

# Personnel Placement

## POSITIONS WANTED

**Air Quality Scientist.** Ph.D. 1975. Experience: systems/policy analysis, dispersion modeling, transportation planning, assessment of health effects. Regulatory experience. Good quantitative/computer skills. Publications. Box 196, SCIENCE. X

**Biophysical Chemist.** MIT Ph.D. in statistical mechanics, 1973. Nearly 4 years of postdoctoral training in protein supramolecular structures. Publications. Desires interesting research position in academia, government, or industry. Box 198, SCIENCE. X

**Chemist/Pharmacologist.** Ph.D. Seeks challenging position in government or industry. Experience: pharmacokinetics, metabolism, toxicity of drugs, pesticides and toxic substances, proteins, immunology, cancer, radioisotope. EPA, FDA, NIOSH regulations, contract research. Administration. Publications. Available immediately. Box 107, SCIENCE. 5/6,20

**Cytogeneticist.** Ph.D. Eight years of experience in mammalian cytogenetics, tissue culture, and cancer research. Several publications. Undergraduate and medical school teaching experience. Desires position in service laboratory, education, or research. Telephone: 503-645-1141, extension 276. Box 200, SCIENCE. X

**Marine Ecologist.** Ph.D. Applied disposition. Research, management, teaching experience. Seeks career position in teaching and/or research, university or industry. Diverse background and interest. Box 199, SCIENCE. X

**Quantitative Ecologist-Wildlife Biologist.** Recent Ph.D. desires university teaching/research position. Background in ecology, wildlife, population dynamics, experimental design and analysis, sampling techniques, multivariate methods, computer programming. Box 194, SCIENCE. X

**Radiation Biologist/Tumor Biologist.** Ph.D. radiobiology, postdoctoral training in tumor biology. Research interests: cytokinetics of normal and neoplastic tissues, application of cytokinetics to improve radiotherapy and chemotherapy of cancer, general radiobiology. Currently developing methods to apply flow cytometry to the study of solid tumor cytokinetics. Teaching and publications. Seeks teaching/research position. Box 201, SCIENCE. 5/6,13

**Research Scientist.** Ph.D.: immuno-enzymologist. Publications: cell-membrane and tumor-associated antigens, carcinogenesis, enzymology of cell transformation, membrane glycoproteins, humoral and cellular immunity. Experience: industrial and academic research. Patents. Seeks a permanent senior position in industry or academia with teaching. Box 197, SCIENCE. X

## POSITIONS OPEN

The University of Geneva seeks candidates for a vacant **CHAIR IN ORGANIC CHEMISTRY** at the associate professor level in the Department of Organic Chemistry for 1 January 1978.

Candidates are invited to send copies of their résumés to the

**Faculté des Sciences  
quai Ernest-Ansermet 20  
1211 Genève 4, Switzerland**  
before 15 June 1977.

## POSITIONS OPEN

The Department of Neurology, University of California, Los Angeles, School of Medicine, San Fernando Valley Medical Program, is seeking applicants for the following full-time **ACADEMIC POSITIONS**. Fellow or assistant professor level for **neurologist** with research interest in epilepsy. **Post-doctoral fellow in neurochemistry** with major emphasis on cyclic nucleotides (Ph.D.). Applicants are requested to submit a curriculum vitae and reprints to **Claude G. Wasterlain, M.D., Head, Neurology Division, Veterans Administration Hospital, Sepulveda, Calif. 91343. UCLA is an Equal Opportunity/Affirmative Action Employer and is desirous of receiving applications from minority and women candidates as well as other qualified persons.**

### ASSISTANT DEAN/STUDENT AFFAIRS DIRECTOR OF CLINICAL MEDICAL EDUCATION DIRECTOR OF CONTINUING MEDICAL EDUCATION

East Tennessee State University invites applications from, and nominations of, qualified individuals for the positions of assistant dean/student affairs, director of clinical medical education, and director of continuing medical education of its developing College of Medicine which is being established in affiliation with the Mountain Home Veterans Administration Hospital and three community hospitals in eastern Tennessee. Letters of application or nomination for these immediate openings should include a curriculum vitae and three personal and professional references.

Candidates should possess a doctoral degree and have skills commensurate with the positions for which they are applying. Previous medical school experience in these or related positions is essential.

Responsibilities will include the planning and development of new programs in addition to assisting the dean, his staff, and the faculty in the overall development of the college.

Correspondence should be received not later than 31 May 1977 and should be addressed to:

**Dr. Jack E. Mobley, Dean  
East Tennessee State University  
College of Medicine  
Johnson City, Tennessee 37601**

*East Tennessee State University offers Equal Opportunity in its employment, admissions, and educational activities and is an Affirmative Action Employer.*

**VISITING ASSISTANT PROFESSOR.** Undergraduate position to teach plant physiology, molecular and cell biology, plus one in area of interest. Ph.D. and research experience necessary. Submit curriculum vitae and names of three references to: **Dr. John I. Green, Chairman, Department of Biology, St. Lawrence University, Canton, New York 13617. An Equal Opportunity Employer. Begins 1 September 1977.**

### ASSISTANT PROFESSOR UNIVERSITY OF CALIFORNIA, DAVIS

The 11-month faculty positions listed below have responsibilities for teaching in the College of Agricultural and Environmental Sciences and for research in the Agricultural Experiment Station, and are to be filled during the 1977-78 academic year. A Ph.D. in an appropriate field and a demonstrable capability for research is required. Curriculum vitae should be sent to the **Dean, College of Agricultural and Environmental Sciences, University of California, Davis, California 95616**, by date indicated to ensure consideration. General inquiries may also be made at this address.

Title/Department	Closing Date
<b>Plant Physiologist, Weed Scientist,</b> Department of Agricultural Botany	1 November 1977
<b>Aquacultural Engineer,</b> Department of Agricultural Engineering	31 July 1977
<b>Genetics/Plant Breeding,</b> Department of Vegetable Crops	31 July 1977
<b>Abiotic Disease/Stress Physiology,</b> Department of Plant Pathology	15 June 1977
<b>Chemical Engineer-Distillation,</b> Department of Viticulture and Enology	1 October 1977
<b>Insect Pest Management/Systems Analysis,</b> Department of Entomology	1 September 1977

## POSITIONS OPEN

**ASSISTANT PROFESSOR.** Applications are invited for a faculty position at the assistant professor level to become available 1 July 1977. Candidates with a demonstrated interest in membrane transport and biophysics are desired. Duties will include responsibility for teaching renal physiology in core courses of the department. 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 June 1977. *An Equal Opportunity Employer. Women and minorities are encouraged to apply.*

**ASSISTANT PROFESSOR** to teach undergraduate courses in wood anatomy/identification and dendrology and graduate course in wood quality. Plan and carry forward research in general area of wood quality, including the effects of silvicultural and genetic manipulation of wood properties. Guide graduate students. Ph.D. degree completed or nearly completed. *Applicant's qualifications will be considered without regard to race or sex. Women and minorities are urged to apply.* Applications will be received until 1 July 1977. Write **Donald G. Arganbright, Search Committee, Forest Products Laboratory, University of California, 47th Street and Hoffman Boulevard, Richmond, Calif. 94804.**

