-ployer plover

#### PHARMACOLOGISTS

PHARMACOLOGISTS Junior or senior faculty positions in pharmacology available immediately. Preference given to can-didates with funded research programs in cardiovas-cular, autonomic, or neuropharmacology. Excellent facilities and opportunities for interaction available in a combined department of pharmacology and physiology with emphasis on cardiovascular, renal, neuro, and endocrine systems. Send curriculum vitae, a description of current research programs and have three letters of reference sent to: Dr. Alvin Brodish, Chairman Department of Physiology and Pharmacology Bowman Gray School of Medicine of Wake Forest University Winston-Salem, North Carolina 27103 An Equal Opportunity/Affirmative Action Employer

#### NEUROBIOLOGIST

Cornell University's Section of Neurobiology and Behavior, of the Division of Biological Sciences, is continuing its search for an outstanding cellular or molecular neurobiologist. Tenure-track position at assistant or associate professor level with preference for the first. A curriculum vitae with one or two re-cent reprints and three letters of reference, re-quested by the candidate, should be sent to: **Dr. J.** Cambi, 163 Langmuir Laboratory, Cornell Universi-ty, Ithaca, N.Y. 14853. Applications should be re-ceived by 15 January 1978. Cornell University is an Affirmative Action/Equal Opportunity Employer.

### NEUROSCIENTIST

Opening for established **neurophysiologist** at asso-ciate professor or professor level. The appointee will be expected to teach neuroanatomy and neurophysiology and play a role in the development of a broad-based course in neurobiology. It is expected that the appointee will have well-established credenthat the appointee will have well-established creden-tials as an investigator, including current grant sup-port. Well-equipped electrophysiological laboratory available. Send curriculum vitae and names of three references to: Dr. Harry Maisel, Department of Anatomy, Wayne State University School of Medi-cine, Detroit, Michigan 48201. An Affirmative Action/ Equal Opportunity Employer.

#### PLANT POPULATION BIOLOGIST

The Department of Biology at Washington University, St. Louis, announces an appointment in the area of plant population biology, stressing plant physiological ecology, demography, population genetics, coevolution, or other aspects of population structure and functioning. Applications are solicited from individuals who have demonstrated exceptional competence in research beyond the doctorate and are interested in undergraduate and graduate teach-ing. Although it is anticipated that most applicants will be at junior level, applications from senior indi-viduals will be welcomed. Send curriculum vitae, description of present and future research interests, and names of three references to: Dr. Peter H. Ra-ven, Department of Biology, Washington University, St. Louis, Missouri 63130. An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION available after 1 January for research in the pharmacology of carbonic anhydrase inhibitors and chemistry of fluid forma-tion by secretory epithelia. Degree in biochemistry, physiology, or pharmacology. Salary \$10,000 to \$13,000. Send curriculum vitae and three recommendations to: Dr. Thomas H. Maren, Department-dations to: Dr. Thomas H. Maren, Department of Pharmacology, University of Florida College of Medi-cine, Gainesville, Fla. 32610. An Equal Opportunity/Affirmative Action Employer

#### **POSTDOCTORAL POSITION**

Opportunities for research training in cardiovascular physiology, covering all aspects of human and ani-mal studies available for Ph.D. or M.D. applicants. Send résumé, with references, to: Dr. Alexander R. Lind, Professor and Chairman, Department of Physiology, Saint Louis University, School of Medicine, 1402 South Grand Boulevard, Saint Louis, Missouri 63104. Affirmative Action/Equal Opportunity Emplover

**POSTDOCTORAL POSITION** in tree physiology/ biochemistry available 1 January 1978. Research on hormone physiology of forest trees. Research asso-ciate: \$12,000 to \$15,000 per annum. Ph.D. with ex-perience/education in plant chemistry. Send applica-tion, résumé, transcripts, and three letters of refer-ence by 15 December 1977 to: Dr. John C. Gordon, Head, Forest Science Department, School of Forestry, Oregon State University, Corvallis, Oregon 97331. Oregon State University is an Affirmative Action/ Equal Opportunity Employer and complies with Sec-tion 504 of the Rehabilitation Act of 1973.

