

CATECHOLAMINES?

WITHIN	WITHOUT
Brain Tissue	Derivatives
Adrenal Tissue	Fluorescence
Body Fluids	Gas Chromatography
Dosage Forms	Mass Spectrometry
Plant Matter	A Rich Uncle

Catecholamine analyzers based on liquid chromatography with electrochemical detection have replaced classical fluorescence procedures in all of the above areas and are now in routine use in many laboratories. The necessary instrumentation for rapid simultaneous assay of dopa, dopamine, norepinephrine, and epinephrine is surprisingly inexpensive. Detailed procedures are available and can be adopted by your laboratory without modification. Not limited to catecholamines, the new reverse-phase systems are capable of monitoring many other phenolic natural products and drugs. All of the known catecholamine metabolites and many tryptophan metabolites can be determined. In addition, the activity of many neurologically important enzymes (TH, DBH, COMT, NMT) can be measured. Let us know your requirements!

Send for details . . .

BIOANALYTICAL SYSTEMS INC.

P. O. Box 2206
(317) 463-1414

West Lafayette, Indiana 47906

Circle No. 201 on Readers' Service Card

8-ARGININE [125] VASOPRESSIN >95% MONOIODINATED

- From stock
- Tested for binding and displacement in a specific RIA
- Purified by high pressure liquid chromatography

Vasopressin, 8-arginine, [125]-
1100-1300 $\mu\text{Ci}/\mu\text{g}$
0.05M Sodium phosphate buffer (pH 7.4)
containing a stabilizer and proteolytic enzyme inhibitor, in dry ice.

NEX-128 10 μCi 2x10 μCi 50 μCi 2x50 μCi

Not for use in humans or clinical diagnosis



New England Nuclear

549 Albany Street, Boston, Mass. 02118
Call toll-free: 800-225-1572

(In Massachusetts and International: 617-482-9595)

NEN Chemicals GmbH, Dreieich, W. Germany; NEN Canada Ltd., Lachine, Quebec

Circle No. 247 on Readers' Service Card

COMBATING THE #1 KILLER



The SCIENCE
Report on
Heart
Research

**JEAN L. MARX and
GINA BARI KOLATA**

\$17.00 casebound

\$ 7.50 paperbound

10% discount to AAAS members

Send name, address and remittance to

**AMERICAN ASSOCIATION
FOR THE ADVANCEMENT
OF SCIENCE**

Department B-6
1515 Massachusetts Avenue, NW
Washington, D.C. 20005

What Every Design Engineer Should Own . . . **FREE!**

**New Klinger
Catalog 06/07**

More than 400

**ELECTRO-OPTICAL-MECHANICAL
MODULAR CONSTRUCTION ELEMENTS**

Ideal for

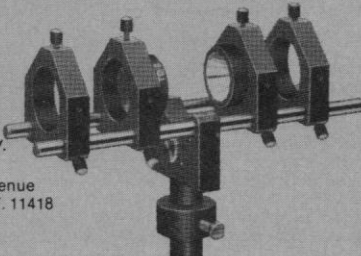
**Design . . . Development . . .
Testing . . . Prototyping
. . . Education**

Send for your **FREE** copy today.



KLINGER
SCIENTIFIC CORP

110-20 Jamaica Avenue
Richmond Hill, N.Y. 11418
(212) 657-0335



Circle No. 268 on Readers' Service Card

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. Advertising closing for a particular Friday issue is Wednesday, 3 1/2 weeks before. Advertising is accepted only in writing; no abbreviations. Also, personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, or handicap.

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

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

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

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

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

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

Blind ad replies should be addressed as follows:

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

POSITIONS WANTED

Biochemist/Ph.D. enzymology, molecular virology. Seeks industry-government-academic position in health-related research. Box 80, SCIENCE.

3/16, 23, 30

Biochemist. Recent Ph.D. Seeking position (salary and research support) for studies of cell surface role in insulin action in normal and resistant states. Begin September or October 1979. California resident willing to relocate. Correspond: Dr. P. Rosenblit, I.N.S.E.R.M. U.145, Faculté de Médecine (Pasteur), Chemin de Vallombrose, Nice Cedex 06034, France.

X

Biochemist, Ph.D. 1972. Broad experience in chemistry of proteins and glycoproteins, protein-cell membrane interactions, and enzymology, with knowledge of clinical chemistry, industrial fermentations, and food science. Academic and industrial experience. Seeks research position in industry, government, or academic institution in midwestern or western location. Box 88, SCIENCE.

X

Biochemist, Ph.D. Research interest in chemical carcinogenesis, hormone action, and gene regulation. With two current, transferable research grants. Seeks research or research/teaching position. Available immediately. Box 90, SCIENCE.

X

Botanist/Phycologist/Ecologist. Broad experience in botany, specifically in marine and freshwater algal-phytoplankton taxonomy and ecology. Five years of postdoctorate experience; publications. Seeks academic/industrial position. Box 89, SCIENCE.

3/16; 4/13; 5/11

Cell Biologist/Biochemist. Ph.D. Muscle membrane transport, heart and skeletal muscle ultrastructure. Freeze fracture. Publications. Desires academic-research position. Curriculum vitae upon request. Box 91, SCIENCE.

X

Physiologist/Biochemist. Experience with protein isolation, chromatography, tissue perfusion, surgical techniques, and so forth. Publications in platelet aggregation area. Has teaching experience, but prefers research. Box 92, SCIENCE.

3/16, 23

POSITIONS WANTED

Electron Microscopy. Ph.D. 1978. Expertise in coagulation and serial section electron microscopy, tumor cell and platelet ultrastructure. Teaching experience in coagulation. Publications. Seeks R & D position in academic or industrial situation. Write: J. F. Koukl, Department of Pathology, University of Missouri Medical Center, Columbia, Missouri 65201. X

Exercise Physiologist. Experienced in exercise physiology. Experience with EKG, pulmonary function tests, blood gases, blood chemistry, and so forth. Also experienced in biochemistry techniques such as electrophoresis, chromatography, protein chemistry, platelet aggregation. Publications. Box 93, SCIENCE.

3/16, 23

Plant Physiologist. Ph.D. 1974. Seeking research position in industry. Research interests in the regulatory aspects of photosynthetic/photorespiratory carbon metabolism in higher plants. More than 30 publications. Box 87, SCIENCE.

X

Radiological-Life Sciences-Chemistry. Honors 100 graduate hours. B.A., B.S., M.S. plus 3.6/4.0 GS 12. Cancer, cell research, isotopes, all radiological instrumentation. Seeks research associate position or management-describe. 1613 74th Street, Kenosha, Wisconsin 53140.

X

Scientist, educator/administrator: counselor/psychologist (meteorologist). Personnel analyst (tests-measures, career GS-12). Instructor research/statistics; personnel selection and training. Published in career planning. Box 654, Chambersburg, Pennsylvania 17201.

3/16, 23, 30

Toxicologist/Neurophysiologist/Behavior M.S. Two years of experience in primate operant techniques, project management, stereotaxic surgery, and recording and electrode implantation. Additional experience in physiology, abdominal and thoracic surgery, respiratory physiology, and cardiovascular physiology. Thesis topic: Electrographic Evaluation of the Neurotoxicity of Mirex. Seeks industrial, academic, or government position. R. E. Stevens III, 506 Thistle, Garland, Texas 75043.

3/16, 23, 30

POSITIONS OPEN

ANATOMY—ASSISTANT PROFESSOR Two openings (potential)

Department of Anatomy, University of South Dakota School of Medicine, invites applications from qualified Ph.D. or M.D. for teaching/research position beginning 1 July 1979. Qualifications include broadly based anatomical training/experience for teaching medical and graduate students and an active independent research program. Salary competitive. Closing date: 31 March 1979. Send curriculum vitae with list of three references to: **Dr. Wesley W. Parke, Chairman, Department of Anatomy, University of South Dakota School of Medicine, Vermillion, South Dakota 57069.**

Equal Opportunity/Affirmative Action Employer

ANATOMIST

Temporary position, up to a year, to teach medical gross anatomy or anatomy for allied health students. Salary and rank negotiable. Position open 1 July 1979. Send curriculum vitae and three letters of recommendation to: **Dr. Howard A. Matzke, Professor and Chairman, Department of Anatomy, University of Kansas Medical Center, College of Health Sciences and Hospital, Kansas City, Kansas 66103. The University of Kansas is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR OF ANATOMY

Ph.D. with strong commitment to teaching. Primary responsibilities: gross anatomy, with some involvement in the programs of the other anatomical subdisciplines. Skill in electron microscopy highly desirable with opportunities for collaborative and independent research. For one who enjoys working with students at the professional level. For one who desires a small community/rural environment. Applicants please submit curriculum vitae, brief statement of interests, and names of three references to: **F. J. Julian, Ph.D., Professor and Chairman, Department of Anatomy, Kirksville College of Osteopathic Medicine, Kirksville, Missouri 63501. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

AQUATIC BIOLOGIST, Ph.D., sought by public interest group to provide technical assistance to professional staff and member groups on pollution and fishery issues related to Lake Michigan. Two-year appointment; salary range: \$12,000 to \$13,000 per year. Prepare technical briefing papers, analyze data, work with scientists, public agencies. Send curriculum vitae and references to: **Richard Robbins, Lake Michigan Federation, 53 West Jackson Boulevard, Chicago, Illinois 60604.**

ASSISTANT CHAIRMAN. The Department of Biochemistry and Molecular Biology, Northwestern University in Evanston, invites applications for an assistant chairman. This is a new, permanent, non-tenure-track position with the rank of lecturer. This individual will be responsible for the general administration of the department. In addition, the person will teach a laboratory methods course in biochemistry. Administrative duties will include, for example, overseeing nonacademic staff, maintenance of facilities, and liaison between the department and various university operations. A Ph.D. degree with experience in biochemistry is required.

Send application and curriculum vitae, and arrange for three letters of reference to be sent to: **Professor Francis C. Neuhaus, Chairman, Search Committee, Department of Biochemistry and Molecular Biology, Northwestern University, 2145 Sheridan Road, Evanston, Illinois 60201.** Applications should be completed by 15 May 1979. *Northwestern University is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR

The School of Pharmacy, University of Southern California, Los Angeles, is soliciting applications from candidates with a background in the social and/or behavioral sciences. Submit curriculum vitae and names and addresses of three references. Ph.D. is required. Successful candidate will be expected to teach at undergraduate and graduate levels and be qualified to develop own research program. Research interests should be broadly related to health and health care such as drug utilization and factors that influence utilization; mechanisms for reducing health care costs; and the social, behavioral, and humanistic implications in the delivery and use of medicines. Applications should be on file by 15 April and be submitted to:

**Donald C. Brodie, Ph.D.,
Adjunct Professor of Pharmacy and Medicine
University of Southern California
School of Pharmacy
1985 Zonal Avenue
Los Angeles, Calif. 90033**

Equal Opportunity/Affirmative Action Employer

UNIVERSITY OF GUELPH Department of Animal and Poultry Science

Applications are invited for the position of assistant professor, probationary appointment. Required is a qualified biometrician with a background in agricultural science who is presently engaged in working with agricultural scientists. Responsible for consulting with faculty and graduate students on experimental design, analysis of data, and interpretation of data. Also, there will be opportunities to develop methods of analysis and statistical methods. The person will be domiciled in the Mathematics and Statistics Department.