**ASSISTANT OR ASSOCIATE PROFESSOR** position—salary negotiable. Doctoral degree and computer science training required. Direct and supervise Information Processing Section within clinical laboratories which includes computer and communications service, quality control, blood drawing, and specimen distribution. Will coordinate various laboratory functions, consult with physicians, teach, do research. For more information or formal application write to **George Brecher, M.D., Department of Laboratory Medicine, University of California, San Francisco, 1378 Third Avenue, San Francisco, Calif. 94143. An Equal Opportunity/Affirmative Action Employer.**

**ASSISTANT PROFESSOR OF BIOLOGY.** Teaching responsibilities include comparative anatomy, general and advanced physiology; participation in introductory biology courses. Ph.D. required and background in at least one of the following: behavior, population biology, or developmental biology. Active research encouraged. Applicants send résumé and letters of reference by 20 May 1977 to: **Chairman, Department of Biology, Beaver College, Glenside, Pa. 19038. An Equal Opportunity Employer.**

**BIOLOGY—Assistant or Associate Professor,** for appointment in September 1977. Applicants must have the Ph.D. degree, a strong commitment to both research and teaching, and should be professionally interested in developmental physiology, vertebrate or invertebrate. Interested prospects should send a curriculum vitae, transcripts, and other supporting material to: **Dr. Gary L. Anderson, Chairman of Search Committee, School of Biology, Georgia Institute of Technology, Atlanta, Georgia 30332. The Georgia Institute of Technology is an Equal Opportunity/Affirmative Action Employer.**

### UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE

**Assistant professor of pathology.** Responsible for assisting the teaching activities of the Section of the Pathology Academic Programs, upgrading of class teaching sets, compilation of syllabi, and development of innovative teaching modalities. Research and electron microscopic work; diagnostic electron microscopic experience desired. **Instructor-pathology.** Examination, interpretation, and diagnosis of hematologic material, blood smears, bone marrow material, and lymph nodes. Advisory capacity in Hematology Laboratory of Clinical Laboratories. Assist in teaching of medical students and medical technology students. Regular rotation on necropsy, cytology, hematology, blood bank, and surgical pathology services. **Assistant professor of pharmacology.** Will be expected to participate in academic programs for medical, dental, allied health, and graduate students, as well as to develop externally fundable, independent research programs with opportunity for research collaboration with other faculty. Will serve the university as needed by accepting committee assignments or by participating in continuing education. Applicants should send curriculum vitae to: **Dr. Thomas N. Lynn, Dean, College of Medicine, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Oklahoma 73190.**

## POSITIONS OPEN

**ASSISTANT PROFESSOR IN BIOLOGY** for fall 1977. The 16-member department offers B.A., B.S., and M.A. degrees in biology and B.S. in medical technology. Candidates should have a Ph.D. degree and a broad-based biology background. Specific strengths in developmental and/or human biology are desirable. Applications, including curriculum vitae, official transcripts, and three letters of recommendation, should be sent before 27 May to: **Chairman, Department of Biology, State University of New York College of Arts and Science at Geneseo, Geneseo, N.Y. 14454. Equal Opportunity/Affirmative Action Employer.**

The Department of Mathematics, Texas A & M University, College Station, Texas 77843 is accepting applications for associate professorships from mathematicians with at least 6 years of professional experience since the Ph.D. Qualifications include distinction in actuarial science (including fellowship in a major actuarial society) or in analysis. *Texas A & M University is an Equal Opportunity/Affirmative Action Employer.*

### ASSOCIATE PROFESSOR IN PSYCHOLOGY Massachusetts Institute of Technology (MIT) Department of Psychology 79 Amherst Street, Cambridge, Mass. 02139

The activities of the MIT Department of Psychology may be divided into three areas: brain and behavior, experimental psychology, and cognitive psychology. We are currently seeking an individual to guide theoretical rather than experimental studies in these areas. Specifically we seek someone with a strong mathematics background who can devise computational algorithms applicable to understanding information processing by the mammalian brain. Because a large portion of the research effort of our department is devoted to the visual system, knowledge of vision and experience with visual graphics is desirable.

Résumés and other relevant information should be sent by 1 June 1977 to **Professor Whitman Richards, Chairman of Search Committee, Massachusetts Institute of Technology, 79 Amherst Street, Cambridge, Massachusetts 02129.**

*MIT is an Equal Opportunity Employer.*

**BIOCHEMICAL PHARMACOLOGIST.** A full-time position is available in a medical research institute associated with a teaching hospital. This is a junior position equivalent to the assistant professor level. Ph.D. and at least 2 years of postdoctoral training are essential. Will be expected to develop an independent research program; a minor interest in clinical pharmacology would be an asset. Send curriculum vitae and short description of research interests to **Director, Lady Davis Institute for Medical Research, 3755 Cote Ste. Catherine Road, Montreal, Quebec H3T 1E2 Canada.**

**BIOINORGANIC POSTDOCTORAL.** A 1-year appointment is available starting 1 September 1977; second year optional. The research is on the structure and function of tunicate vanadium-containing blood cells, a joint Brandeis/New England Aquarium project. Interested persons should send a résumé and names of three references to:

**Professor Kenneth Kustin  
Department of Chemistry  
Brandeis University  
Waltham, Mass. 02154**

*An Equal Opportunity/Affirmative Action Employer*

**BIOLOGICAL SCIENCES:** Position open September 1977. **Geneticist**, Ph.D. to teach elementary and advanced courses. Microbial geneticists preferred. Research encouraged. Rank: assistant professor or associate professor. Send résumé to **Dr. Ann Bond, Chairman, Department of Biological Sciences, Chicago State University, 95th and King Drive, Chicago, Ill. 60628.**

*Affirmative Action Employer*

### BIOLOGY

Division of Natural Science anticipates faculty opening available 1 September 1977. Principal teaching responsibility includes introductory biology and microbiology. Candidates should have a completed Ph.D. degree. Send curriculum vitae and three letters of reference by 31 May 1977 to: **Dr. Robert E. Burnett, Natural Sciences, Franklin Pierce College, Rindge, New Hampshire 03461.**

*Equal Opportunity Employer*

## POSITIONS OPEN

### UNIVERSITY OF TORONTO BIOMEDICAL ENGINEERING

The Institute of Biomedical Engineering invites applications for the position of **DIRECTOR** of the Biomedical Instrumentation Development Unit. The individual would be responsible for the direction of a small staff collaborating with industry, hospitals, and research establishments for the purpose of developing instrumentation that can be produced and marketed. The Biomedical Instrumentation Development Unit is a part of the Institute of Biomedical Engineering, and is funded primarily by the Federal Department of Industry, Trade, and Commerce. Applicants should have a higher degree, experience in biomedical instrumentation and preferably some industrial experience. They should possess initiative and a keen desire to contribute to the development of the Canadian biomedical engineering industry.

The position will also carry an appointment of academic rank, up to the level of associate professor in the Institute as well as in an associated department of the university. Salary to be commensurate with qualifications, in the range of \$25,000 plus.

