# Personnel Placement

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SCIENCE is published weekly, on Friday. Copy must be received in writing by Wednesday, 3½ weeks before Friday issue date required. Send copy for all positions wanted ads and display ads under 5 inches 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., N Washington, D.C. 20005 NW

## POSITIONS WANTED

Biochemist: Ph.D. 1973. Clinical assistant professor: 20 publications. Experience: RIA, analytical tech-niques, enzyme purification, assays, metabolites estimation, protein chemistry, lissue culture, immuno-chemistry, electrophoresis, fluorometry, biolumi-nescence, gel chromatography. Box 157, SCIENCE.

Biologist (Microbiology), B.S. Broad interests and re-search experience with fungi, bacteria, toxins: path-ogenicity, culture, therapy. Seeks position as an as-sistant in applied/basic research/development pro-gram in South or Southwest. Résumé and references upon request. Box 161, SCIENCE.

Earth Scientist. Employment interests, credentials, and ice-sheet-tectonics synthesis are detailed in sub-DUE THE EARTH (Delacorte). R. F. Walworth. P.O. Box 11711, St. Petersburg, Fla. 33733. Telephone: \$13.360.4947 813-360-4947. 5/5. 12. 19. 26: 6/2

Geneticist. Ph.D. 1974. Somatic cell and environ-mental genetics, toxicology, and education back-ground. Three years of postdoctoral and teaching experience. Desires academic/industrial/health sci-ence opportunity. Box 160, SCIENCE. X

Medicinal Chemist, Ph.D. Pharmaceutical back-ground. Experience in microbial transformation, drug metabolite isolation, characterization (GC, GC-MASS); synthesis, characterization (NMR, UV, IR) of medicinal compounds. Available July 1978. Box 164, SCIENCE. X

**Paramedic** available for expedition, tour group, and so forth. Licensed and certified. Highly experi-enced. Will work world-wide. Short-term contract preferred. Contact: P.O. Box 27412, Tucson, Arizona 85726.

Pharmacologist/Organic Chemist. Has two M.S. degrees and 4-plus years of experience beyond gradu-ate school; considerable experience beyond gradu-ate school; considerable experience in instrumental analyses, technical writing, drug metabolism, and GI pharmacology. Available within 3 weeks of accept-ance date. Box 163, SCIENCE. X

**Physiology** Ph.D., 1972. Broad background in liberal arts and science. Grants and publications. Granted tenure in major medical center less than 5 years after award of Ph. D. Seeks broader professional spectrum with more undergraduate teaching and/or administrative duties. Prefers West Coast. Box 158, SCI-ENCE.

5 MAY 1978

## POSITIONS WANTED

Protein Chemist/Immunochemist. Ph.D. 1973. Expertise in IgG receptor, plasma proteins and en-zymes, protein isolation and characterization, coagulation, peptide synthesis, immunochemistry and or-ganic chemistry. Seeking industrial/academic/gov-ernment position. Prefers Northeastern area. Box 162, SCIENCE. X

Teaching-Research P.E., M.I.T. Ph.D. Retiring pro-fessor. General microbiology. Introductory biophys-ics. September 1978. Active in MARC, MISIP re-search programs. Multilingual; fourth text going to press 1979. Biophysics of EMR. Box 159, SCI-ENCE. 5/5, 12

## POSITIONS OPEN

## ACADEMIC OPENINGS UNIVERSITY OF AL-FAATEH TRIPOLI, LIBYA

Applications are invited from individuals holding Ph.D. degrees and/or teaching experience to be con-sidered for academic positions in the Faculties of Agriculture, Engineering, Petroleum and Mining En-gineering, Veterinary Medicine, Pharmacy, Medi-cine, and Science. These positions are available starting September 1978. Salaries range from 3510 LBD (1 LBD = U.S. \$3.30) for starting assistant lecturers to 5760 LBD for starting full professors. Salaries for nonclinical staff in the Faculty of Medi-cine are approximately 20 percent higher and an ad-ditional 1/3 allowance is made for the teaching mem-bers of the clinical staff. Additionally, the university will provide for travel expenses for the new faculty member and family and will contribute up to 100 LBD per month for housing costs and up to 1/6 of the basic annual salary for furniture. Leave travel tick-ets to the place of recruitment for the staff member and family are paid every year. Send a complete ré-sumé as soon as possible to: The Embassy of the So-cialist People's Libyan Arab Jamahirya, Cultural Section, P.O. Box 19281, Washington, D.C. 20036.

National College of Naturopathic Medicine seeks Ph.D. ANATOMIST, PHYSIOLOGIST, BIOCHEM-IST to establish new program. Unique opportunity to participate in planning and teaching inter-disciplinary approach to basic medical sciences. Pre-fer teaching experience in integrated basic science program and knowledge of natural therapeutics. Re-ply by 1 June to: Richard Liebmann, N.D., National College of Naturopathic Medicine, 510 Southwest Third Avenue, Portland, Oregon 97204.

## THE UNIVERSITY OF MANITOBA

The Department of Earth Sciences invites appli-cations for the position of ASSISTANT PROFES-SOR effective 1 September 1978. Applicants must have a Ph.D., and must be dedicated to teaching and esearch excellence in one of the following areas: **Engineering Geology**, or

1) Engineering Geology, of 2) Paleontology. Appropriate experience would be desirable. The appointment is subject to budgetary approval as to both status and rank. The salary will be com-mensurate with experience and qualifications. Cana-dian citizens and landed immigrants are especially invited to apply.

Applications, including a curriculum vitae and the names of three references, should be addressed to:

Dr. W. C. Brisbin Department of Earth Sciences University of Manitoba Winnipeg, Manitoba, Canada R3T 2N2

to be received by 15 June 1978.

## ASSISTANT OR ASSOCIATE PROFESSOR OF ENDOCRINOLOGY AND METABOLISM

The Department of Nutrition and Food Science in-The Department of Nutrition and Food Science in-vites applications for the above faculty position. Re-sponsibilities include teaching a graduate course in endocrinology, advising graduate students in thesis research, and conducting an independent research program. Preference will be given to candidates whose research interests involve the endocrine con-trol of metabolism, and who have experience in nu-tritional biochemistry. Interested applicants should submit curriculum vitae and bibliography, and request that letters of recommendation be sent to: **Richard J. Wurtman, M.D., Professor of Endocrinol-ogy and Metabolism and Chairman of the Search Committee, Massachusetts Institute of Technology 56-245, Cambridge, Mass. 02139.** An Equal Opportunity Employer. Employer.

## POSITIONS OPEN

Applications are invited for the following positions: (i) ASSISTANT DIRECTOR FOR INFORMATION/ EDUCATION. Minimum: master's level in higher education, communication, with strong technical background. Experience desired in proposal devel-opment; project management; materials develop-ment; short courses and workshops. Responsibilities include technical leadership: supervision of projects include technical leadership; supervision of projects and technical library; state and federal liaison. (ii) **RESEARCH ASSOCIATE**. Graduate degrees (Ph.D. preferred) with substantial training/experience in en-ergy/environmental research and public service. Reergy/environmental research and public service. Re-sponsibilities include developing proposals and car-rying out projects requiring quantitative skills as well as aptitude for working for a wide variety of people. Principal focus of work in energy con-servation is residential, commercial, and farm sec-tors. (iii) **INFORMATION SPECIALIST**. Minimum: master's education in library and information sci-ence. Experience in directing energy and/or environ-ment reference center preferred. Responsibilities in-clude all operations technical library, working di-rectly with faculty and students as well as public officials and private citizens; organizing and con-ducting workshops; developing special bibliogra-phies. Familiarity with computer operations also de-sired. ired

Apply in writing to: Director, Environment Center, University of Tennessee, Knoxville, Tenn. 37916, At-tention: J. Wallace, before 26 May 1978. University of Tennessee, Knoxville, is an Equal Opportunity/ Affirmative Action/Title IX/Section 504 Employer.

ASSISTANT OR ASSOCIATE PROFESSOR. Pro-tozoology with emphasis on application to human disease. Candidates will be expected to participate in a research, teaching, and graduate training pro-gram in parasitology in the Department of Patho-biology where the major emphasis is on immunology and infectious diseases. Applicants will be expected to have a Ph.D. with postdoctoral training and evi-dence of research productivity. Appointment level will be commensurate with experience. Candidates should submit a curriculum vitae, list of pub-lications, and names and addresses of three refer-ences. Apply by 30 June 1978 to: Dr. George E. Ken-ny, Chairman, Department of Pathobiology, SC-38, University of Washington, School of Public Health and Community Medicine, Seattle, Washington 98195. The University of Washington is an Equal Oppor-ASSISTANT OR ASSOCIATE PROFESSOR. Pro-

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

ASSISTANT PROFESSOR POSITION IN ANATO-MY. Medical school full-time faculty to participate MY. Medical school full-time faculty to participate in the existing medical anatomy courses and ad-vanced courses for graduate students. An active re-search program, preferably in ultrastructure, is high-ly desired. Salary negotiable, depending on qualifi-cations and experience; starting 1 January 1979. Send résumé and three letters of recommendation to: Dr. P. G. latridis, Director, Northwest Center for Medical Education, Indiana University School of Medicine, 3400 Broadway, Gary, Indiana 46408. In-diana University is an Equal Opportunity/Affir-mative Action Employer. mative Action Employer.

ASSISTANT PROFESSOR OF ANTHROPOLOGY. New York University seeks highly qualified new Ph.D. in physical anthropology for autumn 1978. Field of specialization not important at this time. Submit curriculum vitae and names of referees to: **Professor John Buettner-Janusch**, Chairman, Depart-ment of Anthropology, New York University, 25 Wa-verly Place, New York, New York 10003. An Affir-mative Action/Equal Opportunity Employer mative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR in Department of Pathol-ASSISTANT PROFESSOR in Department of Pathol-ogy with experience in biochemistry and physiology, and holding an M.D. or Ph.D. degree. Experience should include techniques involving oncogenic viral enzymes, nucleic acid hybridization, radioimmuno-assay, immunofluorescence, immunoelectrophore-sis, gas liquid chromatography, and spectrophoto-graphic analyses. **Box 156, SCIENCE.** An Equal Opportunity/Affirmative Action Employer.

## CELL BIOLOGIST (ONE) BIOCHEMIST (ONE)

Postdoctoral positions open in connective tissue research. Enzyme and metabolic studies in tissues and cell cultures. Send résumé and references to: **Dr. E.** R. Schwartz, Department of Orthopedic Surgery, Tufts University School of Medicine, 136 Harrison Avenue, Boston, Mass. 02111.

