are numerous problems in the English rendering and spelling in many of the papers, which appear to have been submitted camera-ready by the contributors. Publication of the book so soon after the conference is welcome, but a delay to permit more thorough editing would not have greatly detracted from its value. Echinoderms: Present and Past is certainly to be recommended as a stimulating collection of the most recent efforts by foreign workers to solve the many puzzles of echinoderms.

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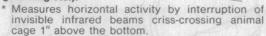
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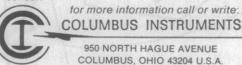
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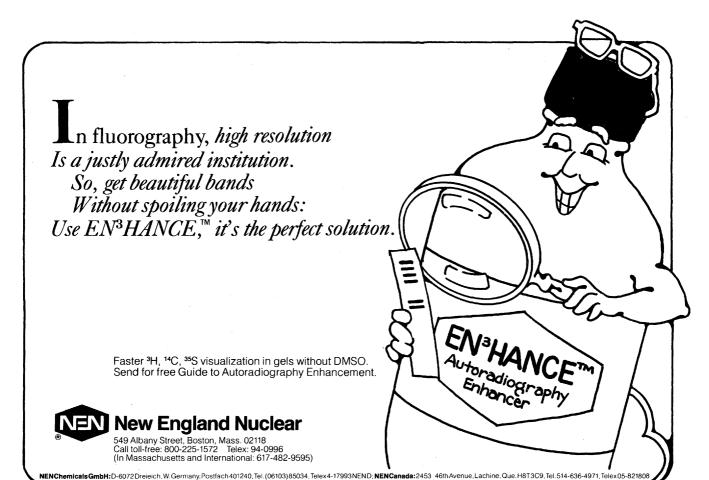
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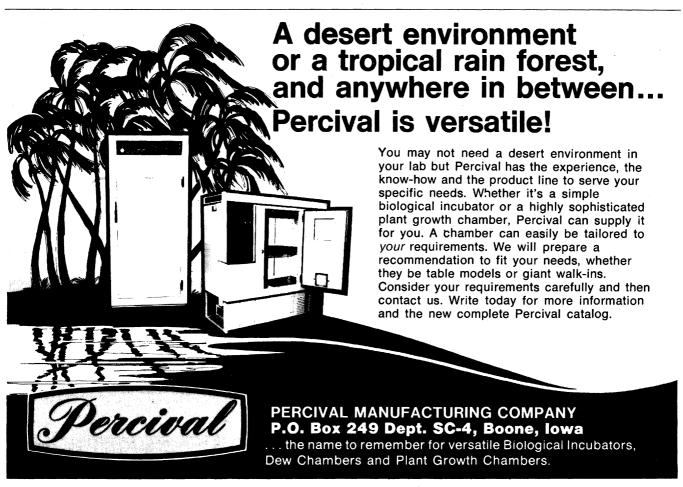
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Tandem Mass Spectrometer

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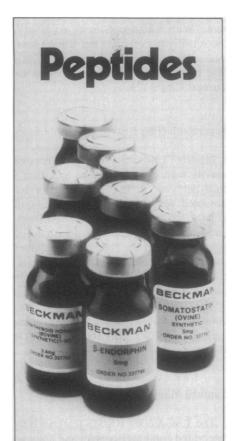
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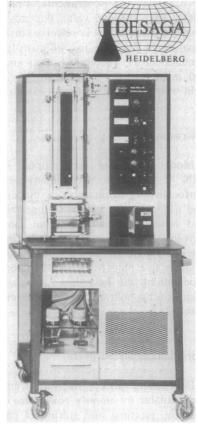
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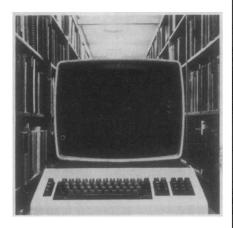
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ASSISTANT PROFESSOR OF BIOLOGY. Teaching responsibilities include: comparative anatomy, general and advanced physiology, and participation in introductory biology courses. Ph.D. required. Also required is a strong background in immunology which could serve as the basis for the development of an advanced undergraduate course in this area. Active research is encouraged. Applicants send resumés and letters of reference by 22 May 1981 to: Dr. Raymond Rose, Chairman, Department of Biology, Beaver College, Glenside, Pennsylvania 19038. An Equal Opportunity Employer.

The Division of Neurological Surgery, Department of Surgery, University of California, Irvine (UCI), invites applications for the position of ASSISTANT PROFESSOR OF SURGERY (NEUROSURGERY) IN RESIDENCE. A broad background in electrophysiology is required; experience with single unit and multiple unit recording with extracellular electrodes and a working knowledge of the use of chronic microelectrode implantation techniques and of intracellular techniques. Programming and systems experience with DEC computers is also required. Research facilities are available and the candidate will maintain an independent research program in addition to directing and coordinating other research laboratories with the division. The position involves teaching of undergraduate medical students and neurosurgical residents. Send curriculum vitae and letters of reference to: John A. Kussek, M.D., Division of Neurological Surgery, UCI Medical Center, Mail Route 81, 101 City Drive South, Orange, California 92668, by 30 May 1981. Telephone: 714-634-6705.

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

BIOCHEMISTRY

Applications are invited for an adjunct assistant professorship for one or two academic years, beginning fall 1981. Responsibilities will be negotiable, depending upon the qualifications of the applicant, but will include teaching of undergraduate lecture and/or laboratory courses. A Ph.D. and teaching experience in biochemistry are required. Research collaboration with permanent faculty is possible.

Résumé, description of research interests, and names of three references should be sent promptly to: Dr. Malcolm A. Rougvie, Department of Biochemistry and Biophysics, Iowa State University, Ames, Iowa 50011. Iowa State University is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMISTRY FACULTY POSITION

A full-time tenure-track position for a recent Ph.D. at the assistant professor level is available in the area of biochemistry beginning 24 August 1981. Applicants should have the background, motivation, and ability to be an excellent teacher as well as an interest in directing undergraduate research. Responsibilities include teaching biochemistry, nutrition, and assisting in organic and freshman chemistry.

