

## RESEARCH NEWS

(Continued from page 1405)

ent types of leukemias and between leukemic cells and healthy ones. Identification of these differences could, of course, provide a great deal of information about the nature of cancer.

Yergey predicts that the technique will also be useful for investigating other materials. He and Risby have used it, for instance, to study the depolymerization of polyisobutylene. They find that the polymeric bonds break in a reproducible fashion during the heating and that the spectral and thermal data can be used to calculate the thermodynamics of depolymerization. The values they have obtained in this manner appear reasonable when compared with data from prior studies with related compounds, Yergey says, but there are no available data for polyisobutylene to compare them with.

The principal limitation of LPTD-MS in studying such problems is the low final temperature that is now achieved in the pyrolysis. Many of the organic and biopolymers he would like to examine, Yergey says, do not decompose appreciably at temperatures less than 400°C. Yergey and Risby are thus working to increase substantially the temperatures that can be achieved by their probe. They are also working on the data processing problem to ensure that all of the available data that is collected is used.

There are, of course, many other potential applications where all of the techniques may prove valuable. In particular, a great deal more work will certainly be done in the study of yeasts, molds, fungi, and viruses. It might even be possible to use them for the study of intact insects, as has already been attempted with cockroaches. But it will be many years before such applications are routine. The reliability of the techniques will have to be firmly established before they will be trusted by most microbiologists, who still prefer the older, better-known biochemical and serological tests. Some investigators also suggest that it will be necessary to overcome the reluctance of microbiologists toward spending large sums of money for instrumentation.

Nonetheless, many investigators have already conducted preliminary studies, and these show that the techniques have great potential; larger bodies of data are now being collected to confirm that potential. The techniques have already cleared some major hurdles of instrumentation, Quinn says, and, once their potential and reliability are confirmed, acceptance will not be far behind.—THOMAS H. MAUGH II

24 DECEMBER 1976

## BOOKS RECEIVED

(Continued from page 1412)

**imal Kingdom.** Wilhelm Kühnelt. With contributions from James W. Butcher and Charles Laughlin. Second English edition based on original translation of the German edition (Vienna, 1950) by Norman Walker. Faber and Faber, London, 1976. 484 pp., illus. £12.

**Soils of Arid Regions.** H. E. Dregne. Elsevier, New York, 1976. xii, 238 pp., illus. \$28.95. Developments in Soil Science 6.

**The Solution to the Riddle of Gravitation.** John P. Fernandez. Published by the author, Box 6502, Oakland, Calif. 94614, 1976. iv, 114 pp. Paper, \$7.15.

**Die Sprache des Anderen.** Gedenkschrift für Theodor Spoerri. Papers from a colloquium, Hannover, Germany, Sept. 1975. Gunter Hofer and Karl Peter Kisker, Eds. Karger, Basel, 1976. viii, 190 pp., illus. Paper, \$32.50. Bibliotheca Psychiatrica, No. 154.

**Statistics and Experimental Design for Behavioral and Biological Researchers.** An Introduction. Victor H. Denenberg. Hemisphere, Washington, D.C., and Halsted (Wiley), New York, 1976. viii, 344 pp., illus. \$17.50.

**Stylebook/Editorial Manual.** Prepared by the Scientific Publications Division, American Medical Association. Publishing Sciences Group, Acton, Mass., 1976. vi, 162 pp. Paper, \$6.50.



The MultiGen is a low cost culture apparatus designed for the control of all basic environmental conditions: temperature, agitation, aeration, pH, and dissolved O<sub>2</sub>. Whether the need is for viscous microbial cultures or animal cell suspensions, air sparging or gas overlay, the MultiGen can be adapted to specific research requirements, and can provide an ideal alternative to spinner flask procedures.

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Effective 1 January 1977, the display rate for SCIENCE will be \$145 per column inch, minimum.

## POSITIONS WANTED

**Biochemist/Chemist** (physiology), M.S., Ph.D., FAIC. Broad research interest and experience; college teaching, pharmaceuticals, clinical chemistry, environmental studies, instrumentation, toxicology, cancer. Desires responsible senior position in academia, hospital, or industry. Prefers East. Publications. Box 425, SCIENCE. X

**Primatologist.** Ph.D. psychology, 1974. Diverse research experience with primates involving social behavior, psychoactive drugs, autonomic correlates, physiological, and learning. Enjoys teaching in small class atmosphere. Publications. Evolutionary approach to behavior analysis. Experience with behavioral film making. Travel in South America. Desires teaching and/or research position. Box 1168, 2000 Center Street, Berkeley, California 94704. X

**Synthetic Organic Chemist.** One year postdoctoral. Experience with quinones, steroids, pyrimidines, fluoro- and radiolabeled compounds. Publications. Available January 1977. Desires postdoctoral position in cancer study (chemistry, pharmacology) at academic/research institution. A. Castonguay, College of Pharmacy, University of Michigan, Ann Arbor, Michigan 48109. X

**Veterinarian-Nutritionist.** Ph.D. 1976. Applied nutrition, pancreas nutritional physiology (Ph.D. dissertation). Experience in SEM, TEM. Some teaching experience; several publications. Seeks teaching and/or research position. Box 545, SCIENCE. X

**Virologist/Microbiologist.** M.S. 1976. Two years of experience in virology/cell culture research, computer modeling, and classroom and laboratory teaching. Seeks industrial, academic, or public health position. Box 546, SCIENCE. X

## POSITIONS OPEN

### UNIVERSITY OF WYOMING COLLEGE OF HUMAN MEDICINE

#### ASSISTANT DEAN, BIOLOGICAL SCIENCES

Administrative position in the College of Human Medicine, University of Wyoming. Responsibilities will include recruitment of interdisciplinary biological sciences faculty for teaching, research, and service needs of the College. Will work with assistant deans for behavioral and clinical sciences to develop and implement integrated curriculum for undergraduate, graduate, and continuing medical education. M.D. or Ph.D. in basic biological sciences required as is experience in development, design, evaluation, and implementation of integrated biological science programs and courses for medical education.

Position available 1 July 1977.

Contact: **Robert M. Daugherty, Jr., M.D., Ph.D., Dean of the College of Human Medicine, University of Wyoming, Box 3433, University Station, Laramie, Wyoming 82071.**

*The University of Wyoming is an Affirmative Action/Equal Opportunity Employer, M/F.*

### UNIVERSITY OF WYOMING COLLEGE OF HUMAN MEDICINE

#### ASSISTANT DEAN, BEHAVIORAL SCIENCES

Administrative position in the College of Human Medicine, University of Wyoming. Responsibilities will include recruitment of interdisciplinary behavioral sciences faculty for teaching, research, and service needs of the College. Will work with assistant deans for biological and clinical sciences to develop and implement integrated curriculum for undergraduate, graduate, and continuing medical education. M.D. or Ph.D. in basic behavioral sciences required as is experience in development, design, evaluation, and implementation of integrated behavioral science programs and courses for medical education.

Position available 1 July 1977.

Contact: **Robert M. Daugherty, Jr., M.D., Ph.D., Dean of the College of Human Medicine, University of Wyoming, Box 3433, University Station, Laramie, Wyoming 82071.**

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**ASSISTANT PROFESSOR OF BIOLOGY:** Small liberal arts college for women with strong commitment to excellence in science area will have a position for a Ph.D. biologist beginning September 1977. Primary responsibilities in genetics and microbiology but broad background in biology essential; supervision of undergraduate research expected. Submit résumé and three references before 15 January to **Dr. Louise Monack, Division of Natural Sciences and Mathematics, Wilson College, Chambersburg, Pa. 17201.**

**ASSISTANT PROFESSOR OF GENETICS** for undergraduate teaching and research in genetics and freshman introductory biology. Additional expertise in population genetics or cytogenetics and biostatistics will be desirable but not essential. Experience with eukaryotes desired. Salary competitive with excellent fringe benefits. Send résumé and three references before 1 March 1977 to **Dr. P. K. Bhattacharya, Chairman, Biology Department, Indiana University Northwest, Gary, Indiana 46408. An Equal Opportunity/Affirmative Action Employer.**

#### ASSISTANT PROFESSOR OF NEUROSCIENCE

The University of California, Los Angeles, invites applications or nominations for a position of assistant professor of neuroscience. This appointment will be sponsored jointly between the Brain Research Institute and an appropriate basic science department in the School of Medicine. The appointment committee is seeking a scientist of recognized accomplishment and outstanding promise in the field of cellular neurobiology, one area of particular interest being neuroimmunology. The appointee will join the newly established Ahmanson Laboratory of the Brain Research Institute. Applications for nominations should be submitted with a curriculum vitae, bibliography, and names of potential references to: **Director, Brain Research Institute, UCLA School of Medicine, Los Angeles, California 90024.** All applications and inquiries will be treated confidentially within the limits of the law. *UCLA is an Equal Opportunity Employer. Candidates will be considered without regard to race, color, religion, sex, or national origin.* All applications must be received by 31 December 1976.