## MASSACHUSETTS GENERAL HOSPITAL HARVARD MEDICAL SCHOOL

Position available for a BIOCHEMIST (surgery-urology) at the assistant professor level. Urological Service, Massachusetts General Hospital, and Department of Surgery, Harvard Medical School. Candidates' qualifications must include extensive experience in enzyme chemistry and purification of enzymes as well as development of radioimmunoas-ous and be self curporting via granting mechasays, and be self-supporting via granting mecha-nisms. We are an Equal Opportunity/Affirmative Ac-tion Employer. Send reply with curriculum vitae to: George R. Prout, Jr., M.D., Chief of the Urological Service, Massachusetts General Hospital, 32 Fruit Street, Boston, Mass. 02114.

BIOCHEMIST—IMMUNOCHEMIST. The Mental Health Research Institute, University of Michigan, is seeking a Ph.D. biochemist to work on radioim-munoassays of psychotropic drugs and related RIA's. The project is part of a broad, multidis-ciplinary program of research on biology of psychi-atric disorder. Experience required in immuno-chemistry and RIA applications. Salary range: \$13,700 to \$17,000. Send curriculum vitae and three references to: Dr. Bernard J. Carroll, Mental Health Research Institute, University of Michigan, Ann Ar-bor, Mich. 48109. A nondiscriminatory, Affirmative Action Employer. Action Employer.

## **BIOLOGICAL/CHEMICAL SCIENCES**

Four positions at the assistant professor level to be filled from applicants in the four fields of bio-chemistry, instrumental/analytic chemistry, micro-biology, and biophysics. Ph.D. required for consid-eration. Successful candidates will help develop the science program in an emerging institution. Send letter, curriculum vitae, and supporting ma-terials to: terials to:

John R. Farnsworth, Dean John K. Farnsworth, Dean State University of New York College of Technology Box 893 811 Court Street Utica, New York 13502

An Equal Opportunity/Affirmative Action Employer

BIOLOGICAL SCIENCES INSTRUCTOR. To teach entomology, genetics and laboratories. Teaching ex-perience with doctorate in genetics or entomology preferred. Available date: 21 August 1978. Appli-cation deadline: 12 May 1978. Apply to:

## Director of Personnel Northwest Missouri State University Maryville, Missouri 64468

Affirmative Action/Equal Opportunity Employer

**BIOLOGY FACULTY.** Tenure-track position to teach undergraduate and graduate courses in area of immunology or hematology; also undergraduate courses in microbiology and general education. Doctorate or near completion of degree required. Appointment at rank of assistant professor (\$14,256 to \$17,136) depending on qualifications and experience. Contact: Dr. J. D. Crum, Dean, School of Natural Sciences, California State College, 5500 State College Parkway, San Bernardino, Calif. 92407. An Equal Opportunity/Affirmative Action Employer.

BIOLOGY INSTRUCTOR-Responsible for teaching human anatomy and physiology for allied health students, general education biology, introductory bistudents, general education biology, introductory bi-ology for science majors, with opportunity to teach other courses offered by the department. Minimum requirements: master's degree in science with back-ground in biology and/or anatomy and physiology. College teaching experience and experience in writ-ing preferred. Salary: based on academic rank estab-lished by educational experience. Send résumé to: **Personnel Services Department**, Miami-Dade Com-munity College, 11011 Southwest 104 Street, Miami, Florida 33176. An Equal Access/Equal Opportunity Community College. Community College.

MATHEMATICS INSTRUCTOR. Responsible for teaching the entire range of courses offered by the Mathematics Department; serving on campus and college-wide committees and task forces. Minimum requirements: master's degree in mathematics or mathematics education. College teaching experience mathematics education. College teaching experience and experience in writing desirable. Business and/or industrial experience using mathematics preferred. Salary: based on academic rank established by edu-cational experience. Send résumé to: **Personnel Services Department, Miami-Dade Community Col-lege, 11011 Southwest 104 Street, Miami, Florida 33176.** An Equal Access/Equal Opportunity Commu-tive College. nity College

ASSOCIATE DEAN FOR HEALTH PROGRAMS. A leader to help in the administration and development of a wide range of undergraduate and graudate health programs is desired 1 July 1978. Candidates for this senior position should have health professions experience and an earned doctorate in a health-related field. Salary competitive. Old Domin-ion University is a progressive urban, regional uni-Versity with an enrollment of over 14,000. Send curriculum vitae and names of references to: Dr. Dale W. Lick, Dean, School of Sciences and Health Professions, Old Dominion University, Norfolk, Va. 23502. An Affirmative Action/Equal Opportunity Employer.

CARDIOLOGIST-PHARMACOLOGIST. The Car-diovascular Research and Training Center (CVRTC) and the Department of Pharmacology at the Univer-sity of Alabama Medical Center have available a po-sition at the assistant professor (pharmacology) lev-el. The individual will hold a primary appointment as associate scientist, CVRTC. This position is open to qualified individuals fulfilling three criteria. First, the individual must hold a Ph.D. in pharmacology with postdoctoral training desirable. Second, the in-dividual should have a background of research in the cardiovascular area with extensive experience in studies of the function of the membrane sodium-po-tassium pump in cardiovascular cells. Finally, the in-CARDIOLOGIST-PHARMACOLOGIST. The Cartassium pump in cardiovascular cells. Finally, the in-dividual must have a firm commitment to teaching dividual must have a firm commitment to teaching programs in pharmacology oriented to medical, den-tal, and graduate students. Apply to: Cardiovascular Research and Training Center, University of Alabama Medical Center, University Station, Birmingham, Alabama 35294, attention: Chris Ballard, Adminis-trative Assistant; telephone: 205-934-2580. An Equal Opportunity/Affirmative Action Employer. Ex-piration data for reagaint of applicatione: 1 June 1078. piration date for receipt of applications: 1 June 1978.

CARDIOVASCULAR PHYSIOLOGIST. The School of Medicine, Southern Illinois University at Carbon-dale, invites applications for a faculty position at the assistant/associate professor level. A strong back-ground related to teaching and research in cardio-vascular physiology in a medical school setting is devascular physiology in a medical school setting is de-sired. Candidates must hold the Ph.D. or M.D. de-gree or its equivalent and have had significant postdoctoral experience. This position is available immediately. Please submit curriculum vitae and three names of references by 15 June 1978 to: Chair-person, Cardiovascular Physiologist Search Com-mittee, School of Medicine, Southern Illinois Universi-ty, Carbondale, Illinois 62901.

An Equal Opportunity/Affirmative Action Employer

CHAIRPERSON AND PROFESSOR OF FOOD SCIENCE AND HUMAN NUTRI-TION. Applications and nominations are in-TION. Applications and nominations are in-vited for the position of chairperson of an ac-tive, new Food Science and Human Nutri-tion Department in the College of Human Resources at the University of Delaware. A faculty of ten, curricular programs in food science, nutrition and dietetics, under-graduate, and graduate majors (15), well-equipped laboratories, and recently reno-vated facilities form the nucleus of the pro-gram. The successful applicant must have gram. The successful applicant must have the Ph.D. or equivalent in food science, nu-trition, or food systems management, an es-tablished record of scholarly achievement, and demonstrated administrative experience and demonstrated administrative experience or potential. Applications accepted until 1 May 1978 or until position is filled. Send cor-respondence and résumé to: John A. Mur-ray, Search Committee Chair, 214 John M. Clayton Hall, University of Delaware, New-ark, Delaware 19711. Telephone: 302-738-2795. An Equal Opportunity/Affirmative Ac-tion Femployer tion Employer.

### **COMPARATIVE ANIMAL PHYSIOLOGIST**

The Chesapeake Biological Laboratory of the University of Maryland has a tenure-track opening at the assistant or associate professor level for a comparative animal physiologist. Applicant should have demonstrated interest in aquatic organisms.

Experience in toxicology or bioassay desirable. Submit résumé, state of research interests, and ar-range for submission of three references by 25 May 1978 to:

## Chairman, Search Committee Chesapeake Biological Laboratory Solomons, Maryland 20688

An Equal Opportunity/Affirmative Action Employer

## POSITIONS OPEN

DEAN, COLLEGE OF SCIENCES UNIVERSITY OF NEW ORLEANS (UNO) OPEN 1 JANUARY 1979

UNO is a young, developing state-supported insti-tution located in New Orleans on Lake Pontchartrain. The university enrollment consists of approxi-mately 12,000 undergraduate and 2,000 graduate students. The College of Sciences offers the B.S. degree in computer sciences; baccalaureate and master's degrees in biology, chemistry, earth sci-ences, mathematics, physics, and psychology; and the Ph.D. degree in chemistry.

Candidates should be scientistry. Cradidates should be scientists with outstanding credentials in research and teaching. Administrative experience is desirable but not required. Completed applications should be submitted by 1 August 1978. For further information send inquiries to: Dr. Mi-Chael Poirrier, Chairman, Sent Andries to Dr. Mi-chael Poirrier, Chairman, Search Committee: Dean, College of Sciences, Department of Biological Sci-ences, University of New Orleans, Lake Front, New Orleans, Louisiana 70122. UNO is a member of the Louisiana State University System and is an Equal Opportunity/Affirmative Action Employer.

DIRECTOR, NATIONAL GEODETIC SURVEY DIRECTOR, NATIONAL GEODETIC SURVEY Thorough knowledge of geodesy, geophysics, and surveying. Demonstrated management ability. Ph.D. in geodesy, geophysics, surveying, or related physical sciences. Salary: \$47,500. Subject to U.S. Civil Service Commission approval. Location— Rockville, Maryland. Apply to: Department of Com-merce, National Oceanic and Atmospheric Adminis-tration, 6001 Executive Boulevard, Rockville, Mary-land 20852, AD415:NYB. Equal Opportunity Em-ployer. ployer.

## DIRECTOR, INSTITUTE OF BOTANICAL DOCUMENTATION CARNEGIE-MELLON UNIVERSITY (CMU)

The director has full responsibility for a staff of 25 people, an active research program in botanical art, bibliography, and history, a specialized library of 23,000 volumes including many rare and valuable works, and an art collection of 22,000 original works. Candidates with a doctorate and research acworks. Candidates with a doctorate and research ac-complishments in botany and history of science and administrative experience in a university, institute, or museum will receive preference. Experience in obtaining research grants and funding is desirable. Please send a complete résumé by 15 May 1978 to: Dr. Richard L. Van Horn, Vice President, Carnegie-Mellon University, 5000 Forbes Avenue, Pittsburgh, Pa. 15213. CMU is an Affirmative Action/Equal Op-portunity Employer.