Send résumé, transcripts, and three letters of recommendation prior to 1 June to: Dr. David J. Rausch, Department of Chemistry and Biochemistry, Illinois Benedictine College, Lisle, Illinois 60532. The College is an Affirmative Action/Equal Opportunity Employ-

POSITIONS OPEN

ASSISTANT PROFESSOR (preferred), VIROLOGY—Veterinary Microbiology Department seeking person with Ph.D. in virology with competence in the molecular aspects of animal virology as applied to infectious processes in animals; D.V.M. preferred. Independent research capabilities; teach professional and graduate programs. Send curriculum vitae and names of three references to: Dr. Y. C. Zee, Chairperson, Search Committee, Department of Veterinary Microbiology, University of California, Davis, Calif. 95616. Applications accepted through 30 June 1981 or until suitable candidate is identified.

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

BIOCHEMIST. Challenging tenure-track position. Open at the professor, associate professor, or assistant professor level for an individual interested in research and teaching. Active research in a funded or potentially fundable area is essential. Must be capable of excellence in teaching at both the advanced undergraduate and graduate levels. Undergraduate and graduate degrees are offered in biochemistry. Besides new biochemical facilities, the Center for Health Sciences, Center for Marine and Environmental Sciences, and the Biotechnology Research Center provide opportunities for interdisciplinary research interactions.

Position available 1 July or 1 September 1981. Application deadline: preferably by 8 May 1981. Send curriculum vitae, selected reprints, a concise description of current and prospective research program, and the names of three references to: Dr. Joseph R. Merkel, Chairman, Biochemist Search Committee, Department of Chemistry, Seeley G. Mudd Building Number 6, Lehigh University, Bethlehem, Pa. 18015. Affirmative Action/Equal Opportunity Employer.

BIOCHEMISTRY FACULTY POSITION

The Department of Biochemistry, Virginia Polytechnic Institute and State University (VPI & SU), is seeking applicants for a 1-year, nontenure-track faculty appointment beginning 1 July 1981. Applicants should be qualified to lecture in a graduate course in the areas of molecular biology and metabolic regulation and to assist in the instruction of molecular biology techniques in graduate and undergraduate laboratory courses. Opportunity for limited research is available. Applicants should combine a thorough graduate education in biochemistry with experience in molecular biology. A Ph.D. in biochemistry is required. Salary is commensurate with formal training and experience. For consideration, curriculum vitae, list of publications, and three letters of reference should be sent by 15 May 1981 to: Bruce M. Anderson, Head, Department of Biochemistry, Virginia Tech, Blacksburg, Va. 24061. VPI & SU is an Affirmative Action/Equal Opportunity Employer.

BIOLOGY: Tenure-track position beginning September 1981. Instruct undergraduate courses in biology with particular emphasis on microbiology-virology for biology and pharmacy majors. Coordinate a multisection course for nonscience majors. Desired qualifications include Ph.D. in biology with concentration in medical microbiology. The College stresses effective teaching. Starting range for assistant professor: \$14,500 to \$17,000. Send application to: Dean of Arts and Sciences, Western New England College, 1215 Wilbraham Road, Springfield, Mass. 01119. Closing date: 8 May 1981. An Equal Opportunity/Affirmative Action Employer.

BIOPHYSICIST AND/OR BIOCHEMIST: ESR studies of biological systems. Experience in ESR strongly preferred; will consider candidate with strong background in free radicals, lipid peroxidation, or melanin.

Postdoctoral position (1 to 3 years), to \$14,000 per year. Senior position (long-term), to \$25,000 per year.

Send curriculum vitae and four letters of reference by 1 June 1981 to:

Dr. Harold M. Swartz University of Illinois 190 Medical Sciences Building 506 South Matthews Urbana, Ill. 61801

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

BIOTECHNOLOGY

Opportunities in a multi-disciplinary effort in industrial applications of plant tissue culture and biotechnology. Openings available for Ph.D. and/or M.S. Biologist with experience in:

 plant tissue culture, plant physiology, genetics, and biochemistry

Ph.D. applicants will preferably have postdoctoral experience. This is a major commitment by a Fortune 100 Corporation located in the Midwest.

Please send your resume in confidence to:

Box 87, SCIENCE

An Equal Opportunity Employer M/F

Laboratory Assistants

Excellent growth opportunities are now available with Pfizer's Microbial Genetics/Recombinant DNA group for qualified professionals

As a member of a group dedicated to the application of new molecular genetics techniques to biomedical research and DNA sequencing, you will conduct original research experiments and participate in our large multi-disciplinary research organization. Background should include an MS or BS and relevant experience.

In addition to a stimulating professional environment, we offer an excellent salary/benefits package plus an attractive Connecticut shore location. Qualified applicants should submit resume, including summary of research accomplishments, to: Mrs. Lorraine C. Corr, Pfizer Central Research, Eastern Point Road, Groton, CT 06340.



An equal opportunity employer

Human Cytogenetic Technologist

To join three others in high volume laboratory using most modern cytogenetic techniques. Applicants must be familiar with lymphocyte, bone marrow, skin fibroblasts, and amniotic fluid cell culture. Excellent salary and fringe benefits.

Send résumé to:

Dr. Ram S. Verma, Chief

Division of Cytogenetics JEWISH HOSPITAL

AND MEDICAL CENTER
555 Prospect Place

Brooklyn, N.Y. 11238

Equal Opportunity Employer, M/F

Scientific Coordinator-Marine Operations

Lamont-Doherty Geological Observatory of Columbia University

The Lamont-Doherty Geological Observatory seeks a Marine Scientist-Manager to coordinate and administer marina operations. Duties include coordinat. In of scientific programs and ships operations, budgetary and fiscal monitoring, personnel assignment, maintaining scientific equipment and providing technical support.

As coordinator, you will direct the operations of a technical support group and marine data-reduction and archiving facility. In addition, you will work directly with the Chairman of Marine Geology & Geophysics, but will coordinate the marine programs of all research groups as well as take the lead in the preparation of proposals to acquire funds in support of facilities.

Qualifications include: 1) experience and/or training in MG&G, 2) familiarity with MG&G instrumentation and equipment, 3) familiarity with research-vessel operations, and 4) management experience.

Applicants should submit résumé of educational and work experience to Dr W. J. Ludwig, Acting Chairman, Marine Geology & Geophysics, Lamont-Doherty Geological Observatory Palisades, N.Y., 10964

ASSOCIATE RESEARCH SCIENTIST

The Biotechnology Group of Miles Laboratories, Inc., has a need for an Associate Research Scientist in the Pilot Services Laboratory. This individual will be involved in development and scale-up of fermentation processes for production of industrial enzymes and chemicals.