The consultations will also take place both off and on the campus. The successful candidate would also be expected to teach two courses in applied statistics offered by the Department of Mathematics and Statistics, and do research. Salary commensurate with qualifications and experience. Direct replies to: **W. D. Morrison, Chairman, Department of Animal and Poultry Science, Ontario Agricultural College, University of Guelph, Guelph, Ontario, Canada N1G 2W1.**

Duties to commence on 1 September 1979. Closing data for applications: 1 May 1979 or until position is filled.

Position subject to final budgetary approval.

BIOLOGY—Aquatic biology, tenure-track position available (contingent upon funds). Requirements are a Ph.D. and demonstrated commitment to teaching and research. Teaching duties to include freshwater biology, invertebrate zoology, and limnology. Send résumé, transcripts, and three letters of recommendation to: **Dr. Virgil K. Howe, Chairman, Department of Biological Sciences, Western Illinois University, Macomb, Ill. 61455,** by 6 April 1979. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF AGRONOMY (PRODUCTION)

The Department of Agronomy and Soils seeks a Ph.D. to teach undergraduate courses and conduct research in forage, turf, and related seed production. Salary is open; application review begins 1 May 1979. Submit résumé, statement of research interests, academic transcripts, and names of three references to:

Dr. J. C. Engibous
Department of Agronomy and Soils
Washington State University
Pullman, Wash. 99164

Washington State University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR—ANATOMY

The Department of Anatomy at Wayne State University School of Medicine invites applications for a tenure-track position at the assistant professorial level. The department is searching for a highly qualified individual with interests in central nervous system neuronal mechanisms such as synaptology, somatopic mapping, or neuronal development. Preference will be given to individuals with demonstrated expertise and interests in current neurophysiological techniques and neuroanatomical and/or neurochemical approaches. Excellent facilities and support are available. The development of an independent, creative, and productive research program is an essential requirement. Teaching will be primarily in medical and graduate student neuroscience courses and gross anatomy. Interested individuals should send curriculum vitae, brief summary of research interests, and the names and addresses of three references to: **Dr. Harry Maisel, Chairman, Department of Anatomy, Wayne State University School of Medicine, 540 East Canfield Avenue, Detroit, Mich. 48201.** *Wayne State University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR, BIOCHEMISTRY

Applications are invited for the above faculty position to begin on or before 1 September 1979. A slight preference will be given to individuals with demonstrable originality and productivity in research in one or more of the following areas: membrane and lipid biochemistry, molecular and cell biology, differentiation, molecular endocrinology, and/or metabolic control mechanisms. The successful candidate will also be expected to participate in graduate and medical student teaching. Interested applicants should send curriculum vitae, a detailed statement of research interests, and names of three references before 1 May 1979 to: **Chairman, Search Committee, Department of Biological Chemistry, University of Illinois at the Medical Center, 835 South Wolcott Avenue, Chicago, Ill. 60612.** *The University of Illinois is an Affirmative Action/Equal Opportunity Employer and encourages applications from members of minority groups and women.*

ASSISTANT PROFESSOR OF CELL BIOLOGY

The Department of Cell Biology has two faculty positions available at the assistant professorial level. Formal duties associated with each position include teaching in the cell biology/histology course for medical students. Preference will be given to candidates with 2 years of postdoctoral training, relevant teaching experience, and research accomplishments in cell or reproductive biology. Submit curriculum vitae, list of publications, research plan, and three letters of recommendation by 15 April to:

William B. Neaves, Ph.D.
Faculty Search Committee
Department of Cell Biology
The University of Texas Health
Science Center at Dallas
Southwestern Medical School
5323 Harry Hines Boulevard
Dallas, Texas 75235

The University of Texas Health Science Center is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMISTRY UNIVERSITY OF DENVER

RESEARCH ASSOCIATE, starting 1 September 1979 to 1 January 1980; \$12,000 per year; to continue studies of ribosome structure using rigid, variable length cross-linking reagents attached to tRNA. Send curriculum vitae and three letters of recommendation to: **Dr. Eric Wickstrom, Department of Chemistry, University of Denver, Denver, Colo. 80208.** *Equal Opportunity Employer, M/F/H.*

POSITIONS OPEN

ASSISTANT PROFESSOR OF IMMUNOLOGY

Candidate should have a Ph.D. in immunology or microbiology with emphasis on immunology. This is a tenure-track position. Postdoctoral and teaching experience required. Duties will include establishing research program as well as teaching medical, allied health, and graduate students.

Send curriculum vitae, research interests, and three references to:

Dr. Robert E. McCarthy
Associate Professor
Chairman, Search Committee
Department of Medical Microbiology
University of Nebraska Medical Center
42nd and Dewey Avenue
Omaha, Neb. 68105

An Affirmative Action/Equal Opportunity Employer

DEPARTMENT OF MICROBIOLOGY

Applications are invited for two tenure-track positions at the level of **ASSISTANT PROFESSOR**, to commence as early as July 1979. Applicants should have an established research interest in virology, bacteriology, or immunology, with a background in molecular biology, cell biology, and genetics, and an interest in basic aspects of the infectious process. Potential to obtain funding as an independent investigator is important, together with an active commitment to teaching medical and graduate students. The successful integration of all components of the University of Pennsylvania on a single urban campus offers a rich intellectual environment and many opportunities for collaborative and interdisciplinary research. Applicants should have a doctoral degree, and at least 2 years of postdoctoral experience. Please send: (i) curriculum vitae; (ii) names of three references; (iii) reprints of three papers; and (iv) a short account of professional background and future plans to: **Microbiology Search Committee, Department of Microbiology, School of Medicine, University of Pennsylvania, Philadelphia, Pa. 19104.** *Equal Opportunity/Affirmative Action Employer.*

ASSISTANT OR ASSOCIATE PROFESSOR OF PHYSIOLOGY (Ph.D. and/or M.D.). Teaching and research ability are of primary consideration. Research and teaching areas: neuroendocrinology and/or gastrointestinal. Teaching responsibilities include medical, nursing, and graduate students. The individual must be willing and able to effectively teach areas other than in the primary research interest. Must be trained in a medical school. Postdoctoral training preferred. Possession of grant funds and medical faculty experience necessary for associate professor level. Salary dependent upon experience. Send curriculum vitae and three letters of reference to: **Carleton H. Baker, Ph.D., Professor and Chairman, Department of Physiology, Box 8, College of Medicine, University of South Florida, Tampa, Florida 33612.** *The University of South Florida is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT VICE PRESIDENT FOR ACADEMIC AFFAIRS AND RESEARCH—The University of Idaho seeks an assistant vice president reporting directly to the vice president. Responsibilities include planning and administration concerning the nine academic colleges and a wide range of research programs. Desired qualifications include major administrative experience; university teaching; research experience, including ability to develop external funds; and earned doctorate. Search and selection procedures will close when a sufficient number of completed applications are identified, but in any event, no sooner than 16 April 1979. For information and applications, contact: **Law Dean Thompson, University of Idaho, Moscow, Idaho 83843.** *An Affirmative Action/Equal Opportunity Employer and Educational Institution.*

BIOLOGY FACULTY POSITION

Available fall 1979. A full-time position, tenure-track, for a Ph.D. with a teaching background in histology. Experience in one or more of the following an asset: radiobiology, microbiology, comparative anatomy, invertebrate zoology. Assistant/associate level depending on experience. Interested persons should respond with a letter of application, a résumé, and three letters of recommendation by 16 April to: **Brother Richard Hawley, Chairman, Biology Department, La Salle College, 20th and Olney Avenues, Philadelphia, Pa. 19141.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT OR ASSOCIATE PROFESSOR OF RADIOBIOLOGY (DNA REPAIR). An individual with expertise in mammalian DNA repair mechanisms is sought to join a research group interested in the mutagenic and carcinogenic effects of radiations and chemical agents. This individual should have at least 2 years of specific postdoctoral research experience in mammalian DNA repair processes, and demonstrated evidence of innovative research capability. Teaching responsibilities will include lecturing in graduate courses in radiobiology, carcinogenesis and environmental health, as well as the direct supervision of doctoral students and postdoctoral research fellows in the laboratory. Rank and salary will be determined on the basis of qualifications. Please send curriculum vitae, names of three references, and a letter describing research interests to:

Dr. John B. Little
Laboratory of Radiobiology
Harvard University
School of Public Health
665 Huntington Avenue
Boston, Massachusetts 02115

Harvard University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT RESEARCH BIOCHEMIST The Department of Physiology—Anatomy UNIVERSITY OF CALIFORNIA BERKELEY

An assistant research biochemist is sought to pursue a program of the molecular mechanisms of oxidative damage to mammalian cells, enzymes, and organelles. We are seeking an individual who has experience in the detection and assay of oxygen radicals, protective enzymes like superoxide dismutase and catalase, and chemical mechanisms of protection, and who has demonstrated innovative ability in developing assays for detection of damage of membrane lipids and proteins by biochemical and EPR methodologies.

Additional experience required is in the area of oxygen toxicity, particularly radicals and radical-forming species and enzymes which protect against oxidative damage. Applicants should have a knowledge of biological oxidation and bioenergetics and a demonstrated publication record in this area with at least 2 years of postdoctoral experience. This is a full-time position at present, with a salary of \$17,500 per year.

Interested individuals should write a letter explaining their qualifications for the particular position, and enclose current curriculum vitae and a list of three or more persons who could act as referees, and send to:

Search Committee
Department of Physiology—Anatomy
2544 Life Sciences Building
University of California
Berkeley, California 94720

Applications must be received by 1 May 1979. The University of California is an Equal Opportunity/Affirmative Action Employer.

