

# Personnel Placement

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**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, FELLOWSHIPS, MARKET PLACE, and so forth):** \$6.40 per millimeter; \$160 minimum, per insertion (minimum charge covers 25 millimeters on a single column; 25 millimeters 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 orders and billing information required for all other advertising.

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., NW  
Washington, D.C. 20005  
Telephone: 202-467-4456

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

**Aquatic Toxicologist/Environmental Scientist.** Ph.D. 1974. Training in comparative physiology and biochemistry. University, management, and consulting experience in freshwater, estuarine, and marine ecosystems. Publications. Seeks position in industry, government, or university. Box 231, SCIENCE. X

**M.B.A., B.S. Immunology.** Experience as manager/technician of a basic research laboratory. Sterile tissue culturing techniques. Publications. Desires challenging administrative/technical position in industrial or academic R & D laboratory. F. Hibbler, Box 222 Canal Road, Houghton, Michigan 49931. 8/17

**Microbiologist** (Ph.D. 1978, England)/Pharm. D. Strong background in lipid biochemistry (discovery and characterization of sphingo-lipids, temperature effect on lipids). Experience in fungal viruses, electron microscopy, ultracentrifugation. Seeks research position in United States or Canada. Box 232, SCIENCE. X

**Microbiologist.** M.S./RM (AAM) certified in pathogenic bacteriology, immunology and serology, agricultural and industrial microbiology. Experience in college teaching and research in metabolism of obligate anaerobes. Publication in major journal. Presently quality control bacteriology and toxicology laboratory supervisor. Seeking teaching and/or academic research position. Box 233, SCIENCE. X

**Neurobiochemist.** M.Sc., M.A., 6 years of experience in neurotransmitters and endocrine research. Several publications. Conversant with radioenzymatic assay of plasma and tissues catecholamines, radioenzymatic assay of tissue tyrosine hydroxylase, radioimmunoassays, competitive protein binding radioassays, tissue culture and histochemical techniques. Seeks research position. M. Hussein, 2191 Jackmar Court, Milham Meadows, Kalamazoo, Michigan 49002. X

**Research Technician.** Graduate student seeks employment in the field of immunology and/or cancer research. Four years of clinical laboratory experience plus 1 year of immunological related research, experience in tissue culture as well as many immunological techniques. Enthusiastic, cheerful, hard worker. For details, write: Box 227, SCIENCE. X

## POSITIONS OPEN

From time to time, positions are available in the **DEPARTMENT OF ANESTHESIOLOGY**, Yale University School of Medicine, at the clinical faculty, research staff, resident, and technical levels. Interested individuals should apply to:

Luke M. Kitahata, M.D., Ph.D.  
Chairman, Department of Anesthesiology  
Yale University School of Medicine  
333 Cedar Street  
New Haven, Connecticut 06510

Please respond by 1 November 1979. *Equal Opportunity/Affirmative Action Employer. Qualified women, minority group members, and handicapped individuals are encouraged to apply.*

### ASSISTANT INHALATION RESEARCH TOXICOLOGIST

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

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

Closing date for accepting applications is 31 August 1979.

Send résumé to:

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

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

The Division of Endocrinology, Department of Medicine, University of Florida, is seeking an **ASSISTANT IN MEDICINE**. Candidate should have a Ph.D. or M.S. with minimum of 2 years of pertinent laboratory experience to work in field of insulin action and metabolism. Experience in hormone receptor studies, tissue culture, scintillation counting, and radioimmunoassays are desirable. Salary range: \$12,000 to \$17,000. Recruiting deadline: 15 September 1979. Anticipated starting date: 1 October 1979. Contact: **Robert S. Misbin, M.D., Box J-226, University of Florida, Gainesville, Fla. 32610.** *An Equal Opportunity Employer.*

**ASSISTANT IN SURGERY** for physical chemist or surface chemist to research basic mechanism in calcium oxalate urinary stone formation. Strong interaction with Material Science Department. Salary: \$13,500 (negotiable). Deadline date for applications: 13 August. Position available 1 September. M.A. degree required. Send résumé and the names of three references to:

Birdwell Finlayson, M.D., Ph.D.  
Urology, Box J247 JHMHC  
University of Florida  
Gainesville, Fla. 32610

*Equal Opportunity/Affirmative Action Employer*

### ASSISTANT DEAN OF INSTRUCTION FOR SCIENCE, TECHNOLOGY, AND BUSINESS

Southern California Community College is inviting applications for this full-time 12-month contract position. Minimum qualifications require master's degree and possession of or eligibility for an appropriate credential for administrative or supervisory duties at the community college level; 3 years of full-time higher education teaching experience in one or more of the following disciplines: business, chemistry, earth sciences, life sciences, mathematics, physics, and engineering; 1 year of full- or part-time administrative or supervisory experience (experience as a department chairperson is considered supervisory). Academic training and experience will form the basis for salary computation. Send résumé, transcripts, and placement file (letters of reference), by 15 September 1979 to:

Certificated Personnel Office  
Palomar Community College  
1140 West Mission Road  
San Marcos, California 92069

**ASSISTANT PROFESSOR OF FISHERIES** (senior research) to begin 1 January 1980. Application open through 30 September 1979. Ph.D. required. Develop and maintain research and graduate education program in fish physiology, pharmacology, and toxicology. Teach graduate course in fish physiology. Effective classroom teacher. Send résumé, academic transcripts, and three references to: **Richard A. Tubb, Head, Department of Fisheries and Wildlife, Oregon State University, Corvallis, Oregon 97331.** *Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with Section 504, Rehabilitation Act of 1973.*

## POSITIONS OPEN

**ASSISTANT PROFESSOR** applications are invited for a position in the Radiobiology Section of the Johns Hopkins Oncology Center, available autumn 1979. Applicants should have a doctorate, and postdoctoral or equivalent experience. Preference will be given to applicants having research interests and experience quantifying the radiation response in vivo of experimental tumor systems and/or normal tissues. Previous research with in vitro assays of in vivo damage, or with combination (radiation/drug/immune) therapy would be helpful. The successful applicant will be expected to develop an independent research program complementary to ongoing studies in molecular and cellular radiobiology, as well as contributing to the teaching of undergraduate and graduate students and medical residents. Applications, including complete curriculum vitae and names of at least three references, should be forwarded to: **Dr. Ralph E. Durand, Johns Hopkins Oncology Center, 601 North Broadway, Baltimore, Maryland 21205**, before 1 September 1979. *Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.*

The Department of Microbiology of the Jefferson Medical College of Thomas Jefferson University has a position available 1 September 1979 for an **ASSISTANT PROFESSOR** with a doctoral degree and at least 2 years of postdoctoral training in immunology of parasitic diseases. Applicants must have interest and experience in teaching in the medical and graduate programs of the department and establishing a vital research program in immunology of parasitic diseases. Send replies with curriculum vitae and the names of three references to: **Russell W. Schaedler, M.D., Professor and Chairman, Department of Microbiology, Thomas Jefferson University, 1020 Locust Street, Philadelphia, Pa. 19107.** *Affirmative Action/Equal Opportunity Employer.*

**ASSISTANT PROFESSOR**—New Jersey Medical School has recently occupied permanent quarters in the new Medical Sciences Building in Newark. As part of the expansion program of the school, the Department of Biochemistry has immediate openings at the assistant professor level for individuals who wish to pursue an active research program. The department invites applications from highly qualified persons without regard to area of research interests in the field of biochemistry. The department is a basic science department with responsibility for research and teaching of medical, dental, and graduate students. Applications from candidates should include a general statement regarding research goals and should be received no later than 1 November 1979. Curriculum vitae, letters from three references supporting research and teaching ability, reprints, and other information should be sent to: **Dr. N. Swislocki, Search Committee, Department of Biochemistry, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY, New Jersey Medical School, 100 Bergen Street, Newark, New Jersey 07103.** *Equal Opportunity/Affirmative Action Employer, M/F.*

### ASSISTANT PROFESSORS OF BIOLOGY HARVARD UNIVERSITY (CDB)

The Cellular and Developmental Biology (CDB) subdivision of the Department of Biology expects to make one to two appointments at the assistant professor level during the next academic year in the fields of cell biology and plant biology. Applicants should have the Ph.D.; preference will be given to candidates with postdoctoral training, records of outstanding research accomplishment, and teaching experience. Please have three professional persons well acquainted with your work send letters of recommendation directly to the search committee. Applications should include résumé, copies of most significant publications, and summary of research goals. Send to:

Chairman, CDB Search Committee  
Department of Biology  
Harvard University  
16 Divinity Avenue  
Cambridge, Massachusetts 02138

*Women and members of minority groups are specifically encouraged to apply. Harvard University is an Equal Opportunity/Affirmative Action Employer.*

**ASSISTANT PROFESSOR, BIOLOGY**—Position available immediately because of resignation for health reasons. Teaching responsibilities in microbiology, anatomy, and physiology. Prefer: strong background in microbiology, teaching experience, Ph.D. Tenure-track position. Salary competitive. Send curriculum vitae, transcripts, and three letters of reference immediately to: **Academic Dean, Briar Cliff College, Sioux City, Iowa 51104.** *Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**ASSISTANT OR ASSOCIATE PROFESSOR OF ENTOMOLOGY** to conduct systematics research and teach principles of systematics and insect classification. Ph.D. required. Submit curriculum vitae, transcripts, description of research experience and plans, reprints of publications, dissertation summary, summary of teaching capabilities, and names of three referees to: A. A. Grigarick, Chairperson, Search Committee, Department of Entomology, University of California, Davis, Calif. 95616 by 1 October 1979. An Equal Opportunity/Affirmative Action Employer.