**DIRECTOR OF RESEARCH**. Large, private, non-profit psychiatric hospital seeks full-time director to coordinate existing programs and develop new proj-ects in clinical research. Experience in research needed, and knowledge of funding sources and ad-ministration desirable. There is an active research/ teaching affiliation with Rutgers University, and fac-ulty appointment is likely. Generous salary plus gen-erous fringes and opportunity for private practice in-come in addition. Send résumé to: **Robert S. Garber**, **M.D., P.O. Box 147, Belle Mead, New Jersey 08502.** M.D., P.O. Box 147, Belle Mead, New Jersey 08502.

### FACULTY POSITION

Biology—assistant professor, 12-month regular ten-ure-track position—neurobiology/neurophysiology —fall 1978. University of Missouri-Kansas City. Must possess doctorate and demonstrated research productivity. Will be assigned undergraduate, gradu-ate, and health science teaching responsibilities. Successful candidate will have joint appointment in Medical School with teaching responsibilities. Send complete curriculum vitae and three letters of refer-ence to: Chairman, Search Committee, Department of Biology, University of Missouri-Kansas City, 5100 Rockhill Road, Kansas City, Mo. 64110. Closing date is 1 June 1978. An Equal Opportunity Employer.

## FACULTY POSITION

VISITING ASSISTANT PROFESSOR. One-year ap-VISITING ASSISTANT PROFESSOR. One-year ap-pointment beginning 28 August 1978. Applicants should have a Ph.D. degree with teaching experi-ence in general genetics, microbial genetics, and physiological genetics. Applicants should send cur-riculum vitae and three letters of recommendation by 31 May 1978 to: Dr. John T. Fales, Chairperson, Biology Denartment University of Miscouri Kansas Biology Department, University of Missouri, Kansas City, Missouri 64110.

University of Missouri is an Equal Opportunity Employer.

SCIENCE, VOL. 200

POSITIONS OPEN

POSITIONS OPEN

## DIRECTOR ANIMAL TOXICOLOGY RESEARCH

Full-time faculty research position (tenure-track/rank open) with competitive salary based on background and experience. D.V.M. and/or Ph.D. Applicant must have demonstrated ability and interest in labo-ratory animal toxicity research evidenced by estab-lished accomplishments in clinical research and sponsored support. Position is responsible for the development and direction of animal toxicity studies in conjunction with on-going human inhalation tox-icology research. Teaching is not required and indi-vidual research will be encouraged. Laboratory favidual research will be encouraged. Laboratory fa-cilities are located in a major animal research center where various animal species are readily available. Animal toxicology laboratory is 4000 square feet in-cluding a 400-square foot controlled-environment chamber. Full technical support including modern analytical instrumentation (GC/MS/computer, AA, and so forth) is available. Please send curriculum vitae, references, and a statement of research goals to: Dr. Richard D. Stewart, Chairman, Department of Environmental Medicine, The Medical College of Wisconsin, 8700 West Wisconsin Avenue, Milwaukee, Wisconsin 53226. An Affirmative Action Employer.

ENGINEERING AND SCIENTIFIC ANALYSIS-ENGINEERING AND SCIENTIFIC ANALYSIS— Opportunities in analysis of near-/far-term advanced technology systems. Engineering and scientific per-sonnel with broad-based technical, analytical, and communications skills for analysis and evaluation of defense and energy systems and concerts. Send ré-sumé to: B-K Dynamics, Inc., 15825 Shady Grove Road, Rockville, Maryland 20850. An Equal Oppor-tunity Employer.

FACULTY POSITION—Assistant professor, swine breeding research and teaching. Applications are in-vited for persons with a Ph.D. degree in animal breeding. Responsibilities include graduate and undergraduate teaching, research in swine breeding and population genetics. An understanding of swine production is desirable. Supporting work in physiol-ogy is desirable. A strong interest in teaching and research along with good communication skills is es-control. Apply with good communication skills is essential. Apply with résume to: Dr. S. A. Ewing, Head, Department of Animal Science, Iowa State Uni-versity, Ames, Iowa 50011. Affirmative Action/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 sev-eral years of experience beyond doctorate required. Rank and salary open. Send résumé, names of three references, and research interests to: Dr. Ronald J. Gibbs, College of Marine Studies, University of Dela-ware, Lewes, Del. 19958.

The University of Delaware is an Equal Opportu-nity/Affirmative Action Employer.

Biological education, DEPARTMENT HEAD, biological sciences organization. Duties include liaison with governmental agency programs in education and the college/university biological community, identification of trends and related requirements for Identification of trends and related requirements for development of advanced, innovative educational programs in the life sciences. Ph.D. and teaching ex-perience preferred. Position available on or about 1 July. Résumé must include present salary. Salary negotiable. Reply to: Executive Director, American Institute of Biological Sciences, 1401 Wilson Boule-vard, Arlington, Va. 22209.

IMMUNOLOGIST/PHYSIOLOGIST. Staff investi-IMMUNOLOGIST/PHYSIOLOGIST. Staff investi-gator to join health-center based research group in-volved in cancer, diabetes, and aging research. Re-quirements include experience in immunochemistry and molecular biology with a demonstrated ability to conduct a high-quality research program. Please send curriculum vitae to: William E. Abdallah, Ad-ministrative Assistant, Barbara Kopp Geriatric Re-search Center, 100 Thornton Avenue, Auburn, New York 13021. York 13021.

We are looking for an English-speaking LABORA-TORY ASSISTANT to work on the molecular biol-ogy of eukaryotic genes. The work involves gene cloning by recombinant DNA technology. Appli-cants should hold a bachelor's (or master's) degree, and should have had some additional experience working in an experimental laboratory. Those intersted send curriculum with and one to

Those interested send curriculum vitae, and one to three letters of reference to: Dr. Zdenek Trnka, Ba-sel Institute for Immunology, 487, Grenzacherstrasse, Postfach, CH-4005 Basel 5, Switzerland.

5 MAY 1978

# DIRECTOR **BAMFIELD MARINE STATION**

The Western Canadian Universities Marine Biological Society (WCUMBS) seeks a di-rector for the Bamfield Marine Station, effective 1 July 1979, or as soon thereafter as possible. Professional qualifications at the Ph.D. level in marine science are preferred and administrative experience is desirable. It is anticipated that an affiliation with one of the member universities will be negotiated, but the position requires that the director be in full-time residence at Bamfield, Vancouver Island. The initial appointment will be for a period of not less than 3 and not more than 5 years, although it may be renewed. The appointment could be made on a contractual or a secondment basis. Applications, to gether with full career biography and names of up to three supporting referees, should be submitted not later than 31 August 1978 to: Dr. R. F. Scagel, President, WCUMBS, c/o Department of Botany, UNIVERSITY OF BRITISH COLUMBIA, 2075 Westbrook Mall, Vancouver, British Columbia, Canada V6T 1W5.

IMMEDIATE OPENING. Sc.D. or Ph.D. in applied biostatistics; instructor/assistant professor. Partici-pation in medical and graduate student teaching: preceptoring, basic biostatistical methods, sampling. Training or experience in industrial biostatistics, es-Training or experience in industrial biostatistics, es-pecially design and data collection and/or multi-center clinical trials. Curriculum vitae and three rec-ommendations to: Leonard Chiazze, Jr., Sc.D., Pro-fessor and Director, Division of Biostatistics and Epidemiology, Georgetown University School of Med-icine, Washington, D.C. 20007; telephone: 202-625-7772. Equal Opportunity Employer.

## **INSTRUCTOR IN BIOLOGY**

Temporary 1-year position replacing faculty on re-leased time. To teach a one-term introductory course on organisms and evolution, an animal be-havior course, and general studies courses. Five-course load. Ph.D. preferred; evidence of particular success in teaching will be viewed favorably. Scherry success in teaching will be viewed favorably. Salary: \$11,933 to \$13,637. Send letter of interest, résumé, and names, addresses, and phone numbers of three references by 15 May to: Philip Namzetta, Dean, Stockton State College, Box 7440, Pomona, N.J. 08240

Affirmative Action/Equal Opportunity Employer

## INSTRUCTORS

Two September openings, recent Ph.D.'s Instructor or assistant professor level-\$13,000 to \$15,000.

- NEUROPHYSIOLOGY—Teach physiology and anatomy or genetics. Develop own specialty and team research.
- 2) BIOCHEMISTRY-Teach nutrition and biochemistry or genetics. Develop own and team research.
- Three September openings-M.S. or Ph.D. level. Instructors-\$11,000 to \$13,000.
- ANATOMY-Teach gross and neuroanatomy. 3) Research possible.
- 4) LABORATORY COURSE INSTRUCTOR-Oversee laboratories in histology, embryology, and microbiology. Research possible.
- TWO B.S. LEVEL TECHNICAL ASSISTANTS-Oversee laboratories in anatomy and physiology.

Send résumé, reference letter, and reprints, with letter to:

# Basic Science Division Logan College 430 Schoettler Road Chesterfield, Mo. 63017

The COMPREHENSIVE CANCER CENTER FOR THE STATE OF FLORIDA and the Department of Oncology, University of Miami School of Medicine, are seeking candidates for JUNIOR FACULTY RE-SEARCH POSITIONS in the areas of cytokinetics, cytogenetics, pharmacokinetics, biochemical phar-macology, medicinal chemistry, and biomathemat-ics. The exact number of such positions is dependent upon funding

upon funding. Please address your correspondence and curriculum vitae to:

Robert Powell, Administrator Comprehensive Cancer Center University of Miami School of Medicine P.O. Box 520875, Biscayne Annex Miami, Florida 33152 Equal Opportunity/Affirmative Action Employer FACULTY POSITIONS IN GEOLOGY

Applications are invited for two temporary positions at visiting assistant professor level in the Depart-ment of Geology (1978–1979). The first is in the field to fisedimentation; the person selected will be asked to teach three courses during the 1978–1979 academto evan one of them being a sedimentology course. The Ph.D. is not required although an applicant with the degree will be at an advantage. Persons on sab-batical leave will also be considered; the title could be changed for a senior person.

We also wish to hire a structural geologist with a good deal of field experience. The person hired must have the Ph.D. in hand and experience in Arizona geology. Persons interested should send a résumé, arrange for three letters of recommendation, and submit grade records by 20 May 1978.

Reply to: David Krinsley, Chairman, Department of Geology, Arizona State University, Tempe, Arizona 85281.

Arizona State is an Equal Opportunity/Affirmative Action Employer.