BIOLOGY. Animal biologist. One academic year, at assistant professor level. Ph.D. degree in animal physiology and demonstrated excellence as a teacher required. Responsibilities include animal physiology and basic biology (for nonscience majors). Position effective 17 August 1979. Position contingent upon funding. Send curriculum vitae, transcripts, and three letters of recommendation by 17 April 1979 to: **Dr. John E. Williams, Biology Department, Clarion State College, Clarion, Pa. 16214.** *An Affirmative Action/Equal Opportunity Employer.*

Opening for **DIRECTOR**, Coastal Ecology Laboratory, with established record of research in coastal or wetland ecology to direct one of four departments within the Center for Wetland Resources. A high degree of professional competence with Ph.D. in ecology or related discipline required; administrative experience is mandatory. To supervise about 30 professional-level ecologists, administer to existing research programs, and develop new programs, primarily through grants and contracts. A joint appointment and teaching duties in the graduate Marine Sciences Department are encouraged. Send curriculum vitae and names of three references not later than 31 March 1979 to: **Dean Jack Van Lopik, Center for Wetland Resources, Louisiana State University, Baton Rouge, La. 70803.** *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

BEHAVIORAL TOXICOLOGY RESEARCH

Research position available in field of behavioral toxicology at the Toxic Hazards Research Unit, Wright-Patterson Air Force Base, Dayton, Ohio. This position will have an adjunct professorship of appropriate rank in the University of California, Irvine. Collaborative research conducting studies in animals exposed to airborne materials of environmental/occupational interest. Requires Ph.D. in behavioral sciences or related field and 2 years of postdoctoral research. Experienced in behavioral measurements in laboratory animals. Preference given applicants experienced in inhalation toxicology and published independent work. Closing date for applications is 1 August. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Submit complete curriculum vitae and names of at least three references to: **Dr. J. D. MacEwen, University of California-Irvine, Toxic Hazards Research Unit, Overlook Branch, P.O. Box 3067, Dayton, Ohio 45431.**

BIOLOGY INSTRUCTOR OR ASSISTANT PROFESSOR. Duties include providing leadership and vision in the coordination of a multisection, general education, introductory general biology course (lecture and laboratory); teaching in the course, course development, organization, and implementation. The ability to effectively interface with participating faculty members is essential. Current annual enrollment is approximately 2800 students with 19 participating faculty. Ph.D., Ed.D., or equivalent required; demonstrated leadership and experience in the coordination and teaching of multisection general biology required. Expertise in multimedia, innovative approaches to instruction. CAL, A-T, PSI, and so forth, is required. Demonstrated ability in the procurement of extramural funding is desirable. Application deadline is 13 April 1979. Send complete résumé, three letters of recommendation, and complete transcripts to: **Dr. Robert G. Johnson, Chairperson, Department of Biology, Southeast Missouri State University, Cape Girardeau, Mo. 63701.** *An Equal Opportunity/Affirmative Action Employer.*

CANCER CHEMOTHERAPY. Postdoctoral research training offered jointly by the Departments of Medicine (J. Mendelsohn, M.D., and S. B. Howell, M.D.) and Chemistry (The Athymic Mouse Research Center, N. O. Kaplan, Ph.D.), University of California, San Diego. The successful candidate (M.D. or Ph.D.) will be able to study various chemotherapies on human tumor lines in athymic mice and correlate them with clinical cases at the University Hospital. For the first year the annual stipend (ranging from \$10,000 to \$13,200, commensurate with experience) is available from a training grant. The fellow will be expected to apply for own support for the subsequent 2 years. Closing date for application is 30 April 1979; appointment date is 1 August 1979. Apply to: **Dr. N. O. Kaplan, 0-058, University of California-San Diego, La Jolla, Calif. 92093.**

The University of California is an Affirmative Action Employer.

CHAIRPERSON, PROFESSOR OF CHEMISTRY, DEPARTMENT OF CHEMISTRY. State University of New York at Albany. Applications are invited for this position to start on 1 September 1979 or as soon thereafter as possible. The Department of Chemistry has a commitment to continuing development of outstanding programs in research and teaching and seeks a chairperson to provide leadership in these areas and to guide the future growth of the department. The applicant should be a chemist of senior rank, with an established reputation in research and interest in teaching and administration. Each applicant should send a résumé and the names of at least three references to: **J. A. Zubieta, Chairman, Search Committee, Department of Chemistry, State University of New York at Albany, Albany, New York 12222.** Applications should be completed before 30 March 1979. *An Equal Opportunity/Affirmative Action Employer.*

CHAIRMAN—PHYSIOLOGY

The University of Oregon Health Sciences Center is seeking a chairman for the Department of Physiology in the School of Medicine.

Qualifications for this position include a doctorate and a strong record of research, teaching, and administrative ability. Interested persons should send curriculum vitae, references, and a description of professional interests to: **James Metcalfe, M.D., University of Oregon Health Sciences Center, Portland, Ore. 97201.**

POSITIONS OPEN

CHAIRMAN, BIOLOGICAL SCIENCES. Department offers B.S. degree in biology, environmental resources, fish and wildlife management, and microbiology; M.S. degree in biology. Qualifications: Ph.D., at least 5 years of academic experience, strong publication record, and administrative experience. Prefer training in invertebrates, limnology, pollution, general ecology. Submit application letter, curriculum vitae, three letters of recommendation to: **Dean Frederic D. Ogden, College of Arts and Sciences, Eastern Kentucky University, Richmond, Ky. 40475.** Deadline: 2 April 1979.

CHILD PSYCHIATRIST—Faculty appointment for an individual to direct teaching programs for medical students and residents to carry out research in Department of Psychiatry. Wide range of services available including a therapeutic nursery, child and adolescent day hospital, inpatient, outpatient, and pediatric liaison. Please send inquiries to: **Arthur Kling, M.D., Chairman, Search Committee, Department of Psychiatry, College of Medicine and Dentistry of New Jersey, Rutgers Medical School, P.O. Box 101, Piscataway, N.J. 08854.** *Equal Opportunity/Affirmative Action Employer, M/F.*

DEAN OF GRADUATE STUDIES MONTANA STATE UNIVERSITY

Applications and nominations are invited for graduate dean responsible to the vice president for academic affairs and for graduate education in 19 doctoral and 34 master's programs. Grants and contracts research is \$10,000,000. Individual may have up to one-quarter time for research and/or teaching.

QUALIFICATIONS: doctoral or terminal professional degree, demonstrated professional creative activity with national recognition, successful direction of graduate students, experience with grants and foundation support and its management, demonstrated teaching excellence, ability to communicate the needs and requirements of quality graduate education, and desire to continue own professional development.

POSITION AVAILABLE: 1 July 1979.

SALARY: mid to upper \$30,000's for 12 months.

APPLICATIONS: send letter of application, résumé, and names of three references to: **Gloria A. Gregg, Chairperson, Graduate Dean Search Committee, 409 Reid Hall, Montana State University, Bozeman, Montana 59717; telephone: 406-994-4731.** Deadline for applications is 16 April 1979.

A complete description for the position may be obtained by writing to the above address.

Montana State University is an Equal Opportunity/Affirmative Action Employer.

DIRECTOR. The Fred Hutchinson Cancer Research Center, one of the 20 comprehensive cancer research centers in the United States, seeks a director to serve as its chief executive officer. The director's duties include responsibility for hiring scientific personnel, budget and grant preparation and review, and space allocation. The director should be a medical doctor with cancer research, clinical, administrative, and grant experience. Résumés should be submitted no later than 6 April 1979, to: **David C. Lyette, Co-Chairman, Search Committee, 3800 Rainier Bank Tower, Seattle, Washington 98101.** *An Equal Opportunity Employer.*

ECOLOGIST with background in areas which would contribute to teaching environmentally oriented general education courses for nonscience majors. Requirements: doctorate degree; résumé, transcripts, and three recommendations sent directly to: **Dr. Wallace Dixon, Natural Science Department, Eastern Kentucky University, Richmond, Ky. 40475.** Deadline: 12 April. *Eastern Kentucky University is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS

Full-time faculty positions are available in the Department of Obstetrics and Gynecology for basic scientists with a research interest in reproductive biology and an expertise in biochemistry. A doctorate is required. Academic rank and salary are dependent on qualifications. If interested, please send curriculum vitae and bibliography to:

**William N. Spellacy, M.D.
Professor and Head
Department of Obstetrics and Gynecology
Abraham Lincoln School of Medicine
University of Illinois Medical Center
840 South Wood Street
Chicago, Illinois 60612**

Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

ENVIRONMENTAL CHEMISTRY, assistant or associate professor. Tenure-track position in the Department of Crop and Soil Sciences beginning summer 1979. The position is 75 percent research and 25 percent teaching. The responsibilities are to develop research and teaching programs that focus on natural and synthetic organic chemicals in soils and plants that are important to crop productivity and environmental quality. Preference for Ph.D. in natural products chemistry or soil chemistry with strong academic background in organic chemistry. Research experience in analytical, polymeric, and/or structural chemistry desired. Letter of application, complete with résumé and three letters of recommendation, should be sent to: **Dr. D. D. Harpstead, Chairman, Department of Crop and Soil Sciences, Michigan State University, East Lansing, Mich. 48824.** Applications will be received until 1 April 1979 or until such time as a qualified candidate is identified. *Michigan State University is an Equal Opportunity Employer.*

FACULTY POSITION

Chemical oceanographer with interests that reinforce ongoing programs in estuarine and/or shelf processes and with a strong commitment to research and teaching. At least several years of experience beyond doctorate required. Rank and salary open. Located at Lewes Complex. Send résumé, names of three references, and research interests to: **Dr. Ronald J. Gibbs, College of Marine Studies, University of Delaware, Lewes, Del. 19958.**

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

FACULTY POSITIONS BIOCHEMISTRY AND BIOPHYSICS

The Department of Biochemistry and Biophysics of The Pennsylvania State University invites applications for two tenure-track positions available at the assistant/associate professor level. Candidates should have a strong background in biochemistry, biophysics, or molecular biology; have postdoctoral experience and be capable of developing an independent research program in one of the following areas: gene structure and regulation of gene expression, possibly using recombinant DNA technology; biochemical endocrinology, particularly with interests in hormonal control of gene expression and differentiation; or nucleic acid and protein metabolism, especially membrane-related systems. We provide excellent physical facilities, competitive salary and benefits, and stimulating research environment. Applications should consist of curriculum vitae, a brief but detailed description of research goals, and the names of three references. Send applications, by 6 April 1979, to: **Dr. R. W. Bernlohr, Department of Biochemistry and Biophysics, The Pennsylvania State University, 108 Althouse Laboratory, University Park, Pennsylvania 16802.**

An Affirmative Action/Equal Opportunity Employer

FACULTY POSITION—A faculty position is available at the assistant professor level for an M.D. clinical pathologist in a university health center clinical chemistry laboratory. A record of scientific achievement and continuing program of research in biochemistry and/or experimental pathology is a must. Experience in clinical chemistry helpful. Reply with curriculum vitae to: **Dr. Ajit Sanghvi, Department of Pathology, University of Pittsburgh School of Medicine, Pittsburgh, Pa. 15261.** *An Equal Opportunity/Affirmative Action Employer.*

Possible opening fall 1979 for visiting faculty member (1-year appointment) in **GEOLOGY/EARTH SCIENCE.** Candidate must be able to teach a wide range of geoscience material. Interest in undergraduate interdisciplinary research highly desirable. Evergreen is a 4-year accredited liberal arts college which emphasizes team-taught interdisciplinary studies. No departments. For information, contact: **Dr. Willard Humphreys, Academic Dean, 12211, The Evergreen State College, Olympia, Wash. 98505.** Closing date: 31 March 1979. *An Affirmative Action/Equal Opportunity Employer.*

Established private research firm seeks **Ph.D. ICHTHYOLOGIST** knowledgeable in the taxonomy and natural history of eastern Pacific fishes. Must have strong background in statistics and population dynamics. Position requires field and laboratory work, good command of verbal and written communication, and program management. Salary to \$20,000, plus fringe benefits. Send résumé to: **C. T. Mitchell, Marine Biological Consultants, Inc. 947 Newhall, Costa Mesa, Calif. 92627** before 1 April.