The successful candidate should have a M.S. degree in Biochemical Engineering, or Microbiology with academic or practical experience in fermentation. However, a person with a B.S. degree with equivalent experience will also be considered.

Miles Laboratories, Inc., is located in Elkhart, Indiana, a community of 50,000 population. We offer excellent recreational and educational facilities as well as convenient accessibility to the Chicago area. Excellent starting salary commensurate with experience, plus a superior benefit program. Relocation expenses paid by the Company. Please send complete resume, including salary requirements in confidence to:

Patrick E. Casady Placement Representative Department 985



MILES LABORATORIES, INC.

P.O. Box 40

Elkhart, Indiana 46515

An Equal Opportunity Employer M/F/H

POSITIONS OPEN

The Department of General Science, Biology, and Environmental Studies at the University of New Haven seeks a BIOLOGIST for a full-time, tenure-track, assistant professorship available 1 September 1981. A Ph.D. is required. Teaching duties will include some combination of the following courses in physical science, evolution, physical oceanography, and air pollution. University of New Haven emphasizes excellence in teaching and encourages research in one's area of interest. Salary negotiable. Applications will be accepted until 15 May 1981.

Send curriculum vitae, transcripts, and three letters of recommendation to:

Dr. Burton C. Staugaard
Chairman, Biology Search Committee
University of New Haven
300 Orange Avenue
West Haven, Conn. 06516

Equal Opportunity/Affirmative Action Employer

BIOLOGY FACULTY—Temporary replacement position for academic year 1981–1982. Teach human anatomy and human physiology, primarily to nursing students. Ph.D. preferred. Salary up to \$19,692, plus any cost-of-living increase granted by legislature. Application deadline: 8 May 1981. Send curriculum vitae and names of three references to: Dr. David Ost, Chair, Department of Biology, California State College, Bakersfield, 9001 Stockdale Highway, Bakersfield, Calif. 93309. An Affirmative Action/ Equal Opportunity/Title IX Employer, M/F/H.

BOTANIST. The Department of Botany and Microbiology at the University of Oklahoma has a vacancy at the assistant or associate professor level for a developmental morphologist commencing I September 1981. Applicants must possess a Ph.D. in botany or biology with strong training in plant anatomy and morphology. The successful applicant must demonstrate potential to conduct innovative research in developmental morphology/anatomy emphasizing experimental techniques, to direct graduate students, and to teach courses in anatomy, morphology, and introductory botany. Applicants for this tenure-track position should submit curriculum vitae, transcripts, statement of research interests, and names of three references to: Professor John J. Skvarla, Department of Botany and Microbiology, University of Oklahoma, Norman, Oklahoma 73019. Applications will be accepted through 15 May 1981. The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer.

CELLULAR IMMUNOLOGIST

Position available in photomedicine research unit in dermatology department to study effects of UV radiation on immune function. Ongoing studies in humans; facilities available for animal work. Responsible for laboratory with two technicians; Ph.D. with one plus years of experience in human cell work preferred. Letter of application and curriculum vitae to: John Parrish, M.D., Photomedicine Unit, Massachusetts General Hospital, Boston, Mass.

CHEMIST-MICROBIOLOGIST (anticipated vacancy for fall 1981); research and teaching in environmental studies; tenure track; assistant and associate professor level. Requirements: Doctorate in organic chemistry, biochemistry, microbiology, or closely related field. Preferred background: Natural products chemistry; microbial metabolism; soil science; grant procurement. Research to focus mainly on peat utilization. Application, academic transcript, and three letters of reference to be received by 5 June. Address: Professor C. H. Fuchsman, Director, Center for Environmental Studies, Bemidji State University, Bemidji, Minn. 56601. Equal Opportunity/ Affirmative Action Employer.

FACULTY POSITION in atherosclerosis research. The Department of Pathology is seeking an M.D. or Ph.D. at the associate professor level to develop a vigorous program in atherosclerosis research. The individual will actively collaborate with other faculty currently engaged in various aspects of atherosclerosis research at the Medical Center. An extensive background in vessel wall pathobiology, endothelial cell culture and endothelial-aorta interactions is required. Preference will be given to individuals who have an ongoing research program with extramural funding. Interested persons should send their curriculum vitae, bibliography, and names and addresses of three references to: Dr. M. T. R. Subbiah, Chairman, Search Committee, University of Cincinnati Medical Center, K-4 Pavilion, 234 Goodman Street, Cincinnati, Ohio 45267. The University of Cincinnatis an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

DIRECTOR OF OPHTHALMOLOGICAL RESEARCH

Responsibilities include establishment of a research laboratory in the Department of Ophthalmology at the University of Cincinnati.

Qualifications include the Ph.D. degree; an established record of scientific productivity; an interest in teaching and collaboration with clinicians; credentials which would permit appointment as associate professor; and an interest in either vitreo-retinal physiology, neurophysiology of the visual system, or some aspect of the cornea.

Substantial start-up funds are available. Reply to: Joel G. Sacks, M.D., Professor and Director, Department of Ophthalmology, University of Cincinnati Medical Center, Room 6004, 231 Bethesda Avenue, Cincinnati, Ohio 45267. Telephone: 513-872-5151.

The University of Cincinnati is an Equal Opportunity/Affirmative Action Employer, M/F/H.

ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA Director, Division of Limnology and Ecology

The Academy of Natural Sciences of Philadelphia seeks a director for its Division of Limnology and Ecology. The Division consists of approximately 100 ecologists, systematists, chemists, and statisticians committed to basic and applied research in aquatic biology.

biology.

The director is responsible for coordinating the development of new research programs, seeking new funding sources for basic and applied research programs, and for overseeing the management of these programs. Along with his or her staff, the director works with federal, state, and local government agencies, with private industry, and with watershed and ecological groups to solve environmental problems. Candidates must have a Ph.D., an established research reputation in aquatic biology, and experience in administration and management. Nominations are invited. Applications and names of three references should be sent to:

Chairman, Search Committee Division of Limnology and Ecology Academy of Natural Sciences of Philadelphia 19th and the Parkway Philadelphia, Pa. 19103

Applications must be postmarked no later than 15 June 1981. Equal Opportunity Employer.