POSTDOCTORAL POSITION in forest ecology available 1 January 1978. Research on soil solution available 1 January 1978. Research on soil solution chemistry and nutrient cycling in manipulated eco-systems. Research associate: \$12,000 to \$15,000 per annum. Ph.D. with experience/education in soil or water chemistry. Send application, résumé, tran-scripts, and three letters of reference by 15 Decem-ber 1977 to: Dr. John C. Gordon, Head, Forest Sci-ence Department, School of Forestry, Oregon State University, Corvallis, Oregon 97331. Oregon State University is an Affirmative Action/Equal Oppo:tu-nity Employer and complies with Section 504 of the Rehabilitation Act of 1973. Rehabilitation Act of 1973.

18 NOVEMBER 1977

### POSITIONS OPEN

POSTDOCTORAL POSITION available immediately in reproductive biology to study progesterone meabolism in CNS and synaptosomes and control of gonadotropin secretion. Send curriculum vitae, summary of research interests, and three letters of refer-ence to: Dr. Reinhart B. Billiar, Department of Re-productive Biology, Case Western Reserve University, Cleveland, Ohio 44106.

POSTDOCTORAL POSITION. Available immediately. To study biochemical mechanisms of drug toxicity. Program is centered on both basic research toxicity. Program is centered on both basic research with isolated cells and enzyme system as well as ap-plied clinical research in the pediatric patient. Expe-rience in drug analysis by chromatography (GLC and TLC) necessary. Send curriculum vitae to: Dr. Michael A. Evans. Department of Pharmacology, University of Illinois at the Medical Center, P.O. Box 6998, Chicago, Ill. 60680.

**POSTDOCTORAL POSITION** in somatic cell genet-ics: position available for recent Ph.D. in cell biol-ogy, biochemistry, or genetics to join ongoing re-search program in somatic cell genetics. Project involves isolation of mutant cells defective in membrance functions and human gene mapping. Send curriculum vitae and names of two references to: Dr. Robert J. Klebe, Division of Human Genetics, University of Texas Medical Branch, Galveston, Texs 77550. An Affirmative Action/Equal Opportunity Employer

**POSTDOCTORAL POSITION** available about 1 January 1978, in research group studying effects of drugs on biomembranes. Recent Ph.D. with a strong background in chemistry and biochemistry as well as an interest in biology. Training in electron para-magnetic resonance techniques is desirable. Please end curriculum vitae and names of three references send curriculum vitae and names of three references to: Dr. Dora B. Goldstein, Department of Pharmacol-ogy, Stanford University School of Medicine, Stan-ford, Calif. 94305.

POSTDOCTORAL POSITION: immediate opening for Ph.D. in the physical sciences to participate in a HEW-supported training program. The program seeks to train highly qualified scientists in medical applications of ionizing radiation through formal applications of fonzing radiation through formal courses, participation in seminars, and involvement in research. Research projects include development of x-ray and gamma-ray imaging devices, devel-opment of short-lived radiopharmaceuticals, appli-cations of computer science, and in vivo studies of tracer kinetics. Address correspondence to: Dr. Na-thaniel M. Alpert, Physics Research Laboratory, Massachusetts General Hospital, Fruit Street, Boston, Mass. 02114.

### THE UNIVERSITY OF MICHIGAN SCHOOL OF DENTISTRY

**POSTDOCTORAL POSITION** available immediate-**POSTDOCTORAL POSITION** available immediate-ly to study neurophysiological response character-istics of upper airway receptors (including taste buds) in the newborn mammal. Must have Ph.D. in neurophysiology. Beginning salary \$10,000; 1 to 3 years. Send curriculum vitae and three letters of ref-erence to: Dr. Robert M. Bradley, Department of Oral Biology, School of Dentistry, University of Michigan, Ann Arbor, Michigan 48109. A non-discriminatory, Affirmative Action Employer.

In the 1978–79 academic year, the **DEPARTMENT OF PSYCHOLOGY** at Indiana University, Bloom-ington, anticipates having three or four tenure-track openings at the level of assistant professor for new or recent Ph.D.'s. One position is in clinical psychol-ogy. Preferences for the other positions are in the developmental, social, and physiological (or psycho-biology) areas of experimental psychology. How-ever, outstanding candidates in other areas of exper-imental nsychology will be considered. Candidates imental psychology will be considered. Candidates with interests that bridge two or more areas, or who with interests that bridge two or more areas, or who have expertise and interest in teaching graduate-lev-el courses in statistics, will receive special attention. Appointees are expected to carry out a systematic program of research, to teach at both the under-graduate and graduate levels, and to supervise stu-dent research. Applicants are requested to indicate prominently in their letters of application in which area(s) they consider themselves especially quali-fied. *Minority and women candidates are strongly encouraged to apply for these positions*. Please send a curriculum vitae and have three or more letters of reference sent by 15 December 1977 to: Dr. Irving J. Saltzman, Chairman, Department of Psychology, In-diana University, Bloomington, Ind. 47401. diana University, Bloomington, Ind. 47401.