Letters of application and curriculum vitae to:

**Dr. R. S. C. Cobbold  
Director  
Institute of Biomedical Engineering  
University of Toronto  
Toronto, Canada M5S 1A4**

**CELL PHYSIOLOGIST.** A position at the assistant professor level is available immediately. Applicants should hold the Ph.D., D.V.M., M.D., or equivalent degree. Teaching is in cellular and comparative physiology (graduate) and/or cell physiology and metabolism (veterinary medicine). Preference will be given to person with interest in biophysical aspects of cell physiology. An active and independent research program is expected and encouraged. Applicants should send a curriculum vitae, including names and addresses of three referees, to: **Dr. David Jennings, Chairman, Search Committee, Department of Physiological Sciences, Oklahoma State University, Stillwater, Oklahoma 74074. Oklahoma State is an Affirmative Action/Equal Opportunity Employer Institution.**

### CHAIRMAN, DEPARTMENT OF ANATOMY

Louisiana State University Medical Center, School of Medicine in Shreveport, invites applications for the position of chairman of the Department of Anatomy. Undergraduate courses are provided for programs in medicine. Graduate programs at M.Sc. and Ph.D. levels are offered. Active research program. Application deadline: 3 June 1977. Reply to:

**R. Don Brown, Ph.D.  
Chairman, Search Committee for Anatomy  
P.O. Box 33932  
Shreveport, La. 71130**

*An Equal Opportunity Employer*

### CHAIRPERSONS OF OBSTETRICS/ GYNECOLOGY AND PSYCHIATRY

East Tennessee State University invites applications from, and nominations of, qualified individuals for the positions of chairperson of obstetrics/gynecology and chairperson of psychiatry of its developing College of Medicine which is being established in affiliation with the Mountain Home Veterans Administration Hospital and three community hospitals in eastern Tennessee. Letters of application or nomination for these immediate openings should include a curriculum vitae and three personal and professional references.

Candidates should possess an M.D. degree and have skills commensurate with the positions for which they are applying. Previous medical school experience at or near the chairperson's level in these or related departments is essential.

Responsibilities will include the planning and development of new departments in addition to assisting the dean, his staff, and the faculty in the overall development of the college.

Correspondence should be received not later than 15 June 1977, and should be addressed to:

**Dr. Jack E. Mobley, Dean  
East Tennessee State University  
College of Medicine  
Johnson City, Tennessee 37601**

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## POSITIONS OPEN

### CELL BIOLOGIST/ELECTRON MICROSCOPIST

Postdoctoral position available for cell biologist interested in the interaction of blood platelets and the blood vessel wall. The experiments will involve normal and von Willebrand pigs. Candidates should send a curriculum vitae, bibliography, and names of three references to **Dr. E. J. W. Bowie, Section of Hematology Research, Mayo Clinic, Rochester, Minnesota 55901.**

**CELL TISSUE CULTURE TECHNICIAN**—Challenging opportunity in cancer research for an individual experienced in the culturing of diploid mammalian cells. B.S. or M.S. with 3 to 4 years of experience in the field required. Salary commensurate with experience. Please send résumé to **Richard Silber, Personnel Department, CHILDREN'S HOSPITAL MEDICAL CENTER, 300 Longwood Avenue, Boston, Mass. 02115. An Affirmative Action/Equal Opportunity Employer.**

### DEAN, SCHOOL OF BASIC MEDICAL SCIENCES UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE

Nominations and applications are invited for the position of dean of the School of Basic Medical Sciences. The school consists of 120 faculty members, located in five basic science departments, plus a genetics center. The school carries instructional responsibilities for medical, dental, pharmacy, nursing, and other health science students. All departments have active research and graduate degree programs.

Desired qualifications: doctoral level training (M.D. and/or Ph.D.), a significant record in research and professional activity, and experience in academic administration.

Send nominations and applications to:

**Dr. Edmund G. Anderson, Chairman  
Dean, Search Committee  
Department of Pharmacology  
University of Illinois College of Medicine  
P.O. Box 6998  
Chicago, Illinois 60680**

*An Equal Opportunity/Affirmative Action Employer*

**ENVIRONMENTAL SCIENCE FACULTY POSITION** for Ph.D., available fall 1977. Assistant professor, half-time instruction and half-time research. Instructional duties include class instruction and individual student direction. Research duties include project development and individual and team research. Desirable experience includes college teaching, research on environmental problems, governmental or industrial employment in an environmental capacity; experience with environmental impact statements. Applicants should send a curriculum vitae and names of three references by 15 May to **George W. Hinman, Director, Environmental Research Center, Washington State University, Pullman, Washington 99164. An Equal Opportunity/Affirmative Action Employer.**

### WRIGHT STATE UNIVERSITY SCHOOL OF MEDICINE DAYTON, OHIO FACULTY POSITIONS

The Wright State University School of Medicine is seeking nominations and applications for faculty positions in basic medical sciences and clinical medical disciplines. Whenever possible, joint appointments are encouraged with the University's College of Science and Engineering and/or cooperating hospitals. The school, which admitted its first class in 1976, has a commitment to excellence in primary care. This is reflected in its educational, research, and patient care programs which are currently operational.

Faculty rank will be based on qualifications and experience; opportunities for administrative activities at the departmental and dean's staff level also exist. The successful candidate must have a terminal degree appropriate to the discipline. Relevant experience in a medical school environment is preferred. A commitment to the school's goals is essential. Board-certification and eligibility for an Ohio Medical License for clinical faculty are required. Nominations or letters of application (including curriculum vitae and names of three references) should be sent to **Robert E. Jewett, M.D., Associate Dean for Academic Affairs, Wright State University School of Medicine, Box 927, Dayton, Ohio 45401.**

*An Equal Opportunity/Affirmative Action Employer*

## POSITIONS OPEN

The Department of Radiological Sciences at the University of California, Irvine, College of Medicine, invites applications at assistant professorial level for the position of **CO-CHIEF OF THE DIVISION OF GASTROINTESTINAL RADIOLOGY**.

Applicants should be Board-certified (or equivalent) radiologists with special training in gastrointestinal radiology. Preference will be given to candidates with training in radiological research.

In addition to the clinical service the successful applicant will be responsible for the academic aspects of gastrointestinal radiology and will be expected to develop a strong research program and to take a vigorous part in resident training. The division sees a large volume of excellent case material and outstanding research facilities in support are available. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Applications, including a biography and copies of any publications should be sent to:

**Eric N. C. Milne, M.B., Ch.B., F.F.R.**  
Professor and Chairman  
Department of Radiological Sciences  
University of California, Irvine  
College of Medicine  
Irvine, California 92717

Closing date: 31 May 1977.

The Department of Radiological Sciences at the University of California, Irvine, College of Medicine, invites applications at assistant professor level for a **PHYSICIST or ENGINEER** to join the newly developed **MEDICAL IMAGING TEAM**. Candidates must possess a Ph.D. degree in physics or engineering and have experience in medical imaging research in the field of diagnostic radiology. They must be able to supply evidence of original and innovative research in the above field. The successful candidate, in addition to developing a strong research program, supervising graduate students, and teaching in the graduate program in radiological sciences will have hospital responsibilities in the Division of Diagnostic Radiology. It should be emphasized that only candidates with extensive experience in medical imaging will be considered for this position. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Applications, which must include a short biography and copies of any publications, should be sent to:

**Eric N. C. Milne, M.B., Ch.B., F.F.R.**  
Professor and Chairman  
Department of Radiological Sciences  
University of California, Irvine  
College of Medicine  
Irvine, California 92717

Closing date: 31 May 1977.