### ASSISTANT PROFESSOR OF PHYSICAL BIOCHEMISTRY

Tenure-track appointment, between January and September 1980. Send transcripts, résumé, reprints of your two most significant papers and a brief research proposal, and have four reference letters sent to: Search Committee, Biochemistry/Biophysics Program, Washington State University, Pullman, Wash. 99164. Screening starts 1 October.

Washington State University is an Affirmative Action/Equal Opportunity Employer. Women, minority, and handicapped individuals are encouraged to apply.

### ASSISTANT PROFESSOR OF PLANT BIOLOGY

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

**ASSISTANT RESEARCH CHEMIST**, Department of Internal Medicine, Martinez VA Hospital, Martinez, Calif. Ph.D. with minimum of 2 years of postdoctoral experience in the synthesis of peptides and the operation of an HPLC, thorough knowledge of enzyme kinetics, and experience in protein purification. An Equal Opportunity/Affirmative Action Employer. Send curriculum vitae, bibliography, and references to: Corey Largent, Ph.D., Department of Medicine, Martinez VA Hospital, 150 Muir Road, Martinez, Calif. 94553. Position to remain open until 31 October 1979.

**ASSOCIATE PROFESSOR OF SURGERY** for October 1979 in human tumor immunology at UCLA Division of Surgical Oncology (Donald L. Morton, M.D., chief). Preference given to candidates with research experience in tumor immunology, cellular immunology, or immunochemistry. Send curriculum vitae by 1 September 1979 to: Donald L. Morton, M.D., Department of Surgery, Division of Oncology, UCLA School of Medicine, 54-140 CHS, Los Angeles, Calif. 90024.

### BIOCHEMIST

A position on the postdoctoral, instructor, or assistant professor level to characterize inborn biochemical abnormalities in hereditary diseases. Expertise in protein purification and characterization is essential and experience with tissue culture desirable. Please write to: Dr. John Blass, Division of Chronic and Degenerative Disease, Department of Neurology, Cornell University Medical College, 525 East 68th Street, New York, N.Y. 10021 and/or Burke Rehabilitation Center, Personnel Department, 785 Mamaroneck Avenue, White Plains, New York 10605. We are an Equal Opportunity Employer.

### ENVIRONMENTAL SCIENTISTS

Consulting firm seeks environmental scientists, with at least an M.S. and at least 3 years of experience in impact analysis, environmental planning and/or policy development. All disciplines. Primary current needs: Air quality analyst with expertise in monitoring and modeling and toxicologist/biostatistician. Send résumés to:

Donald T. Parent, Personnel Director  
Dalton • Dalton • Newport  
3605 Warrensville Center Road  
Cleveland, Ohio 44122

Equal Opportunity Employer, M/F

## POSITIONS OPEN

**BIOCHEMISTRY.** Visiting appointment to replace faculty on leave; possible future research/tenure-track position. Duties include participation in teaching graduate and undergraduate courses. Research interests in nucleic acids enzymatic and/or environmental sciences a plus. Send résumé and three letters of recommendation to: N. Tooney, Chemistry Department, Polytechnic Institute of New York, 333 Jay Street, Brooklyn, N.Y. 11201. Equal Opportunity Employer, M/F/V/H.

**CELL BIOLOGISTS.** Several research positions at junior and intermediate levels are open now for work on the genetics and physiology of cells grown in culture. Mutants altered in their response to growth factors, hormones, ultraviolet light, mutagens, carcinogens, and teratogens are being isolated to study the action of these agents and to develop in vitro cell culture screening systems. Novel methods will be developed to exploit a unique semiautomated facility developed here for quantitative measurements on very large numbers of individual clones. Cell culture experience essential; somatic cell genetics and physiology experience valuable; familiarity with computers helpful. Send résumé, description of your research interests, and names of three referees by 1 September 1979 to: Professor Donald A. Glaser, Molecular Biology Department, University of California, Berkeley, Calif. 94720. The University of California is an Affirmative Action Employer.

**CELL BIOLOGIST FOR LIVER RESEARCH PROGRAM**—Yale Medical School, assistant professor, joint appointment in medicine and cell biology. Position requires Ph.D. in cell biology or biochemistry, experience in cell separation techniques, Golgi membranes, electron microscopy, autoradiography, lipid and enzyme chemistry, and teaching in histology. References requested. Yale University is an Equal Opportunity/Affirmative Action Employer. Send replies to: J. L. Boyer, M.D., 1080 LMP, 333 Cedar Street, New Haven, Conn. 06510.

**CROP PHYSIOLOGIST** for interdisciplinary team working to improve *Phaseolus*, especially *P. vulgaris*. Research is from an established base directed to identifying limits to yield and adaptation, in Latin America and other tropical areas. A Ph.D. with experience in crop improvement preferred; knowledge of Spanish desirable. Position is at Cali, Colombia. Send applications, with curriculum vitae and references, before 30 September to: Dr. Douglas R. Laing, Centro Internacional de Agricultura Tropical, Apartado Aéreo 6713, Cali, Colombia.

**FACULTY MEMBER**, Department of Psychiatry, University of Michigan Medical Center, to work in Outpatient Clinic of the Psychiatric Service in our Dean's VA Committee Hospital. In addition to clinical and some administrative skills, must have documented teaching and research expertise. Should have Boards in psychiatry or be Board-eligible with intention to take Boards in the near future. Academic rank appropriate to experience. Respond to: Rosalie Ging, M.D., VA Hospital, 2215 Fuller Road, Ann Arbor, Michigan 48105. Code 350010. A non-discriminatory, Affirmative Action Employer.

### FACULTY POSITIONS

Two additional tenure-track assistant professorships are now available in this developing multidisciplinary department and it is anticipated that these posts will be filled during autumn 1979.

- 1) **PHARMACOLOGY.** The position requires a formally trained pharmacologist with several years of postdoctorate experience. A demonstrated commitment to independent and collaborative research and excellence in teaching are essential. Area specialty is open but preference would be given to cardiovascular/autonomic interests.
- 2) **MOLECULAR BIOLOGY.** A candidate with a strong background in immunochemistry is sought. Several years of postdoctorate experience is desirable and the applicant should be prepared to initiate independent research in their area of choice and consider collaborative projects in clinical immunology. Teaching experience in both immunology and biochemistry, as opposed to single discipline expertise, is preferred.

Candidates possessing the above prerequisites should send their curriculum vitae and the names of three references to: B. Salafsky, Ph.D., Professor of Pharmacology and Acting Head, Department of Biomedical Sciences, Rockford School of Medicine, University of Illinois, 1601 Parkview Avenue, Rockford, Illinois 61101.

An Equal Opportunity/Affirmative Action Employer

## POSITIONS OPEN

### ENVIRONMENTAL SCIENCES COLORADO SCHOOL OF MINES

Assistant or associate professor with a Ph.D. degree in general area of environmental sciences is open, appointment to commence either January 1980 or August 1980. Applicant must have three to five or more years of work in or with industry. Program is new and expanding. Opportunities for development of innovative course modules and research projects abound, but facilities and resources must also be developed. Starting salary depending on background and experience.

Send curriculum vitae, and references, together with a description of your expertise and how this would be employed in the education of engineers, to: Dr. Beatrice E. Willard, Director of Environmental Sciences, Colorado School of Mines, Golden, Colorado 80401.

Colorado School of Mines is an Affirmative Action Employer stressing Equal Opportunity.

**FACULTY POSITION** in vegetation management research available 1 January 1980. Research on control of competing vegetation in conifer plantations, with emphasis on improved, environmentally acceptable techniques, with participation in continuing education programs. Associate professor; 12-month basis. Ph.D. and 4 years of experience required; \$25,000 to \$30,000 salary, dependent upon qualifications. Send letter of application, curriculum vitae, transcripts, and three letters of reference by 15 October 1979 to:

John Gordon, Head  
Department of Forest Science  
School of Forestry  
Oregon State University  
Corvallis, Oregon 97331

Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.