ELECTRON MICROSCOPY. Orange County Community College (OCCC) needs a permanent full-time electron microscopy instructor for lecture and laboratories for introduction to EM, photomicrography, transmission EM, scanning EM, and ultrastructural cytochemistry and to perform basic instrument maintenance. EMSA-certified or -eligible technician with bachelor's degree and 3 years of TEM, SEM, and appropriate experience required. Salary range: \$16,328 to \$18,218, depending on credentials. Apply in writing by 15 May to: Electron Microscopy Search Committee, OCCC, Middletown, N.Y. 10940. An Affirmative Action/Equal Opportunity Employer.

IMMUNOGENETICIST with an interest in defining the major histocompatibility system in baboons and exploiting this species as a model in biomedical research. Opportunities for research on other species also exist. Academic affiliation may be possible. This is an excellent opportunity for a creative scientist in an expanding genetics program under the direction of Dr. John L. VandeBerg. Send résumé, statement of research interests, and names of three references to: Personnel Manager, Southwest Foundation for Research and Education, P.O. Box 28147, San Antonio, Texas 78284. We are an Equal Opportunity/Affirmative Action Employer.

The University of Michigan Medical School, Department of Otorhinolaryngology, has a position at the INSTRUCTOR TO PROFESSOR level available for 1 July 1981. Responsibilities will include patient care, medical student teaching, and house officer education. Should have a particular interest and aptitude in pediatric otolaryngology. Will also be expected to engage in basic or clinical research. Could possibly have similar duties at other university-affiliated hospitals. Applicant must have M.D. degree, must be eligible for or certified by the American Board of Otolaryngology, and must be competent in all phases of clinical otorhinolaryngology. Send reply, along with curriculum vitae, to: Charles J. Krause, M.D., Professor and Chairman, Department of Otorhinolaryngology, University of Michigan Medical School, C6107 Outpatient Building, Ann Arbor, Mich. 48104. Code 17FO. A nondiscriminatory, Affirmative Action Employer.

POSITIONS OPEN

FACULTY POSITIONS OPEN DEPARTMENT OF BIOLOGICAL STRUCTURE UNIVERSITY OF WASHINGTON

Applications are invited for assistant professorial tenure-track positions. Minimum requirements: M.D., Ph.D., or combined degrees; 2 years of post-doctoral research; and bibliography indicative of potential for obtaining competitive extramural research grants in immune or hemopoietic cell differentiation, tumor or cell biology, reproductive biology, or neurobiology. Applicants must be competent to teach human gross or neuroanatomy and participate in an innovative teaching program in the medical, dental, and graduate curricula. Describe in some detail research and teaching interests and submit by 1 June curriculum vitae, bibliography, and four letters of recommendation to: Cornelius Rosse, M.D., Ph.D., Chairman, Department of Biological Structure SM-20, University of Washington, School of Medicine, Seattle, Washington 88195. An Equal OpportunitylAffirmative Action Employer.

IMMUNOCHEMIST

Applications are invited for a position at the instructor/assistant professor level. Ph.D. or equivalent with at least 1 year of postdoctoral training is required. Preference given to those with interest and experience in preparing anti-idiotype reagents and affinity-purified reagents and with interest in working in the area of cellular immunology/cell surface markers. The position will involve assuming major responsibility for an ongoing project in immunoregulation, as well as dependent research projects of own initiative. The position also requires some practical experiments with the preparation of monoclonal antibodies using cell hybridization techniques. Experience with flow cytometry useful. Faculty appointment and salary commensurate with experience. Send curriculum vitae and reprints or other supporting documents to: Dr. James N. Woody, Georgetown University School of Medicine, Box 63, Medical-Dental Building, 3900 Reservoir Road, NW, Washington, D.C. 20007. Georgetown University is an Equal Opportunity/Affirmative Action Employer. Applications from women and minorities are encouraged.

INHALATION TOXICOLOGIST Ph.D.-Physics, Toxicology, or Biomedical Engineering Columbus, Ohio location

Battelle, one of the foremost R & D organizations in the world, has an immediate opportunity for an experienced individual to conduct chronic, subchronic, and acute inhalation studies. Familiarity with all aspects of inhalation studies desired, especially aerosol and vapor generation apparatus, chemical and physical monitoring techniques, acute and chronic chamber designs, GLP regulations, and safety procedures and exposure techniques for high hazard substances. You will be expected to develop independent research. We offer excellent benefits and salary commensurate with background and experience. Send curriculum vitae in confidence to: Dick Shaw, Senior Personnel Adviser, Box 96, SCI-ENCE.



Columbus Laboratories 505 King Avenue Columbus, Ohio 43201 An Equal Opportunity Employer

Immediate opening for a POSTDOCTORAL ASSOCIATE in the area of mechanism of hormone action. Studies will determine if glucocorticoids selectively decrease the expression of procollagen genes in connective tissues. Other studies will involve measuring the transcription of procollagen genes in nuclei treated with glucocorticoids and receptors. Send curriculum vitae and three letters of reference to: Dr. Kenneth R. Cutroneo, Department of Biochemistry, College of Medicine, University of Vermont, Burlington, Vermont 05405.

POSTDOCTORAL POSITION starting September 1981 to study how proteins enter chloroplasts in algae having chloroplast ER. The studies will employ EM immunocytochemistry, so experience in electron microscopy or immunocytochemistry is desirable. Please send curriculum vitae and names of three referees to: Dr. Sarah P. Gibbs, Department of Biology, McGill University, 1205 Avenue Docteur Penfield, Montreal, Québec, Canada H3A 1B1.

DIRECTOR LAMONT-DOHERTY GEOLOGICAL OBSERVATORY of COLUMBIA UNIVERSITY

Columbia University invites applications and nominations for the Directorship of Lamont-Doherty Geological Observatory. The Director must be capable of exerting strong intellectual leadership in the Earth Sciences. Scholarly eminence and capabilities in administration, future planning and fund raising are required.

Responsibilities of the Director are directed toward enabling L-DGO to maintain its position as a leading institution in its field. To this end the Director will be responsible for overall administration of the Observatory, ongoing scientific research, formulation of new research directions, and fund raising.