## POSITIONS OPEN

Assistant professors, two positions, fall 1977. **PLANT PHYSIOLOGIST and COMPARATIVE ANIMAL PHYSIOLOGIST** (vertebrate). Additional teaching capabilities in chemistry and biology of cells and/or general biology required. Ph.D. degree, undergraduate teaching experience, excellence as a teacher and a research program involving undergraduate participation are essential. Potentially tenurable. Write promptly for detailed job descriptions to: **Dr. Richard Nickerson, Search Committee Chairman, Biology Department, Simmons College, 300 The Fenway, Boston, Mass. 02115. An Affirmative Action/Equal Opportunity Employer.**

**ASSISTANT PROFESSOR:** Applications are invited for an opening in the Department of Chemistry at Massachusetts Institute of Technology (MIT). Applicants should have demonstrated ability to do exceptional independent research in the area of biochemistry, bioorganic, or biophysical chemistry. *MIT is an Equal Opportunity Employer and applications from women and minority candidates are encouraged.* Candidates should submit a curriculum vitae, a publication list, a description of research interests, and have three letters of recommendation sent not later than 15 January 1977, to: **Dr. C. T. Walsh, Associate Professor of Chemistry, Room 18-025, Massachusetts Institute of Technology, Cambridge, Mass. 02139.**

**ASSISTANT PROFESSOR—ANALYTICAL,** fall 1977. The Department of Chemistry, Mississippi State University invites applications from qualified individuals dedicated to excellence in research and teaching in the area of analytical chemistry. Postdoctoral experience desirable. Sub-field should be: spectroscopy, electrochemistry, other. Send résumé, graduate transcript, and three letters of reference to: **Dr. T. H. Fisher, Department of Chemistry, Mississippi State University, Mississippi State, Miss. 39762. An Equal Opportunity/Affirmative Action Employer.**

#### ASSISTANT PROFESSOR, HUMAN GENETICS

A position is available in the Department of Biology, McGill University. Preference will be given to those who are able to teach and conduct research in human biochemical genetics. Please send a curriculum vitae and names of three referees, within 1 month, to **F. C. Fraser, Department of Biology, McGill University, 1205 McGregor Street, Montreal, Quebec, Canada H3A 1B1.**

**ASSISTANT PROFESSOR—SPECTROSCOPIST.** The biochemistry section of the Department of Ophthalmology is seeking an individual with a strong background in spectroscopy, natural products, and protein chemistry. Candidates should be qualified to pursue research on the eye tissues related to photochemical and post-translational protein transformations. Send curriculum vitae, bibliography, and references by 15 January 1977 to: **Abraham Spector, Department of Ophthalmology, College of Physicians and Surgeons, Columbia University, 630 West 168 Street, N.Y., N.Y. 10032. Columbia University is an Equal Opportunity/Affirmative Action Employer.**

**ASSISTANT PROFESSOR OF POLYMER CHEMISTRY** at the University of Texas at San Antonio (UTSA). Candidates with some industrial experience will be preferred. The successful candidate is expected to teach, do research, and work in the development of UTSA's new Polymer Science Program. Please submit a résumé, three letters of reference, and a short summary of research plans by 15 February 1977 to: **Director, Division of Earth and Physical Sciences, the University of Texas at San Antonio, San Antonio, Texas 78285. Women and minority candidates are encouraged to apply.** One-year visiting appointments in other areas of chemistry are also open in late spring, applications for which will be entertained until 15 May 1977. *UTSA is an Equal Employment/Affirmative Action Employer.*

Fall 1977 **TEACHING AND RESEARCH POSITIONS** in one or both of the following fields: (i) **Sedimentology, depositional systems, oceanography, and introductory geology.** Additional interests in paleontology would be helpful. (ii) **Applied geophysics.** Teaching duties will include physics, theoretical geophysics, and exploration geophysics. Postdoctoral experience is desirable. Application, résumé, and three letters of reference should be sent by 28 February 1977 to: **Director, Division of Earth and Physical Sciences, the University of Texas at San Antonio, San Antonio, Texas 78285. UTSA is an Equal Employment/Affirmative Action Employer.**

## POSITIONS OPEN

Positions available: **ASSISTANT PROFESSORS OF BIOLOGY**. Full-time, tenure track, \$13,572 to \$16,320. September 1977. (i) **Physiologist**: teaching responsibilities include human physiology and a graduate seminar. Research should be on membrane processes (for example, transport kinetics, e-c coupling). Postdoctoral experience desirable. Committee chairman: Dr. P. Paolini. (ii) **Mammalian ecologist**: teaching and research in population, community, or behavioral ecology of small mammals, or mammalian wildlife ecology. Postdoctoral experience desirable. Committee chairman: Dr. B. Collier. Send curriculum vitae, reprints, transcripts, statement of research interests, and three letters of reference to **Chairman, Search Committee, Biology Department, San Diego State University, San Diego, Calif. 92182**. An Equal Opportunity/Affirmative Action/Title IX Employer.

### ASSISTANT PROFESSOR—COMPARATIVE PSYCHOLOGY

The Department of Psychology, University of Georgia is seeking an assistant professor in comparative psychology, effective September 1977. Candidates must have appropriate academic experience as well as evidence of potential for making a substantial research contribution. Areas of teaching and research specialization should relate to comparative animal behavior. A familiarity with ethological methods is also desired. Ph.D. required.

Evidence of scholarly research activities in the form of published articles in refereed journals and papers presented at professional meetings will be heavily weighted, as will evidence related to teaching ability of the candidate.

Interested applicants should send a copy of their curriculum vitae, including reprints of major publications and three letters of recommendation, before 15 January 1977 to: **Dr. Murray Blum, Biological Sciences Building, Room 400, University of Georgia, Athens, Georgia 30602**. An Equal Opportunity/Affirmative Action Employer.

**PHYSICS, ASSISTANT PROFESSOR**. Beginning January 1977. Teach introductory courses and develop one of: energy-management course; course of wide, general appeal; or course with CAI. Qualifications: Ph.D. in experimental physics. College teaching experience desirable. Position contingent on availability of funds. Write: **Dr. W. S. Porter, Chairman, Physics Department, Southern Connecticut State College, New Haven, Conn. 06515**. An Equal Opportunity/Affirmative Action Employer

### UNIVERSITY OF ALBERTA EDMONTON, ALBERTA, CANADA ASSISTANT PROFESSOR, PHYSIOLOGY

Salary negotiable. M.D. and/or Ph.D. Strong research interest and teaching ability essential. Orientation to physiological chemistry or molecular biology desirable. Apply with curriculum vitae and names of three referees by 20 January 1977.

Applications to: **Dr. M. Schachter, Professor and Chairman, Department of Physiology, University of Alberta, Edmonton, Alberta, Canada T6G 2H7**.

### ASSISTANT RESEARCH BIOMEDICAL ENGINEER

Grant-supported research position open in Cardiovascular Research Institute, University of California, San Francisco. Applications invited from persons with Ph.D. or M.D. degree to work full time in development and application of noninvasive cardiopulmonary methods in clinical physiology. The salary is according to University scale (at present \$16,600 per annum). *The University of California, San Francisco, is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.* Send curriculum vitae and three references to: **Dr. M. B. McIlroy, 1315-Moffitt Hospital, University of California, San Francisco, Calif. 94143** by 31 January.