POSITIONS OPEN

FACULTY POSITION IN BIOCHEMISTRY

The Department of Biochemistry at the University of Texas System Cancer Center, M. D. Anderson Hospital and Tumor Institute, invites applications for an assistant professorship from qualified individuals with an interest in utilizing recombinant DNA techniques to study problems in mammalian gene expression. Please send curriculum vitae, list of publications, names of at least three references to be used for letters of recommendation, and a summary of research interests to: **Dr. Grady F. Saunders, Department of Biochemistry, The University of Texas System Cancer Center, M. D. Anderson Hospital and Tumor Institute, 6723 Bertner Avenue, Houston, Texas 77030.**

An Equal Opportunity/Affirmative Action Employer

The College of General Studies at the University of South Carolina is currently seeking a **GENERAL BIOLOGIST** to fill a faculty vacancy beginning with the fall semester 1979. The successful applicant would teach courses in the biology of plants and biology of animals. Those individuals with previous teaching experience and an earned doctorate will be given preference. Rank and salary will be commensurate with experience and degree held. Send résumé and three letters of reference to: **Dr. H. E. Varney, Dean, College of General Studies, University of South Carolina, Columbia, South Carolina 29208.** *The University of South Carolina is an Equal Opportunity/Affirmative Action Employer.*

INFORMATION SCIENTIST

The Chemical Hygiene Fellowship of Carnegie-Mellon Institute of Research, a well-established and expanding research facility concerned with all phases of toxicology testing of chemicals, located 20 miles east of Pittsburgh, Pa., has an immediate opening for an information scientist.

The qualified individual must have advanced degrees or equivalent experience. Degrees should be in a biological science and in information science or library science. Experience in conducting literature searches, both manual and computerized, and familiarity with toxicology and its literature are required. Duties will include: conducting complete literature searches with minimal consultation and supervision and providing a "current awareness" function which routinely monitors the current literature for areas of specific or common concern and directing this information to the appropriate individuals or groups.

Submit curriculum vitae to:

**CARNEGIE-MELLON
INSTITUTE OF RESEARCH
R.D. #4, Box 60
Export, Pa. 15632
Attention: A. R. Ryrholm**

*An Equal Opportunity/Affirmative Action Employer
A division of Carnegie-Mellon University*

MEDICAL MICROBIOLOGY EXPANDING DEPARTMENT dedicated to research, committed to teaching, desirous of excellence, seeks applicants for tenure-track positions. Candidates should have postdoctoral experience, demonstrated potential for independent and cooperative research, interest(s) in pathogenic mechanisms and immunology at organismal, genetic, and molecular levels. Please send curriculum vitae, names of at least three references who may be contacted for recommendations and, especially, a summary of research interests and future plans to: **Chairman, Search Committee, Department of Microbiology, School of Medicine, University of Missouri-Columbia, Columbia, Mo. 65212.** Deadline: 15 April 1979. *An Equal Opportunity/Affirmative Action Employer.*

NEUROANATOMIST

A position is available for a neuroanatomist at the assistant or associate professor level in the Department of Anatomy, University of Virginia. Candidates should have at least 2 years of postdoctoral experience. Teaching responsibilities include neuroanatomy for first year medical students. The department stresses research and the candidate is expected to maintain an independent program of investigation. Opportunities are available for participation in an interdisciplinary program of graduate study in neuroscience. Interested persons should send their curriculum vitae and the names of three references to: **Chairman, Department of Anatomy, Box 439, University of Virginia Medical Center, Charlottesville, Virginia 22908.**

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL RESIDENT RESEARCH ASSOCIATESHIP OPPORTUNITIES

in basic research related to:

- AERONAUTICS PROPULSION
- MATERIALS AND STRUCTURES
- SPACE COMMUNICATIONS
- SPACE PROPULSION AND POWER
- TERRESTRIAL ENERGY

*Sponsored by the LEWIS RESEARCH CENTER,
NATIONAL AERONAUTICS AND SPACE
ADMINISTRATION and the NATIONAL
RESEARCH COUNCIL*

*For more information about research opportunities contact
Chief Scientist, NASA Lewis Research Center, Cleveland,
Ohio 44135, (216) 433-4000 ext. 200*

Applications are available from JH 606
National Research Council, 2101 Constitution Avenue,
Washington, DC 20418
Send completed forms to NASA Lewis Research Center,
21000 Brookpark Road, Cleveland, Ohio 44135

attention: Staffing Section 500-314

before January 15th for March awards, May 1st for July
awards and September 1st for November awards.

Tenure to begin within 6 months of award

AEROSOL PHYSICIST/CHEMIST

Calspan Corporation has an outstanding opportunity immediately available for an individual to do theoretical and experimental studies of the physical and chemical kinetics of gas-to-particle conversion, air-sea interactions, fog formations, and other mechanisms of aerosol formation and growth. Also involved would be experimental studies, under both large-scale laboratory and field conditions, of the influence of pollutants on ambient aerosols and air quality.

We seek an individual with an MS or PhD, broadly knowledgeable in Aerosol Chemistry/Physics, and having the potential to develop and lead new research programs in aerosol physics.

The **ADVANCED TECHNOLOGY CENTER** of Calspan Corporation, has for over 30 years, been a recognized leader in Research, Development and Engineering. We can offer you excellent benefits and salary in addition to a highly professional environment in which to develop your career with a reputable, established and evolving organization.

To apply, please send me your resume as soon as convenient.

W. P. Rickard

**Calspan ADVANCED
CORPORATION TECHNOLOGY
CENTER**
AN ARVIN COMPANY

4455 Genesee Street • Buffalo, N.Y. 14225

An Equal Opportunity Employer

POSITIONS OPEN

MARINE ECOLOGIST needed to fill tenure-track position at the University of South Carolina at Beaufort for the summer session 1979 beginning 4 June 1979. Teaching of introductory marine science sequence and summer course in marine ecology for upper-division and graduate students. Emphasis on teaching with opportunity for research. Salary to \$14,000 for 9 months. M.S. required; Ph.D. desired. Send curriculum vitae and names of three references to: **Dean, University of South Carolina at Beaufort, P.O. Box 1007, Beaufort, S.C. 29902.** Applications close 1 April 1979. *An Affirmative Action/Equal Opportunity Employer.*

MICROBIOLOGIST/GENETICIST

The University of Colorado, Colorado Springs, Colorado 80907—Rank open; preference to individuals with postdoctoral experience. Teaching: introductory microbiology, genetics, advanced courses in microbiology, and health-related areas. Send curriculum vitae and names of three referees to: **Dr. R. Catlett, Biology Department.** Deadline: 9 April 1979. *Affirmative Action/Equal Opportunity Employer.*

HARVARD MEDICAL SCHOOL NEUROBIOLOGIST

The Department of Neurobiology is seeking a new faculty member at the assistant professor level to begin 1979 or 1980. *Applications from women and minority people are encouraged.* Please send curriculum vitae and a brief outline of research plans and have three letters of reference sent to:

Search Committee
Department of Neurobiology
Harvard Medical School
25 Shattuck Street
Boston, Mass. 02115

NEUROCHEMIST/NEUROPHARMACOLOGIST—With 1 to 2 years of experience beyond postdoctoral level, to join cardiovascular research group. Interest/experience in neuropeptides and catecholamines desirable. Will join an ongoing investigation of central nervous system mechanisms in hypertension and cardiovascular control. Please send curriculum vitae to: **Carlos M. Ferrario, M.D., Research Division, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, Ohio 44106.** *An Equal Opportunity Employer.*

The Department of Neurology at the University of California, Los Angeles (UCLA), School of Medicine, is seeking a **NEUROLOGIST-CLINICAL NEUROLOGIST** who is wanted to develop and run a clinical evoked potential laboratory with the Department of Neurology. Opportunities available for independent and collaborative research. Appointment at assistant to full professor level, depending upon qualifications. *The University of California is an Affirmative Action/Equal Opportunity Employer.* Submit curriculum vitae to: **Richard D. Walter, M.D., Chairman, Department of Neurology, Reed Neurological Research Center, UCLA School of Medicine, Los Angeles, California 90024.**

NEUROLOGIST WANTED

Opening for neurologist with Ataxia and Neuromuscular Consultation Unit, Department of Neurology, University of California, Los Angeles (UCLA) School of Medicine. Collaborative research on biochemical aspects of relevant diseases and on clinical pharmacology of inherited ataxias. Junior faculty rank; salary and research details/space to be negotiated. Contact: **Dr. R. A. Pieter Kark, Reed Neurological Research Center, UCLA School of Medicine, Los Angeles, Calif. 90024.** *UCLA is an Affirmative Action/Equal Opportunity Employer.*

OCEANOGRAPHIC OPTICS. Associate professor, tenure-track position. Applicant must have Ph.D. in physical sciences and demonstrated ability to conduct independent research in optical oceanography and to obtain research funding. Experience and interest must involve the measurement and theory of optical properties of the sea. Duties include the teaching and supervision of graduate students. Interested candidates should submit resumes and have three letters of reference sent to: **G. Ross Heath, Dean, School of Oceanography, Oregon State University, Corvallis, Ore. 97331.** *An Affirmative Action/Equal Opportunity Employer, in compliance with Section 504, Rehabilitation Act of 1973.*

POSITIONS OPEN

NEUROPHYSIOLOGIST— ASSISTANT PROFESSOR

Applications are invited for a tenure-track position in the Biology Department of Russell Sage College. Teaching responsibilities include an upper-division class in neurophysiology and part of the general biology course. A doctorate is required. Applicants should send curriculum vitae, statements of teaching and research interests, and three letters of recommendation before 15 April 1979 to: **Dr. N. Slack, Chairman, Department of Biology, Russell Sage College, Troy, N.Y. 12180.** *An Equal Opportunity/Affirmative Action Employer*

NEUROPSYCHOLOGY—NEUROSCIENCE. The Department of Psychology, Michigan State University (MSU), has a tenure-track assistant professor position in the area of neuropsychology-neuroscience, starting 1 September 1979. Post-Ph.D. teaching and research experience is preferred. We want to hire one who will contribute to our undergraduate teaching program and to our graduate program in the neurosciences. Send curriculum vitae to: **Professor Glenn I. Hatton, Department of Psychology, Michigan State University, East Lansing, Mich. 48824.** *MSU is an Equal Opportunity/Affirmative Action Employer.*

Position available as **ATTENDING PATHOLOGIST** in charge of **IMMUNOPATHOLOGY** at a voluntary hospital in New York City affiliated with New York University School of Medicine. Interested individuals should send curriculum vitae and three letters of reference to: **Box 95, SCIENCE.** *Equal Opportunity/Affirmative Action Employer.*

PHARMACOLOGISTS

Junior or senior faculty positions in pharmacology available immediately. Preference given to candidates with Ph.D. degree in pharmacology and research programs in cardiovascular, autonomic, or neuropharmacology. Excellent facilities and opportunities for interaction available in a combined department of pharmacology and physiology with emphasis on cardiovascular, renal, neural, and endocrine systems. Send curriculum vitae, a description of current research programs, and have three letters of reference sent to:

**Dr. Alvin Brodich, Chairman
Department of Physiology and Pharmacology
Bowman Gray School of Medicine of
Wake Forest University
Winston-Salem, N.C. 27103**

An Equal Opportunity/Affirmative Action Employer

PHYSICIST PROJECT ENGINEER

We are seeking a physicist with 10 years of experience. Previous experience in any or all of the following a definite plus: electrostatics, nuclear, ionization chambers, health instrumentation. This will be a challenging and rewarding position for the right person. Self-starter working with little supervision on projects related to above. Send resume to:

**DOSIMETER CORPORATION OF AMERICA
11286 Grooms Road, Cincinnati, Ohio 45242**
Equal Opportunity Employer

PHYSIOLOGIST

The Department of Physiology, Michigan State University, invites applications for several tenure-track positions at the assistant professor level. Candidates should have a D.O., D.V.M., M.D., and/or Ph.D. degree and postdoctoral experience in autonomic, cardiovascular, endocrine, gastrointestinal, neural, smooth muscle, and/or renal physiology. Duties include teaching in the undergraduate, graduate, and/or professional programs and maintaining an active, independent research program of high quality. Applicants should send their curriculum vitae and names of three references to: **Dr. Harvey V. Sparks, Jr., Chairman, Physiology Department, 111 Giltner Hall, Michigan State University, East Lansing, Mich. 48824.** *Michigan State University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION in cellular endocrinology, available for study of membrane receptor regulation in cultured cells. Experience in cell culture and immunology desirable. Salary: \$10,000 to \$14,000, depending on experience. Send curriculum vitae and three references to: **Dr. Robert Fellows, Department of Physiology and Biophysics, University of Iowa College of Medicine, Iowa City, Iowa 52242.** *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

PLANT COMMUNITY ECOLOGIST

Assistant professor. Tenure-track, fall 1979. Major responsibility will be sophomore course in the biology of higher plants. Teaching in our introductory program as well as in own area of specialization expected. Capability in biometrics desirable. Ph.D. and research orientation essential. Resume should be received by 15 April 1979. Direct correspondence to: **Dr. Jerry H. Hubschman, Biology Search Committee, Wright State University, Dayton, Ohio 45435.** *An Equal Opportunity/Affirmative Action Employer*

TWO POSTDOCTORAL ASSOCIATES

To participate in investigation of role of phospholipids in functioning of Na-K-ATPase in cardiovascular tissues of hypertensive rat and to purify and characterize cAMP-dependent protein kinase from cardiovascular tissues. Biochemistry Ph.D. required. Salary negotiable. Initial appointments for 1 year beginning June 1979; renewable up to 3 years. Send curriculum vitae and names of three references to: **Dr. R. C. Bhalla, Department of Anatomy and Cardiovascular Center, University of Iowa College of Medicine, Box 8008 BSB, Iowa City, Iowa 52242.** *The University of Iowa is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW to work in area of three-dimensional nuclear medicine imaging and instrumentation with special emphasis on cardiac applications. Must be citizen, noncitizen national, or admitted for permanent U.S. residency. Position open immediately. Send resume and telephone numbers of three references to: **Dr. W. L. Rogers, Division of Nuclear Medicine, University of Michigan Medical Center, Ann Arbor, Michigan 48109.** *A non-discriminatory, Affirmative Action Employer.*

POSTDOCTORAL POSITIONS COLLEGE OF MEDICINE UNIVERSITY OF IOWA

Please contact the following departments for postdoctoral positions at: **The University of Iowa, Iowa City, Iowa 52242.**

- 1) **Anatomy, Dr. Terence H. Williams, Basic Sciences Building**—Research in neurobiology, endocrinology, cell biology and in cardiovascular, reproductive, and other biological systems.
- 2) **Biochemistry, Dr. Edward Heath, Basic Sciences Building.**
- 3) **Internal Medicine, University of Iowa Hospitals and Clinics, Francois M. Abboud, M.D., professor and head, or Darris Goerd, administrator, telephone 319-356-2850.**
- 4) **Microbiology, Dr. I. P. Crawford, professor and head, Basic Sciences Building.**
- 5) **Pharmacology, Dr. J. P. Long, Basic Sciences Building**—Major divisions of pharmacology and toxicology, both biochemical and physiological.
- 6) **Physiology and Biophysics, Dr. Robert E. Fellows, professor and head, Basic Sciences Building**—Interest in research.
- 7) **Psychiatry, Dr. R. R. Crowe, Psychiatric Hospital**—Psychiatric genetics.
- 8) **Radiation Research Laboratory, Dr. J. W. Osborne, 14 Medical Laboratories**—In vivo and in vitro studies of the biological effects of radiation; cyclic nucleotides, superoxide dismutase, and cancer; and kinetics of cell proliferation.

Positions require a Ph.D., M.D., or equivalent. Write to attention of the specific department in which there is interest.

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

A POSTDOCTORAL POSITION IN CLINICAL NEUROPHYSIOLOGY is open in the Department of Neurology, University of California, Irvine. Candidates should have a Ph.D. in neuroscience, psychology, or related fields. The position will involve investigation of human sleep disorders with additional training in clinical application of evoked responses. *All qualified candidates welcome: minorities and women are encouraged to apply.* Send curriculum vitae and names of three references to: **Jon F. Sassin, M.D., Director, Sleep Disorders Center and Professor of Neurology, Department of Neurology, University of California, Irvine Medical Center, 101 City Drive South, Orange, California 92668.** The position will be available 1 July 1979.

POSITIONS OPEN

POSTDOCTORAL POSITION. Renewable for 3 years, available now for an investigation into the regulatory role of nonspecific and specific helper and suppressor cells and their products in the in vivo response. Experience in cell culture techniques and/or isolation of lymphoid cell subpopulations and their regulatory products is desirable. Excellent research facilities. Send curriculum vitae, a brief description of current research interest, and names of three references to: **Dr. Leonard S. English, Department of Microbiology, School of Medicine, East Carolina University, Greenville, N.C. 27834.** Closing date: 30 March 1979. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION in reproductive neuroendocrinology available between 1 July and 1 September 1979. This laboratory employs a multidisciplinary approach to the study of the hypothalamo-pituitary axis which includes mechanisms of ovarian steroid and non-steroid feedback action, the interaction of catecholamines on LHRH and gonadotropin secretion and the short-loop self-regulatory processes involved in LH release. Interested applicants should submit curriculum vitae and three letters of recommendation to: **Dr. Charles A. Barracough, Department of Physiology, School of Medicine, University of Maryland, Baltimore, Md. 21201.**

POSTDOCTORAL POSITION AVAILABLE

Postdoctoral position in skeletal muscle physiology and biochemistry available summer 1979. The work deals with heat production and biochemical changes during contraction of mammalian skeletal muscle. Background in muscle physiology desirable. Send curriculum vitae and names of three references to:

**Dr. Earl Homsher
Department of Physiology
Center for the Health Sciences
University of California
Los Angeles, California 90024**

Affirmative Action/Equal Opportunity Employer. Minority and women candidates are encouraged to apply.

POSITIONS OPEN

POSTDOCTORAL POSITION. Ph.D. in food science or biochemistry. Experience with enzymes and lipid oxidation in membranes. Position available immediately. \$9500 per annum. Send résumé with two letters of reference to: **Dr. H. O. Hultin, University of Massachusetts Marine Station, Box 128 Lanesville, Gloucester, Massachusetts 01930.** *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION IN PROTEIN STRUCTURE. For person with background in protein chemistry to conduct sequence and chemical modification studies of phosphoglucosyltransferase in conjunction with on-going x-ray diffraction analysis and studies on the chemical basis for catalysis by this enzyme. Position available within next few months; 2 years; salary: \$11,000. Send curriculum vitae and names of three references to: **Dr. William J. Ray, Jr., Department of Biological Sciences, Purdue University, West Lafayette, Ind. 47907.** *An Equal Opportunity/Affirmative Action Employer*

Applications are invited for:

1) **POSTDOCTORAL RESEARCH ASSOCIATES.** Two openings for work in carcinogenesis. Promotor action, mutagenesis mechanisms and carcinogen-DNA interactions are of particular, but not exclusive, interest. Useful background disciplines include biophysics, genetics, organic synthesis, or nucleic acid chemistry. Send curriculum vitae and three or more references to: **Dr. Thomas Meehan.**

2) **RESEARCH ASSISTANT** in molecular oncology program. Responsibilities include all procedures pertinent to operation of tissue culture laboratory including cell/virus isolation, media preparation, and so forth, in addition to participation in research on surface modifications of cancer cells. B.S. in biochemistry/biology required; tissue culture experience preferred. Send résumé to: **Dr. Susan P. Hawkes.**

**Midland Macromolecular Institute
1910 West St. Andrews Drive
Midland, Mich. 48640**

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

POSTDOCTORAL POSITIONS. Two positions available 1 April 1979. (i) Preferred background in biochemistry, pharmacology, or related field for study of lipid metabolism and drug/lipid interactions. (ii) Preferred background in neuroscience, neurochemistry, anatomy, or related field for studies of metabolism (deoxyglucose method) and cytochemistry of the auditory system. Experience in electronmicroscopy helpful. Send résumé and three references to: **Dr. J. Schacht, Department of Biological Chemistry, University of Michigan, Ann Arbor, Mich. 48109.**

We are a nondiscriminatory, Affirmative Action Employer.

POSTDOCTORAL POSITIONS available April 1979 to join research programs in two areas: (i) **mechanism of allosteric regulation of enzymes;** (ii) **interaction of anticancer drugs** with cells and its reversal by rescue agents. The first project involves physical biochemical techniques including NMR and fluorescence; the second involves tissue culture, HPLC, and techniques associated with membrane transport. Salary: \$12,000 to \$14,000, depending on qualifications and experience. Send curriculum vitae and three references to: **Dr. Raymond L. Blakley, Biochemistry Department, University of Iowa, Iowa City, Iowa 52242.** *The University of Iowa is an Equal Opportunity/Affirmative Action Employer.*

PRECEPTOR HARVARD UNIVERSITY

Applications are invited for the position of preceptor to organize and supervise laboratories for two introductory courses (introductory organismic and evolutionary biology; comparative animal physiology and anatomy). The Ph.D. or equivalent research/teaching experience is preferred. This position is renewable on an annual basis for 5 to 8 years. Starting date: 1 July 1979. Applications should be addressed to: **Chairman's Office, Department of Biology, Harvard University, Cambridge, Mass. 02138.** *Harvard is an Equal Opportunity/Affirmative Action Employer.*

SUMMER TERM TEACHING POSITIONS IN BOTANY AT OREGON STATE UNIVERSITY

The following teaching positions are available for summer term 1979:

Position 1

**Bot 201-202—General Botany
19 June to 12 July; 16 July to 9 August**

Lecture and laboratory on: phylogenetic survey of the plant kingdom, morphology; structure and physiology of seed plants. This position could be divided, each person having responsibility for only one course, if necessary.

Position 2

**Bot 451—Plant Disease Diagnosis
19 June to 10 August**

Field trips and laboratory on plant disease identification and control. For advanced undergraduate and graduate students.

Position 3

**Bot 521T—Taxonomy and Field Botany
19 June to 10 August**

Identification of flowering plants of the Pacific Slope. Lecture, laboratory, and field trips to the Coast and Cascade Mountains. For high school teachers.

Qualifications include: completion (or near completion) of the Ph.D. degree; prior college-level teaching experience in equivalent course(s); and, in the cases of Bot 451 and 521T, detailed familiarity with plant diseases and flora, respectively, of the Pacific Northwest and local region. Salaries are negotiable.