An Affirmative Action/Equal Opportunity Employer

GRAND VALLEY STATE COLLEGE OF ARTS AND SCIENCES

### FACULTY OPENINGS

PHYSICAL CHEMIST: Ph.D. required Sep-tember 1978. Responsibilities include teach-ing basic and advanced physical chemistry courses and general chemistry.

ENVIRONMENTAL SCIENTISTS: Ph.D. in ENVIRONMENTAL SCIENTISTS: Ph.D. in geography with emphasis on physical/natu-ral resource geography, available January 1978. Responsibilities include teaching courses in climatology, environmental mea-surements, natural resources, and in-troductory and regional geography.

GEOLOGIST: Ph.D. with emphasis on structural geology, field research, and addi-tional skill in one or more of the following areas: geophysics, engineering geology, eco-nomic geology, or metamorphic petrology. Required September 1978.

For all faculty openings preference will be given to individuals with previous faculty ex-perience. The successful candidate will be expected to develop a quality research pro-gram for undergraduates. Rank and salary commensurate with qualifications and expe-rience rience.

#### SABBATICAL REPLACEMENT 1978-1979

PHYSICS DEPARTMENT: Ph.D. in physics PHYSICS DEPARTMENT: Ph.D. in physics or engineering with additional background in applied physics, electronics, or physical chemistry. Preference will be given to indi-viduals with previous faculty experience. Rank and salary commensurate with qualifi-cations and experience.

Candidates should submit curriculum vitae and three names for reference purposes to: Dr. John Gracki, Dean of the College of Arts and Sciences, Grand Valley State Colleges, Allendale, Michigan 49401. An Equal Oppor-tunity/Affirmative Action Employer.

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### THE UNIVERSITY OF TEXAS AT DALLAS

Applications are invited for FACULTY POSITIONS in applied geophysics and clas-sic sedimentology. One of these positions may be filled at the assistant level and one at the associate level. The positions require a Ph.D. and documented ability to do original recentrol. Condidete are averated to itigate Ph.D. and documented ability to do original research. Candidates are expected to initiate and develop graduate-oriented research pro-grams in their specialty. Preference will be given to scientists with broad interests. Teaching duties will involve both graduate and undergraduate instruction and super-vision of M.S. and Ph.D. students.

GEOPHYSICIST. Research interest in ap plied geophysics, with strong interest and orientation toward energy-related re-search. Preference will be given to a geophysicist with a strong geological background geophysicist background.

CLASTIC SEDIMENTOLOGIST. search interest in terrigenous sediments (both modern and ancient) with a second-ary proficiency in either hydrocarbon oc-currences or groundwater hydrology. Must be able to teach courses in modern obstic deneition environmental archive clastic deposition, environmental analysis (modern and ancient), and sedimentary petrography.

Indication of ethnicity and sex for Affirmative Action statistical purposes is requested but not required. Send curriculum vitae by 1 February 1978 to:

Dr. Alexander Clark Vice President for Academic Affairs The University of Texas at Dallas P.O. Box 688 Richardson, Texas 75080

The University of Texas at Dallas is an Af-firmative Action/Equal Opportunity Employ-

POSTDOCTORAL POSITION available immediately for studies in sphingolipid and fatty acid metabo-lism in brain. Ph.D. in biochemistry or equivalent required. Salary range \$10,000 to \$12,000 per depending upon experience. Submit curriculum vitae including references to: Dr. Yasuo Kishimoto, John F. Kennedy Institute, 707 North Broadway, Baltimore, Maryland 21205. An Equal Opportunity Employer

### POSTDOCTORAL POSITION

The Biochemistry Division at the Eunice Kennedy Shriver Center for Mental Retardation has several positions open for persons interested in neurochem-istry. The Shriver Center is located in the suburban Boston area and offers a stimulating, intellectual en-vironment. Postdoctoral-level positions are available for candidates with experience in the following

areas: • ENZYMOLOGY: to study the mechanism of assembly of myelin membranes and the regulation of brain lipid synthesis. Applications should be direct-

ed to Dr. F. Jungalwala. • PROTEIN PURIFICATION AND SEQUENCING: to study the proteolipid protein from brain myelin. Academic appointments possible. Applications should be directed to Dr. M. Lees. EUNICE KENNEDY SHRIVER CENTER 200 Trapelo Road, Waltham, Mass. 02154