**CURATOR OF BIRDS AND MAMMALS**—Applications are invited for this position at the San Diego Natural History Museum. Duties include development of an active research program in ornithology, supervising research collections of birds and mammals, and participation in exhibit and educational programs. Ph.D. and experience with systematic collections required. Send résumé and names of three references by 15 June 1977 to: **Dr. Thomas Fritts, Museum of Natural History, P.O. Box 1390, San Diego, Calif. 92112.** *An Equal Opportunity/Affirmative Action Employer.*

**DEAN OF GRADUATE STUDIES AND RESEARCH.** Applications are invited for the above position to be filled by September 1977. Dean is responsible for 29 master's level and certification programs, Office of Sponsored Research, Continuing Education, and Summer Session. Salary is open. Send résumé, including names and addresses of five references and salary expectations, by 16 May to: **Dr. Robert Sweeney, Great Lakes Laboratory, State University College at Buffalo, Buffalo, N.Y. 14222.** *An Equal Opportunity/Affirmative Action Employer*

**ENVIRONMENTALIST-BIOLOGIST**, actively involved in quantitative ecological research. Teaching responsibilities in undergraduate ecology and/or genetics and in master's level environmental science. Rank: assistant or associate professor; salary \$14,680 to \$19,280. Starting date: 1 September 1977. Applicants should submit a résumé, a description of current research, and representative recent publications to: **Professor Albert K. Levine, Chairperson, Search Committee, THE COLLEGE OF STATEN ISLAND/City University of New York, 130 Stuyvesant Place, Staten Island, New York 10301.**

*Equal Opportunity/Affirmative Action Employer*

## POSITIONS OPEN

**GASTROINTESTINAL PHYSIOLOGIST.** Seeking Ph.D. physiologist for Radiology Research Laboratory. Experience with animal surgery, motility studies, blood flow measurements, and secretion desirable. Joint appointment in physiology with teaching obligation. Opportunity for personal research. Hard money available for salary. Submit curriculum vitae to: **Dr. S. Siegelman, Department of Radiology, Johns Hopkins Hospital, 601 North Broadway, Baltimore, Maryland 21205.** *Equal Opportunity/Affirmative Action Employer.*

### HEAD OF HORTICULTURAL SCIENCE

Applications or nominations are solicited for the position of head of the Department of Horticultural Science, North Carolina State University. Résumés should be sent to **P.O. Box 5907, Raleigh, N.C. 27607.**

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

### THE UNIVERSITY OF MICHIGAN Department of Psychiatry Instructor or Assistant Professor

Instructor or assistant professor of psychiatry position available. Qualifications should include a documented interest in consultation-liaison psychiatry as well as teaching and researching experience in this area. Fifty percent time will be allocated to the Department of Medicine Primary Care Program; the remaining 50 percent will be allocated to the general consultation-liaison program. Send résumé to: **Box 202, SCIENCE.** Code 2800HO. *A Nondiscriminatory, Affirmative Action Employer.*

### UNIVERSITY OF MICHIGAN Instructor—Professor

Twenty faculty positions at the instructor through professor level in the Department of Internal Medicine, University of Michigan Medical Center, and affiliated hospitals. Send résumé to **Box 203, SCIENCE.** *An Affirmative Action, Nondiscriminatory Employer.*

### UNIVERSITY OF MICHIGAN Instructor

Completed residency in general surgery and evidence an interest in an academic surgical career. Candidates must possess the ability to instruct and advise doctors in residency program. The applicant must also evidence an interest in emergency medical care and surgery of trauma. Send résumé to: **Box 204, SCIENCE.** *An Affirmative Action Nondiscriminatory Employer.*

**INSTRUCTOR OR ASSISTANT PROFESSOR OF BIOLOGY/CHEMISTRY.** Responsibilities include teaching general biology, microbiology for health-science students, and chemistry for health-science and liberal arts students. Applicant should have the equivalent of a bachelor's degree in chemistry or equivalent experience. Applicant should have a master's degree in a biological science (Ph.D. with appropriate training will be considered). Salary and rank is dependent on education, training, and experience. Application deadline is 20 May. Employment date is 1 September 1977. Direct inquiries to **Dr. O. C. Lam, Clayton Junior College, Morrow, Georgia 30260; telephone 404-363-7753.** *Clayton Junior College, an institution of the University System of Georgia serving south metropolitan Atlanta, is an Affirmative Action/Equal Employment and Educational Opportunity Institution.*

### LIMNOLOGIST

A new position exists for a limnologist at the University of Maryland's Center for Environmental and Estuarine Studies, Appalachian Environmental Laboratory. The Appalachian Environmental Laboratory is located on the campus of Frostburg State College in western Maryland. A Ph.D. degree is required. Knowledge of water chemistry techniques, procedures, and interpretations is especially desirable. The candidate should also possess taxonomic expertise in phytoplankton, zooplankton, or macro-invertebrates. Duties will include research supervision of graduate and undergraduate levels. Teaching will include courses in limnology and aquatic ecology. The position is tenure track. Salary negotiable. Closing date for receiving applications is 15 May 1977. Send résumé and three letters of recommendation to **Dr. Dan M. Harman, Chairman, Search Committee, University of Maryland, Center for Environmental and Estuarine Studies, Appalachian Environmental Laboratory, Frostburg State College Campus, Gunter Hall, Frostburg, Maryland 21532.**

The Department of Radiological Sciences at the University of California, College of Medicine, Irvine, invites applications at associate or full professorial level for the post of **CHIEF OF DIAGNOSTIC RADIOLOGY** at the University of California, Irvine, Medical Center.

Candidates must be Board-certified (or equivalent) radiologists with extensive experience in clinical radiology and a demonstrated ability to administer an academic clinical department. This position is supported by a business manager, a technical services manager, and five administrative assistants. A new department of radiology is to be built and is presently at an advanced planning stage. The successful candidate, in addition to taking full charge of the clinical diagnostic radiological service in the present department, would be expected to take a vigorous part in the planning processes, selection of equipment, and recruitment of new faculty.

The radiology residency training program at the University of California, Irvine, is completely integrated with the Long Beach Veterans Administration Hospital and Long Beach Memorial Hospital and there are now 37 residents in the program. The new chief would take a major role in residency training and be expected to develop his/her own personal research program. Outstanding facilities for research exist, including a developing Medical Imaging and Biophysics Center and an on-going graduate program in radiological sciences. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Applications including a biography and copies of any publications should be sent to:

**Eric N. C. Milne, M.B., Ch.B., F.F.R.**  
Professor and Chairman  
Department of Radiological Sciences  
University of California, Irvine  
College of Medicine  
Irvine, California 92717

Closing date: 31 May 1977.

## TOXICOLOGY SUPERVISOR

PhD. Life Scientist with one to two years experience in acute, sub-acute and chronic toxicology with experience in inhalation toxicology needed to fill an important position in a dynamic and growing contract research organization in New Iberia, LA. Starting salary commensurate with education and experience. Excellent fringe benefits include generous vacation, sick leave and relocation provisions, group life, hospitalization and major medical insurance and retirement program. Send resume to **Personnel Manager, Gulf South Research Institute, 7700 GSRI Avenue, Baton Rouge, LA 70808**

*Equal Opportunity Employer*

## POSITIONS OPEN

### KNOWLEDGE UTILIZATION

Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, University of Michigan, anticipates potential openings for an **assistant or associate research scientist** in research on theory and practice of knowledge dissemination and use in various areas: organizational development, human resources accounting and development, program evaluation, public policy, technology transfer, education, health, information systems, and so forth. Independently or in collaboration will: secure funding grants, conduct research, develop applications, link with clients. Ph.D. related to one of the above areas: either recent or with several years of relevant experience. Send interests and curriculum vitae to: **Dr. Donald C. Pelz, Director, Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, P.O. Box 1248, The University of Michigan, Ann Arbor, Mich. 48106. A Nondiscriminatory, Affirmative Action Employer.**