Address inquiries and applications, including curriculum vitae and two letters of recommendation, by 15 April to:

**Dr. Thomas C. Moore, Chairman
Department of Botany and Plant Pathology
Oregon State University
Corvallis, Ore. 97331**

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

Pharmaceutical Research Drug Metabolism

Continuing expansion of our research efforts in the investigation of new therapeutic agents, we have now available attractive career opportunities at the M.S. or Ph.D. level.

These positions require a degree in analytical chemistry, biochemistry or similar discipline, with pertinent experience in drug metabolism and analytical instrumentation.

We offer excellent benefits and a challenging environment in which to apply your professional capabilities. Résumés should be sent to: **Manager, Personnel Administration, Schering-Plough Research Center, 60 Orange Street, Bloomfield, N.J. 07003.**



Schering-Plough

We Are An Equal Opportunity Employer M/F

BIOMEDICAL EFFECTS AND INSTRUMENTATION

OAK RIDGE NATIONAL LABORATORY

Oak Ridge National Laboratory invites applications for the position of the head of the Biomedical Effects and Instrumentation Section, Health and Safety Research Division. Qualified candidates should have an established record of technical achievement as well as administrative experience.

The Biomedical Effects and Instrumentation Section is concerned with research projects that focus on the human health impacts associated with various energy technology alternatives. The section head will direct an interdisciplinary group of 30 scientists and 6 technicians that comprise the following four groups: Health Effects and Epidemiology, Metabolism and Dosimetry, Monitoring Technology and Instrumentation, and Nuclear Medicine Technology.



Résumés and letters referring to this notice should be sent to: **Edward Vendley, Oak Ridge National Laboratory, P.O. Box**

X, Oak Ridge, Tennessee 37830. *The Oak Ridge National Laboratory, operated by Union Carbide Corporation-Nuclear Division for the Department of Energy, is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE. Position available for research in regulation of membrane lipid asymmetry in tumorigenic cells or for regulation of very low density lipoprotein physical properties. Candidates should have a Ph.D. in a biomedical science preferably in biochemistry, chemistry, or biophysics and should expect to spend 2 to 3 years in our laboratory. Send curriculum vitae and names of three references to: **Dr. Friedhelm Schroeder, Department of Pharmacology, University of Missouri, School of Medicine, Columbia, Missouri 65212.** *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE POSITION

To study role of poly(adenosine diphosphoribose) synthesis in eukaryotic DNA repair processes. Experience with DNA repair, nucleic acid and chromatin chemistry desirable. Send curriculum vitae and references to: **Dr. N. A. Berger Hematology-Oncology Division, Jewish Hospital, Washington University School of Medicine, 216 South Kingshighway, St. Louis, Missouri 63110.**

Equal Opportunity Employer

POSTDOCTORAL RESEARCH ASSOCIATE

Research position to study biochemical mechanisms of subclinical heavy metal toxicity available immediately. Appointment is initially for 1 year with option for subsequent renewal(s). First year salary starting at \$14,000. Prefer background in biochemistry/pharmacology or toxicology. Send curriculum vitae and names of three references to: **Dr. Robert T. Louis-Ferdinand, College of Pharmacy and Allied Health Professions, Wayne State University, Detroit, Mich. 48202.** *An Equal Opportunity/Affirmative Action Employer. Female and minority candidates are encouraged to apply.*

University of California
Department of Viticulture and Enology
announces
**The Maynard A. Amerine Professorship
An Endowed Chair From
The Ernest Gallo Foundation**

Applications are now invited for the **Maynard A. Amerine Professorship.** Applicants should have made research contributions of significance at the professorial level in fields that include or are pertinent to enology, viticulture, or the fermentation sciences. The appointee will be expected to contribute to both undergraduate and graduate instruction and to provide intellectual leadership in the department, the college, and the Davis campus.

The formal appointment will be a permanent position as a tenured member of the Department of Viticulture and Enology at one of the higher steps of the rank of full professor.

Applications, in the form of a letter describing research and teaching interests and background, together with curriculum vitae and three letters of recommendation, should be submitted by 15 May 1979, to:

**The Chair
Search Committee for the Amerine Professorship
c/o College of Agricultural and
Environmental, Science
228 Mark Hall
University of California
Davis, Calif. 95616**

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

RESEARCH ASSOCIATE—Full-time research position available at large midwestern medical center for a physician interested in anesthesiology and/or cardiovascular physiology and pharmacology. Must be capable of working independently and have at least 2 years of laboratory experience. Appropriate departmental academic affiliation. Send curriculum vitae and qualifications to: **Box 94, SCIENCE.** *An Equal Opportunity Employer, M/F.*

RESEARCH ASSOCIATE: M.D. OR Ph.D.—Experienced in biochemical study of energy metabolism of brain, to participate in on-going research program. Interested parties should send curriculum vitae to:

**Eli S. Goldensohn, M.D.
Coordinator COAP
College of Physicians and Surgeons
Department of Neurology
710 West 168 Street
New York, New York 10032**

Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

Houston—Board-certified or -eligible **PSYCHIATRIST**: full-time psychiatrist to provide direct clinical service, train psychiatric residents, supervise trainees and staff, and execute clinical research protocols. Broad-based training and past experience in outpatient setting preferred. Texas Research Institute of Mental Sciences (TRIMS) Adult Outpatient Clinic is the outpatient arm of a multifaceted, multidisciplinary psychiatric institute conducting psychiatric research, providing training and direct service. Salary: \$40,000 per annum. Send curriculum vitae to: **Mark Valverde, M.D., TRIMS Outpatient Clinic, 1300 Moursund Avenue, Houston, Texas 77030.** *Texas Department of Mental Health and Mental Retardation is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE

To carry out structure-function studies on Na, K-ATPase, with emphasis on protein, guaranteed for 1 year, with good possibility of renewal. Experience in protein chemistry essential. Salary negotiable. Contact: **Dr. John H. Collins, Department of Pharmacology and Cell Biophysics, University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, Ohio 45267.**

*An Equal Opportunity Employer,
M/F/H*

RESEARCH ASSOCIATE. Ph.D. or equivalent for examining the toxicology effects of various chemical agents on the central nervous system (CNS) and behavior; applicant must have at least 2 years of research experience in the area of behavioral pharmacology and/or toxicology such as histological techniques, for example, neurohistological staining methods, autoradiography. Position available 15 June 1979. Send curriculum vitae and names of three references by 15 April 1979 to: **Dr. Lester Grant, Biological Sciences Research Center, 220H, University of North Carolina, Chapel Hill, N.C. 27514.** *Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE (Ph.D.) to study organo-cesium chemistry. Adequate background in structural and synthetic organic chemistry required including familiarity with dry box and vacuum line techniques. Salary: \$12,000 per year. Send curriculum vitae and names of two references to: **Dr. Erling Grovenstein, Jr., Department of Chemistry, Georgia Institute of Technology, Atlanta, Georgia 30332.**

RESEARCH FELLOW, research organization. Postdoctoral position available to study biosynthesis and secretion of high density lipoprotein. Ph.D. in biochemistry or cell biology, with experience in tissue culture preferred. Send curriculum vitae to: **Dr. Debendranath Banerjee, New York Blood Center, 310 East 67 Street, New York, N.Y. 10021.**

An Equal Opportunity Employer

SUPERVISOR OF DEPARTMENTAL ELECTRON MICROSCOPE LABORATORY which includes three transmission (Philips 301, Philips 201, and RCA 3H) and two scanning (Coates/Welter HPS-50 and JEOL JSM-2) electron microscopes. The successful candidate should have a thorough knowledge of electron microscopy and be willing to assume responsibilities associated with general operations of the laboratory. Send curriculum vitae and three letters of recommendation to: **Dr. John D. Taylor, Chairman, Department of Biology, Wayne State University, Detroit, Michigan 48202.**

Equal Opportunity/Affirmative Action Employer

VISITING ASSOCIATE PROFESSOR, 1 or 2 years in established biomaterials program, 5 years of experience in research and teaching solid state physics of biomedical/biological materials. Résumés accepted for next 30 days by: **F. W. Cooke, Department of Interdisciplinary Studies, Clemson University, Clemson, S.C. 29632.** *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

THE UNIVERSITY OF ADELAIDE South Australia

Invites applications from persons familiar with and experienced in FT-NMR techniques and desiring to work on biologically relevant problems for appointment for 3 years as a

RESEARCH FELLOW (X1905) (Biological NMR Spectroscopy)

To work on a project entitled "Aqueous interactions between hormones and phospholipid membrane constituents." The work is funded by an A.R.G.C. grant and will be supervised by **Professor L. G. Paleg,** Department of Plant Physiology, Waite Agricultural Research Institute, to whom enquiries about the project may be addressed.

Salary scale: A\$15,179-681(1)-680(2) to A\$17,220. An economy class airfare and a contribution towards moving expenses will be provided. It is expected that there will be provision for superannuation.

Applications, in duplicate, giving personal, educational, and professional details, and confidential letters of recommendation pertaining to this position from three referees, should reach: **Registrar of the University, G.P.O. Box 498, Adelaide, South Australia, 5001, Australia** not later than 31 March 1979.

SENIOR FACULTY POSITION CORNELL UNIVERSITY

The Department of Chemistry is seeking an organic chemist to fill a tenured faculty opening at the **associate professor or full professor level.** We are particularly interested in candidates whose research is in the area of synthesis, but we will also consider candidates who have made important contributions to other areas of organic chemistry. Candidates must have an outstanding record in research, and must be interested in graduate and undergraduate teaching. Please send curriculum vitae and publication list to: **Dr. Benjamin Widom, Chairman, Department of Chemistry, Cornell University, Ithaca, New York 14853.**

Cornell University is an Equal Opportunity/Affirmative Action Employer.

STAFF BIOCHEMIST

Immediate opening for a Ph.D. with training in recombinant DNA research with research interest in the field of cancer, growth and development. The levels of appointment and salary are negotiable depending on qualifications.

Send curriculum vitae and the names of three references to:

**Dr. T. Tamaoki, Chairman
Search Committee
Oncology Research Group
Faculty of Medicine
The University of Calgary
Calgary, Alberta, Canada T2N 1N4**

STAFF OFFICER

The Division of Medical Sciences of the Assembly of Life Sciences, National Research Council, Washington, D.C., seeks candidates for the position of staff officer to manage a new program on the biological effects of nonionizing radiation (microwaves). Duties include management of committee studies and meetings, aid in report development, literature surveys and analyses, budget and proposal development, financial management of the study. M.A., M.S., Ph.D., or M.D., or equivalent required, with background in biological or human response to microwaves or other radiation, or biophysics. Salary range determined by background and biology/engineering experience. Please submit curriculum vitae to: **Daniel L. Weiss, M.D., Executive Secretary, Division of Medical Sciences, 2101 Constitution Avenue, NW, Washington, D.C. 20418.** *An Equal Opportunity Employer.*

VISITING SCIENTIST POSITION

**The Joint Institute for the Study of the Atmosphere and Ocean (JISAO)
University of Washington**

VISITING SCIENTIST with interests in dynamical and/or geochemical aspects of climate variability, including large-scale air-sea interaction. Term of appointment is 1 year beginning summer 1979. Closing date: 15 April. Send curriculum vitae and a brief research prospectus to: **John M. Wallace, Interim Director, JISAO, c/o Department of Atmospheric Sciences AK-40, University of Washington, Seattle, Wash. 98195.**

An Equal Opportunity/Affirmative Action Employer

RECOMBINANT DNA RESEARCH

Genentech, the leading company in the application of recombinant DNA techniques to problems in human health care, is expanding its research program and has opportunities for outstanding scientists.