The Department of Biological Sciences of the State University of New York at Albany can offer **SEVERAL APPOINTMENTS** at the **ASSISTANT PROFESSOR** level (or above, in an exceptional instance) to begin September 1977. Preference will be given to candidates with substantial scientific achievement and interests in the structure of biological macromolecules, neurobiology, animal orientation, ecology, and population biology. The Neurobiology Research Center may be able to offer an appointment to a state-funded research position. Curriculum vitae, including names of references, should be sent to: **Leon Cathoun, Director, Personnel Office, State University of New York at Albany, Albany, N.Y. 12222**. An Equal Opportunity Employer

## POSITIONS OPEN

### ASSISTANT SCIENTIST—CELL BIOLOGY

Applications or nominations are invited for a newly created position at the W. Alton Jones Cell Science Center. The candidate should have a broad interest and research experience in pulmonary biology. Areas of particular interest include: mechanism of hormone and drug action on epithelial cells that produce pulmonary surfactant in vitro; analysis of enzyme activities in cultured lung cells; isolation, culture and characterization of lung cells that retain differentiated functions in vitro. Postdoctoral experience is essential and cell culture experience highly desirable. Responsibilities include participation in the Tissue Culture Association's Continuing Education Program (not more than 20 percent of time). Position available 1 February 1977. Send résumé, list of publications, brief description of research interests, and three letters of reference to:

**Personnel Office  
W. Alton Jones Cell Science Center  
Old Barn Road  
Lake Placid, New York 12946**

*The W. Alton Jones Cell Science Center is an Equal Opportunity Employer and applications from women and minority groups are encouraged.*

### ASSOCIATE CHIEF OF STAFF OF RESEARCH

The Veterans Administration Hospital, Cincinnati, Ohio, is seeking an associate chief of staff of research. The Cincinnati VA Hospital is an integral part of the University of Cincinnati Medical Center and staff members are appointed to the faculty of the College of Medicine. The hospital is committed to improving its research program, which currently has a research building (17,000 square feet), 14 funded investigators, and 25 full-time research employees. The associate chief of staff of research would be a senior staff position and primary duties would be to administer, guide, and oversee the research program. Clinical responsibilities are possible. Preference will be given to candidates with an M.D. degree and some administrative experience. *The VA Hospital is an Equal Opportunity Employer.* Please send curriculum vitae or letters of inquiry to:

**Raymond John Lipicky, M.D.  
Chairman, Search Committee for Associate Chief of Staff of Research  
Division of Clinical Pharmacology  
5502 Medical Science Building  
231 Bethesda Avenue  
Cincinnati, Ohio 45267**

**ASSOCIATE DEAN FOR FACULTY PERSONNEL AND RESEARCH**. The College of Liberal Arts at Idaho State University seeks a competent and skilled interdisciplinary professional with proven abilities for instructionally related grantsmanship and an excellent teaching record. \$20,000 top salary for 12 months beginning 1 July. Natural scientist preferred. Send current curriculum vitae and letter of application without delay to: **Robert V. Edington, Dean of Liberal Arts, Idaho State University, Pocatello, Idaho 83209**. Closing date: 28 January 1977. More complete information available on request. An Equal Opportunity/Affirmative Action Employer.

### MARY WASHINGTON COLLEGE BIOLOGY DEPARTMENT

Undergraduate liberal arts state-supported college with emphasis on teaching seeks **BIOLOGIST** with recent Ph.D. for position beginning fall 1977. Successful applicant will teach introductory biology and courses in animal development and laboratory techniques. Some background in microbiology is desirable. Submit curriculum vitae, three letters of reference, publications list, and so forth, by 10 January 1977, to: **Dr. Stephen W. Fuller, Chairman, Biology Department, Mary Washington College, Fredericksburg, Va. 22401**.

### BIOLOGY

Applications are invited for two positions in biology at the level of assistant professor, effective 1 July 1977. (i) **Invertebrate biologist**. (ii) **Microbiologist**. Applicants in these fields with research interests in either ecology or biochemistry are being sought. One of the appointments will be a tenure-stream appointment, the other a 1- or 2-year term appointment. Candidates must have a completed Ph.D. degree, or equivalent, and will be expected to teach at undergraduate and graduate levels and to develop research activity. Applications, including complete curriculum vitae and the names of three referees, should be sent to: **Dr. R. E. Dengler, Associate Chairman, Division of Life Sciences, Scarborough College, University of Toronto, 1265 Military Trail, West Hill, Ontario, Canada, M1C 1A4**.

## POSITIONS OPEN

### ASSOCIATE DIRECTOR—CANCER CONTROL

The Ephraim McDowell Community Cancer Network, Inc., is seeking a physician to direct community cancer control activities in central and eastern Kentucky. Successful candidate will join full-time faculty of the University of Kentucky College of Medicine with rank and salary commensurate with academic credentials. Applicants should submit curriculum vitae and letters of reference to **D. M. Goldenberg, Sc.D., M.D., Executive Director, Ephraim McDowell Community Cancer Network, Inc., 915 South Limestone, Lexington, Kentucky 40503**. An Equal Opportunity/Affirmative Action Employer.

### ASSOCIATE PROFESSOR—PHARMACOLOGY

The pharmacology unit at the University of Houston is seeking a cardiovascular pharmacologist/physiologist for September 1977. Special interest in the area of the renin-angiotensin system is preferred. Evidence of excellence in research and teaching must be established. Curriculum vitae, three sample publications, and the names of three reference sources should be sent to **Dr. David E. Clarke, Director of Pharmacology, College of Pharmacy, University of Houston, Houston, Texas 77004**. Telephone: 713-749-1351. *The University is an Equal Opportunity/Affirmative Action Employer.*

### ASSOCIATE VICE PRESIDENT FOR RESEARCH AND GRADUATE STUDIES

Responsibilities include the administration and stimulation of research, serving as contracting officer, and maintaining the quality and vigor of the graduate program. This position will be supported by an assistant graduate dean, and an administrator of sponsored programs.

Demonstrated leadership and administrative abilities, successful experience in research and the supervision of graduate education, an understanding and appreciation of the varieties of scholarship and research, and qualifications for appointment to a senior faculty position are required.

Nominations must be sent by 15 January 1977, and applications by 31 January 1977. Mail biographical information, including the names of references, to: **R. K. Osterheld, Chairman, Search Committee, Chemistry Building, University of Montana, Missoula, Montana 59812**. *The University of Montana is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

The Biology Department of the Rochester Institute of Technology anticipates two positions opening, beginning in July or September 1977.

- (1) **DEPARTMENT HEAD**, to provide leadership to a department of ten faculty, offering a B.S. program, in addition to involvement in allied health programs. A minimum of 7 years of academic experience with Ph.D. is required.
- (2) **VISITING ASSISTANT PROFESSOR**, renewable annually for a total period of 5 years. The possibility exists for conversion to tenurable appointment. The applicant should have a Ph.D. in mammalian physiology. The position requires teaching of introductory and advanced undergraduate courses, as well as initiation of an undergraduate research program.

Send curriculum vitae and names of three references to: **Head, Biology Department, Rochester Institute of Technology, College of Science, One Lomb Memorial Drive, Rochester, New York 14623**. *The Institute is an Equal Opportunity Employer.*

### BOTANIST

The Department of Biological Sciences of Union College invites applications and nominations for the position of assistant professor starting fall 1977. We require an earned Ph.D. with a broad exposure to the plant sciences with an emphasis in experimental plant morphology, systematics, or anatomy, and strong interests in both teaching and research. Send résumé to: **Dr. Peter Toblessen, Search Committee Chairperson, Department of Biological Sciences, Union College, Schenectady, New York 12308**. An Equal Opportunity/Affirmative Action Employer.

### ALEXANDRIA UNIVERSITY (EGYPT) Science Centre for Postgraduate Studies

The Science Centre for Postgraduate Studies announces a **FACULTY POSITION** opening at the rank of professor in physical chemistry with research experience in spectroscopy and nanosecond excitation analysis. Interested scientists are invited to apply directly to **Director, P.O. Box 832, Alexandria, Egypt**, enclosing a curriculum vitae and three letters of reference.

## POSITIONS OPEN

**CELLULAR IMMUNOLOGIST.** A faculty position at the assistant professor level is available in the Department of Microbiology at the University of Massachusetts Medical School for a cellular immunologist. We are seeking someone with a strong potential for setting up and developing their own research program in cellular mechanisms of the immune response, and with interest in teaching immune response mechanisms as part of a microbiology course for medical students. The position is available immediately. Send résumé and references to **Dr. David C. Parker, Microbiology Department, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, Mass. 01605.** An Equal Opportunity/Affirmative Action Employer.

### CHAIRPERSON

Department of Botany and Microbiology  
University of Oklahoma

Established scientist with demonstrated leadership and proven research record sought to be department chairperson while maintaining an active research program. Applicants must provide evidence of teaching credentials at both undergraduate and graduate levels. The department has 20 faculty members with broadly based research interests who are responsible for administering strong graduate and undergraduate programs in botany and microbiology. Inquiries and recommendations are welcome. By 1 February 1977, applicants should submit a curriculum vitae, list of publications, and at least three references to **Dr. Paul G. Risser, Department of Botany and Microbiology, 770 Van Vleet Oval, University of Oklahoma, Norman, Oklahoma 73019.**

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**BIOLOGY DEPARTMENT CHAIRPERSON:** Ph.D. with a demonstrated record of teaching effectiveness at the undergraduate level, and ability to involve students in research projects. Candidates should show ability to provide high-quality leadership for a four-person department. Preference will be given to individuals capable of teaching general zoology, comparative anatomy, or genetics. Rank and salary dependent upon qualifications and experience. To apply send résumé, three letters of recommendation, undergraduate and graduate transcripts to: **Patrick J. Ford, S.J., Dean, College of Arts and Sciences, Gonzaga University, Spokane, Wash. 99258,** before 11 February 1977. An Affirmative Action/Equal Opportunity Employer.