INSTRUCTOR IN MICROBIOLOGY AND IMMU-NOLOGY. Medical school full-time faculty to participate in the existing medical microbiology course and in advanced courses for graduate students. An and in advanced courses for graduate students. An active research program, preferably in microbial physiology, is highly desired. Salary, negotiable de-pending on qualifications and experience; starting 1 September 1978. Send résumé and three letters of recommendation to: Dr. P. G. Iatridis, Director, Northwest Center for Medical Education, Indiana University School of Medicine, 3400 Broadway, Gary, Indiana 46408. Indiana University is an Equal Op-portunity/Affirmative Action Employer. portunity/Affirmative Action Employer.

Full-time position opening: COMMUNITY COL-LEGE INSTRUCTOR IN MICROBIOLOGY. Ph.D. LEGE INSTRUCTOR IN MICROBIOLOGY. Ph.D. preferred; master's degree required and 2 years of college teaching experience. General biology back-ground with speciality in microbiology. Duties in-clude teaching microbiology for nursing majors, gen-eral biology, and related areas. Research encour-aged. Rank and salary determined by educational background and experience. To begin 25 August 1978. Apply by 31 May 1978 to: Dean of Faculty, Greater Hartford, Conn. 06105. An Affirmative Ac-tion/Equal Opportunity Employer. M/F. tion/Equal Opportunity Employer, M/F

MICROBIOLOGIST. Small liberal arts and sciences college has one full-time opening in its Biology De-partment for a microbiologist, effective 15 August partment for a microbiologist, effective 15 August 1978. Courses to be taught: microbiology (with or-ganic chemistry as prerequisite), medical micro-biology, immunology, and a general interest course in microbes for the nonscience student. Rank of as-sistant or associate professor depending on qualifi-cations. Ph.D. with teaching experience preferred, but a doctoral candidate completing his/her final year of work considered. Salary competitive; limited opportunity for research. Applicants should submit curriculum vitae, transcripts, bibliography, and three references no later than 31 May 1978 to: Chairman, Biology Department Illinois Benedictine College 5700 College Road Lisle, Illinois 60532 Illinois Benedictine College is an Equal Opportunity/

Illinois Benedictine College is an Equal Opportunity/ Affirmative Action Employer and Educator, M/F.

### AUSTRALIA THE UNIVERSITY OF WOLLONGONG LECTURER/SENIOR LECTURER (TENURABLE) BIOLOGY (ECOLOGY)

The Biology Department offers a general first year course followed in second and third years by a curriculum in which emphasis is placed on functional aspects of biology. The core of the second and third year syllabus is a sequence of subjects dealing with energy flow at levels ranging from metabolism, through physiology, to ecology. This core is supplemented with additional topics in areas of biochemistry, biological regulation, neurobiology and behaviour, and the evolution and ecology of man. The person appointed will be responsible for a one-session (semester) course in ecology, as part of the bioenergetics core and will contribute to other courses in the syllabus. Applicants should have high academic qualifications, substantial research experience and, preferably, significant teaching experience. This is a tenurable appointment.

Further information may be obtained from: Professor A. D. Brown, Chairman, Department of Biology. Salary ranges: senior lecturer: A\$20,104 to A\$23,432; lecturer: A\$14,984 to A\$19,684. For details of appointment, write to: Bursar, The University of Wollongong, Box 1144, P.O., Wollongong, 2500, New South Wales, Australia. Applications close 5 June 1978.

MARINE GEOPHYSICIST, GEOLOGIST. Faculty position in marine geophysics. Applications are also being sought for a possible second tenure-track faculty position in a rapidly advancing area of marine geophysics, deep sea sedimentology, or geochemistry. Applicants should have demonstrated an excellence in research and an ability to support research cruises. Responsibilities of the position include graduate instruction. Salary and rank are dependent upon qualifications and experience. Send résumé and suggested references to: Dr. T. C. Moore, Jr., Graduate School of Oceanography, University of Rhode Island, Kingston, R.I. 02881. Affirmative Action/Equal Opportunity Employer.

MUSCLE-BONE BIOLOGIST. University of Michigan seeks applicants for a joint teaching-research position to begin 1 September 1978 which will involve participation in an experimental research program on the growth, function, and adaptation of the masticatory complex. Applicant must be qualified to be appointed to a 3-year term as assistant professor and conduct teaching within one of the following departments: anatomy, anthropology, oral biology, oral surgery, or plastic surgery. Submit résumés to: Stanley M. Garn, Chairman, Search Committee, University of Michigan, 1111 East Catherine Street, Ann Arbor, Mich. 48109. Equal Opportunity Employer.

## INTERNATIONAL LABORATORY FOR RESEARCH ON ANIMAL DISEASES (ILRAD)

ILRAD is an international institution whose first assignment is to find a solution to African trypanosomiasis and theileriosis using up to date fundamental scientific knowledge and modern technology. Disciplines represented at ILRAD are biochemistry, entomology, immunology, molecular biology, parasitology, pathology, and tissue culture. A few positions are open immediately for:

## BRIGHT, IMAGINATIVE POSTDOCTORAL FELLOWS IN IMMUNOLOGY

who will work in both fields of cellular immunology and immunochemistry. Excellent facilities and equipment are available for sophisticated immunological studies. Research will involve the production of monoclonal antibodies by cell fusion and the use of a fluorescence activated cell sorter (FACS II). Salaries will range from U.S.\$10,000 to U.S. \$15,000 depending on training and experience. Perquisites include housing and commutation allowances. The successful candidates will work with Dr. George E. Roelants of ILRAD.

Applications or requests for further information should be sent to:

Associate Director for Administration ILRAD P.O. Box 30709 Nairobi, Kenya **NEUROANATOMIST** with electron microscopic training to work with multi-disciplinary neurobiology group in West Coast medical school. Doctoral degree required. Submit curriculum vitae to: **Box 145, SCIENCE.** 

## NEUROPHARMACOLOGY/NEUROCHEMISTRY/ NEUROPHYSIOLOGY OF AGING

Neurobiologists invited to apply for senior level (tenure-track) position in the Research Institute of the Andrus Gerontology Center. A new laboratory will be established to interface with existing laboratories studying aging mechanisms in the neuroendocrinology, psychophysiology, and psychobiology and developmental psychology of rodent models and humans. Areas of previous research open. Interested persons should submit curriculum vitae, complete bibliography, names of three or more references, and a brief statement of research plans to:

Dr. Caleb E. Finch Andrus Gerontology Center University of Southern California Los Angeles, California 90007 Telephone: 213-741-5168

#### POSTDOCTORAL FELLOWS

Fellowships available at Brown University under NRSA training program in diabetes, insulin action and secretion from the NIH to work in experimental and clinical studies with the faculty listed:

- 1) Mechanism of insulin action on metabolism and membrane transport—M. Czech, Ph.D. and J. Fain, Ph.D.
- Hybrid artificial pancreas: design and evaluation of implantable beta cell culture devices—P. Galletti, M.D., Ph.D.
- Insulin resistance; obesity, trauma, and infection—experimental and clinical studies—M. Czech, Ph.D., G. Clowes, M.D., J. Coleman, Ph.D., and A. Coleman, Ph.D.
- A) Role of insulin in maturation and the development of glucose control—R. Schwartz, M.D., W. Oh, M.D., and K. Adamsons, M.D., Ph.D.

Also, predoctoral students interested in these areas and in obtaining formal training in biochemistry and cell biology leading to the Ph.D. degree are invited to write for information.

Inquiries should be directed to any of the individuals listed above or to: Dr. Michael P. Czech, Acting Director, NRSA Training Program, Division of Biology and Medicine, Brown University, Providence, Rhode Island 02912.

Brown University is a nondiscrimination, Affirmative Action Employer and welcomes applications from all qualified individuals, in particular women and members of minority groups.

Position available for **POSTDOCTORAL FELLOW** in Department of Neurology and Neuropathology, Harvard Medical School. Experience in protein chemistry and radioisotope techniques required for the research project on in vivo and in vitro turnover of brain structural proteins. Other techniques extensively used for the project (tissue culture, immunolgy, and histology) are available in the laboratory. Contact:

#### Dr. A. Bignami Veterans Administration Hospital 1400 Veterans of Foreign Wars Parkway Boston, Mass. 02132

## PHYSIOLOGIST

Position available for a physiologist (Ph.D.) to teach human physiology and endocrinology in the Division of Biological Sciences. Demonstrated commitment and excellence in teaching and research are essential and one or more years of experience after the doctorate is preferred, especially at the professional school level. Salary and rank will be commensurate with qualifications. Position to be filled on or about 1 July 1978. Application deadline: 1 June 1978. A complete position description is available upon request.

Alvin Byer, O.D. Chairman, Faculty Recruitment Committee Pennsylvania College of Optometry 1200 West Godfrey Avenue Philadelphia, Pa. 19141

## POSITIONS OPEN

**ORAL BIOLOGIST**—Faculty/tenure-track/two positions anticipated. We are seeking experienced academicians with an earned doctorate to function within a multidisciplinary Department of Oral Biology. The successful candidates will have significant research experience in one of the major disciplines of oral biology, significant training in one of the areas of related basic sciences, as well as dental-oriented postdoctoral experience). A record of extramural funding is desirable. In addition to research the successful candidates will teach graduate and undergraduate dental students. Please forward curriculum vitae and have three letters of recommendation sent to: Dr. R. H. Staat, Chairman, Search Committee, Department of Oral Biology, University of Louisville, School of Dentistry, P.O. Box 35230, Louisville, Ken ucky 40232. The University of Louisville is an Equal Opportunity/Affirmative Action Employer.

The **DEPARTMENT OF PARASITOLOGY**. College of Veterinary Medicine, University of Georgia, is seeking applications for a position to be filled as soon as possible. Qualifications for the position include: the D.V.M. and Ph.D. degrees or the Ph.D. degree, with training and/or experience in veterinary parasitology in the professional and graduate curriculum and participation in the diagnostic and service activities of the department. In addition, the successful candidate will be expected to develop or continue a productive research program of the caliber to attract outside funding. Salary and rank are open and commensurate with training and experience. Interested individuals should submit curriculum vitae to: Dr. William L. Hanson, Department of Parasitology, College of Veterinary Medicine, University of Georgia, Athens, Georgia 30602. Deadline for application is 22 May 1978. The University of Georgia to the caliber to Institution.

**POSITION** available to study the availability to animals of cadmium from different edible plants and the binding of cadmium to macromolecules. Applicants must have a Ph.D. degree in biochemistry or a closely related discipline and research experience in toxicology as well as having demonstrated ability to manage a research program. Salary up to \$16,000 will be dependent on experience and qualifications. Applicants should send curriculum vitae and three letters of reference before 1 June 1978 to: Dr. Donaid R. Buhler, Department of Agricultural Chemistry and Environmental Health Services Center, Oregon State University, Corvalis, Ore. 97331. An Equal Opportunity/Affirmative Action Employer, in compliance with Section 504 of the Rehabilitation Act of 1973.