Qualified individuals will be joining an innovative research team working in a unique scientific environment. Genentech offers the scientific freedom to develop and direct your own independent research program and the intellectual stimulation of interacting with quality associates while contributing to the understanding and expansion of this new technology.

Senior Protein Recovery Scientist/Bioengineers. Opportunities exist to participate in the development of new procedures for the recovery and purification of polypeptides from microorganisms. A Ph.D. or equivalent in biochemistry or bioengineering plus at least three years relevant postdoctoral or industrial experience is required.

Senior Level Positions. Openings are available for biochemists, microbiologists, molecular biologists, molecular immunologists, and protein chemists. Applicants should have a Ph.D., postdoctoral research experience, and an outstanding research record.

Postdoctoral Position. Genentech has a postdoctoral research program. Opportunities exist for participation in ongoing projects or for initiation of new basic research projects. The two year appointments carry a first year salary of \$15,000.

Support Positions. B.S. or M.S. level biochemists with expertise in nucleic acids or protein chemistry are invited to apply.

Genentech offers an exceptional working environment and an outstanding compensation and benefits package. Please send curriculum vitae, reprints of pertinent publications, and a list of three references to Personnel Department, Genentech, Inc., 460 Point San Bruno Boulevard, South San Francisco, California 94080. We are an equal opportunity employer.

SUMMER TRAINING PROGRAM

TEN-WEEK COURSE ON PRINCIPLES IN TOXICOLOGY

Massachusetts Institute of Technology (MIT)
18 June thru 23 August 1979

This 10-week graduate credit course will introduce the basic principles and techniques of toxicology, analytical chemistry, epidemiology, and risk assessment in the area of toxic chemicals in order to expand the knowledge of scientists and/or engineers already working in this area and for those in neighboring fields who are interested in learning more about the area. The subject matter will also include pathology, analytical chemical methodology, epidemiological principles and methods, occupational health, and regulatory framework and environmental decision-making. Gerald N. Wogan, Professor of Toxicology, Department of Nutrition and Food Science, is chairman of the Steering Committee. Other participating MIT departments include Chemistry, Biology, Chemical Engineering, and the Center for Policy Alternatives. Other faculty include members of the Harvard School of Public Health and scientists from industry.

Applicants should have a background in chemistry, biology, or related science at least at the master's level. An EPA Training Grant will provide stipends and tuition for 24 accepted applicants who must be U.S. citizens. Otherwise, the tuition fee is \$3000, with the total enrollment restricted to 50. MIT dormitory space will be available for a fee for those interested in living on campus. The deadline for application is 30 April 1979. However, applications received subsequent to this date will be considered. For further details and application forms, write:

Linda C. Boyar
Program Administrator
Department of Nutrition and Food Science
MIT, E18-564
Cambridge, Mass. 02139
Telephone: 617-253-7023

Baylor College of Medicine

TEXAS MEDICAL CENTER • HOUSTON, TEXAS 77030



STABLE ISOTOPE FACILITY DIRECTOR, CHILDREN'S NUTRITION LABORATORY

The United States Department of Agriculture has established a Children's Nutrition Laboratory under the Human Nutrition Center, Science and Education Administration. This laboratory is located within and administered under a cooperative agreement with Baylor College of Medicine and Texas Children's Hospital in Houston, Texas. The mission of the laboratory is the determination of nutrient requirements in infants and children during an age range which spans from conception to the adolescent. The emphasis is on normal nutrient requirements as a standard for the many applied programs in human nutrition of the Federal Government.

Because of the mandate to investigate nutritional requirements in normal children, it is determined to be essential that a Stable Isotope Facility be established as part of this national laboratory for childhood nutrition research. The Stable Isotope Facility will participate in intramural and extramural research projects which are designed to utilize the facility for stable isotope nutrient synthesis, nutrient isolation, and atomic mass ratio measurement and interpretation.

A Director of the Stable Isotope Facility is being sought to provide leadership in research development and operation of this national facility. This scientist should be an experienced biologist, physiological chemist or nutritionist who has demonstrated academic capacity and administrative experience in metabolic research utilizing mass spectroscopy. The Director of the division ideally should be a physician, however, this is an optional requirement.

Those interested in evaluating this opportunity for scientific leadership should correspond with John S. Woods, Personnel Director, Baylor College of Medicine.

An Equal Opportunity Employer

Circle No. 384 on Readers' Service Card

TROPICAL MARINE ECOLOGY

June 12 - July 3, 1979

SPONSORED BY

The University of Connecticut and The Foundation for the Protection of Reefs and Islands from Degradation and Exploitation (PRIDE).

This three week six credit research-oriented course studies the ecology of tropical marine environments at Pine Cay in the British West Indies.

For additional information call or write:

Ms. Barbara Laumark
Office of Credit Programs
U-56C
Extended and Continuing Education
Storrs, Connecticut 06268
(203) 486-3832

The University of Connecticut
Extended & Continuing Education



DIRECTOR BIOLOGY DIVISION OAK RIDGE NATIONAL LABORATORY

Oak Ridge National Laboratory invites nominations and applications for the position of the director of the Biology Division. Qualified candidates should have an established record of scholarly achievement as well as the ability to provide scientific and administrative leadership.



Résumés and letters referring to this notice should be sent to: Edward Vendley, Oak Ridge National Laboratory, P.O.

Box X, Oak Ridge, Tennessee 37830. The Oak Ridge National Laboratory, operated by Union Carbide Corporation-Nuclear Division for the Department of Energy, is an Equal Opportunity/Affirmative Action Employer.

SUMMER COURSES

INTERPRETATION OF GAS CHROMATOGRAPHIC MASS SPECTROMETRIC DATA: ENVIRONMENTAL APPLICATIONS Massachusetts Institute of Technology (MIT) 6 to 10 August 1979

Basic principles of gas chromatographic mass spectrometry will be reviewed with an emphasis on environmental applications. A wide variety of case studies will be presented. Practical techniques that participants can use to solve real-world environmental problems will be stressed throughout. Offered by the MIT Department of Chemical Engineering under Professor Ronald A. Hites.

For further information, please contact:

Director of the Summer Session
Room E19-356, MIT
Cambridge, Mass. 02139

GRADUATE STUDY

GRADUATE STUDIES IN BIOLOGICAL SCIENCES

Qualified students are invited to apply for graduate study leading to M.A. or Ph.D. degrees in biological sciences. Areas of specialization include genetics, cell biology, developmental biology, morphology, physiology, behavior, ecology, and systematics. Stipends are available as teaching or research assistantships, traineeships, and fellowships. *Women and members of minority groups are urged to apply.* For application forms and further information, write to: Director of Graduate Studies, Division of Biological Sciences, 106 Tucker Hall, University of Missouri, Columbia, Missouri 65211. *The University of Missouri is an Equal Opportunity Employer.*

TRAINEESHIPS

POSTDOCTORAL TRAINEESHIPS available in immunogenetics and immunochemistry at Washington University School of Medicine. Ongoing programs include chemistry of mouse, guinea pig, and human MHC products, function of these products in artificial membrane systems, and the chemical basis of MHC restriction of cell-mediated cytotoxicity. Applicants should have training in immunology and/or biochemistry. Send curriculum vitae to: Dr. Susan Cullen and Dr. Benjamin Schwartz, Box 8045, Washington University School of Medicine, St. Louis, Mo. 63110. *An Equal Opportunity Employer.*

Two **POSTDOCTORAL TRAINEESHIPS** are available in biochemistry at the University of California, Los Angeles (UCLA), Mental Retardation Research Center, through an award from USPHS. Studies focus on various aspects of inborn errors of metabolism and the metabolism of ketone bodies during development. Apply to: Dr. George Popják or Dr. John Edmond, Mental Retardation Research Center, 760 Westwood Plaza, UCLA School of Medicine, Los Angeles, California 90024. *An Equal Opportunity Employer.*

FELLOWSHIPS

WHITEHEAD FELLOWSHIP IN OPHTHALMIC RESEARCH

Applications are invited for a postdoctoral position funded by the Whitehead Fellowship for Research in Vision and Ophthalmology at The University of Texas Health Science Center at San Antonio. Candidates with interest and training in or related to external eye disease should have a Ph.D. in virology with interest in immunology or a closely related field. Stipend of \$12,000 per year, plus fringe benefits. Expect to make 1-year appointment, renewable for a second year, effective 1 July 1979.

To apply, send curriculum vitae, current area of research, and have four letters of recommendation sent to:

Robert H. Poirier, M.D.
Associate Professor
Department of Ophthalmology
University of Texas Health Science Center
at San Antonio
7703 Floyd Curl Drive
San Antonio, Texas 78284

An Equal Opportunity/Affirmative Action Employer

FELLOWSHIPS

POSTDOCTORAL POSITIONS

Positions are available for recent Ph.D. graduates interested in advanced training and research on the mechanisms of selectivity of drug action. Areas currently under study are: (i) the biochemical-pharmacological basis for the effects of anticancer and antiviral treatments, inclusive of pharmacokinetics, drug biotransformation and target cell determinants of drug action; (ii) the selective effects of drugs on the various components and interactions involved in immune responses to tumor and nontumor antigens; (iii) the regulation of cell metabolism by hormones, nucleotide pools and cyclic nucleotides, particularly cyclic CMP; (iv) the pharmacological and cellular basis for chemical carcinogenic transformation in animals and in tissue culture; and (v) clinical pharmacological studies on drug selectivity. Nucleosides, antifolates, carbohydrates affecting the plasma membrane, anthracycline antibiotics are among the classes of agents studied. Reply in writing to: Dr. E. Mihich, Department of Experimental Therapeutics, Grace Cancer Drug Center, Roswell Park Memorial Institute, Buffalo, N.Y. 14263. Please include curriculum vitae and indicate at least two references.

POSTDOCTORAL FELLOW

Postdoctoral fellowship (1 year), available immediately for research on the molecular structure of chromatin and how this is altered in differentiation and neoplasia. Background in biochemistry, physical biochemistry, molecular biology, or biology required. Send curriculum vitae with names of references and proposed starting date to:

Henry Simpkins, M.D., Ph.D.
Department of Pathology
University of California, Irvine
College of Medicine
Irvine, California 92717

**POSTDOCTORAL FELLOWSHIP IN
CEREBRAL VASCULAR PHYSIOLOGY.**
Experience with electrophysiologic techniques desired. Write or call: Dr. James Halsey, Chairman, Department of Neurology, University of Alabama Medical Center, Birmingham, Alabama 35294. Telephone: 205-934-2400.