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POSTDOCTORAL OR RESEARCH ASSOCIATE position available immediately to study regulation of hepatic metabolism by glucocorticoids. All appli-cants will be considered, but previous training in the biochemistry, physiology, or molecular biology of steroid hormone preferred. Write:

Dr. Friedmann, Physiology Department MSMB #4216, P.O. Box 20708 Houston, Texas 77025

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POSTDOCTORAL/RESEARCH ASSOCIATE posirostDOCTORAL/RESEARCH ASSOCIATE posi-tion available immediately for research on proteins in blood coagulation. Research involves biochemi-cal, biophysical, and immunochemical approaches to structure-function analysis of proteins involved in the tormised phone of the completion machenism the terminal phase of the coagulation mechanism Send curriculum vitae and references to: Dr. J. M. McDonagh, Department of Pathology 228H, Universi-ty of North Carolina, Chapel Hill, North Carolina 27514. The University of North Carolina is an Af-firmative Action/Equal Opportunity Employer.

**RESEARCH POSITION:** one position is open at University of California, Los Angeles (UCLA), Medical School, Division of Head and Neck Surgery (Otolaryngology) for assistant research physiologist, step I or step II. The candidate must hold a Ph.D. or equivalent degree and have at least 1 year of post-doctoral experience. Must have a background in endoctoral experience. Must have a background in en-gineering or physics and auditory physiology. Expe-rience in electrophysiological recording from single cells in mammalian auditory systems is also re-quired. Candidate will carry out experiments on auditory function. Résumés and references to: Dr. D. Strelioff, Division of Head and Neck Surgery, UCLA Medical School, 32-34 Rehabilitation Center, Los Angeles, Calif. 90024.

### POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE. Position available immediately for research in ion transport across subcellular membranes. A background in protein purification and/or basic immunological techniques is desirable. Recent Ph.D.'s in biochemistry preferred. Send résuré and names of three ref-erences to: Dr. M. Kirchberger, Department of Phys-iology and Biophysics, THE MOUNT SINAI SCHOOL OF MEDICINE, Fifth Avenue and 100th Street, New York, N.Y. 10029. An Equal Opportunity Employer.

#### UNIVERSITY OF MICHIGAN

The Psychology Department expects to hire **TWO PSYCHOBIOLOGISTS** at the assistant professor level. Specific research area is open, but candidates must have started an active research program relat-ing biological variables to animal or human behav-ior. Send curriculum vitae to: **Professor E. S. Valen**stein, Neuroscience Laboratory, University of Mich-igan, Ann Arbor, Mich. 48109. Code #100BH. A nondiscriminatory, Affirmative Action Employer.

**RESEARCH SCIENTIST** (Ph.D. or equivalent) for multidisciplinary study of neuropharmacological-neurobiological problems. Applicant must have experience in biochemical and neurochemical methexperience in biochemical and neurochemical meth-odologies such as bioamine and metabolite deter-minations, radioimmunoassay development, brain dissection and fractionation, radioreceptor meth-odologies, and chemical instrumentation (GC, GC/ MS, AA, and so forth). Previous experience in developmental neuropharmacology and/or bio-chemical toxicology of environmental pollutants is also desired. Adjunct academic appointment is possible; position available 1 January 1978. Send application including curriculum vitae and names of three references to: Dr. George Breese, Bio-logical Sciences Research Center, Building 220 H, University of North Carolina, Chapel Hill, N.C. 27514. Equal Opportunity/Affirmative Action Employer. Employer.

### SENIOR BIOCHEMIST

Nationally known consumer goods company is seek-ing an individual to head a small toxicology unit for animal and human studies related to safety and effi-cacy of raw materials and products.

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We offer good salary and fringe benefits as well as op-portunity for advancement.

Suburban N.J. location, 20 minutes from New York City.

Please send résumé, with salary history, in con-fidence to: Betty Vida

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### SENIOR MARINE SCIENTIST

Several opportunities exist with progressive Southern California engineering firm for se-nior level marine scientists to manage projects in the United States and Middle East. Ability to act independently and produce concise, clearly written reports essential. Must have a strong background or technical and management capabilities in one or more of the following areas: OCEANOGRAPHY, BATHYMETRY, MARINE BIOLOGY.