POSTDOCTORAL POSITION IN ANATOMY. Medical school full-time research associate to develop an independent and/or collaborative biomedical research program in either connective tissue histochemistry or neuroendocrinology. Salary negotiable depending on qualifications and experience; available 1 July 1978. Send résumé and three letters of recommendation to: Dr. P. G. latridis, Director, Northwest Center for Medical Education, Indiana University School of Medicine, 3400 Broadway, Gary, Indiana 46408. Indiana University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION IN BIOCHEMIS-TRY. Medical school full-time research associate to develop an independent and/or collaborative biomedical research in biochemistry of platelets, with emphasis on effects of nucleotide analogs. Salary negotiable depending on qualifications and experience; available 1 July 1978. Send résumé and three letters of recommendation to: Dr. P. G. Iatridis, Director; Northwest Center for Medical Education, Indiana University School of Medicine, 3400 Broadway, Gary, Indiana 46408. Indiana University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION IN PHYSIOLOGY. Medical school full-time research associate to develop independent and/or collaborative biomedical research in blood coagulation and/or platelet aggregation. Salary negotiable depending on qualifications and experience; available 1 July 1978. Send résumé and three letters of recommendation to: Dr. P. G. Iatridis, Director, Northwest Center for Medical Education, Indiana University School of Medicine, 3400 Broadway, Gary, Indiana 46408. Indiana University is an Equal Opportunity/Affirmative Action Employer.

SCIENCE, VOL. 200

POSTDOCTORAL POSITIONS IN BIOCHEMIS-TRY. Available immediately for the study of cyto-chromes and mechanisms of biological reduction of chromes and mechanisms of biological reduction of nitrogenous oxides. Strong graduate background in biochemistry and/or microbiology essential with in-terest in physicochemical techniques. Starting sal-ary: \$12,000 per annum. Send résumé and names of references to: D. C. Wharton, Ph.D., Department of Biochemistry, The University of Texas Health Science Center, San Antonio, Texas 78284. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION IN PHYSIOLOGY Medical school full-time research associate to devel-op independent and/or collaborative biomedical re-search program in fibrinolysis. Salary negotiable desearch program in fibrinolysis. Salary negotiable de-pending on qualifications and experience; available 1 July 1978. Send résumé and three letters of recom-mendation to: Dr. P. G. Iatridis, Director, Northwest Center for Medical Education, Indiana University School of Medicane, 3400 Broadway, Gary, Indiana 46408. Indiana University is an Equal Opportunity/ Affirmative Action Employer.

**POSTDOCTORAL POSITION** is available in fall 1978 for Ph.D. trained in phospholipid chemistry/en-1978 for Ph.D. trained in phospholipid chemistry/en-zymology to work on the regulation of phospholipid biosynthesis during membrane biogenesis in bac-teria. Send curriculum vitae and three references to: Dr. Samuel Kaplan, Department of Microbiology, University of Illinois, 164 Burrill Hall, Urbana, Ill. 61801. An Affirmative Action/Equal Opportunity Franclaves Employer.

## POSTDOCTORAL POSITIONS

Positions are available 1 July 1978 in an NIH-sponsored postdoctoral training program, for recent Ph.D. graduates interested in advanced training and research in environmental mutagenesis-carcinogen-esis. The relationship between DNA repair, mutagenesis, and carcinogenesis is the specific area under study, employing rodents and mammalian cells in culture. Reply in writing (include curriculum vitae, reprints, and three references) to:

Dr. Jay I. Goodman and Dr. James E. Trosko Departments of Pharmacology and Human Development Michigan State University East Lansing, Mich. 48824 An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION: CELL AND MO-LECULAR BIOCHEMISTRY. A position is immedi-ately available for a recent Ph.D. interested in cell and neuromuscle biology, who is familiar with pro-tein isolations, neuromuscle research, and the pharmacology of anticholinesterases. The project entails study of the properties and regulation of acetyl-cholinesterase and other macromolecules of the mocholinesterase and other macromolecules of the mo-tor end plate and the effects of organophosphate compounds on tissues and cultures of nerve and muscle. Stipend ranges from \$11,880 to \$14,916 de-pending on experience and the position is for a mini-mum of 2 years. Résumés, including names of three references, should be sent to: Dr. Barry W. Wilson, Department of Avian Sciences, or Dr. Mark W. McNamee, Department of Biochemistry, University of California, Davis, California 95616. An Afirmative Action/Equal Opportunity Employer

An Affirmative Action/Equal Opportunity Employer

## POSTDOCTORAL POSITIONS

Available 1 June 1978. Ph.D. biochemistry or allied field. Study: (i) structural and regulatory properties of phosphofructokinase in normal and diabetic mice with Dr. R. G. Kemp; training in enzymology and/or protein chemistry required; and (ii) supramolecular structure of nuclei from cultured animal cells with Dr. J. M. Keller; experience with DNA, chromatin, and so forth, required. Available spring 1979. Stud-ies with: (i) Dr. R. G. Kemp (as above); (ii) Dr. F. Marcus (fructose-1,6-bis phosphatase); and (iii) Dr. J. M. Keller (cell surface heparan sulfate). Salaries negotiable upon experience. Send résumé to: De-partment of Biochemistry, University of Health Sci-ences/The Chicago Medical School, 2020 West Ogden Avenue, Chicago, III. 60612. An Affirmative Action/ Equal Opportunity Employer. Available 1 June 1978. Ph.D. biochemistry or allied

POSTDOCTORAL POSITION IN MICROBIOLO-POSTDOCTORAL POSITION IN MICROBIOLO-GY AND CELL SCIENCE. Available immediate-ly for recent Ph.D. Areas of research include mem-brane biochemistry, lipid synthesis, and bacterial cell division. Send résumé and names of three refer-ences to: L. O. Ingram, Department of Microbiology and Cell Science, 1059 McCarty Hall, University of Florida, Gainesville, Fla. 32611.

## POSITIONS OPEN

POSTDOCTORAL POSITIONS available in research programs on: (i) cell cycle of prokaryotes, in particular nucleoid structure and role of contractile parucular nucleoid structure and role of contractile proteins, and (ii) molecular biology of enveloped vi-ruses of prokaryotes, emphasizing virus-cell mem-brane considerations. Salary at NIH levels. Send curriculum vitae and letters of recommendation to: Dr. Jack Maniloff, Department of Microbiology, Uni-versity of Rochester Medical Center, Rochester, N.Y. 14642.

## POSTDOCTORATE POSITION

Ecophysiologist to study bottom land ecosystems. Duration: 2 years, beginning 1 September 1978. Sal-ary: \$10,000. Send complete résumé, transcripts, and three letters of recommendation to: Leigh Fredrickson or Tom Hinckley, School of FFW, 1-30 Agri-culture Building, University of Missouri, Columbia, Mo. 65211. Deadline: 15 June 1978.

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### POSTDOCTORAL POSITIONS AVAILABLE

One year, with possible reappointment, available 1 June 1978. Research on behavior of adult black flies and mosquitoes. Address inquiries and applications, including transcripts and names of three references, to: Dr. John D. Edman, Department of Entomology, University of Massachusetts, Amherst, Mass. 01003. Telephone: 413-545-2284. An Affirmative Action/ Faual Opportunity. Employee Equal Opportunity Employer.

POSTDOCTORAL POSITION. Available for studies on dimorphism in Mucorales. Position available for up to 2 years, starting 1 June 1978. Stipend: \$12,000 per year. Send curriculum vitae and three letters of per year. Send curriculum vitae and inree fetters of recommendation to: Dr. Vicente D. Villa, Biology De-partment, New Mexico State University, Las Cruces, N.M. 88003. New Mexico State University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. For candidate with strong background in biochemistry, chemistry, or molecular biology. Participation in research in-volving a biochemical and genetic approach to studying a control of chromosomal functions in mam-malian cells. Please send curriculum vitae and names of three references to: Dr. K. Ebisuzaki, Can-cer Research Laboratory, University of Western On-tario, London, Ontario, Canada N6A 5B7.

POSTDOCTORAL POSITION IN ENZYMOLOGY to study kinetics and regulation mechanisms of gly-colytic enzymes and the interaction of these encolytic enzymes and the interaction of these en-zymes with cell membranes. Experience in enzyme kinetics, enzyme purification, and physical chemis-try of proteins desirable. Available 1 January 1979. Send curriculum vitae and names of three references to: Dr. Mary E. Kirtley, Department of Biological Chemistry, University of Maryland School of Medi-cine, Baltimore, Md. 21201. An Equal Opportunity/Affirmative Action Employer.

**POSTDOCTORAL POSITION** in protein crystal-lography available 1 July 1978. Research facilities in-clude an MMS-X molecular graphics system, oscilla-tion camera, computer controlled microdensitome-ter code different controlled microdensitometer and four-circle diffractometer. Send curriculum vitae and the names of three references to: Dr. F. Scott Mathews, Department of Physiology and Bio-physics, Washington University Medical School, 660 South Euclid Avenue, St. Louis, Mo. 63110.

Affirmative Action/Equal Opportunity Employer

POSTDOCTORAL POSITION

Chromatographic, spectroscopic, and organic mech-anistic studies on natural compounds. Seeking or-ganic chemist with background in heterocyclic com-pounds. Available summer or fall 1978. Send résumé with three references to:

# Dr. G. Hrazdina Department of Food Science and Technology Cornell University New York State Agricultural Experiment Station Geneva, New York 14456

Cornell University is an Equal Opportunity/Affir-mative Action Employer.

**POSTDOCTORAL POSITION** available immediately in tumor biology laboratory studying mouse mam-mary tumor virus nucleic acids. Background in nucleic acid chemistry and/or tissue culture desirable. Interested persons should submit curriculum vitae and two letters of reference to: R. D. Cardiff, M.D., Ph.D., Department of Pathology, School of Medicine, University of California, Davis, Calif. 95616. An Equal Opportunity/Affirmative Action Employer

## **GENETIC TOXICOLOGY CYTOGENETICS**

The Chemical Hygiene Fellowship of the Carnegie-Mellon Institute of Research is lo-cated 25 miles east of Pittsburgh in beautiful, rolling countryside, and is a well-established and expanding toxicological research facility. We are currently seeking an individuals with significant training/experience with cytogenetic evaluation of chromosome aberrations using in vivo and in vitro assay systems. Candidates must have an advanced de-

gree or equivalent experience in cytogenetics. Also, specialized training in mammalian cytogenetics and use of the latest chromosome staining methods is required. Particular attention will be given to individuals with a combination of skills including: characterization of meiotic chromosomes, cell culture experience with primary and established cell cultures, and genetic (or toxicological) studies with rodents. Duties in the growing section of ge-netic toxicology will include: supervision of technical personnel, development of a genetic toxicology testing program and basic research in development/standardization of new test methods. Please submit a detailed curriculum vitae, references and reprints, to:

Mr. A. R. Ryrholm

CARNEGIE-MELLON INSTITUTE OF RESEARCH R.D. 4, Box 60

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## **POSTDOCTORAL POSITION—BIOCHEMISTRY**

Available immediately for research on structural gly-coproteins of the intercellular matrix in relation to fibronectin and atherosclerosis. Send curriculum vitae and names of referees to: Dr. Michael Bowness, Biochemistry Department, University of Manitoba, Winnipeg, Manitoba, Canada R3E 0W3.