### MARINE BIOGEOCHEMIST OR FISH ECOLOGIST

Applications are sought to fill a staff position at the level of research associate or assistant marine scientist at the University of Georgia Marine Institute, Sapelo Island. Candidates should be Ph.D. level scientists with the ability to conduct independent research in either the field of coastal/salt marsh biogeochemistry, with emphasis on the cycles and transformations of C, N, P, and S compounds, or the field of fish ecology with emphasis on the role of fish in estuarine and nearshore shelf ecosystems. Staff are required to live on Sapelo Island, but may become affiliated with the Institute of Ecology and with an appropriate department at the University of Georgia in Athens. There is no teaching requirement. Research at the Marine Institute has been into salt marsh/estuarine ecology and the geology of barrier island systems. Ongoing research will expand the general area of interest to include the biological and geochemical processes of the nearshore coastal ecosystem. Send curriculum vitae, reprints and/or statements of research interests, and names of three references to: Dr. Steve Newell, Chairman, Search Committee, University of Georgia Marine Institute, Sapelo Island, Ga. 31327. Deadline: 1 October 1979. An Affirmative Action/Equal Opportunity Institution.

### NEUROIMMUNOLOGIST

Neuroscientist required with experience in experimental neurology and immunology to join an active multiple sclerosis research group in the New York City area. Appointment will be at assistant professor level. M.D. or Ph.D. degree required. Salary commensurate with experience, but expected to be in the mid-\$20,000's.

Box 230, SCIENCE

The **DEPARTMENT OF OBSTETRICS AND GYNECOLOGY** at the University of Michigan School of Medicine in Ann Arbor is undergoing a major rebuilding program and is seeking applicants who have an M.D. degree and postdoctoral training in perinatal medicine, endocrinology, psychosomatic medicine, infertility with expertise in microsurgery, and oncology. Four positions at any academic level will be considered. Send curriculum vitae, brief summary of present and future research, and names and addresses of three references to: Alan E. Beer, M.D., Professor and Chairman of the Department of Obstetrics and Gynecology, Women's Hospital, University of Michigan Medical School, Ann Arbor, Michigan 48109. A nondiscriminatory, Affirmative Action Employer. Code 100B0, 200B0, 400H0, 800D0.

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

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

#### OCEANOGRAPHER (one position)

This individual will provide scientific guidance to NASA management in the development and implementation of a scientific research program in remote satellite sensing of oceanic processes in coastal regions. A background in coastal oceanography or ocean optics is preferred, with experience in physical, biological, and/or geological oceanography. A Ph.D. or equivalent training and experience is mandatory. Experience in remote sensing is desirable, especially as related to ocean color.

#### METEOROLOGIST/CLIMATOLOGIST (one position)

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

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

## Group Leader fossil energy research

The Chemistry Division of Argonne National Laboratory is seeking candidates for the position of Group Leader of Fossil Energy Research. This group consists of six highly-qualified researchers and has available a large array of modern experimental facilities.

The applicant filling this position will be expected to carry out his/her own research program and to provide leadership to the group for the on-going programs and for the development of new research initiatives. The applicants should be recognized as leaders in their areas of research and have successfully led group research efforts. Candidates should have a Ph.D. with at least five years research experience, and we prefer a physical-organic chemist familiar with modern analytical instrumentation such as high performance liquid chromatography, gas chromatography, mass spectrometry, microwave plasma detection, nuclear magnetic resonance and computer technology. Experience in fossil energy research or geochemistry would be useful but not required. The current research objective is to define the important structural units and linkages in coals in order to further understand the pathways of their formation during coalification and the changes which take place during conversion processes.

Salary and benefits are fully commensurate with education and experience. For more details, send resume and salary history to: Ronald A. Johns, Manager, Employment and Placement, Box CHM-GL, Argonne National Laboratory, 9700 S. Cass Avenue, Argonne, Illinois 60439



**ARGONNE  
NATIONAL  
LABORATORY**

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An Equal Opportunity Employer, M/F

## Section Head Cardiovascular Pharmacology

Internal promotion has created an opportunity in our expanding Biological R&D Program for Section Head of Cardiovascular Pharmacology. Responsibilities include coordination and supervision of research in hypertension and myocardial diseases.

Position requires a PhD in Pharmacology or related field and 10 or more years experience. The successful candidate will have an established and productive research record and the interpersonal managerial skills needed to promote constructive working relationships in an industrial environment.

Ideal location, pleasant Westchester suburban area within easy reach of metropolitan New York. Competitive salary and excellent benefits. Send resume in confidence with salary history to:

**MANAGER OF SELECTION AND PLACEMENT**



One Scarsdale Road, Tuckahoe, New York 10707  
**MEMBER COMPANY REVON HEALTH CARE GROUP**  
An equal opportunity employer M/F

#### CSIRO POSTDOCTORAL RESEARCH FELLOW DIVISION OF FISHERIES AND OCEANOGRAPHY PERTH, WESTERN AUSTRALIA

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

#### **FIELD: MARINE POPULATION ECOLOGIST.**

**GENERAL:** the division is Australia's principal marine research institution with more than 80 scientists investigating the physical, chemical, and biological features, including fisheries, of the oceans around Australia. Headquarters of the division are at Sydney with regional laboratories in Perth, Brisbane, and a field laboratory at Karumba. The appointee will be located in Perth.

**DUTIES:** to develop a programme that would integrate with ongoing studies of food web dynamics, rock lobster distribution and larval settlement, macroalgal and seagrass growth and distribution on limestone and coral reefs along the coast of Western Australia. Research interests should be in population dynamics and field experimentation. Experience in nearshore and coral reef ecosystems would be advantageous as would taxonomic knowledge of macroalgae on invertebrates.

**QUALIFICATIONS:** a Ph.D. or equivalent in a relevant field, preferably with experience in a marine environment. Ability to work efficiently at sea is essential.

**SALARY:** research scientist or senior research scientist, A\$14,422 to A\$22,405.

**TENURE:** fixed-term appointment of 3 to 5 years, depending upon experience.

**APPLICATIONS:** stating full personal and professional details and the names of at least two referees, and quoting reference number 320/632 should reach:

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

by 3 September 1979.

## POSITIONS OPEN

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

A search has been initiated for an established investigator interested in research and teaching of graduate and health science students to serve as head, Department of Biochemistry. The present department consists of faculty with funded, independent research programs. Responsibilities include recruitment of additional faculty. Applications and nominations of individuals committed to excellence in research and education should be addressed to: **Dr. H. Feinberg, Chairman, Search Committee, Department of Pharmacology, 835 South Wolcott Avenue, P.O. Box 6998, Chicago, Illinois 60680; telephone: 312-996-3541.** In order to receive full consideration, applications should be submitted by 15 September 1979. *The University of Illinois is an Affirmative Action Employer.*

### HEAD DEPARTMENT OF PLANT PATHOLOGY KANSAS STATE UNIVERSITY, MANHATTAN

Nominations and applications are invited for this position, available 1 December 1979. Requirements include a Ph.D. in plant pathology, or closely related field, with demonstrated scholarly accomplishments and administrative and leadership abilities to direct current research, teaching, and extension programs. Plant Pathology has 11 research, three teaching, five extension faculty equivalents, as well as three U.S.D.A., two adjunct, and two emeritus faculty members. The 37-member supporting staff includes five postdoctoral fellows and 15 graduate students. Plant Pathology cooperates in an interdepartmental Crop Protection Curriculum with 40 undergraduate and five professional master's degree students. New office, laboratory, classroom, and greenhouse facilities for Plant Pathology are included in a plant science complex under construction. Salary will be commensurate with qualifications and experience. By 30 September 1979 submit a letter of application, current curriculum vitae, and request three letters of reference be sent to: **Donald L. Stuteville, Chairman Search Committee, Department of Plant Pathology, Kansas State University, Manhattan, Kan. 66506. Telephone: 913-532-6176.** *Kansas State University is an Equal Opportunity/Affirmative Action Employer.*

## INHALATION BIOCHEMIST

Position currently available for individual with M.S. or Ph.D. in biochemistry, toxicology, or related discipline with research experience in inhalation toxicology. Prior experience in the engineering area quite desirable. Will be responsible for assisting in experiment design and development of research protocols and safety protocols. Will function as assistant project director. Interested candidates are invited to submit current résumé, including salary history and requirements, to:

**NORTHROP  
SERVICES, INC.  
Environmental Sciences  
P.O. Box 12313  
Research Triangle Park, N.C. 27709  
Equal Opportunity Employer, M/F/H**

**PROFESSOR AND CHAIRPERSON, MICROBIOLOGY.** A major state university seeks applicants for head of its Department of Bacteriology and Immunology in the School of Medicine. Selection criteria will include evidence of leadership ability; broad interests in medical and paramedical teaching at graduate and undergraduate levels; scientific achievement; state/national/international endeavors in the field; and compatibility with the philosophy of a well-established, dynamic department. Interested parties should submit inquiries or letters of application with curriculum vitae and references to: **Wallace A. Clyde, Jr., M.D., Search Committee Chairperson, Department of Pediatrics, 535 Burnett-Womack Building 229-H, University of North Carolina, Chapel Hill, North Carolina 27514.** *An Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

Applications are invited for a position as **MRC PROFESSIONAL ASSISTANT IN STEROID BIOCHEMISTRY** in the laboratory of **Dr. James C. Orr, Professor of Biochemistry, Memorial University, Faculty of Medicine, St. John's, Newfoundland, Canada A1B 3V6, telephone: 709-737-6035.**

Applicants should have several years of postdoctoral research in the area of steroid biochemistry. Particularly valuable would be experience with biophysical techniques such as gel electrophoresis, high-pressure liquid chromatography, enzyme kinetics, protein and peptide sequencing, nuclear magnetic resonance, chemical modification of enzymes, and chemical synthetic methods, particularly those applicable to steroids.