L-DGO is an institute of Columbia University dedicated to graduate education and research in the Earth Sciences. Founded in 1949, the Observatory has ongoing programs in Marine Geology and Geophysics, Seismology, Geochemistry, Physical Oceanography, Paleoclimatology, Atmospheric and Space Sciences, Petrology, Paleomagnetics, Stratigraphy, Structural Geology, Tectonophysics, and Marine Biology. The Observatory is located in Palisades, New York, one-half hour from the main campus of the University. Research programs are supported by government contracts and grants in excess of \$15,000,000 annually and by endowments and industry. About 110 graduate students in the Department of Geological Sciences conduct their research at the Observatory.

Applications or nominations should be submitted by May 15 to:

Dr. Lynn R. Sykes, Chairman Search Committee Lamont-Doherty Geological Observatory of Columbia University Palisades, New York 10964

Columbia University is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSISTANT

Our Pharmaceutical Research & Development Division (Experimental Biology) has a challenging position available assisting in the investigation of prostaglandins and other substances on the gastrointestinal system. Under minimal supervision of a Senior Scientist, this person will carry out appropriate research on gastric antisecretory, diarrheogenic, cytoprotective, and other biological activities. Work will involve leading, conducting, evaluating, and reporting studies in different types of animals, including rats, dogs, etc.

Successful candidates will have a M.S. degree in the Biological Sciences (preferably physiology, pharmacology, or biochemistry) or a B.S. degree (in the above sciences) with at least three years related experience. Radioisotope experience and animal surgery experience highly desirable.

Kalamazoo is a mid-size, southwestern Michigan community providing immediate access to an excellent mix of cultural/recreational pursuits. Excellent benefits and salary program. Send resume in confidence to:

Lance Williams
Employment Department



THE UPJOHN COMPANY

7000 Portage Road Kalamazoo, Michigan 49001

An Equal Opportunity Employer M/F

MOLECULAR AND CELLULAR INTERACTIONS UNDERLYING HIGHER BRAIN FUNCTIONS

Abbaye de Fontevraud, in Val de Loire (France), Tuesday 1-Friday 4, September 1981.

The Organizing Committee: Jean-Pierre CHANGEUX, Jacques GLOWINSKI, Michel IMBERT (France), Floyd BLOOM (USA).

The *purpose* of this meeting is to bring together neurobiologists, and cell and molecular biologists to review and to discuss the present knowledge on the molecular and cellular interactions, mechanisms, and processes which determine the higher functions of the central nervous system.

Three main sessions are planned. The first one deals with the molecular mechanisms of information transfer at the cellular level with a special emphasis on the neurotransmitters and their receptors. The aim of the second session is to describe the principles of the functional architecture of the central nervous system in order to define what may be called its "complexity". The last session will deal with the elementary mechanisms according to which this complexity develops starting from simple models and continuing up to the cerebral cortex.

Lecturers will include: P. ANDERSEN (Norway), J. BAXTER (USA), G. BLOBEL (USA), M. CUÉNOD (Switzerland), G. FISCHBACH (USA), R. FLAVELL (UK), C. D. GILBERT (USA), P. GOLDMAN-RAKIC (USA), G. GOODMAN (USA), A. GRAYBIEL (USA), L. GREEN (USA), T. HEIDMANN (France), F. JACOB (France), Y. JAN (USA), H. KARTEN (USA), H. KORN (France), L. LANDMESSER (USA), M. LAZDUNSKI (France), J. MARIANI (France), E. NEHER (Germany), J. O'KEIF (UK), P. RAKIC (USA), JC. SCHWARTZ (France), G. STENT (USA), J. URBAIN (Belgium), H. WINKLER (Austria), S. ZEKI (UK).

Participation is open to all research workers interested in this topic. Fellowships are available to assist with subsistence and travel for student applicants with limited financial resources.

Applications should include a short curriculum vitae, a list of relevant publications and an abstract for a short communication or poster. They should reach the Secretariat not later than: MAY 31, 1981. The applicants will be informed by end of June whether they have been accepted.

Application forms and the detailed scientific program are available from the Secretariat: TANGA, 15 route de Chateaufort, 91190 GIF SUR YVETTE (France).

POSITIONS OPEN

INSTRUCTOR OF PHARMACOLOGY, University of Kentucky College of Medicine. Applications for a position at the instructor level are invited. Responsibilities include the teaching of neuropsychopharmacology to medical and graduate students. Research support is available in the areas of sedative hypnotic development and nicotine's behavioral effects. Candidates must have either an M.D. or Ph.D. Inquiries with curriculum vitae and bibliography should be

> Dr. William R. Martin Professor and Chairman
> Department of Pharmacology
> MR-102 Research Facility Number 2
> University of Kentucky
> Lexington, Kentucky 40536

An Equal Opportunity/Affirmative Action Employer

INVERTEBRATE ZOOLOGIST—Ph.D. to teach invertebrate zoology, general biology, and course in specialty. Research and supervision of undergraduate research expected. Ten-month, tenure-track appointment at the assistant professor level to begin September 1981. Minorities encouraged to apply. Send curriculum vitae, transcripts, and three letters of reference by 1 June 1981 to: Dr. Alexander Spence, Chairman, Department of Biological Sciences, State University of New York, College at Cortland, P.O. Box 2000, Cortland, N.Y. 13045. Affirmative Action/Equal Opportunity Employer.

MARINE ECOLOGIST

Applications are invited for a tenure-track appointment in the Biology Department, College of Charleston, beginning August 1981. Responsibilities include teaching undergraduate and graduate marine ecology courses, teaching introductory biology, and di-recting the research of graduate students. Rank dependent on qualifications. A Ph.D. is required and preference will be given to candidates with previous teaching experience. Applicants should submit curriculum vitae and arrange to have three letters of reference sent by 8 May 1981 to: Dr. James W. Smiley, Chairman, Department of Biology, College of Charleston, Charleston, South Carolina 29424. Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL—NEUROBIOLOGY

This is an ongoing project involved with the structure and function of crustacean command neurons and their associated circuits. Familiarity with intracellular recording and staining techniques desirable. Application deadline is 15 May 1981. Beginning 1 July 1981. Additional years by mutual agreement. Send curriculum vitae and three letters to:

> J. L. Larimer Department of Zoology University of Texas at Austin Austin, Texas 78712

An Equal Opportunity Employer

POSTDOCTORAL ASSOCIATE POSITIONS UNIVERSITY OF IOWA

Please contact the appropriate department to express your specific interes

ANATOMY—Dr. Terence H. Williams, Basic Sciences Building. Multidisciplinary research emphasizing the following biological systems: nervous, reproductive, and cardiovascular. Projects include neuroplasticity, fertilization, prostate histopathology, monoamines, prostide impunocytochemictry. gy, monoamines, peptide immunocytochemistry.