**MICROBIOLOGIST**—Project HOPE seeks M.D. or Ph.D. microbiologist for Pathology Department of large teaching hospital in Barbados. Responsible for microbiology and public health laboratory sections, training of medical students, and in-service education. Teaching and supervisory experience necessary. Twelve-month assignment. Salary commensurate with experience; full benefits and paid relocation expenses provided. Send résumé to **Personnel Department, Project HOPE, 2233 Wisconsin Avenue, NW, Washington, D.C. 20007. Equal Opportunity Employer.**

Applications are invited for a **NEUROBIOLOGIST** in the Department of Biology, University of California, San Diego, interested in using neural cultures for morphological or biochemical studies. Good background is required in at least one of the following: neurocytology, neurochemistry, neurodevelopment, general cell culture, membrane biology. Position is for up to 3 years, and will be renewable depending on granting situation. Salary is \$11,316 per year for postgraduate research biologist position, and \$16,600 per year for assistant research biologist position. The latter involves assuming substantial responsibilities within the research group and planning for a longer range collaboration. Send résumé and three letters of recommendation to **Marilee R. Bateman, Department of Biology, M-001, University of California, San Diego, La Jolla, California 92093. The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

### NEUROPSYCHOLOGIST—DIRECTOR

A senior position in clinical and academic neuropsychology is available in the Department of Neurology, Wayne State University, Detroit. The appointment comes with a directorship of an already ongoing laboratory. Candidates must be interested in clinical evaluation, teaching, and research in human neuropsychology. Interested individuals should send a curriculum vitae to: **John Gilroy, M.D., Professor and Chairman, Wayne State University, Neurology Department, 3990 John R., Detroit, Mich. 48201.**

**PHOTOCHEMIST—PHOTOBIOLOGIST** research position in Dermatology Department. Ph.D. in photochemistry and 2 years of postdoctoral experience in dermatological photobiology required. Curriculum vitae and letters of reference of extreme importance in evaluating candidates. Send résumé to: **Dr. L. C. Harber, Chairman, Department of Dermatology, Columbia University, 630 West 168th Street, New York 10032.**

The **PHYSICS DEPARTMENT** of the University of California, Berkeley, expects during the next 2 years to be making **one or two appointments** at the assistant professor level. Preferred areas of research are astrophysics, atomic and plasma physics, condensed matter physics, nuclear physics, and particle physics.

Applicants should write before 1 July 1977 to the: **Chairman of the Physics Department, University of California, Berkeley, Calif. 94720**, giving curriculum vitae, publication list, and references. *The University of California is an Affirmative Action Employer. Minority and women candidates are encouraged to apply.*

## POSITIONS OPEN

### UNIVERSITY OF CALIFORNIA SAN FRANCISCO NEUROANATOMIST—NEUROPHYSIOLOGIST

The Department of Otolaryngology invites applications for an assistant professorship. We are seeking an individual with training and experience (or demonstrated interest) in neuroanatomical studies of the auditory nervous system. Responsibilities include teaching professional and graduate courses at the University of California. Send résumé, copies of your most significant publications, and three letters of recommendation to: **Dr. Michael M. Merzenich, Director, Coleman Laboratory, 863-HSE, University of California, San Francisco, San Francisco, Calif. 94143**, prior to 20 May 1977. *The university is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

**PHYSIOLOGIST:** Tenure track appointment in biology at the assistant or associate professor level for a broadly trained physiologist with a strong emphasis on integrated human physiology. Primary teaching responsibilities for physiology at the junior level for biology, medical technology, and nursing students. Development of advanced courses expected. Ph.D. and teaching experience required. Send application to **Dr. William W. Martz, Chairman, Recruitment Committee, Sangamon State University, Springfield, Ill. 62708. Affirmative Action/Equal Opportunity Employer.**

### POSTDOCTORAL FELLOW

Chemical Synthesis and Analysis Section needs recent Ph.D. to work within an organic synthesis group to synthesize polycyclic aromatic hydrocarbon metabolites. Applicant should be knowledgeable in organic synthesis and various types of chromatography with experience in quinone chemistry helpful, but not essential.

Qualified candidates should submit résumés to:

**M. L. Knill—Recruitment  
Position No. 630  
FREDERICK CANCER RESEARCH CENTER  
Litton Bionetics, Inc.  
P.O. Box B  
Frederick, Maryland 21701  
An Equal Opportunity Employer, M/F**

Seeking two **POSTDOCTORAL INDIVIDUALS** with training in molecular biology (hybridization, ultracentrifugation, restriction enzymes, DNA and RNA sequencing, DNA cloning, DNA fiber autoradiography, E.M. heteroduplex mapping) for research on (i) bovine satellite DNA, and (ii) evolution of ribosomal RNA. Yearly salary of \$10,000 plus fringe benefits. State when available and send résumé plus three letters of recommendation to: **Dr. Susan Gerbi, Box G, Brown University Biomedical Division, Providence, R.I. 02912. An Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** in a challenging program involving studies of the mechanism of the amine-assisted degradation of sugars, related interactions, and dehydrations. Available 1 July 1977. For information contact **Milton S. Feather, Department of Biochemistry, 322 Chemistry Building, University of Missouri, Columbia, Missouri 65201.**

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**POSTDOCTORAL POSITION:** available July 1977 for Ph.D., M.D., or M.E. who has experience in immunochemistry, synthetic chemistry, and separation techniques. To work on enzyme-linked immunoassays and physiological studies of nicotine. Salary: \$10,000. Send curriculum vitae and two reference letters to **Dr. Albert Castro, Department of Pathology, University of Miami School of Medicine, Miami, Florida 33152.**

*An Equal Opportunity Employer*

**POSTDOCTORAL POSITION,** available immediately, to work on the molecular biology of double-stranded RNA containing virus-like particles of yeast. Experience in sequencing, in vitro protein synthesis, or viral immunology desirable. Salary: \$12,000 with fringe benefits. Send curriculum vitae with three letters of reference to **Dr. Jeremy Bruenn, Division of Cell and Molecular Biology, State University of New York at Buffalo, Buffalo, N.Y. 14214. An Equal Opportunity Employer.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION.** Ongoing study of cell-mediated immunity in human renal and cardiac transplant patients. Studies focused on immunological monitoring of lymphocyte subpopulations, T & K cell cytotoxicity and serum blocking factors. Salary range: \$10,000 to \$13,000, depending on qualifications; 2- to 3-year position available. Send curriculum vitae to **Dr. J. Thomas, Medical College of Virginia, Box 756, Richmond, Va. 23298.**

### POSTDOCTORAL POSITION

Physiologist-biochemist to investigate physiological, biochemical, and microbiological aspects of nitrogen fixation.