The successful applicant will be involved in research on the affinity labeling and subsequent sequencing of steroid dehydrogenases, though other projects in related areas devised by the applicant can also be undertaken.

Salary: \$14,560.

Commencement date around April 1980.

### UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

Applicants are solicited for faculty positions in the following departments: **PATHOLOGY**—(No. 166) **Associate professor or full professor** (academic faculty). Administer teaching programs for Pathology Department. Experience in research, adviser for graduate students. Terminal degree in pathology or correlative area. (No. 167) **Assistant professor.** Experience in research; have funded research. Teaching and guidance of graduate students. Terminal degree in pathology or correlative areas.

Applicants should send curriculum vitae identifying vacancy number for which they are applying to: **Dr. Thomas N. Lynn, Dean, College of Medicine, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Okla. 73190.** *We are an Equal Opportunity Employer.*

**PEDIATRIC LIAISON SERVICE,** Youth Service, Department of Psychiatry of the University of Michigan. Position available on the academic staff to start 1 September 1979. Must have demonstrated clinical, teaching, and research skills. Should have Boards in psychiatry or be Board-eligible with intention to take Boards in the near future. Salary and position adjustable according to seniority and experience. Attractive fringe benefits, and so forth. Please submit curriculum vitae and bibliography to: **Youth Service, Department of Psychiatry, University of Michigan, Ann Arbor, Michigan 48109.** *A nondiscriminatory, Affirmative Action Employer. Code 2400B0.*

**PEDIATRIC ONCOLOGIST,** assistant professor for teaching and clinical research in major southeastern Pediatric Department. Board-eligibility in pediatrics and hematology-oncology required. Interest in research in immunology and oncology. Cancer Research Center, or cancer epidemiology preferred. Send letter of inquiry and curriculum vitae to: **John K. Whisnant, M.D., Department of Pediatrics, University of North Carolina, Chapel Hill, N.C. 27514.** *An Equal Opportunity/Affirmative Action Employer.*

**PHYSIOLOGIST** for research in pulmonary physiology at the Cardiovascular Research Institute. Applicant must have Ph.D. and training or experience in the micropuncture technique. Salary: \$14,244. Send résumé and names of three references to: **Dr. N. C. Staub, Cardiovascular Research Institute, 1315-Moffitt Hospital, University of California, San Francisco, Calif. 94143.** Send copy of application to: **California E.D.D., 134 California Street, San Francisco, Calif. 94111.** *An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

### POPULATION ECOLOGIST

The Johns Hopkins University's Chesapeake Bay Institute is seeking a population ecologist to join a multidisciplinary program relating to the siting of energy facilities on the Chesapeake Bay and its tributaries. A field-orientated individual with an interest in the distributional ecology of fishes is preferred. An interest in applied problems and experience in impact assessment are desired.

The minimum requirement is the Ph.D. The appointment is at the level of assistant research scientist. Exceptional or more experienced candidates will be considered for higher ranks. Interested persons should send curriculum vitae and the names of three references to: **Search Committee—Ecologist, Chesapeake Bay Institute, The Johns Hopkins University, Baltimore, Maryland 21218.** *An Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

**POLICY SCIENTIST.** Tenure-track; Ph.D. required; rank and salary open; fall 1979 or later. Requirements: research in such areas as history or philosophy of science or technology, sociology of science, public policy, or administration; ability to teach introductory social science courses and advanced courses in technology, science and policy M.S. program; and experience in interdisciplinary research and teaching. Send résumé to: **Dr. F. A. Rossini, Department of Social Sciences, Georgia Institute of Technology, Atlanta, Ga. 30332.** *Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL ASSOCIATE

A position is immediately available for a Ph.D. with experience in enzymology, cell biology, or pharmacology to collaborate in research on the mechanism of action of high-dose-rescue regimens for cancer chemotherapy. The proposed work will include culture of human cell lines, techniques for investigating fluxes through metabolic pathways, and high-pressure liquid chromatography. Experience in any of these areas is an advantage. Stipend: \$13,000 to \$14,500, depending on experience. Send curriculum vitae and names of three references to: **Dr. R. L. Blakley, Department of Biochemistry, University of Iowa, Iowa City, Iowa 52242.**

**POSTDOCTORAL FELLOW** wanted to study molecular biology of mutagenesis. Background in genetics and biochemistry highly desirable. Position is available for 2 to 3 years. Send curriculum vitae and three letters of reference to: **Dr. E. Eisenstadt, Department of Microbiology, Harvard School of Public Health, 665 Huntington Avenue, Boston, Mass. 02115.** *Harvard University is an Equal Opportunity/Affirmative Action Employer.*

Two **POSTDOCTORAL POSITIONS** available immediately to study structural organization and expression of genes responsible for nitrogen fixation in bacteria. Ph.D. in biochemistry or molecular genetics required. Candidates with experience in phage, viral, or plasmid systems preferred. Send curriculum vitae and two references to:

**Dr. A. A. Szalay  
Cornell University  
Boyce Thompson Institute  
Tower Road  
Ithaca, N.Y. 14853**

*Equal Opportunity Employer, M/F*

**POSTDOCTORAL POSITION** available to Ph.D. or M.D. on 1 September 1979 for research in prostaglandin biosynthesis and platelet biochemistry. Background in biochemistry is desirable. Salary: \$13,200. Send résumé to: **G. J. Roth, M.D., Department of Medicine, University of Connecticut Health Center, Farmington, Conn. 06032.**

**POSTDOCTORAL POSITION IN SOMATIC CELL GENETICS.** Available immediately to work on biochemical and genetic analysis of protein synthetic mutants in cultured Chinese hamster cells. Techniques utilized include intra- and interspecific cell hybridization, gene transfer using isolated metaphase chromosomes, and examining various aspects of in vitro protein synthesis in fractionated extracts from normal and mutant cell lines. Some experience with tissue culture or in vitro protein synthesis would be useful but not essential. Starting salary: \$12,782 per year, funded for at least 2 years. Send inquiries and curriculum vitae to: **Dr. John Wasmuth, Department of Biological Chemistry, California College of Medicine, University of California, Irvine, Calif. 92717.** *The University of California is an Equal Opportunity Employer. Applications from all qualified candidates are welcome. Women and minorities are encouraged to apply.*

**POSTDOCTORAL POSITION IN BIOCHEMISTRY** to study the binding of the lac repressor protein to DNA using stopped-flow and fluorescence techniques. Salary: \$12,500 per year. Send résumé and two reference letters to: **Dr. Sheldon S. York, Department of Chemistry, University of Denver, Denver, Colorado 80208.** For more information, telephone: 303-753-2051. *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION.** Available 1 October 1979 for 3 years. To join group involved in immunological evaluation of spleen-transplanted rats. A background in cellular immunology is required. Salary in range of \$12,000 to \$14,000. Send résumé, reprints, and professional references to: **H. Bitter-Suermann, M.D., Georgetown University Medical Center, Department of Pathology, Washington, D.C. 20007.** Telephone: 202-625-2880.