## POSTDOCTORAL/RESEARCH ASSOCIATE

To investigate protein transport, IgG receptors, and coated vesicle assembly in oocytes. Salary \$10,000 to \$14,000, based on qualifications. Available immediately.

Dr. Thomas F. Roth Department of Biological Sciences University of Maryland Baltimore County Catonsville, Maryland 21228 Telephone: 301-455-2254

An Affirmative Action/Equal Opportunity Employer

## POSTDOCTORAL RESEARCH POSITIONS

Two postdoctoral positions to work on research grant, 1- or 2-year duration, available 1 July 1978, for recent Ph.D. in biochemistry or biology to work on the regulation of the biosynthesis of proteoglycans and collagen by chondrocytes in culture. Send curand conagen by choloreytes in culture: solution control of the children control of the control o

The University of California, Irvine, College of Medicine, has **POSTDOCTORAL RESEARCH PO-SITIONS** available in the Department of Medical Mi-crobiology in the areas of virology, immunology, regulation of mammalian cell growth, enzyme regu-lation in bacteria and mammalian cells, and develop-ment genetics and mucheic acid metholism of mi lation in bacteria and mammalian cells, and develop-ment, genetics, and nucleic acid metabolism of mi-croorganisms. Applicants must have a Ph.D. and a background in the quantitative aspects of biochemis-try, microbiology, or genetics. Applications from all qualified candidates are welcomed; minorities and women are encouraged to apply. Interested individ-uals should write: Chairman, Department of Medical Microbiology, College of Medicine, University of Cali-fornia, Irvine, Calif. 92717.

## **RADIATION BIOLOGIST**

The University of Alabama in Birmingham, Depart-ment of Radiation Oncology, is inviting applications for the faculty position of instructor in its Division of Radiation Biology. Applicants should hold the Ph.D. degree and have experience in tissue trans-plantation, radiation time-dose fractionation, or tu-mor immunology. Send curriculum vitae and refer-ences to: Maxie L. Davis, Ph.D., Director, Division of Radiation Biology, University of Alabama in Birming-ham, P.O. Box 441 Volker Hall, Birmingham, Ala. 35294. An Equal Opportunity/Affirmative Action Employer. Employer.

### **RESEARCH ASSISTANTS**

Positions in reproductive biology, endocrine biol-ogy, neurobiology, and molecular/cell biology are available from time to time at the Worcester Foun-dation for Experimental Biology, Inc. All positions are competitive; rank and salary commensurate with qualifications and experience; ample fringe benefits. Interested individuals having either a bachelor's or a master's degree in biology, biochemistry, biophys-ics, or in other related fields should send résume and complete academic transcript to: Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545.

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**SYSTEMATIST.** Assistant professor in the Department of Systematics and Ecology, half-time for 9 months, with possibility of summer appointment. Applicant must have at least 1 year of postdoctoral experience (Ph.D. to be in biological sciences), strength in theory and principles of systematics, especially pertaining to fishes, together with a strong interest in teaching undergraduate biology courses. Closing date: 20 May 1978 Closing date: 20 May 1978.

Submit curriculum vitae, names of three references, and reprints to: C. D. Michener, Department of Systematics and Ecology, University of Kansas, Law-rence, Kansas 66045.

An Affirmative Action/Equal Opportunity Employer

## POSITIONS OPEN

## THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF PSYCHIATRY

Full-time **PSYCHIATRIST** position available for Outpatient Program. Level of appointment is in-structor or higher, based on qualifications. Position requires teaching and supervision of residents, medi-cal students, and other trainees. Should have experi-ence or have evidence of potential in research, clini-cal or basic. Salary commensurate with qualifica-tions and comprises. Should have interacted cal of basic. Satary commensurate with quantica-tions and experience. Should be interested in advancement in an academic career in psychiatry. Certification or eligibility for ABP & N required. Send résumé with letter of application to **Box 155**, SCIENCE. Code 200B0. A nondiscriminatory, Affirmative Action Employer.

PSYCHOLOGIST—associate/full professor. Doctor-ate in psychology and 7 years of teaching experi-ence. Prefer broad background in psychology with interdisciplinary exposure and experiences. Prefer-ence given to those able to teach statistics, social, and industrial psychology. Salary: \$15,500 to \$21,000. Tenure-track. Send curriculum vitae, grad-uate transcripts, reprints/preprints, and names of three references to: Dr. Rick M. Gardner, Depart-ment of Psychology, University of Southern Colorado, Pueblo, Colorado 81001. Deadline: 9 June 1978.

**RESEARCH ASSOCIATE**. Position available immediately for Ph.D. to isolate and characterize murine leukemic cell surface antigens. Experience in immunology, mem-brane biochemistry, and amino acid se-quence analysis desired. Qualified applicants should send a detailed résumé of experience and career goals to: **Box 154, SCIENCE.** 

**RESEARCH ASSOCIATE**. Position available immediately for research on replication of RNA plant vi-ruses in the laboratories of Doctors V. Hari and Alruses in the laboratories of Doctors V. Hari and Al-bert Siegel. Individuals with training in molecular bi-ology and plant pathology, and related subjects who are interested in working with nucleic acids and pro-teins of viruses are encouraged to apply. Salary in range of \$10,000 to \$11,000 per year. Please send ré-sumé and references to: Dr. V. Hari, Department of Biology, Wayne State University, Detroit, Michigan 48202. An Equal Opportunity Employer.

**RESEARCH ASSOCIATE.** Position requires a Ph.D. in biochemistry (molecular biology) or related field. Applicant will conduct investigations on nuclear RNA processing and transport in cell-free systems derived from normal and neoplastic cells. Submit ré-sumé to: Dr. Thomas E. Webb, Ph.D., Department of Physiological Chemistry, Ohio State University Col-lege of Medicine, Columbus, Ohio 43210. An Equal Opportunity/Affirmative Action Employer.

## RESEARCH MICROBIOLOGIST/ IMMUNOLOGIST

Person with Ph.D. or equivalent is needed immedi-ately for faculty position. Postdoctoral experience in mucosal immunology preferred. Research laborato-ry in the Department of Otolaryngology at the Ohio State University Hospitals. Rank and salary open. Send curriculum vitae and references to: Dr. David J. Lim, Director, Otological Research Laboratories, 456 Clinic Drive, Columbus, Ohio 43210. An Equal Opportunity Employer.

The University of North Carolina in Chapel Hill has a **RESEARCH POSITION** at the assistant pro-fessor level in the Department of Surgery with a pos-sible joint appointment in the appropriate basic med-ical science department. Applicants should have ei-ther M.D. or Ph.D. and must have 2 to 3 years of postdoctoral basic research experience. Training in immunológy and infection (viral and bacteria) essen-tial. Research experience in collagen chemistry, es-pecially in cross-links, is important, with experience in maintaining laboratory animals and dissection preferred. Teaching experience in health-related sci-ences is desirable. *The University of North Carolina is an Equal Opportunity/Affirmative Action Employ-*er. Send curriculum vitae to: Colin G. Thomas, Jr., M.D., Professor and Chairman, Department of Sur-gery, University of North Carolina, 136 Clinical Sci-ences Building 229-H, Chapel Hill, North Carolina 27514. 27514.

## POSITIONS OPEN

## RESEARCH ASSOCIATES

Positions available from time to time for M.D.'s, Ph.D.'s in areas of regulatory biology: (i) cell/molec-ular biology, (ii) reproductive biology, (iii) endocrine biology, (iv) steroid biochemistry, and (v) neurobiolbiology, (W) steroid biochemistry, and (V) neurobiol-ogy. Applications are invited from persons trained in molecular biology, microbiology, virology, physiol-ogy, biology, organic chemistry, biochemistry, phar-macology, biophysics, or other related specialties. Applicants are expected to be familiar with ad-vanced research techniques relevant to the area of interest and must have strong academic background valice i rescaler techniques relevant to the area of interest and must have strong academic background. Salary range: \$10,000 to \$14,000, depending upon postdoctoral experience. Send résumé to: **Personnel Office, Worcester Foundation for Experimental Biol-ogy, 222 Maple Avenue, Shrewsbury, Mass. 01545.** 

An Equal Opportunity/Affirmative Action Employer

RESEARCH ASSOCIATE-Biochemical and somatic cell genetics. A research associate position is now available in the Section of Medical Genetics of the Department of Medicine at Baylor College of Medi-Department of Medicine at Baylor College of Medi-cine. This full-time research position requires expe-rience in cell culture techniques and strong biochem-ical background. Two human heritable disorders are currently under study utilizing these techniques. The objective of the studies is that of determining at a biochemical level the mechanisms of the disease states and to develop prenatal diagnostic methods for each. Submit curriculum vitae and letters of rec-ommendation to: Dr. C. Thomas Caskey, Room 544E, Department of Medicine, Baylor College of Medicine, 1200 Moursund Avenue, Houston, Texas 77030. Baylor is an Equal Opportunity/Affirmative Action Employer. Action Employer.

**RESEARCH ASSOCIATE**. Atomic Physics Group at Kansas State University (KSU) has one or more postdoctoral openings for a recent Ph.D. Experience in experimental ion-atom collision problems is re-quired. Apply with curriculum vitae and names of three references to: Patrick Richard, Physics Depart-ment, Kansas State University, Manhattan, Kansas 66506, KSU is an Equal Opportunity/Affirmative Action Employer

## **GRIFFITH UNIVERSITY** QUEENSLAND SCHOOL OF AUSTRALIAN ENVIRONMENTAL STUDIES SENIOR LECTURER

## IN ENVIRONMENTAL PHYSICAL SCIENCE

An environmental scientist is required with experi-mental experience in the physical sciences and with interests in the application of these skills to environ-mental studies. Teaching in environmental physics and/or chemistry will be one responsibility of the successful applicant. This will require familiarity with modern experimental techniques, both labora-tory and field, over a wide range of environmental nroblems. problems.