*Oregon State University subscribes to a policy of active recruitment of women and ethnic minority persons and invites all interested and qualified persons to apply with résumés and references to:*

**Professor Harold J. Evans  
Department of Botany and Plant Pathology  
Oregon State University  
Corvallis, Oregon 97331**

### POSTDOCTORAL POSITION

Opportunities for research training in cardiovascular physiology, covering all aspects of human and animal 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.**

**POSTDOCTORAL POSITION,** available immediately; recent Ph.D. for studies of the synthesis, structure, and immunogenicity of malarial parasite membranes. Familiarity with membrane isolation/purification, and immunology essential. One-year appointment, renewable. Salary commensurate with experience and training. Send curriculum vitae and names of references to: **Dr. Irwin W. Sherman, Department of Biology, University of California, Riverside, Calif. 92521. The University of California is an Equal Opportunity and Affirmative Action Employer.**

**POSTDOCTORAL POSITION:** available immediately. Organic or medicinal chemistry Ph.D. with strong background in synthesis to join multidisciplinary group working in the area of chemical carcinogenesis. Send résumé and names of three references to **Dr. Thomas J. Curphey, Department of Pathology, Dartmouth Medical School, Hanover, N.H. 03755.**

**POSTDOCTORAL POSITION** available in September to join ongoing research in biochemical studies of epilepsy. Project involves neurotransmitter receptor binding studies of the kindling model of epilepsy. Send résumé and references to **Dr. James O. McNamara, Department of Medicine, Box 2900, Duke University Medical Center, Durham, North Carolina 27710.**

**POSTDOCTORAL POSITIONS.** Two positions are immediately available for work on two projects at a starting salary of \$10,000 or higher depending upon experience. The projects include: (i) the role of middle repetitive DNA sequences in controlling gene expression, and (ii) replication mechanisms in eukaryotes. Experience in nucleic acid and chromatin isolation procedures is desirable. Send letters of inquiry including curriculum vitae and bibliography to **Dr. Mitchell L. Sogin or Dr. Ronald L. Seale, Department of Molecular and Cellular Biology, National Jewish Hospital and Research Center, 3800 East Colfax Avenue, Denver, Colorado 80220.**

### POSTDOCTORAL RESEARCH ASSOCIATE POSITION (M.D. or Ph.D.)

Participate in research on biochemistry and physiology of placenta and fetus. Studies of transport and cell membrane, chemistry structure and function. Background in biochemistry, cell biology, and/or reproduction desirable. Collaborative research opportunities and ongoing seminars in neonatology and reproductive biology are available. Send letter, curriculum vitae, and names of three references to:

**Dr. Carl Smith  
Associate Professor of Pediatrics and Pathology  
Washington University School of Medicine  
Department of Pediatrics  
500 South Kingshighway  
St. Louis, Mo. 63110**

## POSITIONS OPEN

**POSTDOCTORAL POSITION**—Available 1 September 1977 for 1 year. Studies on cell differentiation in the cellular slime mold *Dictyostelium discoideum*, focusing on biochemical events in early development. Salary: \$10,000. Send inquiries and curriculum vitae including names of two references to **Professor Frank G. Rothman, Division of Biology and Medicine, Brown University, Providence, R.I. 02912.** An Equal Opportunity/Affirmative Action Employer.

### POST-DOCTORAL RESEARCH ASSOCIATE

Physical Chemistry, Biochemistry or Biophysics full time research position available after May 1, 1977 for the study of membrane/enzyme interaction. Some knowledge of electron spin resonance techniques required. Salary commensurate with experience. (Three year funding—NIMH Research Grant Award.) Send curriculum vitae to **UCLA, Dr. Samuel Eiduson, Brain Research Institute, Los Angeles, CA 90024.**

An Affirmative Action Employer

The University of Minnesota Medical School, Minneapolis, invites nominations and applications for the position of **PROFESSOR AND HEAD** of the Department of Medicine. This position encompasses major responsibilities for leadership in an extensive clinical science department in a large university health science center, together with several major and limited affiliated hospitals in the metropolitan area. The Department of Medicine carries substantial responsibilities for teaching internal medicine and its subspecialty fields to large numbers of undergraduate, graduate, and postdoctoral students of medicine. The department has numerous ongoing significant programs in biomedical research, both basic and clinical. The department head has responsibility for and establishes academic relationships in the medical school, the health sciences, the university, and national professional organizations. Inquiries, including a curriculum vitae, should be sent to: **Dr. John E. Harris, Chairman, Search Committee for Medicine Headship, Hospital Box 493, 420 Delaware Street SE, University of Minnesota, Minneapolis, Minnesota 55455,** by 1 June 1977.

An Equal Opportunity/Affirmative Action Employer

## POSITIONS OPEN

### POSTDOCTORAL POSITION RHEUMATIC DISEASES

We have a challenging postdoctoral position available involving research on chronic rheumatoid inflammation.

The ideal candidate will have a Ph.D. in biochemistry, pathology, or immunology with training involving research on connective tissue components and/or inflammation. Knowledge of tissue culturing would be advantageous.

This position is available for 1 to 2 years with the possibility of permanent employment after that time.

We offer ultra-modern laboratory facilities plus an excellent starting salary and benefit package.

Please send curriculum vitae with salary requirements to:

**Barbara Demarest  
E. R. SQUIBB & SONS, INC.  
P.O. Box 4000  
Princeton, N.J. 08540**

Equal Opportunity Employer, M/F

### UNIVERSITY OF MELBOURNE READER/SENIOR LECTURER IN ENVIRONMENTAL SCIENCE CENTRE FOR ENVIRONMENTAL STUDIES

The university is seeking to appoint a scientist or engineer to a senior position in the Centre for Environmental Studies. The appointee will have a substantial academic reputation and proven managerial capacity and experience in the direction of multidisciplinary projects. The broad area of expertise is that of mathematical modeling, multi-objective planning, and systems analysis.

Salary: senior lecturer: \$18,795 to \$22,010 per annum; reader: \$24,971 per annum.

Technical enquiries may be directed to **Professor G. Seddon, Centre for Environmental Studies.**

Special information about the position and details of application procedure are available from the **Registrar, University of Melbourne, Parkville, Victoria 3052 Australia.** Applications should refer to Position No. 781000 and be addressed to the Registrar. Closing date is 15 June 1977.

## POSITIONS OPEN

**RADIOCHEMIST**—Excellent career opportunity for qualified B.S./M.S. radiochemist with experience in the preparation of carbon-14 and tritium labeled compounds. The successful candidate will work closely with technical director to initiate major new program of labeled biochemicals. Salary commensurate with qualifications. Please send résumé in confidence to: **P-L Biochemicals, Inc., Subsidiary of Pabst Brewing Company, 1037 West McKinley Avenue, Milwaukee, Wis. 53205.** An Equal Opportunity Employer, M/F.

**RESEARCH ASSOCIATE**, Ph.D. engineering graduate with interest and experience in cardiac ultrasound R & D. Emphasis on real time imaging and pulsed Doppler. Position involves postdoctoral work-study with opportunity for assistant professor appointment. Send résumés to **Donald W. Baker, Center for Bioengineering, FT-15, University of Washington, Seattle, Wash. 98195.** An Equal Opportunity/Affirmative Action Employer.

### RESEARCH ASSOCIATE (POSTDOCTORAL)

Research associate (postdoctoral) position available 1 July 1977 at the University of Washington, Department of Oceanography, for study of dynamics of mesoscale ocean eddies. Primary activity will be to develop theoretical interpretation of POLY-MODE local dynamics experiment to be carried out in 1978. Research will require knowledge of statistical theories of data analysis and familiarity with theories of mesoscale eddies. Candidate will be expected to acquire this background if he does not possess it. The work will be carried out jointly at the University of Washington and the National Center for Atmospheric Research. Although the person will be mainly in residence at the University of Washington, the person will be expected to spend time at both institutions. Send curriculum vitae and four letters of recommendation to **Dr. R. T. Merrill, Chairman, Faculty Recruitment Committee, Department of Oceanography, University of Washington, Seattle, Washington 98195.** The University of Washington is an Equal Opportunity/Affirmative Action Employer.