BIOCHEMISTRY—Dr. Edward C. Heath, Basic Sciences Building.

INTERNAL MEDICINE—Postdoctoral associate. Openings available in all disciplines in the Internal Medicine Department, College of Medicine, University of Iowa. Contact: Francois M. Abboud, M.D., professor and head, or Darris Goerdt, administrator. Telephone: 319-356-2850.

MICROBIOLOGY—Dr. Irving P. Crawford, profes sor and chairman, Basic Sciences Building.

PEDIATRICS—William V. Aldershof, administra-PEDIATRICS—William V. Aldershof, administrator, Department of Pediatrics, General Hospital. Research in all subspecialty areas of pediatrics.

PHARMACOLOGY—Dr. J. P. Long, chairman and head, Basic Sciences Building. Openings available in all areas of pharmacology and toxicology.

PHYSIOLOGY AND BIOPHYSICS—Dr. Robert E.

Fellows, professor and head, Basic Sciences Build-

The College of Medicine, University of Iowa, Iowa City, Iowa 52242, is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MOLECULAR BIOLOGY

The Microbiology Department at Case Western Reserve University invites applications for several tenure-track faculty positions beginning as early as September 1981. We encourage applications from candidates with strong credentials in molecular biology, especially as applied to areas of virology and immunology. Use of recombinant DNA techniques is desirable. These appointments provide excellent opportunities to develop independent research proportunities to develop independent research proopportunities to develop independent research programs and to teach medical and graduate students grams and to teach medical and graduate students. Send curriculum vitae, a statement of research and teaching interests, and the names of four references to: Dr. Fritz Rottman, Chairman, Department of Microbiology, Case Western Reserve University, Cleveland, Ohio 44106. An Equal Opportunity/Affirmative Action Employer. mative Action Employer.

PLANT ECOLOGIST

Instructor or assistant professor of biology, Colby College. A temporary 1-year appointment, starting 1 September 1981. Applicants should be broadly educated in the biological sciences and experienced in the taxonomy and ecology of plants. Familiarity with plant communities typical of north-temperate parts of the United States is important. Send curriculum vitae and three letters of recommendation to: Or. Miriam F. Bennett, Department of Biology, Colby College, Waterville, Maine 04901. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available. Junior facorthopedic Surgery. This position is open to individ-uals with an interest in bone biology and remodeling to study problems related to the ingrowth of bone in porous materials. The position is available as of 1 July 1981. Inquiries and copy of curriculum vitae should be directed to:

Jorge O. Galante, M.D. Chairman, Department of Orthopedic Surgery Rush-Presbyterian-St. Luke's Medical Center 1753 West Congress Parkway Chicago, Ill. 60612

Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION

Postdoctoral position available beginning summer or autumn 1981 to study the role of nuclear structural elements in gene regulation and DNA replication [Cell 21, 79-85; Nucleic Acid Res. 8, 5623-5634]]. Background in cell biology, recombinant DNA technology, or biochemistry useful.

Send curriculum vitae with two references to:

Dr. Bert Vogelstein The Johns Hopkins University School of Medicine Oncology 1-127 600 North Wolfe Street Baltimore, Maryland 21205

Equal Opportunity Employer

POSTDOCTORAL POSITION

A research associate position is available in the laboratory of Dr. Peter F. Hall to study the role of the cytoskeleton in steroidogenesis and in spermatogenesis. Send curriculum vitae, synopsis of Ph.D. thesis research, and list of three references to: Dr. Peter Hall, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545.

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL RESEARCH APPOINTMENTS are occasionally available in the Departments of Biochemistry, Biophysics and Medical Physics, Bot-Biochemistry, Biophysics and Medical Physics, Botany, Microbiology and Immunology, Molecular Biology, Physiology-Anatomy and Zoology at the University of California at Berkeley, Berkeley, Calif. 94720. Appointments are normally made for 1 year but with the possibility of renewals for a maximum of two more years. A description of the research interests of the faculty in each department is available from that department upon request, and highly qualified persons are invited to apply directly to the faculty member with whom they wish to work. If no position is available with that faculty member, the application may be circulated to others in the same application may be circulated to others in the same or other departments with similar research interests. Applications should include a résumé, a brief statement of research interests and goals, and the names and addresses of three references. The University of California is an Equal Opportunity/Affirmative Ac-

POSITIONS OPEN

FACULTY POSITION NORTH CAROLINA STATE UNIVERSITY RALEIGH

A tenure-track position is available in the Department of Marine, Earth, and Atmospheric Sciences at the level of assistant or associate professor. Applica-tions are especially invited from individuals trained in MARINE BENTHIC ECOLOGY with interests in in MARINE BENTHIC ECOLOGY with interests in soft-bottom macrofauna as related to animal-sediment interactions. A Ph.D. is required. The candidate will be expected to strengthen the graduate teaching and research programs. Applicants should forward a résumé and the names of at least three references to: **Dr. Daniel Kamykowski**, Chairman, Search Committee, P.O. Box 5068, North Carolina State University, Raleigh, N.C. 27650. Application materials should be sent by 31 May 1981. North Carolina State University is an Equal Opportunity! Affirmative Action Employer.

POSTDOCTORAL POSITION in ocean acoustics available August 1981. Position involves developing analytic and numerical techniques for use in analyzing long-range acoustic probes of ocean processes on all scales, including the analysis of some experimental data. Background at Ph.D. level in physics, applied mathematics commuter techniques was mental data. Background at Ph.D. level in physics, applied mathematics, computer techniques, wave propagation in random media, and fluid dynamics are all relevant to this position. Training in geophysical fluid dynamics will be highly weighted. Send curriculum vitae and names of three referees to: Professor Stanley M. Flatté, Physics, University of California, Santa Cruz, Calif. 95064.

POSTDOCTORAL POSITION available August 1981. Organic or medicinal chemistry Ph.D. with strong background in synthesis to join multidisstrong background in synthesis to join multidisciplinary group developing pancreatic imaging agents. Send résumé and names of three references to: Dr. Thomas J. Curphey, Department of Pathology, Dartmouth Medical School, Hanover, N.H. 03755.