### CHAIRPERSON, DEPARTMENT OF CHEMISTRY

Nominations and applications are invited for this position through 21 January 1977. Applicants must have demonstrated excellence in teaching and research and must complement a department of 24 members engaged in all areas of research granting M.S. and Ph.D. degrees in both chemistry and biochemistry. This appointment will be at associate or full professorial level with remuneration dependent on qualifications. Curriculum vitae and three letters of reference should be sent to: **Dr. P. W. Jennings, Search Committee, Department of Chemistry, Montana State University, Bozeman, Montana 59715.** Montana State University is an Equal Opportunity/Affirmative Action Employer.

**CHAIRPERSON,** Department of Biology. Undergraduate and M.A. programs. Candidate should have earned doctorate, teaching commitment, and proven research ability. Salary negotiable. Applicants should send curriculum vitae and recent references to **Ralph L. Carnes, Dean, College of Arts and Sciences, Room 620, Roosevelt University, 430 South Michigan Avenue, Chicago, Illinois 60605.**

Roosevelt University is an Equal Opportunity Employer.

**CHIEF, TRANSPLANTATION UNIT,** University of Miami, School of Medicine, Department of Surgery, is seeking full-time chief who will be responsible for the transplantation program. The individual would hold an academic appointment with the University as professor or associate professor depending on academic qualifications. Must have prior fellowship in transplantation, evidence of academic accomplishment as indicated by bibliography and administrative ability. For further details send curriculum vitae and call for appointment. **Robert Zeppa, M.D., Professor and Chairman, Department of Surgery, P.O. Box 520875, Miami, Florida 33152. Telephone: 305-547-6721.** An Equal Opportunity Employer.

## POSITIONS OPEN

**CHAIRPERSON:** Rush-Presbyterian-St. Luke's Medical Center invites applications for the position of chairperson of the Department of Psychology and Social Sciences. A large, multidisciplinary department of 26 psychologists and 11 social scientists has independent and parallel organization in Presbyterian-St. Luke's Hospital, the College of Health Sciences, and Rush Medical College; provides hospital-based psychological services, training in APA approved predoctoral program in clinical psychology, and teaching a comprehensive behavioral science curriculum in Rush Medical College. Development of a doctoral program in psychology is expected. The candidate must be a senior level clinical psychologist, with demonstrated productivity in research, academic excellence, and administrative ability to take leadership role in maintaining and developing departmental activities in collaboration with other departments of the Medical Center. This position affords the candidate an unusual opportunity to develop psychology and related behavioral sciences in new and innovative directions within a comprehensive system of health care delivery. Doctorate is required and diplomate of ABPP in psychology is highly desirable. Send curriculum vitae and supporting materials to:

**Allan Rovick, Ph.D.,  
Chair, Search Committee  
Rush-Presbyterian-St. Luke's Medical Center  
1750 West Harrison Street  
Chicago, Illinois 60612**

An Equal Opportunity/Affirmative Action Employer

### CHAIRPERSON Department of Pathology College of Medicine University of South Florida

The University is seeking candidates with a strong academic background and a broad understanding of teaching and research in pathology. Candidates should also have administrative experience and an interest in developing programs in clinical pathology.

Applicants should submit a curriculum vitae and references to **Charles W. Fishel, Ph.D., Chairman, Search Committee, College of Medicine, University of South Florida, 12901 North 30 Street, Tampa, Florida 33612,** by February 1977.

The University of South Florida is an Affirmative Action/Equal Opportunity Institution.

### CHAIRPERSON Department of Pathology College of Medicine University of South Florida

Nominations and applications are sought for the position of chairperson of the Department of Comprehensive Medicine of the College of Medicine and director of the Medical Clinics of the Medical Center of the University of South Florida.

Responsibilities: The chairperson is responsible to the dean of the College of Medicine. Responsibilities include the direction of the Department of Comprehensive Medicine and the supervision of its faculty in education and research. As director of the Medical Clinics the chairperson is responsible for the personnel and patient care activities of a large ambulatory care unit.

Qualifications: Applicants should have earned an M.D. degree and have had substantial experience in medical education, public health, and research.

Applications: Applications from minorities and women are encouraged. Forward nominations or letters of interest with curriculum vitae by 1 February 1977 to:

**Roy H. Behnke, M.D.,  
Chairman, Search Committee  
Department of Internal Medicine  
Box 19  
College of Medicine  
12901 North 30 Street  
University of South Florida  
Tampa, Florida 33612**

The University is an Affirmative Action/Equal Opportunity Institution.

**MICROBIOLOGY—CHAIRPERSON:** Required experience in graduate level research and undergraduate level education. Salary will be commensurate with experience. Qualified persons should send curriculum vitae and three letters of recommendation to **Gilbert Gordon, Department of Chemistry, Miami University, Oxford, Ohio 45056.** Deadline for all credentials: 15 January 1977. Miami University is an Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

**DOCTORATE LEVEL CHEMIST.** An experienced doctorate level chemist is required to develop and test methods for the chemical degradation of hazardous materials. Previous experience in degradation of chemicals is highly desirable. Qualified candidates should send résumé with names of three references and salary requirements to **M. L. Knill, Recruitment, Position 213, Frederick Cancer Research Center, Litton Bionetics, Inc., P.O. Box B, Frederick, Md. 21701.**

An Equal Opportunity Employer, M/F

**COGNITIVE PSYCHOLOGIST** with interest in artificial intelligence approaches to cognitive topics (especially vision, but also other topics, for example, language). Appointment as assistant professor in the Committee on Cognition and Communication, University of Chicago. Submit at least three letters of recommendation and curriculum vitae to **Search Committee, Committee on Cognition and Communication, Department of Behavioral Sciences, University of Chicago, 5848 South University Avenue, Chicago, Ill. 60637.**

### DEAN UNIVERSITY OF SOUTH FLORIDA COLLEGE OF MEDICINE

Nominations and applications are sought for the position of dean of the College of Medicine and director of the Medical Center of the University of South Florida.

Responsibilities: The dean is responsible to the president of the University. Responsibilities include the overall operation of the College and the Center including instruction, research, patient care, and public service.

Qualifications: Applicant should have earned an M.D. degree and have had substantial experience in medical education and research.

Applications: Applications from minorities and women are encouraged. Forward nominations or letters of interest with curriculum vitae by 15 February 1977 to:

**Roy H. Behnke, M.D.,  
Chairman, Search Committee  
Department of Internal Medicine  
Box 19  
College of Medicine  
12901 North 30 Street  
University of South Florida  
Tampa, Florida 33612**

The University is an Affirmative Action/Equal Opportunity Institution.

**DEAN:** Ohio University invites nominations and applications for the position of dean of the College of Arts and Sciences. The College, of which the dean is the chief administrative officer, is the largest academic unit of the University with 18 departments. Nominees and applicants should have a distinguished record of intellectual, academic, and administrative achievement. Deadline for applications and nominations is 28 February 1977, and should be forwarded to: **Professor Helen W. Worstell, Chairperson, Arts and Sciences Search Committee, 303 Cutler Hall, Athens, Ohio 45701.** Ohio University is an Equal Opportunity/Affirmative Action Employer. Minority group members and women are encouraged to apply.

**DEVELOPMENTAL BIOLOGIST.** Faculty position open fall 1977, assistant professor level; salary dependent on experience and scholarly record. Duties include teaching vertebrate embryology, cytology, and advanced course in specialty; developing a program of research involving graduate students. Excellent facilities available. Candidate should have publication record and interest in seeking outside research funding. Submit résumé to: **Dr. R. A. Brandon, Department of Zoology, Southern Illinois University, Carbondale, Ill. 62901.** An Equal Opportunity/Affirmative Action Employer. Deadline for applications: 15 February 1977.