POSTDOCTORAL FELLOWSHIP—Limnology: lake recovery from eutrophication; ground and surface waters. Familiarity with plankton and chemical water analysis desired; salary negotiable; beginning date: 1 July 1979. Send application and résumé to: Joe K. Neel, Department of Biology, University of North Dakota, Grand Forks, N.D. 58202. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCH FELLOWSHIP in neurovirology and immunology. Support from NIH training grant for 1 to 3 years. M.D., D.V.M., or Ph.D. with background or interest in neurologic diseases. Comprehensive training program offered jointly by Departments of Neurology, Microbiology, and Pathology. Fellow can select projects with any of five investigators in molecular biology of viruses, immunology and immunogenetics, pathogenesis of CNS viral infections, and in vitro viral effects on CNS function. Applications accepted immediately. Please send curriculum vitae and names of two references to: Leslie P. Weiner, M.D., Department of Neurology, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles, Calif. 90033. *An Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF EDINBURGH DEPARTMENT OF MOLECULAR BIOLOGY

Postdoctoral fellowship available for work on the molecular biology and genetics of the cell cycle of *Escherichia coli*. The position, which is available immediately, is currently supported until December 1980, but there is the possibility of extension beyond that date. Candidates should be in a position to take up the appointment between now and the autumn of 1979.

Apply to: Dr. W. D. Donachie, Department of Molecular Biology, University of Edinburgh, King's Buildings, Mayfield Road, Edinburgh, EH9 3JR, Scotland. Please quote Reference 5005.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS available at Texas Research Institute of Mental Sciences for research training in the fields of analytical toxicology, biomathematic-electrophysiology, psychophysiology, neurochemistry, neuropharmacology, behavioral pharmacology, neuroendocrinology, or neural structure. Application deadline is 15 April 1979. Please send inquiries to: James L. Claghorn, M.D., Assistant Director, Texas Research Institute of Mental Sciences, 1300 Moursund Avenue, Houston, Texas 77030.

POSTDOCTORAL FELLOWSHIP. NIH grant funded fellowship for July 1979 in human tumor immunology at UCLA Division of Surgical Oncology (Donald Morton, M.D., Chief). Preference given to candidates with research experience in tumor immunology, cellular immunology, or immunochemistry. Send curriculum vitae by 1 April 1979 to: Reiko Irie, M.D., Department of Surgery, Division of Oncology, UCLA School of Medicine, 54-140 CHS, Los Angeles, Calif. 90024.

POSTDOCTORAL FELLOWSHIPS beginning 1 July 1979, at the University of Southern California, are available for qualified applicants interested in a unique research program in the developmental biology of oral-facial-cranial processes and the etiology, genetics, pathogenesis, and treatment of craniofacial malformations. Applicants with D.D.S., M.D., or a Ph.D. in biological sciences are invited. Send complete curriculum vitae to: Professor Harold C. Slavkin, Director, Graduate Program in Craniofacial Biology, University of Southern California—GER 317, Los Angeles, California 90007.

An Equal Opportunity Employer

MARKET PLACE

SCANNING ELECTRON MICROSCOPE FOR SALE. ISI Mini-Rapid Scan, Model M-RS available for immediate purchase. Ideal for Biology, Physics, and Geology Departments with a small budget. For details call: A-VOX Systems, E.M. Division, 15315 Grey Fox Terrace, San Antonio, Texas 78255; telephone: 512-691-6541.

PO₂ MEASUREMENTS

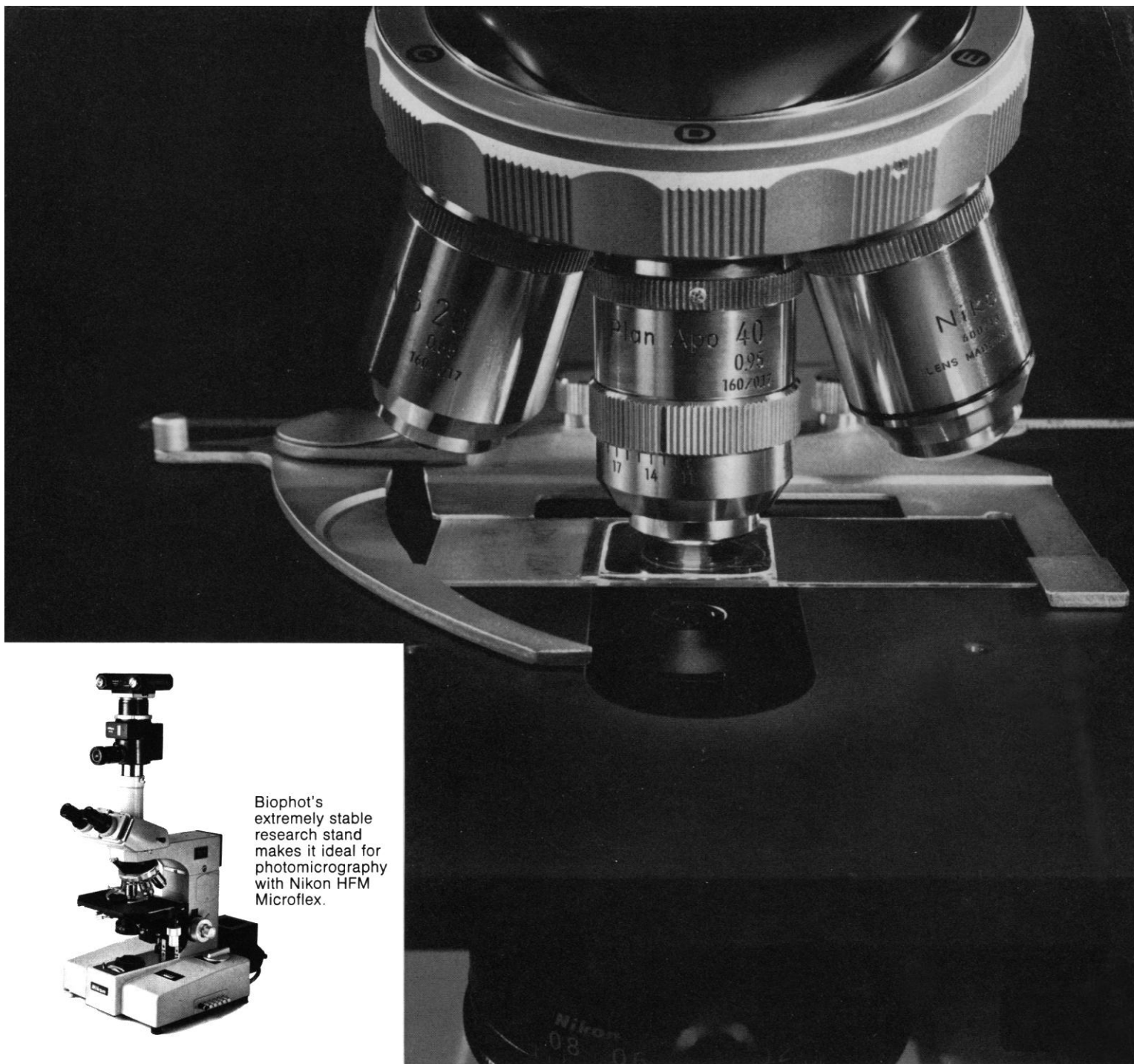
Complete O₂ uptake system
Clark-style miniature O₂ electrode
NEW!
O₂ Meter
O₂ Needle and microelectrodes
Phone collect (313) 769-1900
TWX 810-223-2406
TEGAM GENERAL CORPORATION
903 Airport Drive
Ann Arbor, Mich. 48106 USA

Circle No. 251 on Readers' Service Card

Medwire Corp.
stocks a wide variety of
TEFLON* COATED
Platinum alloys,
stainless steel,
silver, multistrand
and single strand
available for prompt
shipment. Write for
descriptive brochure
and price lists.

Medwire Corp.
Affiliate of Sigmund Cohn Corp.
122 So. Columbus Ave.
Mt. Vernon, N.Y. 10553
914-664-5300
*Reg. T.M. E. I. Dupont

Circle No. 396 on Readers' Service Card



Biophot's extremely stable research stand makes it ideal for photomicrography with Nikon HFM Microflex.

The Nikon Biophot gives you everything you could ask for in a research microscope.

Plus some of what you've hoped for.

To create a medical and biological research microscope as advanced as the Nikon Biophot, Nikon started right from the basics. The Biophot's CF optical system incorporates Nikon's new Extra-low-Dispersion (ED) glass, integrated multilayer coatings, and a revolutionary new lens design which completely corrects for chromatic aberration within the objective itself. Old-style compensating eyepieces are no longer needed to achieve total chromatic correction.

The result: you get the sharpest, clearest images you have ever seen, plus enhanced image resolution, contrast, and field flatness from edge to edge, even with an ultra-wide field.

The Nikon CF optical system has been applied to the Biophot's new CF achromat, plan achromat, fluorite, plan

fluorite, and plan apochromat objectives with magnifications available from 1x to 100x.

With all of its technological advancement, the Biophot is a human-engineered instrument of remarkable versatility with a complete range of accessories to extend its applications, and complete photomicrographic capability.

For more information, contact Nikon Incorporated, Instrument Division, Ehrenreich Photo-Optical Industries, Inc., 623 Stewart Ave., Garden City, N.Y. 11530; (516) 222-0200.

Look to Nikon

ニコンとご用命下さい

Blicken Sie auf Nikon

Circle No. 265 on Readers' Service Card

Flight cancelled.



When the stars come out in Mexico, and other parts of Latin America, hordes of vampire bats do also. These bats (*Desmodus rotundus*) have been attacking cattle, bleeding them and acting as dangerous vectors of paralytic rabies.

The cattle ranchers, suffering losses of \$350 million a year in meat and milk production, saw their livelihoods at stake. And while Count Dracula may have been kept in his place by a wooden stake, the ranchers needed a better solution.

The U.S. Agency for International Development (AID) funded U.S. Fish and Wildlife Service scientists who devised a control method. An anticoagulant solution, diphenadione, based on a Kodak intermediate, was developed by a chemical firm. It is smeared on vampire bats after they are trapped in nets. The bats, grooming each other, ingest it and die as they live—by bleeding. The purpose is not to eradicate the species, but to control them. Since other bat species do not associate with vampire bats, this method selectively controls only *Desmodus rotundus*, and only in those areas where they pose a threat to domestic livestock and human needs.

It's just one of the many creative uses of chemistry we've seen since 1918, when Kodak founded America's first industrial research laboratory to supply laboratories with organic chemicals.

Through a nationwide network of dealers, you can meet an enormous range of challenges with a choice of thousands of Kodak lab chemicals—available whenever and wherever needed. Just call your dealer for a fast response.

To learn more about the cancelled flight of vampires, write: Dept. 412L, Eastman Organic Chemicals, Eastman Kodak Company, Rochester, NY 14650.

For the creative chemist.



Dealers handling EASTMAN Organic Chemicals: American Scientific & Chemical; Bioclinical Laboratories; Brand-Nu Laboratories, Inc.; Bryant Laboratory, Inc.; CAMX Scientific; Custom Chemical Laboratories, Inc.; Fisher Scientific; GAC Laboratories, Inc.; Labproducts, Inc.; Midland Scientific, Inc.; North-Strong, Inc.; Preiser Scientific; Sargent-Welch; Scientific Products; Scientific & Industrial Sales & Service, Inc.; VWR Scientific Inc.; Ward's Natural Science Establishment, Inc.

* Eastman Kodak Company, 1979

Circle No. 359 on Readers' Service Card