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS

Two postdoctoral positions for individuals with a Ph.D. or M.D. degree will be available 1 September 1979 for studies pertaining to the physiology of ascending somatosensory and cerebellar afferent pathways, as well as the action of descending output projections from the cerebellum. Previous experience in single-unit recording in the central nervous system is required. Send résumé and two references to: **James R. Bloedel, Department of Neurosurgery, B590 Mayo, University of Minnesota Medical School, Minneapolis, Minnesota 55455.**

**POSTDOCTORAL POSITION** available immediately for studies on proteins of the plasma membranes of the lens of the eye. Candidates should have a recent Ph.D. in biochemistry or molecular biology. Experience in messenger RNA translation desirable. Initial salary: \$11,000 and up, depending on experience. Send curriculum vitae to: **Dr. H. Maisel, Department of Anatomy, Wayne State University School of Medicine, 540 East Canfield Avenue, Detroit, Michigan 48201. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION**—Physiology and biophysics. Available immediately to conduct research on electromicroscopic and biochemical study of sleep. Send résumé plus supporting documentation to: **Personnel Department, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—Rutgers Medical School, P.O. Box 101, Piscataway, New Jersey 08854. Equal Opportunity/Affirmative Action Employer, M/F.**

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

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available immediately for virologist to work on aspects of viral DNA replication transcription and translation. Contact:

**Dr. William Langridge  
Cornell University  
Boyce Thompson Institute  
Ithaca, New York 14853**

*Boyce Thompson Institute is an Equal Opportunity/Affirmative Action Employer, M/F.*

**POSTDOCTORAL POSITION** for M.D. in basic and clinical research related to red blood cell genetics and metabolism, membrane structure and function, trace-element function, pharmacogenetics, and participation in clinical research involving new treatments for certain inherited diseases. Salary negotiable, with up to 3 years of support available. Send résumé and names of three references to: **George J. Brewer, M.D., Department of Human Genetics, University of Michigan Medical School, Ann Arbor, Michigan 48109. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION—IMMUNOPARASITOLOGY.** Available immediately for research in filariasis. Applicant should have adequate background in parasitology and recent, in-depth training in immunology. Starting salary: \$12,420; 1 to 3 years. Send curriculum vitae, summary of past research, and names of three references to: **Dr. Lawrence R. Ash, UCLA School of Public Health, Los Angeles, Calif. 90024. The University of California is an Equal Opportunity/Affirmative Action Employer.**

**RESEARCH MICROBIOLOGIST/IMMUNOLOGIST.** Person with Ph.D. or equivalent is needed immediately for faculty position. Postdoctoral experience in mucosal immunology preferred. Research laboratory in Department of Otolaryngology at The Ohio State University Hospitals. Rank and salary open. Send curriculum vitae and references to: **Dr. David J. Lim, Director, Otolological Research Laboratories, 456 Clinic Drive, Columbus, Ohio 43210. An Equal Opportunity Employer.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION—ORGANIC CHEMISTRY.** Available immediately. Synthesis and kinetic studies of epoxides derived from polycyclic aromatic hydrocarbons. Reactions of epoxides with nucleic acid models. Send résumé and have two letters of reference forwarded to: **Dr. Dale Whalen, Department of Chemistry, University of Maryland Baltimore County, 5401 Wilkens Avenue, Catonsville, Maryland 21228. An Affirmative Action/Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available immediately for biochemical studies on glucocorticoid receptors and steroid action in human leukemia. Send curriculum vitae and names of three references to: **John Stevens, Research Institute, HOSPITAL FOR JOINT DISEASES AND MEDICAL CENTER, 1919 Madison Avenue, New York, N.Y. 10035. An Equal Opportunity Employer.**

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

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

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**MARINE ECOLOGIST OR PHYSICAL SCIENTIST.** The U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), Office of Marine Pollution Assessment, Stony Brook, New York, is seeking a senior-level scientist to provide program direction for the Hudson-Raritan Estuary Project (HREP) which is designed to provide research information on the physical/chemical impacts of domestic and industrial wastes in estuarine and coastal waters. This position is in the competitive Civil Service and may be filled at either the GS-14 or GS-13 level. Entrance level salaries are \$32,442 or \$27,453 per annum, respectively. **QUALIFICATIONS:** B.S. or higher degree in ecology or the physical sciences with a primary emphasis in marine chemistry, physical oceanography, or environmental engineering. In addition, candidates must have 3 years of professional experience in the marine disposal of domestic and industrial wastes or the physical/chemical impacts of such wastes in the estuarine and coastal waters. This would include experience in planning, evaluating, and interpreting interdisciplinary research into anthropogenic influences upon estuarine or coastal ecosystems. **TO APPLY:** current or former federal employees should submit SF-171, CD-332 (Employee Appraisal), and a transcript. Form CD-332 may be obtained by telephoning: **303-499-1000, extension 6332 or FTS 323-6332.** Applicants not employed by the federal government should submit a complete application package for "Physical Science Positions-1300" if applying for the physical science option and an application package for "Senior Level Positions, No. 408" if applying for the ecology option. These forms may be obtained from the nearest Office of Personnel Management (formerly U.S. Civil Service Commission). All applications should be submitted to: **NOAA/NTIA, Personnel Services Division (R566), Attention: Carolyn Straight, Boulder, Colorado 80303. Reference Vacancy Number NOAA/ERL 79-241 (1).** Applications must be postmarked no later than 14 September 1979 to receive consideration. *An Equal Opportunity Employer.*

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# MEDICAL OFFICER

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

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

## NATIONAL INSTITUTES OF HEALTH



## POSITIONS OPEN

The Michigan State University (MSU)—Department of Energy (DOE) Plant Research Laboratory (PRL) seeks well-qualified candidates for **POSTDOCTORAL RESEARCH ASSOCIATE** positions. The PRL is an interdisciplinary research institute located on the Michigan State University campus, devoted to the physiology, biochemistry, and biophysics of plants. Current research areas include cell walls, membranes, microtubules; mechanisms of hormone formation and function; flowering; photobiology; thermophysiology; energy and gas exchange via stomates; synthesis and structure of glycoproteins; nitrogen and sulfur metabolism; enzyme regulation; and developmental patterning. Organisms used include mycoplasmas, thermophilic bacteria, blue-green algae, cellular slime molds, and mosses, in addition to flowering plants. Salaries start at \$12,000 per year. Appointments are for 1 year starting fall 1979 or thereafter, renewable once. The number of appointments is dependent upon available funds with commitments to be made in summer 1979. For further information and application forms, please send a résumé to:

**Dr. Hans Kende, Acting Director**  
MSU-DOE Plant Research Laboratory  
Michigan State University  
East Lansing, Michigan 48824

*Michigan State University is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL RESEARCH ASSOCIATE

Position available immediately to participate in studies on the role of endogenous, developmentally regulated carbohydrate binding proteins (lectins) in morphogenetic cell recognition, using the cellular slime mold *Dictyostelium* as a model system. Ongoing projects include: (i) isolation of mutants and revertants in the endogenous lectin system, using specific molecular and immunological probes for selection and screening and (ii) biochemical and immunological characterization of endogenous lectins, including structural properties and homologies, carbohydrate binding specificities, and nature of association with the cell surface.

Strong background in biochemistry, cell biology, or molecular genetics required, preferably with experience in protein chemistry, immunochemistry, or membrane biochemistry. Please send curriculum vitae, a short summary of research interests, and names of three references to: **Dr. Edward A. Berger**, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545.

*An Equal Opportunity/Affirmative Action Employer*

### POWER PLANT SITING

**Senior Technical Analyst—Economics**, salary: \$20,508 to \$27,732

**Senior Technical Analyst—Engineering**, salary: \$20,508 to \$27,732

**Project Manager (two positions)**, salary: \$17,640 to \$23,820

The **economic analyst** will design and conduct studies analyzing the siting of electric generating plants and routing electric transmission lines, evaluating community/regional development opportunities associated with such facilities, and assessing utility applications.

The **engineering analyst** will design engineering/technical studies of complex technical issues relating to feasibility of design alternatives in siting large power generating plants.

The **project managers** will manage preparation and processing of applications for siting generating plants and routing transmission lines.

#### Education and Training

Applicants should have a bachelor's or master's in public or business administration, planning, economics, engineering, or environmental sciences plus professional experience.

Submit résumé to: **Michael Sullivan, Assistant Manager, Power Plant Siting, Room 100, Capitol Square Building, 550 Cedar Street, St. Paul, Minnesota 55101.**

*An Equal Opportunity Employer, M/F*

**RESEARCH ASSOCIATE**—Ph.D. in biochemistry with training in immunology and interest in cell culture. Primary responsibility for isolation of a cellular protein. Position is for 3 years. Salary: \$14,000 to \$18,000 and faculty title commensurate with qualifications. Apply to: **J. Niemetz, Chief of Hematology, BRONX VA HOSPITAL, 130 West Kingsbridge Road, New York, N.Y. 10468.** *An Equal Opportunity Employer, M/F.*

## POSITIONS OPEN

### PROFESSOR AND HEAD CENTER FOR GENETICS

An opportunity for an outstanding research scientist and teacher to join the faculty of the School of Basic Medical Sciences of the University of Illinois at the Medical Center in Chicago. Candidates for this position are expected to mount a major research program in the forefront of some aspect of genetics or a related field. Candidates must be able to direct the training of six to ten pre- and/or postdoctoral students and secure the operating research resources for their work. The candidate selected will have an opportunity to recruit new faculty to the center. The position requires a person with ability to cooperate with basic science or clinical departments of the university in developing collaborative research and educational programs. Recently renovated space is available in a productive research environment. The position offers a challenge in professional and graduate education in a stimulating urban setting.