## ASSOCIATE DIRECTOR FOR EXTRAMURAL RESEARCH AND TRAINING, NIH

The National Institutes of Health invites nominations and applications for the position of Associate Director for Extramural Research and Training, NIH, who will serve as the principal advisor to the Director, NIH, on all matters relating to the substance, quality, and effectiveness of the NIH Extramural Programs. Candidates should have knowledge of the NIH programs and policies, an understanding of problems confronting extramural institutions and an appreciation of the major issues confronting biomedicine, the NIH, and the public.

Applicants should possess the Ph.D., M.D. or other professional degree, or equivalent and have demonstrated achievement and stature in a biomedical, behavioral or social science discipline. Demonstrated administrative and interpersonal skills are also required for interacting with Federal and non-Federal organizations.

Position is in a top U.S. Civil Service grade level or in the PHS Commissioned Corps. The filling of this position is subject to the approval of the Civil Service Commission. Letters of application or nominations with curriculum vitae should be sent by June 3, 1977, to the Chairman of the Search Committee:

**Thomas E. Malone, Ph.D.**

## NATIONAL INSTITUTES OF HEALTH

**Public Health Service  
Building 1, Room 107  
Bethesda, Maryland 20014**

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## POSITIONS OPEN

### RESEARCH ASSOCIATE

Research associate position is immediately available for biochemist Ph.D. Research on proteins in developing reproductive structures. Competence in protein purification and characterization, immunoassays, steroid-protein binding, protein synthesis. Send résumé and references to: **Dr. E. Bloch, Department of Gynecology and Obstetrics, Albert Einstein College of Medicine, Bronx, N.Y. 10461.** An Affirmative Action/Equal Opportunity Employer.

**RESEARCH ASSOCIATE.** Applied mathematicians and/or fluid mechanics needed for research on mathematical modeling of lake currents and aquatic ecosystems. Candidates should have common sense and competence in numerical methods and fluid mechanics. Competence in or willingness to learn biology and chemistry is desirable. Applicants should send résumé and references to **Professor Wilbert Lick, Department of Earth Sciences, Case Western Reserve University, Cleveland, Ohio 44106.** An Equal Opportunity Employer.

### RESEARCH ASSOCIATE

Applications are invited from recent Ph.D.'s for a position in the laboratory of Dr. Josef Voglmayr for a person interested in the physiology of the testis and epididymis. The successful candidate will have a background in biochemistry and experience with domestic animals. Send curriculum vitae, personal bibliography, and request three referees to send references directly to: **Personnel Office, Worcester Foundation for Experimental Biology, Inc., 222 Maple Avenue, Shrewsbury, Mass. 01545.** An Affirmative Action/Equal Opportunity Employer

### RESEARCH ASSOCIATE or RESEARCH FELLOW at the Harvard School of Public Health

An individual is sought to participate in studies of DNA damage and repair in mammalian cells after treatment with ionizing radiation, ultraviolet radiation, or chemical carcinogens. The individual should have experience in mammalian cell culture techniques and knowledge of interactions between radiations and DNA. Some knowledge of the characteristics of enzymes of DNA metabolism is preferred. The doctoral degree in radiobiology, photobiology, biochemistry, or similar discipline is required.

*Harvard University is an Equal Opportunity Employer with an Affirmative Action Plan.*

A statement of interest and a résumé should be sent to:

**Dr. Jerry R. Williams  
Department of Physiology  
Harvard School of Public Health  
665 Huntington Avenue  
Boston, Massachusetts 02115**

**RESEARCH SCIENTIST, M.S.,** trained in immunology and liquid column and gel chromatography. Program is based on viral diseases of neuromuscular type. Salary up to \$14,000, based upon experience. Location is southern Florida. Send résumé of education and experience to **Box 187, SCIENCE.**

## SENIOR TOXICOLOGIST

We are seeking a senior toxicologist with a Ph.D. or D.V.M. who will be involved in safety testing of new drugs and other chemical compounds, the design of experiments, preparation of protocols, and the interpretation of clinical laboratory data. International Research and Development Corporation is a rapidly expanding contract research laboratory located near Kalamazoo, Michigan. The starting salary is open and the benefits package is excellent.

Please submit résumé including salary history to:

**J. M. Ragen, Director, Personnel  
International Research and  
Development Corporation  
Mattawan, Michigan 49071  
Equal Opportunity Employer**

## POSITIONS OPEN

One **RESEARCH ASSOCIATE POSITION** available for applicants with Ph.D. degree for investigations on osteopetrosis in experimental animals. Strong background is desired in virology and immunology. Some experience in bone collagen chemistry desirable.

Applicants should send curriculum vitae, a brief statement of research interests, and the names and addresses of three people who may be used as references to:

**Dr. Gerald L. Mechanic  
Dental Research Center 210H  
University of North Carolina  
Chapel Hill, N.C. 27514**

*An Equal Opportunity/Affirmative Action Employer*

### SYSTEMATIC ENTOMOLOGIST

The Department of Entomology, the Ohio State University, has a position available in systematic entomology at the assistant professor level, beginning 1 October 1977. Applicants should send curriculum vitae, transcripts, reprints of publications, and three letters of reference to **Professor C. A. Triplehorn, Chairman, Search Committee, Department of Entomology, 1735 Neil Avenue, Columbus, Ohio 43210.** Deadline for applications is 15 May 1977.

The Department of Zoology of the University of Rhode Island invites applications for a **TEMPORARY TEACHING POSITION** starting September 1977 for 1 year. The primary teaching responsibilities will be in the area of introductory human physiology. Candidates should have experience in teaching in the subject area of mammalian or medical physiology. Master's degree required; Ph.D. preferred. Appointment will be at the level of instructor or assistant professor, depending on qualifications. Applications should be submitted by 1 June 1977 to:

**Robert B. Hill  
Chairman, Physiology Search Committee  
Department of Zoology  
University of Rhode Island  
Kingston, R.I. 02881**

*Affirmative Action/Equal Opportunity Employer*

**VERTEBRATE PALEONTOLOGIST.** Position for Ph.D. with interest in Florida Cenozoic, preferably nonmammalian emphasis. Visiting assistant curator, 12 months, \$15,000 to \$17,000; 1-year, possibly continuing, appointment; teaching opportunities. Deadline: 1 June 1977. Begins 26 September 1977. Send letter naming three references and curriculum vitae to **Search Committee, Department of Natural Sciences, Florida State Museum, University of Florida, Gainesville, 32611.** An Equal Opportunity/Affirmative Action Employer.