POSTDOCTORAL POSITION available summer or fall 1981 to study: (i) Golgi glycosylation of proteins [see *J. Biol. Chem.* 256, 989 (1981)], (ii) transport of Isee J. Biol. Chem. 256, 989 (1981)], (II) transport of sugar nucleotides into microsomes [see Cell 19, 597 (1980)], and (iii) isolation of glycoprotein mutants using radiation suicide [see Fed. Proc. Fed. Am. Soc. Exp. Biol. 39, 2092 (1980)]. Dr. C. B. Hirschberg, Department of Biochemistry, St. Louis University School of Medicine, 1402 South Grand Boulevard, St. Louis, Mo. 63104. An Equal Opportunity/Affirmative Action Employer.

HARVARD MEDICAL SCHOOL—PROFESSOR OF MEDICINE. The Department of Medicine, Harvard Medical School, is seeking to fill a professorvard Medical School, is seeking to fill a professor-ship of medicine with a physician whose primary interest is in thyroid diseases. The individual should have made outstanding contributions to thyroid bio-chemistry, physiology, and/or clinical thyroidology and should be capable of directing a Thyroid Unit and a modern thyroid function laboratory. He or she should have outstanding credentials as a clinical should have outstanding credentials as a clinical thyroidologist and as a general internist and endocrinologist. He or she should be able to assume major responsibility for teaching thyroidology to medical students, house staff, and fellows. An Equal Opportunity/Affirmative Action Employer. Replies and curriculum vitae should be sent to: Kurt J. Bloch, M.D., Chairman, Search Committee, Clinical Immu-nology and Allergy Units, Massachusetts General Hospital, Boston, Mass. 02114.

UNIVERSITY OF ALBERTA, CANADA Department of Physiology RESEARCH SCHOLARSHIPS

Applications are invited for Medical Research Scholarships from researchers who have obtained a Ph.D. or M.D. degree within the last 5 years or so. Successful applicants will be recommended for Alberta Heritage Medical Research Foundation awards to work in this department. Awards are expected to be for 5 years initially and include pension and other staff benefits. Successful applicants are expected to apply for Heritage Postdoctor-al and Student awards to assist their research as well al and Student awards to assist their research as well as for Heritage Establishement and Major Equip-ment grants. They are able to apply for external research funding as well. Salary will depend on qualifications and experience.

Applications, including curriculum vitae, should be sent to: The Chairman, Department of Physiology, University of Alberta, Edmonton, Alberta, Canada T6G 2H7. Letters of support should be mailed from three referees directly to the same address.

Microbiologist **Animal Health Research**

Pfizer Central Research is seeking a Ph.D. Microbiologist to direct laboratory research towards the discovery of drugs for treatment and control of bacterial infections in farm animals. A record of prob-lem solving ability is essential. Preferred course work/experience should include bacterial infections and pathogenesis in laboratory animals, knowledge of host-parasite relationships, cell biology, blo-chemistry and immunology. The successful applicant will be responsible for the development of laboratory models useful in the discovery of new therapeutic agents. The publication of important findings will be encouraged.

In addition to excellent potential for professional recognition and career growth, we offer a competitive salary/benefits package and the opportunity to live in an attractive shore community, midway between New York and Boston. Please send resume in confidence to Mr. F. G. Ziegler, Pfizer Central Research, Eastern Point Road, Groton, Connecticut 06340.



An Equal Opportunity Employer

THE AUSTRALIAN NATIONAL UNIVERSITY invites applications for a FELLOW/SENIOR FELLOW in PHYSICAL AND THEORETICAL CHEMISTRY in the RESEARCH SCHOOL OF CHEMISTRY. The appointment would be for 5 years in the first instance, with the possibility of reappointment to retiring age. The classifications of fellow and senior fellow, which are particular to the Australian National University, span in terms of salary and status the categories lecturer to reader in other Australian universities. Applicants should have strong qualifications in theoretical chemical physics. Preference may be given to applicative who have demonstrated in their publications interests in nave strong quantications in theoretical chemical physics. Preference may be given to applicants who have demonstrated in their publications interests in both theoretical and experimental aspects of chemical physics. The appointee would principally conduct independent research, with some support from postdoctoral workers, Ph.D. students, and technicians, and would be expected to assist with other aspects of postgraduate training and school administration. The school is nondepartmental, and opportunities exist for cooperation with other groups in the school (organic, theoretical organic, inorganic, organometal-lic, inorganic solid state, and analytical). Other activities are described in more detail in the "Further Particulars" which may be obtained on request.

detail in the "Further Particulars" which may be obtained on request.

Current research in the physical and theoretical section of the school includes: Theory of crystal excitation and photochemistry and intermolecular forces (Professor D. P. Craig); Spectroscopy and photochemistry (Dr. J. Ferguson, Professorial Fellow); Photophysics and electron magnetic resonance (Dr. R. Bramley, Senior Fellow); Study of disordered materials via x-ray and optical diffraction, computer modeling, and semi-empirical force calculations (Dr. T. R. Welberry, Fellow). The school is well equipped to contemporary standards, especially in optical, NMR and EPR spectroscopy, mass spectrometry, x-ray crystallography, electron microscopy, and liquid He cryogentry. There is a library on the premises, and workshops, including a machine shop, glassblowing, electronics, and electrical and woodworking shops. The school is well supported by ancillary staff, both technical and administrative. In computing there is access to the school PDP 11/45 and the university Univac 1100/82 systems.

Salary on appointment will be in accordance with qualifications and experience within the ranges: fellow, \$22,301 to \$29,877 per annum; senior fellow, \$29,917 to \$34,870 per annum, Australian currency. Current exchange rates are approximately A\$1:Stg 51P.U.S.\$1.16. Reasonable travel expenses. Assistance with housing. Superannuation. The University reserves the right not to make an appointment or to make an appointment by invitation at any time.

There is no application form. Applicants should supply curriculum vitae, list of publications and statement of research interests, together with two passport-sized photographs and the names and addresses of three academic referees, to: The Registrar, Australian National University, P.O. Box 4, Canberra ACT 2600, Australia, by 21 June 1981.

SmithKline Corporation, a world leader in the health care field, is seeking an individual to fill a key role in our R & D Division.