The appointee will be expected to provide leadership in physical experimentation in the school at both teaching and research levels. This will require devel-oping field and laboratory programs for the detailed study of processes of environmental importance, and collaboration in existing programs throughout the school.

Salary range: A\$19,971 to A\$23,299

Salary range: AS19,971 to AS23,299. Appointment date for the position will be 1 July 1978 or as soon as possible after that date. Application forms and further information are available from: School Administrator, School of Australian Environ-mental Studies, Griffith University, Nathan, Queens-land, 4111 Australia, to whom applications should be forwarded. Closing date for applications will be 1 June 1978 June 1978.

## STAFF ASSOCIATE

Seeking postdoctoral M.D. or Ph.D. for laboratory devoted to developmental cell biology. To begin be-tween 1 July 1978 and 1 January 1979 with a research training commitment of up to 2 years. *Equal Oppor-tunity Employer*. Salary dependent on postdoctoral level.

Send curriculum vitae/résumé and names of three referees who have direct knowledge of the candidate to:

**Deputy Director for Administration** Cancer Center/Institute of Cancer Research 701 West 168 Street New York, New York 10032

SCIENCE, VOL. 200

THE VETERANS ADMINISTRATION IS OFFERING A BASIC RESEARCH PROGRAM TO STUDY THE ETIOLOGY OF ALCOHOLISM AND TO INVESTIGATE THE BIOCHEMICAL-PHARMACOLOGIC AND CELLULAR BIOLOGIC EFFECTS AND RESPONSES TO ALCOHOL.

THREE YEAR CAREER AWARDS OF SALARY AND SUBSTANTIAL RESEARCH SUPPORT ARE AVAILABLE TO INVESTIGATORS WHOSE BASIC SKILLS CAN BE APPLIED TO RESEARCH IN THE ETIOLOGY OF ALCOHOLISM.

The laboratories will be within the Veterans Administration System. Interested candidates (M.D. or PH.D.) with a background in Basic Science should contact the Chairperson of the Search Committee. Information to be supplied to the Search Committee should include (1) Curriculum Vitae (2) two letters of recommendation and (3) a summary of proposed investigation. This proposal, while not to exceed 5 pages, should include enough detail to spell out methodology, aims and experimental design.

Chairperson Dr. Erwin Mosbach Chief, Department Lipid Research Public Health Research Laboratory 455 1st Avenue New York, New York 10016

Members Dr. Charles Lieber Dr. Henry D. Hoberman Dr. Murray Oratz

Address administrative inquiries

to: Dr. Marcus Rothschild (151H) Medical Research Service Veterans Administration Central Office 810 Vermont Avenue, N.W. Washington, D.C. 20420

Telephone: 202-389-5041

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VICE PRESIDENT FOR HEALTH AFFAIRS AND DIRECTOR OF THE SOPHIE DAVIS CENTER FOR BIOMEDICAL EDUCATION

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The City College of the City University of New York invites applications and nominations for the position of Vice President for Health Affairs and Director of the Sophie Davis Center for Biomedical Education.

The vice president for health affairs is responsible primarily for the Sophie Davis Center for Biomedical Education. The director of the Sophie Davis Center for Biomedical Education is the chief academic officer of the center, which conducts a prototypical innovative 6- or 7-year B.S.-M.D. program that integrates a premedical curriculum with the basic medical sciences and clinical medicine. The center is affiliated with a number of participating medical schools and is committed to the development of primary health care physicians for underserved communities. Among other responsibilities of the vice president for health affiairs are The Herman Goldman Institute for Human Biology and a proposed Physician's Assistant Program. The vice president works closely with the School of Nursing and helps provide leadership for the college's premedical studies program and for the Program in Health, Medicine, and Society. The position also necessitates interaction with a wide variety of federal, state, and local agencies.

The City College of New York, established in 1847, is located on a 35-acre campus on the upper west side of Manhattan and has an enrollment of approximately 15,000 students. Its outstanding College of Liberal Arts and Science is augmented by a complex of professional schools: architecture, education, engineering, and nursing. Three professional centers have been established: the Center for Biomedical Education, the Center for Urban Legal Education, and the Center for the Performing Arts.

The successful candidate must have an M.D. degree, a distinguished record of research and teaching, experience as a medical school administrator or equivalent experience in the health professions, and a firm commitment to the development of primary health care physicians for the underserved areas.

The position must be filled by 1 January 1979. Applications, including curriculum vitae and nominations, should be submitted by 1 July 1978 to:

> Dr. Julius B. Shevlin, Chairman Search Committee for the Vice President for Health Affairs City College of New York 138th Street and Convent Avenue Science Building-Room 22 New York, New York 10031

An Affirmative Action/Equal Opportunity Employer

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Physicians (Multiple Openings)—The Food and Drug Administration/Bureau of Drugs (an Equal Opportunity Employer) has career Civil Service openings for physicians. (Positions are also available in the Commissioned Corps of the U.S. Public Health Service). Physicians evaluate the results of clinical testing of new drugs (New Drug Applications) and the potential effects on humans of proposed new drugs (Claimed Exemptions for Investigational New Drugs INDs). Physicians are also needed for the bio-research monitoring program to evaluate controversial clinical data and adherence to good laboratory practices, medical ethics, etc. Anticipated vacancies available in multiple specialties (anesthesiology, cardiology, gastroenterology, internal medicine, neurology, OB-GYN, psychiatry and surgery, etc.).

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Duties of the positions require judgement, effective writing and speaking and ability to organize work to meet deadlines. Grades are GS-14 and GS-15 (salary ranging from \$37,925 to \$47,500 per year, depending upon medical experience and qualifications). Comprehensive fringe benefits provided. Candidates need at least board eligibility in their medical specialty and must be: a graduate with a degree of Doctor of Medicine from a U.S. or Canadian medical school approved by the Council on Medical school approved by the Council on Medical Association. Doctors of Osteopathy or graduates of foreign medical schools may also be eligible. Full details may be requested.

Send Resume or Curriculum Vitae to:

Food and Drug Administration Division of Personnel Management (Room 4B-42) Attention: George Calvert 5600 Fishers Lane Rockville, Maryland 20857

## UNIVERSITY COLLEGE DUBLIN

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Applications are invited by the Governing Body of the College for the following full-time statutory post:

## PROFESSORSHIP OR EXPERIMENTAL PHYSICS

Prior to application, further information (including details of application procedure) should be obtained from Mr. J.P. MacHale, Secretary and Bursar, University College, Belfield, Dublin 4.

The latest date for receipt of completed applications is THURSDAY 1st JUNE, 1978.

**RESEARCH PROGRAM MANAGER**—The Port Aransas Marine Laboratory of The University of Texas Marine Science Institute, is seeking highly qualified applicants for the position of program manager to undertake the production of an integrated report for a large, 3-year, multiuniversity, multidisciplinary marine research program funded by the Bureau of Land Management. Duties include program coordination; scheduling of data synthesis workshops, with emphasis on the coordination of the efforts of several principal investigators and a data synthesis team; and the structuring, coordination, and writing of a final integrated report. He/she will be assisted by a program coordinator, responsible for the administrative aspects of the program, a data management team, and a secretary. A Ph.D. in the marine sciences (biology or chemistry) and research and management experience required. Send résumé to: Dr. O. A. Roels, Director, The University of Texas Marine Science Institute, Port Aransas Marine Laboratory, Port Aransas, Texas 78373. For further information, telephone: 512-749-6757. An Equal Opportunity/Affirmative Action Employer.

## RESEARCH VIROLOGIST-M.S. or Ph.D.

Training and experience in fields of virology and immunology are essential. Responsibilities: to assist in developing new poultry biologics for the largest producer.

Applicants should submit a curriculum vitae and at least three references to: Dr. Hiram N. Lasher, Sterwin Laboratories Inc., Millsboro, Del. 19966.

#### SCIENTIFIC PROGRAMMER/ANALYST

Person with proven ability in programming PDP-8 or PDP-12. Research in image analysis and pattern recognition for nuclear medicine studies. Send résumé to: E. A. Eikman, M.D., College of Medicine, University of South Florida, 12901 North 30 Street, Tampa, Florida 33612. The University of South Florida is an Equal Opportunity Employer.

	om Ph.D.'s are in- ING POSITIONS in ses:
Gross Anatomy General Biological Chemistry Biomedical Statistics Medical Writing Techniques Genetics Embryology Physiology Epidemiology	Neuroanatomy Histology Nutrition in Medical Practice Pharmacology Haematological Studies Microbiology Pathology Immunology Parasitology
Indies. Please ser to: St. George c/o Foreign Medi Co	located in the West ad curriculum vitae 's University ical School Service orp. Main Street

One East Main Street Bay Shore, New York 11706

TISSUE TYPING TECHNOLOGIST—Supervisory technological position in Transplantation Immunology Laboratory in Southeast. Responsibilities include HLA typing, antibody screening, mixed lymphocyte culture, and other immunological testing for lymphocyte function. Must be able to develop new procedures. Interested parties please reply with curriculum vitae and salary requirements to: Personnel Department, University of Mississippi Medical Center, 2500 North Street, Jackson, Mississippi 39216. An Equal Opportunity Employer, M/F.

VIROLOGY. Applications are invited for a faculty position in animal virology. Successful applicant expected to have proven ability to obtain current research support and to participate in graduate training. Well-equipped laboratory facilities available. Rank dependent upon experience and qualifications. Send curriculum vitae and names of three references to: Search Committee, Department of Virology, Baylor College of Medicine, Houston, Texas 77030. An Equal Opportunity/Affirmative Action Employer.

## POSITIONS OPEN

## TWO TEMPORARY POSITIONS

Academic year beginning September 1978. Ph.D. in the areas of population biology, animal physiology, or microbial cytology. Successful applicants expected to teach courses in general biology and their specialty. Research facilities are available. Salary and academic rank commensurate with experience. Send curriculum vitae, including names and addresses of three referees, by 15 June 1978 to: Chairman, Search Committee, Department of Biology, University of Texas at Arlington, Arlington, Texas 76019. Equal Opportunity/Affirmative Action Employer.