Position requires a Ph.D. or equivalent with a minimum of 5 years experience in a senior level capacity including project management responsibilities. Previous experience with power plants, desalination, LNG facilities, and harbors desirable. Positions require extended travel to Middle East

Submit résumé, including recent project experience, salary requirements, and availability, to:

### **Box 422, SCIENCE**

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### POSITIONS OPEN

The Naval Medical Research Institute invites ap-plications for a **RESEARCH POSITION** in the Department of Experimental Medicine. The successful applicant will be expected to initiate and develop applicant will be expected to initiate and develop biophysical/biochemical research programs directly related to a broad spectrum of Navy relevant bio-medical problems. Experience with FT-NMR is de-sirable. Other research tools available include: EPR, temperature jump, pressure jump, microcalorim-etry, spectrophotometry, and a PDP-11. This is a Civil Service position and will be filled at the GS-13 level (salary range \$26,022 to \$33,825). Please send a detailed résumé including salary his-tory or a completed Standard Form 171 to: Civilian Personnel Service, Building 123, National Naval Med-ical Center, Bethesda, Maryland 20014. Form 171 (Personal Qualifications Statement) is available in Federal Job Information Centers and Federal Government personnel offices.

Federal Government personnel offices. NOTE: the Naval Medical Research Institute is part of the National Naval Medical Center complex. part of the National Naval Medical Center complex. It is situated adjacent to the Bethesda Naval Hospi-tal and the new Uniformed Services University of the Health Sciences. The Institute is located in a stimulating research community and is within walk-ing distance of the National Institutes of Health and the National Library of Medicine. *An Equal Opportunity Employer* 

Applications are invited from graduates with a good background in biochemistry good background in biochemistry or chemistry to undertake **RESEARCH ON CONNECTIVE TISSUE**, leading to M.Sc. or Ph.D. degrees. The Biochemis-try Section of the Department of Oral Biology is engaged on projects related to the structure, function and biology of collagens, proteoglycans, glycopro-teins, and tissue proteinases. Stipends are available for suitably qualified persons and travel allowances may be provided.

may be provided. Enquiries should be sent to: the Director of Re-search and Graduate Studies, Department of Oral Bi-ology, Room 6154, Dentistry-Pharmacy Center, Uni-versity of Alberta, Edmonton, Alberta, Canada T6G 2N8.

#### TOXICOLOGIST-Ph.D.

The Life Sciences Division of IIT Research Insti-tute, a not-for-profit research organization located on the IIT campus, has a staff position for a tox-icologist. Requirements include a Ph.D. in tox-icology, pharmacology, or an appropriate discipline, 3 to 5 years of postdoctoral experience, and the ca-pability to perform contract research for both com-mercial and government clients. Experience in gen-eral toxicology, plus the ability to design, supervise, and evaluate large-scale. Ion-term toxicity studies and evaluate large-scale, long-term toxicity studies is desirable. Development of programs in areas of individual interest will be encouraged.

Please send résumé with salary history and requirements to:

> John E. Katzenberger IIT Research Institute 10 West 35th Street Chicago, Illinois 60616

#### TECHNOLOGY AND PUBLIC POLICY

The Department of Engineering and Public Policy of Carnegie Institute of Technology and the Schools of Urban and Public Affairs and Humanities and Social Science, Carnegie-Mellon University, have one or more joint faculty openings: (i) for applied social sci-entists interested in doing collaborative policy re-search with engineers, or (ii) for engineers interested search with engineers, or (ii) for engineers interested in doing collaborative policy research with social scientists. Problem areas of interest include social impacts of computers and telecommunications, product liability and safety, electric power load man-agement, retrospective technology assessments, and energy and environmental systems. Desirable areas of skill include decision analysis, optimization tech-niques, organizational analysis, and regulatory proc-ess and law. Send résumé with list of publications to: Barbara Lydon, Assistant Head, Engineering and Public Policy (Sc), Carnegie-Mellon University, Pitts-burgh, Pennsylvania 15213.

Marine Physical Laboratory is interested in locating a qualified individual to lead a research group in UN-DERWATER ACOUSTICS. Position level is open with salary range from \$17,000 to \$27,000 depending on qualifications and experience. Position details may be obtained by writing: Dr. F. N. Spiess, Marine Physical Laboratory of the Scripps Institution of Oceanography, University of California, San Diego, San Diego, California 92152. Telephone: 714-452-2300. The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer.