**ETHOLOGIST.** Assistant professorial position involving active research in animal behavior. Teaching responsibilities in gross anatomy and animal behavior. Salary negotiable. *Women and minority applicants are encouraged.* Submit curriculum vitae, representative reprints, and three letters of recommendation to:

**Dr. Peter J. Hand  
Chairman of Search Committee  
Laboratories of Anatomy  
Department of Animal Biology  
School of Veterinary Medicine  
University of Pennsylvania  
Philadelphia, Pa. 19174**



## POSITIONS OPEN

### DIRECTOR DEPARTMENT OF BIOCHEMISTRY

Case Western Reserve University School of Medicine invites nominations and applications for the position of professor and director, Department of Biochemistry. Excellence will be the primary criterion for selection and commitments to research, graduate training, and medical student teaching are essential. Further information is available on request. Please send curriculum vitae, list of publications, and names of three references to the chairman of the search committee:

**Leslie T. Webster, Jr., Director**  
Department of Pharmacology  
School of Medicine  
Case Western Reserve University  
2119 Abington Road  
Cleveland, Ohio 44106

*Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.*

The Department of Biology, Harvard University, is searching for an **ECOLOGIST** at the assistant or associate professor level to begin 1 July 1977. Applicants should have strong research abilities in experimental animal population ecology. Preference will be given to those who could teach and direct student work using local New England ecosystems. Curriculum vitae, including description of current and proposed research, and letters of recommendation should be sent to **William Bossert, The Biological Laboratories, Harvard University, Cambridge, Massachusetts 02138**. Deadline for applications is 15 February 1977. *Harvard University is an Affirmative Action/Equal Opportunity Employer. Applications from women and minority candidates are encouraged.*

**ECOLOGIST**. Assistant professorship, beginning September 1977 for 3-year appointment. Ph.D. required. Individual should have broad biological background and be prepared to teach ecology and introductory biology. Competencies in the areas of invertebrate zoology, behavior, and development desirable. Individual selected will have opportunity to assist in development of the ecological field station on 275-acre Vassar Farm. Active research interest expected; opportunity for advancement exists. Send curriculum vitae, explanation of qualifications, and references to **Dr. Patricia Johnson, Chairman, Department of Biology, Vassar College, Poughkeepsie, New York 12601**.

*Vassar College is an Equal Opportunity/Affirmative Action Employer.*

### FACULTY POSITIONS

**Microbial genetics, invertebrate physiology, cell biology** (with interests in electron microscopy), **plant biochemistry** (or regulation of metabolism), and **immunology-immunohematology** assistant professor positions are available for September 1977. Applicants should have postdoctoral experience, proven research ability, and a commitment to quality teaching at the undergraduate and graduate levels. Submit curriculum vitae, names of three referees, and a brief description of research interests to: **Dr. W. E. Magee, Director, Division of Allied Health and Life Sciences, the University of Texas at San Antonio, San Antonio, Texas 78285**. *An Equal Opportunity/Affirmative Action Employer.*

### MEMORIAL UNIVERSITY OF NEWFOUNDLAND DEPARTMENT OF GEOLOGY

The Department of Geology invites applications for three full-time **FACULTY POSITIONS**, effective 1 September 1977 (subject to the availability of funds). Salary and rank will be commensurate with the qualifications and experience of the successful candidates.

Applicants should have proven teaching and/or research capability within one (or more) of the following combinations: (i) engineering geology, environmental geology, Pleistocene geology, economic geology (including mineral resource management); (ii) regional geology, structural geology, geochronology; or (iii) marine geology, clastic sedimentology.

Duties will include undergraduate and graduate (M.Sc. and Ph.D.) instruction and supervision. Appointees will be expected to develop research interests within Newfoundland and Labrador.

Applications (three copies), which must include a detailed curriculum vitae and the names and addresses of three referees, should be sent by 31 January 1977 to **Dr. D. Skevington, Head, Department of Geology, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1C 5S7**.

## POSITIONS OPEN

**RESEARCH AND TEACHING POSITION: Human nutritionist or food scientist**. Opening subject to availability of funds. Ph.D. and postdoctoral research experience required. Responsibilities include teaching and research. Nutritionist should have interest or experience in dietetics and community nutrition. Food scientist should have interest or experience in marine sources of food. Rank and salary commensurate with qualifications. Closing date 1 February 1977. Please send complete curriculum vitae, summary of research experience, and names of three referees to:

**Chairman, Nutrition Search Committee**  
Department of Biochemistry  
Memorial University of Newfoundland  
St. John's, Newfoundland, Canada A1C 5S7

### ICHTHYOLOGIST-ASSISTANT PROFESSOR

Applications are invited from men and women for a position to teach an undergraduate course in ichthyology and graduate courses within their special area of interest and to conduct research. Experience desired in biometry, population biology, or genetics of freshwater or marine fish. Applicants must submit curriculum vitae, names and addresses of three reference sources, and transcripts to: **Dr. Robert E. Loveland, Chairman, Search Committee, Department of Zoology, Rutgers College, New Brunswick, New Jersey 08903**.

*An Equal Opportunity/Affirmative Action Employer*

### INSECT PHYSIOLOGIST CORNELL UNIVERSITY

Applications invited for position which carries responsibility for teaching senior/graduate course and developing research program. Prefer to fill at assistant professor level. Consideration given to associate rank in cases of exceptional qualifications and experience. Send curriculum vitae and names of five references to **Dr. E. H. Smith, Department of Entomology, Cornell University, Ithaca, N.Y. 14853**. Deadline for receipt of applications is 1 March 1977.

*Cornell University is an Equal Opportunity/Affirmative Action Employer.*

Morehouse College is forming a 2-year medical school. **POSITIONS** are available for those with teaching and research experience in the following departments: anatomy, physiology, pathology, pharmacology, microbiology, community medicine (epidemiologist), medicine, and psychiatry. Applications, including curriculum vitae, and names for references should be sent to: **Dr. Robert Holland, Chairman, Appointments and Promotions Committee, Morehouse College, Atlanta, Georgia 30314**. *Affirmative Action/Equal Opportunity Employer.*

### MOLECULAR BIOLOGY DEVELOPMENTAL GENETICS

Applications are invited for the position of assistant professor (effective August 1977) in the Department of Biology at Creighton University. The position requires participation in biology instruction at the introductory level and development of upper division and graduate offerings in molecular aspects of genetic and developmental control mechanisms. In addition to teaching, the individual will be expected to develop an active research program. Subsequent promotion will depend on both scholarly and teaching performance. Consideration will be given to both zoologically and botanically trained applicants.

Applicants should send a curriculum vitae (which includes a description of teaching experience and expertise), three letters of recommendation, and transcripts to:

**Dr. Harry Nickla**  
Chairman, Search Committee  
Department of Biology  
Creighton University  
Omaha, Nebraska 68178

The deadline for receipt of applications is 15 February 1977.

*Creighton University is an Equal Opportunity Employer.*

### POSTDOCTORAL POSITIONS

Available 1 February 1977 for projects related to adrenergic control of blood vessel in vitro. Preference will be given to individuals experienced in electrophysiological techniques. Stipend \$12,000 to \$14,000 depending on postdoctoral experience. Send curriculum vitae and references to **Dr. Gordon Ross, Department of Physiology, University of California, Los Angeles, School of Medicine, Center for the Health Sciences, Los Angeles, California 90024**.

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

## POSITIONS OPEN

**LECTURER-ASSISTANT RESEARCH PSYCHOBIOLOGIST**. Beginning 1 January 1977 a position is available in the Department of Psychobiology requiring both teaching and research. Applicants must have completed the doctorate, should be interested in teaching neurobiology at the undergraduate level, and should be pursuing research in neurobiology, specializing in the area of in vitro neurophysiology. Address applications to **Dr. Gary S. Lynch, Department of Psychobiology, University of California, Irvine, California 92717**, providing curriculum vitae and publications. At least three letters of recommendation should be sent by references. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.*

### LECTURER IN SCIENTIFIC WRITING University of California, San Francisco

Cardiovascular Research Institute invites applications for a full-time faculty position at the rank of lecturer. The Institute has a large interdisciplinary research training program for postdoctoral (M.D. and Ph.D.) trainees. The program includes a course on scientific writing to train young scientists to write simply and clearly, to avoid scientific gobbledegook, and to respect the English language. With other members of the faculty, the lecturer will teach in the formal course on scientific writing to small groups of trainees. The lecturer will also be responsible for the individual instruction of trainees when each writes and rewrites a scientific manuscript dealing with his or her research. The successful applicant will probably possess a degree in English or the liberal arts and have some editorial experience (academic editor, journal press editor, or scientific/biomedical book production). He or she must have a substantial interest in teaching. A familiarity with scientific/biomedical terminology is desirable but not essential. Approximate salary: \$18,000. *University of California, San Francisco is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.* Applicants should submit a professional résumé and the names of three references to **Dr. John Coleridge, Cardiovascular Research Institute, University of California, San Francisco, San Francisco, Calif. 94143**, by 7 January.