## SYMPOSIUM

## INTERNATIONAL SYMPOSIUM ON CHEMICAL TOXICOLOGY OF FOOD MILAN, ITALY-8 TO 10 UNE 1978

Sponsored by Institute of Pharmacology and Pharmacognosy, University of Milan, with the participation of the World Health Organization. Promoted by Centro Studi Dell'Alimentazione (Nutrition Foundation of Italy), and Fondazione Giovanni Lorenzini. International advisory board: W. F. Almeida, São Paulo, Brazil; P. Avogaro, Venice, Italy; A. Camera, Rome, Italy; R. F. Crampton, Carshalton, U.K.; W. J. Darby, N.Y., N.Y.; G. L. Gatti, Rome, Italy; H. C. Grice, Ottawa, Canada; R. Haigh, Brussels, Belgium; K. Kojima, Tokyo, Japan; A. Mariani, Rome, Italy; M. Mercier, Brussels, Belgium; K. J. Netter, Marburg, F.R.G.; R. Paoletti, Milan, Italy; P. Shubik, Omaha, Nebraska; S. Slorach, Uppsala, Sweden; R. Truhaut, Paris, France; G. Vettorazzi, Geneva, Switzerland; and G. Zbinden, Zurich, Switzerland. Organizing secretariat: Centro Studi Dell'Alimentazione (Nutrition Foundation of Italy), Via San Pietro All'Orto, 17, 20121 Milan, Italy: Telephone: 02-709.514.

## GRADUATE STUDY

A NEW INTERDISCIPLINARY GRADUATE PROGRAM IN CELLULAR AND MOLECULAR BIOLOGY has been established at Saint Louis University School of Medicine. Research areas under investigation by the faculty include animal virology, immunobiology, eukaryotic protein synthesis, membrane-associated functions in microorganisms, mechanisms of hormone action, chemotaxis, physical biochemistry and biogenesis of eukaryotic membranes and cell surfaces, cellular differentiation, molecular mode of action of vitamins, microtubules, mitochondrial molecular biology, contractile proteins, alkaloids in higher plants and brain, regulation of bacterial viruses, electrophysiology and ultrastructure of neuromuscular transmission, and others. Fellowships are available for qualified trainees. Contact: Dr. Thomas S. Ruh, Admissions Chairman, Cell and Molecular Biology Program, Saint Louis University School of Medicine, 1402 South Grand Boulevard, Saint Louis, Missouri 63104.

## **FELLOWSHIPS**

COMPUTERS IN MEDICINE. One-year National Library of Medicine traineeship for academically oriented physicians and postdoctoral scientists. Start I July 1978. Fundamentals of computer science taught with emphasis on clinical practice and medical research. No formal mathematical training required. Topics include computer systems, decisionmaking, operations research, statistics, and pattern recognition. Applicants must be U.S. citzens or have permanent immigrant status. No payback clause. For brochure write: Aran Safir, M.D., Director, Institute of Computer Science, Mount Sinai School of Medicine, 1 Gustave Levy Place, New York, N.Y. 10029.

**POSTDOCTORAL POSITION** available for 2 to 3 years to investigate the antigenic structure of rough *Brucella*. Applicants would be expected to have experience in the isolation and characterization of bacterial cell wall components. Experience with modern immunological and immunochemical methods is desirable. Salary range \$12,500 to \$14,000 per annum. Send curriculum vitae to: L. E. Carmichael, J. A. Baker Institute for Animal Health, New York State College of Veterinary Medicine, Cornell University, Ithaca, N.Y. 14853.

## FELLOWSHIPS

## POSTDOCTORAL FELLOWSHIPS FOR RESEARCH TRAINING IN HYPERTENSION

Fellowships for postdoctoral hypertension research are available to individuals with the M.D. or Ph.D. degree starting July 1978. This multidisciplinary training program provides opportunities for research in pharmacological, physiological, and biochemical approaches to cardiovascular, renal, neural, and endocrine mechanisms in hypertension. For further information contact:

Dr. E. G. Schneider Department of Physiology and Biophysics University of Tennessee Center for the Health Sciences 874 Union Avenue Memphis, Tenn. 38163 An Equal Opportunity/Affirmative Action Employer

## UNIVERSITY OF CALIFORNIA, DAVIS

RESEARCH FELLOWSHIP IN POSTHARVEST BI-OLOGY in support of postdoctoral or senior scientists on sabbatical leave. Recipients may conduct research under the auspices of one or more of the resident staff emphasizing various aspects (molecular, cellular, biochemical, physiological, horticultural) of plant senescence as related to the postharvest biology of fruits, vegetables, or ornamentals. Appointment will normally be for 1 year, commencing summer or fall 1978. Salary range \$10,000 to \$16,000, as determined by training, prior experience, and other sources of support. Application may be made by forwarding curriculum vitae, the names of three referees, and a brief (one- or two-page) description of research interests and/or project proposals to: Dr. Roger Romani, 2039 Wickson Hall, University of California, Davis, California 95616. Applications must be received by 15 July 1978. The University of California is an Eaual Opportu-

The University of California is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.

### POSTDOCTORAL FELLOWSHIPS IN ALLERGIC DISEASES

Research positions for holders of the Ph.D., M.D., or equivalent degrees are available immediately for studies of allergen chemistry, functions of eosinophils, biosynthesis of homocytotropic antibodies and their role in animal and in human diseases, especially due to parasites, and mechanisms of inflammation of the respiratory tract and skin. Combination with advanced clinical training in allergy, immunology, and dermatology possible. Stipends begin about \$14,000. Applicants must be U.S. citizens, noncitizen nationals, or hold an immigrant visa. Contact: Gerald Gleich, M.D., Mayo Foundation, Rochester, Minn. 55901; telephone: 507-284-2511. Mayo is an Equal Opportunity/Affirmative Action Institution.

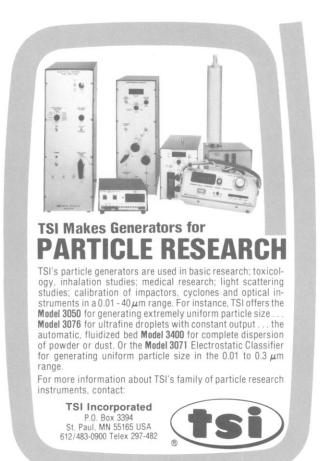
## UNIVERSITY OF QUEENSLAND RESIDENT FELLOWSHIP IN COAL PETROLOGY

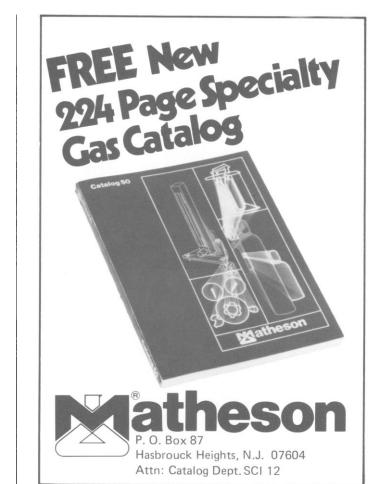
Applications are invited for a research fellow in coal petrology to assist in establishing a new facility in coal petrology at the Department of Geology and Mineralogy. The fellow will be required to teach and to initiate a vigorous research program.

Queensland, now the largest producer of coal in Australia, has very substantial opencast coking coal mines and extensive proven reserves. The scope for research is virtually unique, and the new facility will be the first tertiary coal research unit in Queensland. The appointment will be for 2 years commencing 1 July 1978 and carries a salary in the range of A\$14,984 to A\$23,432. Applications with curriculum vitae and the names of three referees should be sent as soon as possible to: **Staff Officer**, **University of Queensland, St. Lucia, Brisbane, 4067, Queensland, Australia.** Closing date: 31 May 1978. Note: applicants are themselves required to arrange that their referees submit reports directly to the Staff Officer by the closing date. Quote Reference No. 13678.

### POSTDOCTORAL RESEARCH TRAINING FELLOWSHIPS

Fellowships available to candidates with doctorate and less than 1 year of postdoctoral laboratory experience for beginning training in basic biomedical research. Award includes stipend, research allowance, travel to fellowship location, and annual meeting. Tenable for 3 years. Applications by 15 August; awards commence following July. Applicants must be in North America for required personal interview. Write for information and forms: The Helen Hay Whitney Foundation, 1230 York Avenue, New York, New York 10021.





#### LINCOLN COLLEGE University College of Agriculture New Zealand

The Council of Lincoln College invites applications for the Chairs of Entomology and Soil Science, resulting from the impending retirements of Professor R.A. Harrison and Professor T.W. Walker, respectively. **CHAIR IN ENTOMOLOGY:** Applicants should hold an advanced degree in Science or Agricultural Science, and have an

should hold an advanced degree in Science or Agricultural Science, and have an established record of research and/or teaching in some branch of entomology. **CHAIR IN SOIL SCIENCE:** Applicants should hold an advanced degree in Science, Agricultural Science or Soil Science, have had research experience in some branch of soil science or soil resources, such as soil fertility, soil chemistry, soil physics, soil biology and pedology, and have had some experience in teaching, communication or extension.

In each case the successful applicant will be appointed as Head of Department and will be responsible to the College Principal for the administration of his Department. The appointments will be made within the existing range of professorial salaries, NZ\$20113—\$25,598 per annum, the commencing salary being in accordance with qualifications and experience. Salaries are at present supplemented by an Interim Special Allowance of 3.5%.

Expenses of appointment reimbursed up to specified limits. New Zealand Government Superannuation available.

Further details and general Conditions of Appointment are obtainable from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H OPF, or from the Registrar of the College. Applications close on **30 June 1978**.

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# COMBATING THE #I KILLER

## The SCIENCE Report on Heart Research

## Jean L. Marx and Gina Bari Kolata

Cardiovascular diseases — diseases of the heart and blood vessels — are the leading cause of death in this country. They afflict more than 29 million people and are responsible for almost a million deaths per year in the United States alone. The American Heart Association estimates that the total economic costs of these diseases in 1978 will be in excess of \$28 billion.

Medical scientists would like very much to know the causes of cardiovascular diseases. This knowledge would help prevent the diseases and reduce the death rate. But the causes are still eluding investigators despite vast expenditures of time and money.

COMBATING THE #1 KILLER, based on a series of award-winning articles\* in SCIENCE Magazine, examines some of the recent research on cardiovascular diseases, with special emphasis on progress being made in understanding the biological mechanisms underlying the diseases.

Through interviews with the leading researchers in the health professions, Marx and Kolata investigated the current efforts now being made to deal with the epidemiology of heart disease, its diagnosis, its relationship to an individual's life-style and age, the most promising present and projected treatment strategies, the biochemical and clinical research in progress, and the ethical problems which may confound the results of any research which involves human patients.

COMBATING THE #1 KILLER — valuable precisely because its main focus is on key research currently in progress. COMBATING THE #1 KILLER — a direct, unbiased report with information for all investigators in the field, scientists generally, makers of public policy, and the general public at large.

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