SCIENCE, VOL. 198

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UMBC, a campus of over 5,000 students and 330 faculty members, is one of five campuses of the University of Maryland. Its 477-acre campus is adjacent to the city of Baltimore with easy access to Washington. It offers comprehensive undergraduate and expanding graduate programs in the arts and sciences and several related professional areas.

The vice chancellor for academic affairs is the chief academic officer of the campus, reporting directly to the chancellor. He/she is responsible for the overall development and implementation of academic policies and programs. He/she also supervises the office of dean of students and other academic support services. The position requires a person with strong academic credentials and proven administrative ability.

Applicants should submit a current résumé; nominations should include the nominee's current position and address. Letters of reference are not required at this time. The position will be available 1 July 1978. Please send applications and nominations not later than 1 January 1978 to:

Professor Joseph F. Mulligan Chairman, Vice Chancellor Search Committee University of Maryland Baltimore County Library 5401 Wilkens Avenue Baltimore, Maryland 21228

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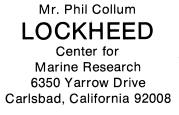
### DEPUTY PROGRAM MGR.

PhD with experience in program management. Individual must be able to interface with customer, assist in the control and direction of a complex program. Experience in experimental design and a background in Biological Oceanography particularly epipalagic and midwater organisms and factors affecting their distributions and physiological/ecology.

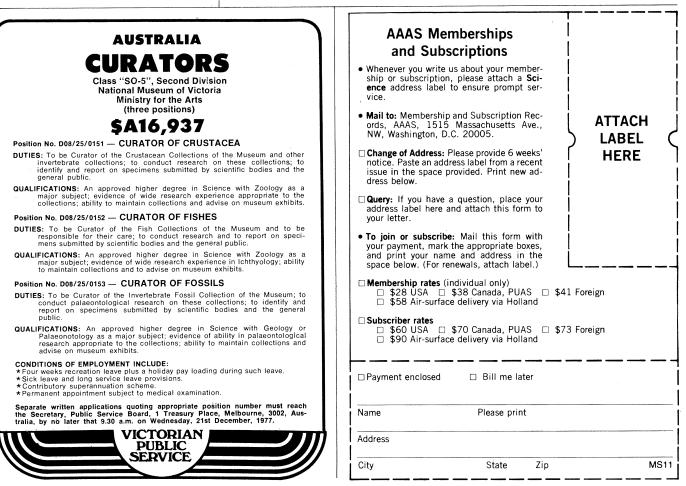
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### TEACH SCIENCE IN AN INDEPENDENT SCHOOL

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

VERTEBRATE ZOOLOGIST-Undergraduate teach-ing, Catholic liberal arts college. Ph.D. required. Competency desired in areas of comparative anat-omy, embryology, histology, and biochemistry. Teaching experience preferred. Interest in health science programs desirable. August 1978 starting date. Send curriculum vitae and names of three ref-erences to: erences to:

**Richard McCormick**, Chairman Activity of the control of the contr

### ZOOLOGIST, LIBERAL ARTS

ZOOLOGIST, LIBERAL ARTS Seek Ph.D. zoologist, special competence in physi-ology or developmental biology. Full responsibility for development and teaching in general education program. Experience in history/philosophy of sci-ence advantageous. Send letter of inquiry to: Dr. Frederick Gregory, Chairman, Division of Science, Eisenhower College, Seneca Falls, N.Y. 13148. Eisen-hower College is an Equal Opportunity/Affirmative Action Employer. Action Employer.

### SYMPOSIUM

Second International Symposium on Quantitative Mass Spectrometry in Life Sciences, State University of Ghent, 13 to 16 June 1978 (Belgium). Contact:

Professor Dr. A. De Leenheer Laboratoria voor Medische Biochemie en voor Klinische Analyse 135, De Pintelaan B - 9000 Gent, Belgium

### GRADUATE STUDY

### GRADUATE STUDY IN ENVIRONMENTAL HEALTH SCIENCES AND ENGINEERING School of Public Health **Harvard University**

Traineeships and fellowships available for graduate studies in air pollution control, industrial hygiene and occupational health, environmental health manand occupational health, environmental health man-agement, radiation protection, and medical radio-logical physics. Deadline for completed applica-tions: 1 February 1978. For details, contact: Dr. Dade W. Moeller, Harvard School of Public Health, 665 Huntington Avenue, Boston, Massachusetts 02115. Applications from women and members of minority groups are encouraged.