## DEAN OF THE GRADUATE SCHOOL UNIVERSITY OF LOUISVILLE

Applications and nominations are invited for the position of dean of the Graduate School. An individual is sought who will provide vigorous and innovative leadership for the continued growth and development of the Graduate School. The dean serves as head of the Institutes and special research units of the Graduate School and reports to the vice president for academic affairs and the vice president for health affairs. The application should include information relating to the following minimal qualifications:

- (1) An earned terminal degree or equivalent education and related experience.
- (2) A national reputation with a record of substantial publication in reputable journals.
- (3) Teaching experience at the graduate level and direction of research or other creative activities culminating in a graduate or professional degree.
- (4) Demonstrated management capability and knowledge of administrative procedures in a comprehensive university setting.

The University of Louisville is a state-supported, comprehensive urban institution which awards approximately 40 percent of its degrees in graduate and graduate-professional areas. Current enrollment in the Graduate School is 2700.

Send nominations or applications with curriculum vitae to:

**Dr. Michael A. Cassaro**  
Professor of Civil Engineering  
University of Louisville  
Louisville, Kentucky 40208

*An Affirmative Action/Equal Opportunity Employer*

## POSITIONS OPEN

### MARSHALL UNIVERSITY Huntington, West Virginia 25701

**MEDICAL SCHOOL FACULTY.** Full-time positions at the assistant and associate professor levels are available 1 January 1977, in the Department of Physiology and the Department of Microbiology of a developing medical school. Vacancies exist for two mammalian physiologists, a virologist, and an immunologist. Applicants must have a Ph.D. or M.D. degree; medical school teaching experience is preferred. Duties include teaching medical and graduate students, and development of an independent research program. Salaries are to be negotiated. Send curriculum vitae and names of three references to: **Paul H. Collins, Associate Dean for Administration and Student Services, School of Medicine, Marshall University, Huntington, West Virginia 25701.** *Marshall University is an Equal Opportunity/Affirmative Action Employer.*

### PHYSICAL BIOCHEMIST

Faculty position; rank open  
Starting: 1 September 1977

Candidates must have proven ability to conduct first-rate research in an experimental area of physical biochemistry, and to teach effectively in graduate and undergraduate courses in biochemistry and physical chemistry. Publications and postdoctoral experience are desirable. Send résumé, a synopsis of research plans, and three letters of recommendation to: **Professor Robert Shapiro, Chemistry Department,**

### NEW YORK UNIVERSITY

New York, New York 10003

*New York University is an Equal Opportunity/Affirmative Action Employer.*

**RESEARCH AND TEACHING POSITION: Physical Biochemist.** An opening is available at the assistant or associate professor rank, subject to the availability of funds. Closing date: 31 March 1977. The duties include teaching of undergraduate and graduate students, and the prosecution of research in physical biochemistry. Ph.D. and postdoctoral experience necessary. Please send complete curriculum vitae, summary of research experience, and the names of three referees to:

**Dr. K. M. Keough, Head (pro tem)  
Department of Biochemistry  
Memorial University of Newfoundland  
St. John's, Newfoundland, Canada A1C 5S7**

### PHYSICAL OCEANOGRAPHER

The University of California at Santa Cruz announces a faculty opening at the assistant or associate professor level (salary range is \$14,500 to \$23,700), starting 1 July 1977. The successful applicant will join an interdisciplinary group in coastal marine and continental margin studies and teach at the undergraduate and graduate levels. Send résumé and three letters of recommendation to: **Search Committee, Coastal Marine Studies, Applied Sciences Building, University of California, Santa Cruz, California 95064.** Application deadline is 15 February 1977. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION IN BIOCHEMISTRY,** available immediately. Steroid interactions in aqueous systems. Purification and kinetics of plasma steroid binding proteins. Steroid hormone-plasma membrane systems. Contact **G. F. Lata, Department of Biochemistry, University of Iowa, Iowa City, Iowa 52242.**

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

### PROGRAM DEVELOPMENT

The Ohio State University Research Foundation has an immediate opening for a person in Sponsored Program Development. The position requires assisting faculty in program planning, sponsor identification, proposal preparation, proposal submission, and other related duties. The applicant should have prior experience with sponsored programs, possess writing and other communications skills, be willing to travel to meet sponsors, and be trained in one of the biomedical sciences. A Ph.D. is preferred. *An Equal Opportunity/Affirmative Action Employer.* Send résumé and references to: **Dr. Ronald A. Wright, Director, Program Development Assistance Division, THE OHIO STATE UNIVERSITY RESEARCH FOUNDATION, 1314 Kinnear Road, Columbus, Ohio 43212.** Closing date: 14 January 1977.

## POSITIONS OPEN

### POSTDOCTORAL POSITION IN BIOCHEMISTRY, COLUMBIA UNIVERSITY

The Department of Biochemistry, Columbia University, announces the availability of a postdoctoral position in x-ray crystallography as research associate (corresponds in research to assistant professorial rank). Previous experience in single crystal x-ray structure determination of proteins and biologically important small molecules is required. Prospective candidates should submit résumés together with the names of three persons familiar with their research to: **Professor Barbara W. Low, Department of Biochemistry, Columbia University, 630 West 168 Street, New York, N.Y., 10032.**

*Columbia University is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITIONS**—Two immediate openings for recent Ph.D.'s with a background and interest in plant biochemistry and cell culture research. The "problem-oriented" positions are part of ongoing research and will be in concert with current team of three Ph.D.'s, several graduate students, and other professionals. One position will involve bioassays of plant hormones and inhibitors together with radioactive tracer studies relative to developmental processes in tree tissue cultures. Ph.D. in plant biochemistry or plant physiology required. Some experience with bioassays desirable. The second position requires a cell physiology/tissue culture background and interest in working on the development of an optimum liquid growth media for conifer cell suspensions. One-year appointments which may be extended and grants of \$9,000 to \$12,000 for a 12-month period are involved. Contact **Dr. Harry Cullinan, Dean, The Institute of Paper Chemistry, 1043 East South River Street, P.O. Box 1039, Appleton, Wisconsin 54911.** Telephone: 414-734-9251.

**POSTDOCTORAL POSITIONS** in oncology, immunology, microbiology, virology, molecular, and cellular biology. Available: July to September 1977. Inquiries to: **Dr. Sheldon Dray, Head, Department of Microbiology, University of Illinois Medical Center, P.O. Box 6998, Chicago, Illinois 60680.** *The University of Illinois is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITION** in immunocyto-genetics for recent Ph.D.; available immediately to apply immunological and banding methods to cytogenetic analysis of somatic cell hybrids.

Send curriculum vitae and names of references to:

**Dr. O. J. Miller  
Department of Human Genetics and Development  
College of Physicians and Surgeons  
Columbia University  
630 West 168 Street  
New York, New York 10032**

*An Equal Opportunity/Affirmative Action Employer, M/F.*

**POSTDOCTORAL RESEARCH ASSISTANT** in Department of Medicine, 9 a.m. to 5 p.m. A qualified individual with experience in immunology is needed. Ph.D. required; should be trained in biochemistry. Apply to **Personnel Department, ST. LUKE'S HOSPITAL CENTER, Amsterdam Avenue and West 113 Street, New York, New York 10025.** *An Equal Opportunity Employer, M/F.*

### RESEARCH ASSOCIATE IN VENEREAL DISEASE

The Department of Microbiology will accept applications for a research associate position from individuals qualified to conduct research in syphilitic diseases with emphasis on growth of *T. pallidum* in vitro. Send curriculum vitae to **Roger L. Nichols, M.D., Head, Department of Microbiology, Harvard School of Public Health, 665 Huntington Avenue, Boston, Mass. 02115.** *An Equal Opportunity Employer.*

### RESEARCH ASSOCIATE AND LECTURER INFECTIOUS DISEASES

The Department of Microbiology has an opening at the research associate/lecturer level, a non-faculty position, for a physician. Certification by the American Board of Internal Medicine and eligibility for certification in infectious disease is required. Applicants should have experience or interest in epidemiological studies in diseases of public health importance such as venereal disease, trachoma, and waterborne viral infections. Submit curriculum vitae to **Roger L. Nichols, M.D., Head, Department of Microbiology, Harvard School of Public Health, 665 Huntington Avenue, Boston, Mass. 02115.** *An Equal Opportunity Employer.*

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH ASSOCIATES BIOCHEMISTRY/IMMUNOCHEMISTRY

To study chemistry and immunology of cancer-related antigens and enzymes. Background in purification and characterization of enzymes (antigens), protein, and carbohydrate chemistry. Positions are available immediately. Beginning salary \$10,714 to \$13,404. Appointment: 1 to 3 years. Send résumé and two references to **Dr. T. M. Chu, Director of Diagnostic Immunology, Research and Biochemistry, Roswell Park Memorial Institute, Buffalo, N.Y. 14263.** *An Equal Opportunity/Affirmative Action Employer, M/F.*

Harvard University: The Department of Psychology and Social Relations seeks candidates for **TENURED PROFESSORSHIPS** in (i) biological psychology—that is, in physiological psychology, ethology, or a related area; (ii) human cognitive psychology or related areas. Address inquiries, including curriculum vitae and the names of as many as five referees familiar with your work, to **Professor Brendan Maher, Department of Psychology and Social Relations, Harvard University, 33 Kirkland Street, Cambridge, Mass. 02138.** *Harvard University is an Equal Opportunity Employer.*

### PROFESSOR OF COMMUNICATIONS

The Annenberg School of Communications at the University of Southern California seeks to appoint a distinguished research professor, effective September 1977.