## ASSISTANTSHIPS

**ASSISTANTSHIPS** for M.S. and Ph.D. candidates in biochemistry are available for June or August. Up to \$5,200 yearly. Apply to: **Director of Admissions, Department of Biochemistry, 322 Chemistry Building, University of Missouri, Columbia, Missouri 65201.**

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## FELLOWSHIPS

**FELLOWSHIPS.** Postdoctoral training program in Clinical Pharmacology, Michigan State University Medical Center for individuals with an M.D. degree or equivalent who are U.S. citizens or permanent residents. Individuals with a Ph.D. degree in a scientific discipline relevant to clinical pharmacology will also be considered. Send curriculum vitae to **Andrew M. Michelakis, M.D., Ph.D., Director, Clinical Pharmacology Program, Life Sciences Building, Michigan State University Medical Center, East Lansing, Michigan 48824.**

**POSTDOCTORAL FELLOWSHIP** in plasma membrane research available September 1977 for candidates who are U.S. citizens or permanent residents. Research on pathobiology of plasma membrane vesicles. Prefer experience in membrane enzymology or membrane protein analysis. Send a curriculum vitae, a thesis abstract, and the names of three references to:

**Robert E. Scott, M.D.  
Department of Pathology and Anatomy  
Mayo Clinic  
Rochester, Minn. 55901**

## FELLOWSHIPS

### HYPERTENSION RESEARCH FELLOWSHIPS.

Fellowships in hypertension research for 2 years, with option of 1 additional year of clinical training for qualified applicants, are available at the Mayo Clinic and Mayo Graduate School of Medicine beginning July 1977. This NIH-funded multidisciplinary program provides research training in hypertension by faculty in nephrology, endocrinology, cardiovascular, clinical pharmacology, pediatrics, biochemistry, and physiology. Applicants should have the M.D. or Ph.D. degree. Degree programs leading to the masters or Ph.D. degrees are available. For further information write to **R. D. Brown, M.D., Director, Multidisciplinary Hypertension Research Training Program, Mayo Clinic, Rochester, Minn. 55901.** An Equal Opportunity/Affirmative Action Institution.

**COLLEGE OF PHYSICIANS & SURGEONS, COLUMBIA UNIVERSITY: RESEARCH FELLOWSHIPS IN ARTIFICIAL ORGANS AND TRANSPLANTATION.** Newly expanded clinical and experimental research programs in the Department of Surgery have created several openings for post-doctoral or visiting fellows with the M.D. or Ph.D. degree. Positions for American and foreign citizens will be available after 1 July 1977 for 2 years and will be renewable. Interests in the area of transplantation including kidney, pancreatic islet cells, heart, liver, and organ bank activities. Current interests in the field of artificial organs include artificial pancreas, cardiovascular devices, techniques for percutaneous access, and sensory prostheses for the blind and deaf. Limited "seed money" is also available to support investigator-initiated research in other areas of transplantation or artificial organs. Applicants with backgrounds in clinical research or in immunology, cellular physiology (including tissue culture techniques), neuroscience, physiology and computer science, or other engineering disciplines are invited to apply. Experience in transplantation or artificial organs research is desirable but not necessary. Send résumé to: **Artificial Organs/Transplantation Fellowship Committee, Department of Surgery, V/C/12-212, College of Physicians & Surgeons of Columbia University, 630 West 168th Street, New York, N.Y. 10032. Telephone: 212-694-4198.** Columbia University is an Equal Opportunity/Affirmative Action Employer.

### POSTDOCTORAL FELLOWSHIPS

Postdoctoral traineeships available in **neurobiology of visual system.** Major areas of research include phototransduction, photoreceptor biology and pathology, synaptology, axonal protein synthesis, intracellular ionic activities, single-unit analysis of primate vision, and visuomotor coordination. For information write to **Professor W. K. Noell, Neurobiology, State University of New York, 2211 Main Street, Buffalo, N.Y. 14214.**

California Institute of Technology invites applications for a **POSTDOCTORAL RESEARCH FELLOWSHIP** currently available in **magnetotellurics** with concern for earthquake prediction and geothermal research.

Research fellowships in geology, general geophysics, geochemistry, geobiology, and planetary science are also available from time to time. Interested persons are asked to contact the **Chairman, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, California, 91125.** An Equal Opportunity Employer, M/F.

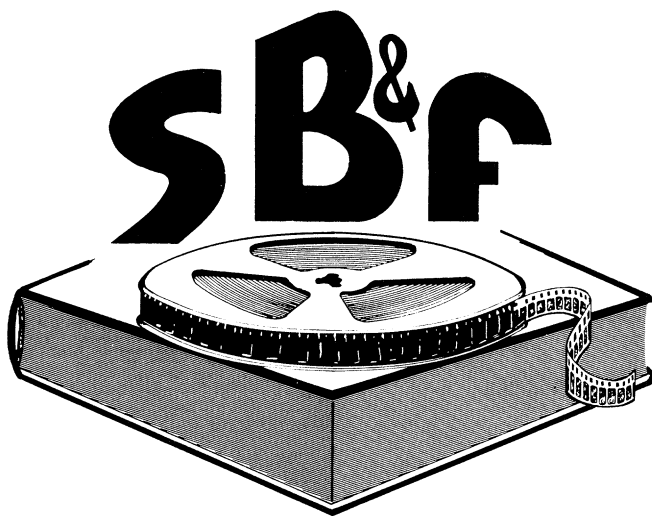
### A POSTDOCTORAL FELLOWSHIP IN REPRODUCTIVE BIOLOGY

Is available. Applicants should be interested in the physiology and biochemistry of mammalian embryos during the preimplantation period. Apply with curriculum vitae to: **R. L. Brinster, Laboratory of Reproductive Physiology, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, Pennsylvania 19174.**

## MARKET PLACE

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## Direct photography by infrared alone, 1932

**But for sources cooler than 250° C, something besides the right film is needed even in 1977**

If the night is completely dark and your roof can be directly photographed on infrared film, call the fire department.

Year in and year out we get inquiries for thermal photography film. Sorry, but at wavelengths beyond 1.3  $\mu\text{m}$  the photons continue to lack the poop to create a latent image. Even if we punched our way out of that limitation, the means that would be required to keep everything else sufficiently colder than the subject would probably be more elaborate than currently available indirect methods of thermal photography.

But if your subject is not much below 250° C (incandescence begins around 500° C), you have good prospects for tonal rendition of temperature differences if you photograph in complete visual darkness. You'll need a sturdy tripod for exposures that are as apt to run to hours as seconds, even if you are using KODAK High Speed Infrared Film 2481 (ESTAR Base) at  $f/1.9$ . For thermometry by such photography, you expose on the same roll of film a series of shots of a hot object held successively at known temperatures. Then you calibrate by plotting density against temperature for a given exposure. If temperature over the subject ranges over more than 120° C, it is well to make a long exposure for the cooler

parts and a shorter one for the hotter areas. With a range of 60° C or less, differences of 15° C are distinguishable.

Below 250° C, to see temperature differences from a distance, you will need some kind of electronic device to put an image on a CRT, from which you record photographically. Without spending that kind of money, another line of our products can be useful in thermography right down to room temperature, provided the subject is one on which you can coat some washable black paint followed by a cholesteric liquid-crystal mixture formulated to go through a series of sharp color changes over a given temperature range that can be as short as 5° C. A meaningful record on color film can be obtained by use of a polarizing filter over the light source and care not to vary the camera and light angles between shots.

*See your regular photo supplier for the film and filters. Ask Kodak, Dept. 55S, Rochester, N.Y. 14650 for Kodak Publication JJ-14, "EASTMAN Liquid Crystal Products," if interested in that subject.*

**Anyway, more people want to photograph wedding parties than hot chimneys**

Just now being introduced is KODACOLOR 400 Film. With that behind a lens at  $f/2$  and a shutter operating at 1/30 sec. you can probably forget flash at the illumination level typical of the American evening at home when not watching TV—around 5 foot-candles. To record festivity in the June sunshine, use KODACOLOR II Film if you plan on big enlargements. You may prefer the way it now renders fabric colors, and speed has been boosted to 100 to make underexposure a little less likely while risk of overexposure remains generally negligible. Also broader now in both films is the tolerance for differences in spectral quality of illuminants, as between daylight, fluorescents, and tungsten. Another improvement will not be noticed for a long time: dye stability in negatives kept under proper dark storage.