Please send letters of interest with curriculum vitae, or nominations to the chairman of the Search Committee, by 15 October 1979. **Dr. Sheldon Dray, Professor and Head, Department of Microbiology and Immunology, University of Illinois at the Medical Center, P.O. Box 6998, Chicago, Ill. 60680, telephone: 312-996-7470.**

### FULL PROFESSOR FINFISH POPULATION BIOLOGY

The Chesapeake Biological Laboratory of the University of Maryland Center for Environmental and Estuarine Studies is seeking a scholar of international repute in the area of coastal/marine finfish population studies. The successful candidate will have a strong research program as evidenced by publications and grantsmanship, should have a strong background in statistics, and will be eager to participate in graduate education. The appointment carries tenure and the salary is competitive. Nominations and inquiries should be forwarded in writing no later than 10 September 1979. Each application should include a summary of present and future research goals, names of six potential referees, and curriculum vitae addressed to: **Chairman, Search Committee, Chesapeake Biological Laboratory, Solomons, Maryland 20688.**

**PROGRAMMERS.** FORTH, Inc., is a computer software firm specializing in high-performance on-line systems and applications. Our expert staff enjoys challenging and diverse opportunities, as well as the benefits of working in a small company. All programming is done on minicomputers and microprocessors using the FORTH (TM) language. Previous experience in FORTH is highly desirable. Current openings: **PROJECT MANAGER** to supervise applications and special systems programming projects: writing proposals, setting technical specifications, customer liaison, hands-on programming, and supervision of senior programmers. Extensive programming experience, some scientific or engineering background, and management skills required. **PRODUCT MANAGER** to maintain and document standard packages on several processors, develop special peripheral drivers, and supervise shipping. Systems programming experience plus good communication skills required. **PROGRAMMER/ENGINEER** to work on hardware/software projects: selecting computers and peripherals, designing custom interfaces, assembling multi-vendor systems, and applications programming. Experience with scientific applications, mini- and microcomputers, assembler and high-level languages required. Some travel required. **TECHNICAL WRITER** to generate and maintain software documentation. Familiarity with both assembler and high-level languages plus excellent writing skills required. **FORTH, Inc., 815D Manhattan Avenue, Manhattan Beach, Calif. 90266.**

*An Equal Opportunity Employer*

**RESEARCH SPECIALIST**—Position requires Ph.D. in biochemistry or microbiology to study the membrane phenomena of protein transport across the membrane of bacteria. Work involves *in vitro* synthesis of alkaline phosphatase, determination of structure and composition of the nascent enzyme and reconstitution of membrane factors of protein transport into liposomes. Experience in immunochemical and biochemical techniques required. Please send résumé to: **Personnel Management Branch, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—Rutgers Medical School, P.O. Box 101, Piscataway, New Jersey 08854.** *An Equal Opportunity/Affirmative Action Employer, M/F.*

## POSITIONS OPEN

**POSTDOCTORAL POSITION** available immediately for studies on chemical carcinogenesis in rat liver. Applicants should have experience in procedures for purification of enzymes, including column chromatography and electrophoresis. Background in immunology techniques is desirable. Salary, \$12,500 to \$13,000 depending on experience; 1-year appointment with possibilities for renewal. Send curriculum vitae and names of three references to: **Dr. Oscar Sudilovsky, Institute of Pathology, Case Western Reserve University, Cleveland, Ohio 44106.** *An Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** available now for recent doctoral with experience in immunology/cell biology. **Project:** construct hybridomas to adult tissue-specific epithelial-derived immunogens and use as probes for detection and characterization of carcinogen-induced metaplasias ("disdifferentiations" or tissues in the wrong place). Salary: \$12,000 and up, depending on background. **Starting date:** negotiable, but deadline for applications is 1 November 1979. Send résumé and two references to: **Dr. Philip E. Hartman, Department of Biology, The Johns Hopkins University, Baltimore, Md. 21218.**

*An Equal Opportunity/Affirmative Action Employer*

### RESEARCH ASSOCIATE DEPARTMENT OF PEDIATRICS

Wanted: Ph.D. in physiology for the position of research associate in the Department of Pediatrics, St. Francis Hospital-Medical Center. The candidate must have background in cardiopulmonary physiology and interest in research in the development of control mechanisms of cardiorespiratory system in the newborn. Position available immediately. Contact: **S. N. Sinha, M.D., Professor and Chairman, Department of Pediatrics, St. Francis Hospital-Medical Center, North Building, 530 N.E. Glen Oak Avenue, Peoria, Ill. 61637; or telephone: 309-672-2570.**

**RESEARCH ASSOCIATE.** Ph.D. or M.D. with training in muscle electrophysiology, mechanics and/or biochemistry, to participate in research involving the cellular basis of drug and hormone action in the reproductive tract. Opportunity to interact with biochemists, neurobiologists, physiologists, and pharmacologists. Available after December 1979. Closing date for applications: 1 October 1979. Send curriculum vitae and three letters of reference to: **Dr. J. M. Marshall, Section of Neurosciences, Box G, Brown University, Providence, R.I. 02912.** *An Equal Opportunity/Affirmative Action Employer.*

**RESEARCH POSITION IN DEVELOPMENTAL IMMUNOLOGY**—Postdoctoral. Available immediately for the study of the induction of T-cell differentiation, antigens, and receptors. Experience or interest in photoaffinity labeling and/or glycoprotein synthesis is desirable. Salary: \$14,000 to \$20,000, depending upon experience. Send curriculum vitae and three references to either: **Dr. R. S. Basch** or **Dr. J. Buxbaum, NEW YORK UNIVERSITY MEDICAL CENTER, Department of Pathology, 550 First Avenue, New York, N.Y. 10016.** *An Equal Opportunity/Affirmative Action Employer, M/F.*

### SENIOR RESEARCH FELLOW IN ATOMIC/MOLECULAR PHYSICS

The University of Maryland and the National Bureau of Standards (NBS) in Washington, D.C., are announcing a 1-year fellowship for a senior research scientist to pursue research at the NBS Synchrotron Ultraviolet Research Facility (SURF). The SURF fellow will hold an appointment in the Institute of Physical Science and Technology at the College Park Campus of the University of Maryland. In addition to his/her research activities at SURF, the appointee will interact with the faculty and students at the university, principally through lectures and seminars.

Applications are now being accepted for the academic year 1980-1981, with detailed schedule to be negotiated. Salary and faculty rank will be commensurate with current position. We are initially seeking an individual interested in pursuing atomic/molecular physics at SURF. Experience in the use of synchrotron radiation and/or photoelectron spectroscopy of gases will be considered particularly valuable for the appointment.

Send résumé, desired starting date, and research plans to:

**Professor Joseph Silverman**  
Institute for Physical Science and Technology  
University of Maryland  
College Park, Maryland 20742

# PHARMACOLOGISTS

Completion of our suburban Wilmington laboratory expansion this spring provides space to take on these staff additions for 1979-80 programs. Commitment is enhanced by affiliation with extensive research of ICI Pharmaceuticals (England) which has led to worldwide introduction of the first beta blocker, the first specific antilipidemic agent, and a non-steroidal antiestrogen offering breast cancer patients a better quality of life. Expanded North American program will be ICI's largest research effort outside the United Kingdom and will target these areas, in addition to other established endeavors:

## GASTROINTESTINAL

Ph.D. to work on development of antisecretory H<sub>2</sub> blocker. Training/experience should demonstrate competence in gastrointestinal or cardiovascular/autonomic pharmacology, and gastric secretion. Prefer up to 2 years post-doctoral experience (academic). Foundation in chemistry essential.

## RENAL

Positions at the Ph.D. and MS level of training in renal or cardiovascular pharmacology or physiology to join active program seeking novel diuretics. Evaluation to conscious canines of diuretic and/or antihypertensive agents. Training/experience should relate to these activities. Knowledge of clearance and stop-flow techniques advantageous.

Campus setting, 25 miles south of Philadelphia, within walking distance or short commute of varied residential communities. Competitive salaries/benefits include deferred tax sheltered investment program.

Please submit detailed CV in confidence, stating position applied for and salary expectation. Principals only.

C.T. Brodigan, Employee Relations



**ICI Americas Inc.**

Wilmington, Delaware 19897

An Equal Opportunity Employer M/F

## Ph.D. PHARMACOLOGIST/ PHYSIOLOGIST HYPERTENSION RESEARCH

We have a outstanding research opportunity for you to develop novel approaches to screening and evaluating potential antihypertensive agents in our sophisticated research organization. You'll be part of a broad cardiovascular research team with significant chemical, toxicological, and medical support.

You should have demonstrated creativity in the cardiovascular field. Postdoctoral experience is a plus but not required.

We offer a liberal starting salary along with outstanding benefits and moving allowances.

Please send resume with salary requirements in confidence to:

**Director, Employment**



Evansville, Indiana 47721

Equal Opportunity Employer M/F

## CSIRO AUSTRALIA RESEARCH STAFF (FOUR POSITIONS) DIVISION OF HUMAN NUTRITION ADELAIDE, SOUTH AUSTRALIA

CSIRO has a broad charter for the conduct of scientific and technological research for the benefit of the Australian community; it has approximately 7000 employees, located in divisions and sections throughout the country, of whom 2200 are professional scientists.