Significant scholarly and research contributions in the field of endeavor, as well as national and/or international prominence, will be expected of all candidates.

Earned doctorate with distinguished research and teaching excellence in the following communications areas is desired: research methodology, public policy, theory, or economics. Other communications areas of possible interest to the committee include: international, biological and social systems, cognitive and/or mass communications.

Candidates should be prepared to teach graduate courses and advise doctoral and masters candidates, as well as supervise dissertations. Procurement and management of research grants and continuation of scholarly writing and research is expected.

Although this is an academic appointment, applications will also be considered from persons not at present in academic positions, but who have an earned doctorate degree. Previous government, business, or industry experience is desirable. *The University of Southern California is an Affirmative Action Employer.* Please send curriculum vitae to **Professor Robert Filep, Chairperson, Committee on Distinguished Research Professorship, Annenberg School of Communications, University of Southern California, Los Angeles, California 90007.** Telephone: 213-746-5094.

The Psychology Department, University of California at Riverside, has four **POSITIONS** available effective in the 1977-78 academic year.

- (1) **Measurement and quantitative psychologist**, beginning assistant professor level.
- (2) **Comparative psychologist**, beginning assistant professor level.
- (3) **Physiological psychologist**, lecturer status, beginning Ph.D. level (1 year, possibly renewable).
- (4) **Developmental psychologist**, beginning Ph.D. level (1 year, possibly renewable).

Applicants should have or be close to completing the Ph.D.

Send curriculum vitae and three letters of reference to: **Professor Robert D. Singer, Chairman, Search Committee, Psychology Department, University of California, Riverside, Calif. 92502.**

*The University of California, Riverside, is an Equal Opportunity/Affirmative Action Employer.*

### RESPIRATORY PHYSIOLOGIST

The Department of Physiology and Biophysics at the University of Tennessee Center for the Health Sciences in Memphis, Tennessee, has a position available as of 1 July 1977, at the assistant or associate professor level, depending on qualifications, for a Ph.D. or M.D. with interest in respiratory physiology. Responsibilities will include teaching in both professional and graduate school courses in physiology and developing an independent research program. Interested persons should send curriculum vitae and the names of three references, before 25 March 1977, to **Dr. Clark M. Blatteis, Department of Physiology and Biophysics, University of Tennessee Center for the Health Sciences, 894 Union (NA 427), Memphis, Tenn. 38163.** *An Equal Opportunity/Affirmative Action Employer.*

THE UNIVERSITY OF  
WESTERN ONTARIO  
FACULTY OF SCIENCE  
DEPARTMENT OF ZOOLOGY  
QUANTITATIVE ANIMAL ECOLOGIST  
FOR FALL 1977

Applications are invited for a faculty position at the level of assistant, associate, or full professor, rank and salary commensurate with experience. Candidates should have research interest and experience in ecological genetics, population dynamics, or evolution of communities. The successful candidate will be expected to conduct an active research program, and teach at the undergraduate and graduate levels. Applications, with curriculum vitae and names of at least three references, to:



Dr Miles H. A. Keenleyside  
Professor and Acting  
Chairman  
Department of Zoology  
The University of Western  
Ontario  
London, Ontario, Canada  
N6A 5B7

Deadline for applications is 28 February 1977.

# Unique Opportunity for BIOENGINEER or MICROBIOLOGIST with Bioengineering Training (Ph.D. or equivalent)

with leading pharmaceutical manufacturer

We have an excellent career opportunity for an instrument-oriented professional with a Ph.D. or Masters with 5-6 years related experience. Working in our Fermentation Department, the candidate selected will be involved with the scale-up of antibiotic and steroid processes from laboratory fermentors to production level.

We offer salary based on background and qualifications including a comprehensive benefits program. Will be based at our modern facilities adjacent to the Garden State Parkway, in Northern New Jersey.

For immediate and confidential consideration, please send detailed resume specifying present and desired salary information to: Mr. Richard L. Partl, Schering-Plough Corporation, 1011 Morris Avenue, Union, New Jersey 07083.

SCHERING-PLOUGH CORPORATION  
WE ARE AN EQUAL OPPORTUNITY EMPLOYER M/F

PHYSICIANS (MULTIPLE OPENINGS)—Food and Drug Administration/Bureau of Drugs. (Equal Opportunity Employer.) Immediate career Civil Service openings for physicians to evaluate clinical data of new drugs. Physicians function as leaders of multidiscipline teams reviewing New Drug Applications (NDAs) and Notices of Claimed Investigational Exemption for New Drugs (INDs). They participate in formulating policy and developing standards and guidelines for the study of new drugs. Positions are available in most specialties with most immediate needs in fields of Cardiology, Gastroenterology, Rheumatology, Anesthesiology, Pulmonary-Allergy, OB/GYN, and Infectious Diseases. The positions require judgment, ability to plan and organize work, effectiveness in writing, speaking, and interpersonal skills. Security, good salary (\$33,126 to \$37,800 per year), comprehensive fringe benefits, ongoing contacts with professional colleagues and provision for maintaining clinical expertise. Positions are available in the U.S. Civil Service system or the Commissioned Corps of the Public Health Service. Candidates must be U.S. citizens, graduates of U.S. or Canadian Medical Schools with a degree of Doctor of Medicine or Doctor of Osteopathy from a school approved by the Bureau of Professional Education Committee on Colleges of the American Osteopathic Association. A full, unrestricted, and permanent license to practice in a State, District of Columbia, Puerto Rico, or a territory of the U.S. is desirable. Graduates from foreign medical schools, or medical schools not listed as approved by the American Medical Association, may show comparability in medical education with approved schools in one of the following ways:

1. Permanent and full or unrestricted license to practice medicine in a State, the District of Columbia, Puerto Rico, or a territory of the U.S., or
2. At least one year as an active duty commissioned medical officer in the U.S. Armed Services or Public Health Service, or
3. Certification in a specialty by an American Specialty Board, or
4. Permanent certification by the Education Council for Foreign Medical Graduates in its American Medical Qualifying Examination or eligibility in the full examination of the National Board of Medical Examiners.

Send resume to:

FDA Personnel (Mr. Stephen Tobias)  
Room 4B-44  
5600 Fishers Lane  
Rockville, Maryland 20852

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Name Please print

Address

City State Zip MR12

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LABEL  
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## POSITIONS OPEN

**RESEARCH ASSOCIATE.** Applicants are invited for Ph.D. to join active research group involved with primary structure studies of H-2 antigens. Strong background in isolation, membrane biochemistry, or sequence methodology desired. Stipend: \$10,000 to \$12,000 depending on qualifications. Send graduate transcript, curriculum vitae, and three letters of reference to: **Dr. John E. Mole, Department of Microbiology, University of Alabama in Birmingham, Birmingham, Alabama 35294.** The University of Alabama in Birmingham is an Equal Opportunity/Affirmative Action Employer.

### RESEARCH ASSOCIATE IN REPRODUCTIVE ENDOCRINOLOGY

Position available 1 January 1977. A recent Ph.D. is required to study the function of corpora lutea of experimental and domestic animals. Experience in RIA and radioreceptor assay helpful but not essential. Salary is at current NRC rates and may be supplemented subject to availability of funds. Send curriculum vitae and the names of three referees to **Dr. B. D. Murphy, Department of Biology, University of Saskatchewan, Saskatoon, Canada S7N 0W0.**

**TWO RESEARCH ASSOCIATE POSITIONS** are available for applicants with Ph.D. degrees and experience in hard tissue research to work with members of the mineralization mechanisms group in the following areas:

- 1) Effects of hormones on the intra- and extracellular localization of calcium in bone and on the metabolism of calcium by bone cells.
- 2) Paracellular movement of molecular size markers in bone.