### ASSISTANTSHIPS

The Department of Biochemistry at The Universi-ty of Texas Health Science Center in San Antonio invites applications for **GRADUATE TEACHING ASSIST ANTSHIPS** for fall 1978. The department has vigorous research programs that cover a wide range of biochemical areas leading to the Ph.D. degree and is well-equipped for research. Stipends for a 12-month period begin at \$5,000 and carry remission of out-of-state tuition. For more information write to: **Dr. David C. Wharton, Department of Biochemistry, The University of Texas Health Science Center at San Antonio, Texas 78284. An Equal Opportunity/Affirm-ative Action Employer.** The Department of Biochemistry at The Universiative Action Employer

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### TRAINEESHIPS

POSTDOCTORAL TRAINEESHIP: awarded by the Kansas Division of the American Cancer Society. Research on the in vitro assembly of microtubules. Applicants should have a background in biochemis-try and cell biology. First year stipend: \$11,000. Send curriculum vitae and three letters of recom-mendation to: **Dr. Richard H. Himes, Department of** Biochemistry, University of Kansas, Lawrence, Kan-sas 66045. An Affirmative Action/Equal Opportunity Employer

### PROGRAMS

### DOCTORAL PROGRAM IN PROBLEMS OF TECHNOLOGY AND PUBLIC POLICY

The Department of Engineering and Public Policy at Carnegie-Mellon University offers an inter-disciplinary research-oriented Ph.D. for persons usciplinary research-oriented Ph.D. for persons with an undergraduate degree in engineering or the mathematical or physical sciences. Persons with more advanced training or experience are especially welcome. Some financial support is available. Con-tact: Engineering and Public Policy, Graduate Pro-gram (GSE), Carnegie-Mellon University, Pittsburgh, Pa. 15213.

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CARDIOVASCULAR RESEARCH FELLOWSHIP. Postdoctoral fellowship position for research training in:

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- tension, and 5) Computer applications in clinical cardiology

Position available beginning 1 July 1978 for can-didates with M.D. or Ph.D.; stipend \$12,600 and up, depending on experience. May combine with ad-vanced clinical training in cardiovascular medicine. Contact: Robert G. Tancredi, M.D., Director, Car-diovascular Research Training Program, Mayo Clin-ic, 200 First Street, SW, Rochester, Minn. 55901; tele-phone: 507-282-2511.

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POSTDOCTORAL FELLOWSHIP for biochemists, geneticists, immunologists, or microbiologists to study mammalian cell biochemistry and somatic cell hybridization. Send curriculum vitae to: Dr. Jean-Paul Thirion, Microbiology Department, Univer-sity Medical School, Sherbrooke, Canada J1H 5N4.

POSTDOCTORAL FELLOWSHIPS for recent Ph.D. or M.D. available in early 1978 to study various aspects of human placental endocrinology. Experience with hormone action, tissue culture, and/or hormone receptors preferred. Full-time position for 1 year with possible extension. Stipends: \$10,000 to \$13,000. Send curriculum vitae and three letters of recommendation to:

William Y. Ling, Ph.D. Director, Endocrine Laboratory Department of Obstetrics and Gynecology Tupper Medical Building Dalhousie University Halifax, N.S., Canada B3H 4H7

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**FELLOWSHIPS** 

### THE HEBREW **UNIVERSITY OF JERUSALEM**

The Hebrew University of Jerusalem offers a small number of postdoctoral fellowships for the 1978-1979 academic year, in the humanities, social sciences, natural sciences, agriculture, and medicine.

Candidates may apply at an early stage of their professional career (not later than 3 years after completion of their doctoral dissertation) to: P.O. Box 1255, Jerusalem, Israel.