**GENERAL:** the division is conducting multidisciplinary research into nutritional factors, biological mechanisms, and disease processes. Its programs comprise experimental studies in inorganic nutrition (micro-nutrients) and in metabolism and digestion (macronutrients), and epidemiological and behavioural studies in human populations. Appointees are being sought in the program on metabolism and digestion which comprises: (i) diet and metabolic regulation, (ii) digestion and lipid metabolism, and (iii) protein turnover. The projects examine the role of dietary and environmental factors on metabolic disorders in man. Experimental models include mice, rats (normal and genetically obese), marmosets, and pigs. Studies with isolated liver and fat cells are in progress; tissue culture techniques are established.

### FIELD:

#### Diet and Metabolic Regulation

This group is examining the mechanisms associated with the efficiency of utilization of nutrients, hormonal control relevant to overnutrition and obesity, and metabolic disorders associated with hormonal imbalances. Three appointments are proposed in this area, including one to replace the senior scientist who will retire in March 1980.

#### 1) ENDOCRINOLOGIST—BIOCHEMIST

Reference Number: 250/271

**DUTIES:** to initiate research in the field described above. Collaborate with other research workers at the division and at hospitals and medical schools.

**QUALIFICATIONS:** a Ph.D. or M.D. degree or equivalent qualifications with research experience in endocrinology and biochemistry or clinical biochemistry and evidence of ability to lead a research team. A background in metabolic endocrinology with a bias towards mechanistic studies on peptide hormones would be an advantage.

**SALARY:** senior research scientist (SRS) or principal research scientist (PRS). Appointment of an outstanding candidate at a higher level would be considered.

#### 2) BIOCHEMIST

Reference Number 250/272

**DUTIES:** develop research on the efficiency of utilization of nutrients with particular reference to carbohydrate metabolism and lipogenesis.

**QUALIFICATIONS:** a Ph.D. degree or equivalent in biochemistry with appropriate postdoctoral experience. A background of isotopic labeling techniques in the study of intermediary metabolism and energy-dissipating cycles. Experience in the preparation and use of isolated cells and perfused organs.

**SALARY:** research scientist or senior research scientist.

#### 3) BIOCHEMIST (POSTDOCTORAL RESEARCH FELLOW)

Reference Number 250/273

**DUTIES:** research in the area of metabolic regulation, most likely in association with the appointee to position 1.

**QUALIFICATIONS:** a Ph.D. degree in biochemistry or equivalent.

**SALARY:** research scientist.

### FIELD:

#### Digestion and Lipid Metabolism

#### 4) BIOCHEMIST—PHYSIOLOGIST

Reference Number: 250/274

**DUTIES:** investigation of nutritional and physiological factors associated with metabolism of lipids relevant to atherogenesis and obesity.

**QUALIFICATIONS:** a Ph.D. degree or equivalent. Formal training in biochemistry and physiology. Several years of postdoctoral research experience in lipid metabolism, together with a background in whole animal studies and knowledge of organ perfusion methods. An appreciation of epidemiological research is desirable.

**SALARY:** research scientist or senior research scientist.

### TENURE:

Positions 1, 2, and 4—Indefinite with superannuation

Position 3—A fixed term of 2 years.

Note—Positions will not be available before April 1980.

### SALARY:

Research scientist, A\$15,422 to A\$18,904 per annum.

Senior research scientist, A\$19,572 to A\$22,405 per annum.

Principal research scientist, A\$23,247 to A\$26,368 per annum.

Senior principal research scientist, A\$27,790 to A\$30,530 per annum.

**APPLICATIONS:** stating full personal and professional details, the names of at least two referees, and quoting the appropriate reference number should reach:

The Chief

CSIRO

Division of Human Nutrition

Kintore Avenue

Adelaide, South Australia 5000

Australia

by 7 September 1979.

## POSITIONS OPEN

**RESEARCH NEUROPHYSIOLOGIST—NEUROPHARMACOLOGIST.** Full-time position begins 1 September. Requires research interests in the autonomic nervous system and experience in CNS and/or PNS recording in awake mammals. Postdoctoral experience essential. Faculty appointment and salary dependent on qualifications. Send curriculum vitae and three letters of reference to: **B. M. Natelson, M.D., Department of Neuroscience, COLLEGE OF MEDICINE AND DENTISTRY OF NEW JERSEY—New Jersey Medical School, 88 Ross Street, East Orange, N.J. 07018. Equal Opportunity/Affirmative Action Employer, M/F.**

**SOIL MICROBIOLOGIST** for multidisciplinary team effort to develop grass/legume pastures for acid soil conditions. Responsibilities include isolation/evaluation of rhizobial strains for promising legume germplasm, development of inoculation technologies, and studies on survival and competitive abilities of introduced rhizobia in acid soils. Ph.D. in microbiology preferred; working knowledge of Spanish desirable. Send applications with references before 15 October to: **Dr. Gustavo A. Norez, Director for Land Resources Research, Centro Internacional de Agricultura Tropical, Apartado Aéreo 6713, Cali, Colombia.**

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

## WILDLIFE ECOLOGY AND MANAGEMENT

Assistant professor, extension and research, 12-month tenure-track appointment. Ph.D. degree, experience with Cooperative Extension Service, and undergraduate teaching preferred. As wildlife extension specialist, responsible for program development and providing information to wide variety of user groups about wildlife management practices. Teaching involves a course in conservation of natural resources or wildlife sciences. Closing date: 15 September 1979. Qualified applicants should send résumé, three letters of recommendations, transcripts, statement of career plans, and so forth to: **Dr. Jay D. Hair, Coordinator, Fisheries and Wildlife Sciences, Department of Zoology, North Carolina State University, Raleigh, N.C. 27650.**

## TRAINING PROGRAMS

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

Postdoctoral traineeships are available, commencing 1 September 1979, 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:

- 1) 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 periodontitis;
- 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, Connecticut 06032

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## TRAINING PROGRAMS

### PREDOCTORAL AND POSTDOCTORAL TRAINING IN EXPERIMENTAL NUTRITION

Postdoctoral training is offered in the following areas under a grant from the National Institute of Arthritis, Metabolism, and Digestive Diseases.

The effects of dietary changes on the growth and metabolism of gut bacteria and their possible significance for the host.

The effects of dietary cholesterol on composition, morphology, and immunological behavior of red cell membranes.

The role of essential fatty acids in the regulation of fatty acid synthesis and lipoprotein metabolism; physical properties and sterol interactions of phospholipids; functions of linolenic acid.

Research training will be for 1 to 3 years and will be supplemented with lectures by faculty and invited speakers. Trainees must be citizens or noncitizen nationals of the United States or be permanent residents and have earned a Ph.D. or M.D. degree to be eligible for a postdoctoral grant. Grants for predoctoral training in the department are also available. To apply or obtain more information write: **Dr. K. J. Carpenter, Department of Nutritional Sciences, University of California, Berkeley, Calif. 94720.**

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## TRAINEESHIP

### POSTDOCTORAL TRAINEESHIP

Postdoctoral position available immediately for Ph.D. or M.D. with an interest in sleep physiology. Research focuses on control of breathing and respiratory disorders during sleep. Salary: NIH stipend level. Send curriculum vitae, along with letters of reference, to: **Dr. John E. Remmers, Department of Internal Medicine, Pulmonary Division, Unit 5-C, John Sealy Hospital, P.O. Box 146, University of Texas Medical Branch, Galveston, Texas 77550. Affirmative Action/Equal Opportunity Employer.**

## FELLOWSHIPS

**FELLOWSHIP.** Broadly based program in pulmonary disease research concerned with lung metabolism, cell function, and mineral dust inhalation. Contact: **J. E. Craighead, M.D., Department of Pathology, University of Vermont, Burlington, Vermont 05405.**

**POSTDOCTORAL FELLOWSHIPS,** The University of Texas Health Science Center, San Antonio, Texas. A number of postdoctoral 2-year training fellowships are available within the Department of Pathology for outstanding graduates of medicine, veterinary medicine, dentistry, and the biological sciences. The overall program relates to basic biological mechanisms involved in the pathogenesis of occlusive vascular disease. Areas of research endeavor include endothelial biohazard, the regulation of endocytosis, hypertension, lipid and lipoprotein metabolism, immunopathology, cardiovascular epidemiology, behavior characterization and modification, genetics, and the biology of aging. Resources include electron microscopy, cell culture, a barometer laboratory, and access to a large nonhuman primate colony. Inquiries to: **Dr. Collin J. Schwartz, Professor of Pathology and Program Director, The University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, Texas 78284. The University of Texas is an Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL RESEARCH FELLOWSHIPS

Fellowships are available for biochemical research on immunologically mediated membrane attack such as that by complement or by lymphoid cells. These positions are open to persons who are U.S. citizens or hold a permanent resident visa. Experience with advanced research techniques for studying biomembrane structure will be helpful. Applicants should submit curriculum vitae, list of publications, and names of references to:

**Dr. Manfred M. Mayer**  
Department of Microbiology  
Johns Hopkins University School of Medicine  
725 North Wolfe Street  
Baltimore, Md. 21205