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:

**Albert C. Windham, Executive Officer  
Dental Research Center  
University of North Carolina  
Chapel Hill, N.C. 27514**

**SABBATICAL REPLACEMENTS** needed for 1977-78 academic year at full professor or associate professor ranks. Department is well equipped to carry out basic research. Candidates must be qualified to teach courses in general and advanced biochemistry. Please send curriculum vitae and three letters of recommendation to: **Chairman, Department of Biochemistry and Biophysics, John A. Burns School of Medicine, University of Hawaii at Manoa, Honolulu, Hawaii 96822.** An Equal Opportunity Employer.

The Midland Macromolecular Institute invites applications for a **SENIOR FACULTY POSITION.** Duties will involve research in molecular oncology and teaching in molecular biology, biochemistry, organic chemistry, or related fields at the graduate level. Prospective candidates with proven ability to carry out vigorous and imaginative research programs should contact the **Search Committee 7702, Midland Macromolecular Institute, 1910 West St. Andrews Road, Midland, Michigan 48640,** for details before submitting applications. Telephone: 517-631-9453. Midland Macromolecular Institute is an Equal Opportunity/Affirmative Action Employer.

THE AUSTRALIAN NATIONAL UNIVERSITY invites applications for appointment as **SENIOR FELLOW** in a research group headed by Professor B. Gunning, Department of Developmental Biology, Research School of Biological Sciences. Work of the department concentrates on plants; present main interests of the research group are in ultrastructural and morphogenetic studies on plant cells, and relationships between structure and function at cell level. The appointee will be expected to work in parallel with other members of the group and to develop and apply techniques of analytical electron microscopy and freeze-etching. Wide experience of cell biology, ultrastructure, low-temperature techniques, x-ray microanalysis, and freeze-etching is desirable. In addition, it is hoped that the appointee will also be willing to collaborate with others in the school who may be studying membranes, microorganisms, or animal cells. Experience in handling a range of biological materials, as well as knowledge of the above techniques, will therefore be advantageous. Salary: A\$21,536 to A\$25,202 per annum; exchange rate A\$1 = US\$1.23. Appointment for 5 years in first instance; possible extension to retiring age (65 years). Reasonable travel expenses. Assistance with housing. Superannuation benefits. Further information from **Academic Registrar, Australian National University, P.O. Box 4, Canberra, A.C.T., 2600, Australia,** with whom applications close on 18 February 1977.

## POSITIONS OPEN

**SUPERVISOR** for laboratory performing biological and simple chemical analyses. Experience in water quality, trace elements, or bioassay and Ph.D. required. Experience in consulting field highly desirable. Salary commensurate with experience. Send résumé to **Dr. E. B. Reed, Ecology Consultants, Inc., P.O. Box 2105, Fort Collins, Colorado 80522.** Equal Opportunity Employer.

### UNIVERSITY OF ZURICH, SWITZERLAND VERTEBRATE PALEONTOLOGIST

Applications are invited for the position of assistant professor or lecturer. The Institute has rich and excellent collections of Triassic marine fishes and reptiles. Preference will be given to a paleoichthyologist. There are good laboratory facilities and an attractive salary.

Applications should be made in writing giving full personal particulars and the names of two referees. The applications should be sent to: **The Director of the Paleontological Institute and Museum, Kunstlergasse 16, CH-8006 Zurich, Switzerland,** by 31 January 1977.

### VISITING PROFESSORSHIPS—CHEMISTRY

Dartmouth College invites applications for visiting faculty positions in the Department of Chemistry for 1977-78. The principal responsibility of visitors will be the teaching of freshman and/or undergraduate physical chemistry courses.

Opportunities are available for the full year, including summer 1978, but candidates who will be available only part of the year are also welcome. Visitors with part-year sabbatical leave could spend the entire year at Dartmouth, supplementing their income to the full salary level. These temporary positions afford opportunities for extensive interaction with colleagues and access to all available facilities.

Completed applications, comprising a résumé and two letters of recommendation from scientists familiar with the candidate's teaching and scholarship, should be sent before 1 February to **Professor David M. Lemal, Chairman, Department of Chemistry, Dartmouth College, Hanover, New Hampshire 03755.** Dartmouth College is an Equal Opportunity/Affirmative Action Employer.

### ZOOLOGIST

Applications are invited for a faculty position in zoology teaching upper division courses in anatomy, embryology, and invertebrate zoology. A doctorate in one of these areas is required. Send curriculum vitae and transcripts to **Dr. Stephen A. Norrell, Head, Division of Science and Mathematics, University of Alaska, Anchorage, 3221 Providence Drive, Anchorage, Alaska 99504.** The University is an Equal Opportunity/Affirmative Action Employer.

## TRAINEESHIPS

**PH.D. TRAINEESHIP**—To study biology and clinical significance of the ocular surface epithelium, including aspects of transformation of conjunctival into corneal cells and corneal neovascularization following epithelial trauma. Training in cellular biology with biochemistry and embryology suggested. Full-time position for 1 year with possible extension. Contact **R. Thoft, M.D., Eye Research Institute, 20 Staniford Street, Boston, Mass. 02114.**

## SYMPOSIUM

### ENERGY AND ENVIRONMENTAL STRESS IN AQUATIC SYSTEMS 2 to 4 November 1977 Augusta, Georgia

The Savannah River Ecology Laboratory, in cooperation with the University of Georgia's Institute of Ecology and the National Environmental Research Park program, will sponsor an ecological symposium on environmental stress. Session topics will include: thermal ecology, heavy metal pollution, contamination from fossil fuels and their by-products, natural stressors and environmental fluctuations, synergistic stresses, and modeling environmental stress. Abstracts are due by 15 July 1977, and speakers will be notified of acceptance by 1 August. Authors who desire to publish their work in a volume of selected papers should submit their manuscripts by 1 September. Send abstracts and inquiries to: **Dr. James H. Thorp, Symposium Chairman, Savannah River Ecology Laboratory, Drawer E, Aiken, S.C. 29801.**

## PROGRAMS

### DOCTORAL PROGRAM—PHARMACOLOGY

Medical University of South Carolina, Department of Pharmacology, seeks candidates for Ph.D. program. Interdisciplinary environment with capabilities ranging from GC-MS through cell cultures and animal studies to clinical studies of patients. Research training available in biochemical, cardiovascular and clinical pharmacology, drug metabolism, toxicology, analytical chemistry. Stipends available: \$3900 per year. Contact: **Department of Pharmacology, Medical University of South Carolina, Charleston, S.C. 29401.**

## FELLOWSHIPS

### PREDOCTORAL AND POSTDOCTORAL FELLOWSHIPS

Stipends are available for qualified predoctoral and postdoctoral fellows in **reproductive biology, biochemistry, and endocrinology**, through an interdepartmental training program sponsored by NICHD. Faculty research includes gene regulation; receptor, epididymal, and testicular biochemistry; chemistry and actions of gonadotropins and steroids; endometrial and luteal function; and cytogenetics. For further information please write: **Dr. J. David Puett, Population Training Program Director, Department of Biochemistry, Vanderbilt University, Nashville, Tennessee 37232.** An Equal Opportunity Employer.

### POSTDOCTORAL FELLOWSHIP IN ENTOMOLOGY

Vacancy for person with a doctorate in a zoological science with a strong background in entomology and ecology. A 3-year program on the biology of the biting midge, *Culicoides variipennis*. Résumé and three letters of reference: **Dr. C. L. Ralph, Department of Zoology and Entomology, Colorado State University, Fort Collins, Colorado 80523.** Application deadline is 15 February 1977. Colorado State University is an Equal Opportunity Employer and complies with Title IX requirements. Complaints should be filed with the Office of Equal Opportunity, Student Services Building.

**POSTDOCTORAL RESEARCH FELLOWSHIP** for recent graduate with Ph.D. preferably in biochemistry to study the mechanisms of action of mammalian collagenases with emphasis on structure-function relationships. Position available immediately. Inquiries and résumés should be addressed to **Dr. A. Z. Eisen, Division of Dermatology, Department of Medicine, Box 8123, Washington University School of Medicine, St. Louis, Missouri 63110.** An Equal Opportunity Employer.

**POSTDOCTORAL FELLOWSHIP** from 1977 to 1979 for biochemists, geneticists, immunologists, or microbiologists to study mammalian cell biochemical genetics and somatic cell hybridization. Send curriculum vitae to:

**Dr. Jean-Paul Thirion  
Microbiology Department  
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University of Sherbrooke  
Sherbrooke, Quebec, Canada J1H 5N4**

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