### **POSTDOCTORAL FELLOWSHIPS**

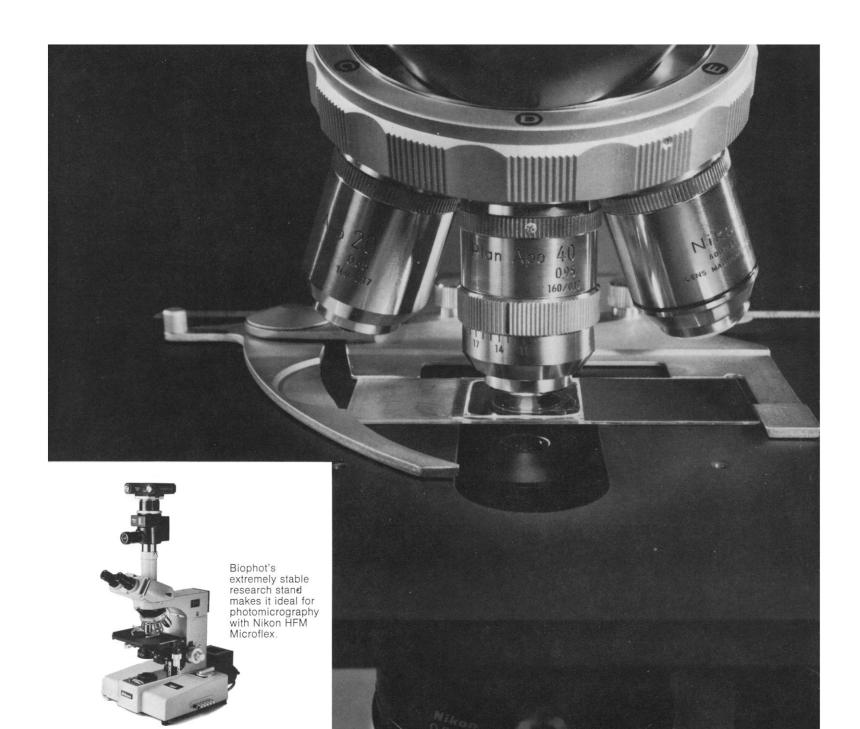
Postdoctoral fellowships are available at the Rosenstiel School of Marine and Atmospheric Science, University of Miami, for the 1978-1979 academic year

year. The interests of the faculty include, but are not limited to, experimental studies and modeling of: in-teractions in controlled environments, the benthic boundary layer of the deep sea, the ocean as a cli-mate-controlled biogeochemical system, coastal and shelf ecosystems, and large tropical weather sys-tems; and the development of methods for the opti-mal utilitation of course recommendent Applications should include a statement of re-

search interests, curriculum vitae, and references, and should be mailed to: Dr. Warren J. Wisby, Asso-ciate Dean, Rosenstiel School of Marine and Atmospheric Science, 4600 Rickenbacker Causeway, Mi-ami, Florida 33149, by 15 January 1978. The University of Miami is an Equal Opportunity

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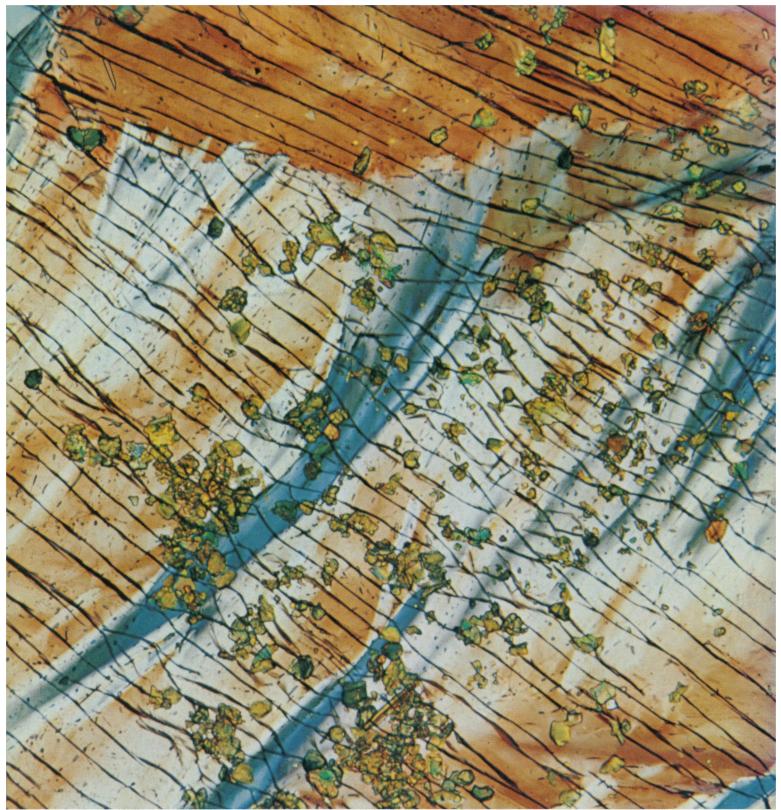
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Photomicrograph by John Delly, McCrone Research Institute

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