## FELLOWSHIPS

**POSTDOCTORAL AND GRADUATE FELLOWSHIPS:** Jerusalem, Israel. Research on "long-lasting effects of exposure to drugs during prenatal development of animals on brain biochemistry, morphology, and function (behavior)." The participants may also undergo training in teaching of gross anatomy, in order to improve their chances for future employment. Contact: **Dr. Joseph Yanai, Department of Anatomy and Embryology, The Hebrew University—Hadassah Medical School, Jerusalem, Israel.**

## GRADUATE STUDY

**DEPARTMENT OF PATHOLOGY.** A limited number of stipend-supported positions are available for Ph.D. candidates in pathobiology, histopathology, or experimental pathology. Potential research areas include the use of morphological, cytochemical, cryobiological, and analytical electron microscopic methodology in the study of disease processes and tissue responses to biomaterials and implants. Applicants with advanced training in biology, chemistry, physics, or biomedical engineering are especially encouraged. Contact: **Dr. Harvey Bank or Dr. Myron Spector, Department of Pathology, Medical University of South Carolina, Charleston, S.C. 29403. The Medical University of South Carolina is an Equal Opportunity/Affirmative Action Employer, M/F.**

## CONFERENCE

### 8TH INTERNATIONAL HISTOCOMPATIBILITY WORKSHOP AND CONFERENCE

7, 8, and 9 February 1980  
Bonaventure Hotel, Los Angeles, California

All papers will be selected on the basis of the highest scoring abstracts. The submission deadline is 2 November 1979. Acceptances will be mailed by 30 November 1979. The selected papers will be published in a refereed journal. Registration is \$125 to 10 December 1979, \$150 to 5 February 1980, and \$175 on 6 February 1980. Checks should be made payable to The Regents of the University of California. For information write to: **Dr. Paul I. Terasaki, Department of Surgery, UCLA School of Medicine, 1000 Veteran Avenue, Los Angeles, Calif. 90024.**

## COURSE

### SCANNING ELECTRON MICROSCOPY INSTRUCTIONAL SEMINAR 20 to 24 AUGUST

The course is designed to provide an introduction to **SCANNING ELECTRON MICROSCOPY.** Topics to be covered include: coating techniques, critical point drying, x-ray fluorescence, vacuum techniques, photography, and maintenance. Contact: **B. L. Gabriel, Electron Microscopy Laboratory, Department of Physics, Elmhurst College, 190 Prospect, Elmhurst, Ill. 60126 or telephone: 312-279-4100, extension 413.**

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## ANNOUNCES FOUR SHORT COURSES FOR AUTUMN, 1979

including a new offering on the culture of marine invertebrates. These residential one-week programs emphasize laboratory practice and are intended primarily for scientists who require the techniques and information for their own research.

### **MARICULTURE: Culture of Marine Invertebrates for Research Purposes. October 21-27, 1979**

Offered for the first time, this course is limited to 20 participants. The instruction will include detailed up-to-date review on culture methods, intensive laboratory practice in the technique of marine invertebrate culture, and visits to successful, operating mariculture facilities in the Woods Hole area. The Instructor-in-Chief is Carl J. Berg of Harvard and MBL. Other faculty include Frederik B. Bang of The Johns Hopkins University, Allan Beck of the Environmental Protection Agency, Walter Blogoslawski and Carl Sindermann of the National Marine Fisheries Service, Roger Doyle of Dalhousie University, Judith Grassle of MBL, Robert Guillard, Holger Jannasch, and Nancy Marcus, all of Woods Hole Oceanographic Institution, John Hughes of the Massachusetts Lobster Hatchery, and Robert Hanlon of the University of Texas, Galveston.

### **LIQUID SCINTILLATION COUNTING in BIOLOGY AND MEDICINE October 28-November 2, 1979**

This program, offered for the second year at MBL, is led by Yutaka Kobayashi of New England Nuclear. The course provides theory and practice in the application of liquid scintillation counting and related techniques to biological and medical research. A section on RIA and protein binding assays will be taught by Gerald Litt of New England Nuclear. No more than 16 students will be accepted.

### **OPTICAL MICROSCOPY and PHOTO- MICROGRAPHY in the BIOLOGICAL SCIENCES**

**December 2-7, 1979**

Limited to 16 participants who will have access to a wide array of modern microscopical and photographic equipment, this course will be offered for the third time at MBL by a faculty led by Robert Day Allen of Dartmouth College. Other instructors include Shinya Inoué of MBL and Nina Allen of Dartmouth.

### **QUANTITATIVE ANALYSIS of ELECTRON MICROGRAPHS—Stereology, Morpho- metry, Optical Diffraction, and Three- Dimensional Reconstruction December 9-14, 1979**

Lee Peachey of the University of Pennsylvania is Instructor-in-Chief of this course offered for the third time. Associated Instructors are Brenda Eisenberg of Rush College of Health Sciences and John Haselgrove of University of Pennsylvania. Attendance is limited to 20 students.

ADDITIONAL INFORMATION on course content and application materials may be obtained from the Admissions Office, Marine Biological Laboratory, Woods Hole, Massachusetts 02543; telephone 617-548-3705.



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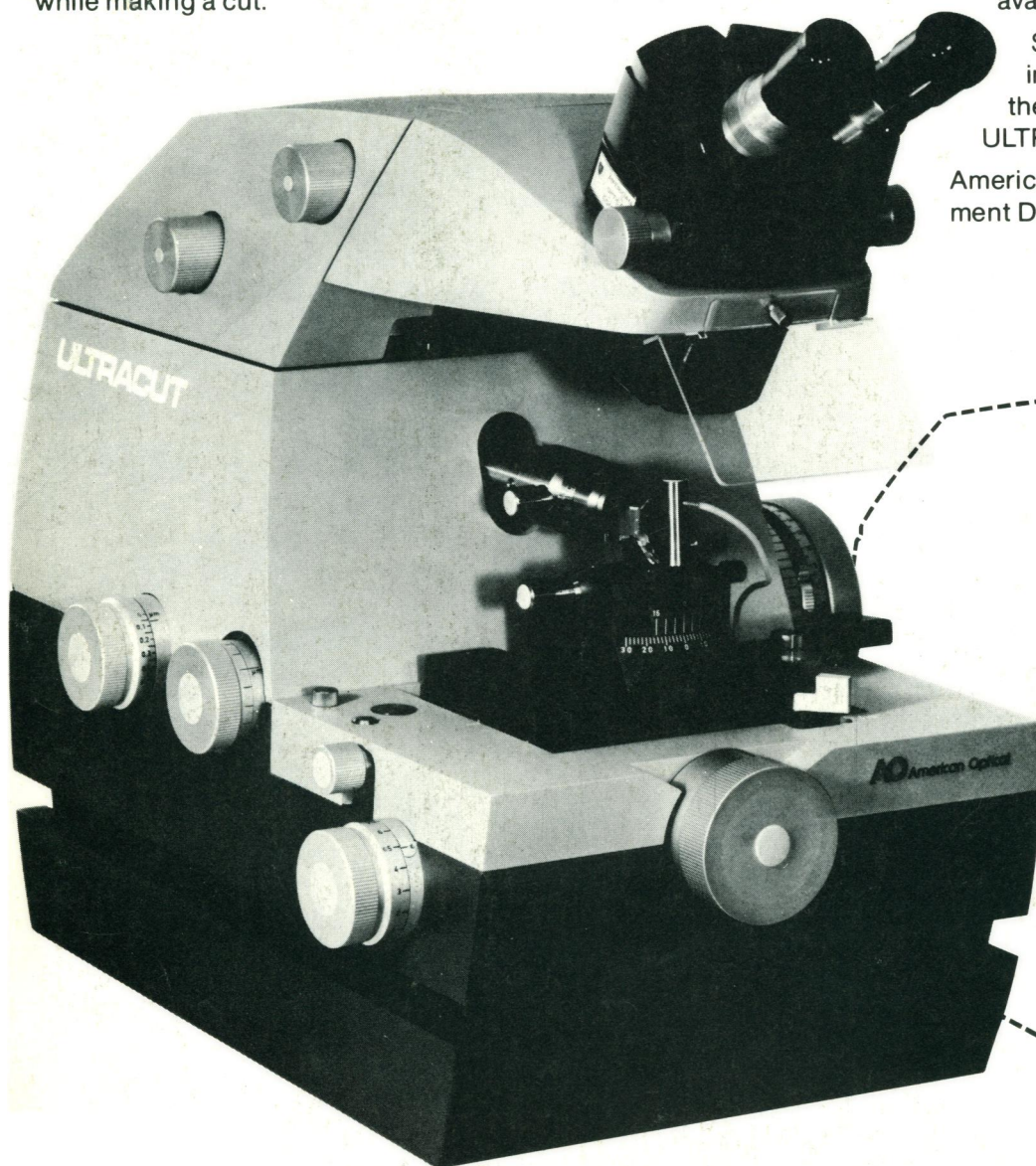
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