Candidates are required to have a PhD in Biochemistry or a related field plus 5 or more years post doctoral research experience in drug metabolism. Preference given to those candidates with research experience or education in most or all of the following:

- Instrumental methods of analysis (GC, HPLC, GC-MS, RIA, labeled and stable isotope dilution techniques) of drugs in biological media
- In vitro enzymatic techniques Drug metabolism studies in animals and man including compartmental data analysis, metabolite isolation and
- · Biopharmaceutics, use of computer analysis

Also required are a proven record of technical supervision, excellent communication and interpersonal skills, and a solid record of scientific accomplishment/publications.

The successful candidate will report to the VP Pre-Clinical Development and will be expected to propose and carry out goal-oriented research in support of the drug discovery process and to manage drug metabolism, pharmacokinetic and bioavailability studies in animals and man.

SmithKline offers an excellent compensation and benefits program. Send resume to: William G. Groves, Manager, Scientific Employment, SMITHKLINE CORPORATION, 1592 Spring Garden Street, P.O. Box 7929, Philadelphia, PA. 19101.

Equal Opportunity Employer, M/F/H/V.

SmithKline CORPORATION

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- To join or subscribe: Mail this form with your payment, mark the appropriate boxes, and print your name and address in the space below. (For renewals, attach label.)
- ☐ Membership rates (individual only)
 - □ \$38 USA □ \$62 Canada, PUAS □ \$93 air-surface delivery via Holland
- □ \$65 Foreign

- □ Subscriber rates
 - □ \$76 USA □ \$100 Canada, PUAS □ \$131 air-surface delivery via Holland
- □ \$103 Foreign

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POSITIONS OPEN

Several postdoctoral research associate and predoctoral research assistant positions available to study microbial chlorinated and nonchlorinated hydrocarbon metabolism and involvement and manipulations of plasmids in such a process. Must have experience in GC-MS, HPLC, GLC, TLC, restriction hybridization, and EM heteroduplex analysis. Send curriculum vitae and names of three references to: A. M. Chakrabarty, University of Illinois Medical Center, School of Basic Medical Sciences, Microbiology/Immunology, 835 South Wolcott, Chicago, Ill. 60612. An Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF PENNSYLVANIA

RESEARCH ASSISTANT PROFESSOR, nontenure track. A candidate is being sought for a research assistant professor position in the opiate receptor field. Preference will be given to candidates with several years of experience in peptide chemistry, especially in enkephalin and enkephalin analog synthesis and in opiate receptor bioassays. Please send résumé, including summary of research and three letters of reference, to:

Dr. David R. Trentham, Chairman Department of Biochemistry and Biophysics University of Pennsylvania/G3 Philadelphia, Pa. 19104

The deadline for applications is 15 May 1981. An Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE. M.D. or Ph.D. with relevant experience in tumor and cellular immunology to conduct research in collaboration with senior investigator on the use of cytotoxic cells of tumor bearing hosts for adoptive immunotherapy in combination with cytostatic therapy.

nation with cytostatic therapy.

Application deadline for full consideration is 15 May 1981.

Sheldon Dray, M.D., Ph.D.
Department of Microbiology and Immunology
University of Illinois Medical Center
P.O. Box 6998
Chicago, Ill. 60680

The University of Illinois is an Equal Opportunity! Affirmative Action Employer and encourages application from women and minorities.

RESEARCH ASSOCIATE

An opening for a research associate is immediately available in the laboratory of Dr. Robert J. O'Connell to study olfactory physiology in the hamster. The research involves a multidisciplinary approach to the anatomical, behavioral, chemical, and electrophysiological substrates of olfactory communication. Send résumé, statement of research interests, and the names of three references directly to: Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545.

An Equal Opportunity/Affirmative Action Employer

SENIOR MICROBIOLOGIST

Industrial microbiology background including fermentations and eukaryote cell culture essential. Knowledge of molecular biology desirable. Must be able to supervise and provide internal R & D for sales, engineering, and manufacturing departments. Ph.D. plus 2 years of experience or M.S. plus 3 years of experience or B.S. plus 6 years of experience.

Send résumé, with salary requirements, to:

Personnel Department New Brunswick Scientific Co., Inc. 44 Talmadge Road Edison, New Jersey 08817

The Science and Education Administration (SEA) of U.S. Department of Agriculture (USDA) has an opening for a SOIL SCIENTIST with a strong background in P chemistry in the soil-water management. The position is located at the Water Quality Management Laboratory, Durant, Oklahoma. The incumbent will develop models to predict the transport of both soluble and soil-bound phosphorus in runoff, primarily using soil-P reaction kinetics. This requires a knowledge of analytical chemistry, mineralogy, radioactive tracers, and x-ray diffraction; must show an ability to plan and set up controlled field experiments. This is a career-conditional Civil Service position and will be filled at the GS-12 (\$26,951 per annum) level. Submit Form SF-171 and transcripts to: Dr. J. R. McHenry, P.O. Box 1430, Durant, Okla. 74701. You will then be furnished with additional application requirements. Deadline for applications: 22 May 1981. SEA-USDA is an Equal Opportunity Employer.

POSITIONS OPEN

RESEARCH ASSOCIATE/RESEARCH ASSIST-ANT PROFESSOR. Membrane biophysics biochemistry. To participate, as soon as possible, in collaborative and independent research in broad areas of membrane studies such as photosynthesis, transport, visual processes, or immunology. Applicants should have Ph.D. or equivalent in biochemistry, chemistry, physics, or other life science. Salary dependent on postdoctoral level. Send curriculum vitae and three letters of recommendation to: Chairman, Biophysics Department, Michigan State University, East Lansing, Mich. 48824.

The Sidney Farber Cancer Institute, an affiliate of the Harvard Medical School, is seeking to fill THREE RESEARCH POSITIONS at the ASSIST-ANT PROFESSOR level. Candidates should be prepared to develop independent research programs in a basic science area ultimately relevant to cancer. Applicants should send curriculum vitae and bibliography, including a short description of research interests and the names of three references, to: Dr. Barbara H. Sanford, Director for Research, SIDNEY FARBER CANCER INSTITUTE, 44 Binney Street, Boston, Massachusetts 02115. An Affirmative Actionl Equal Opportunity Employer

SECTION HEAD— CARDIOVASCULAR PHARMACOLOGIST (Ph.D.)

Our client is a rapidly expanding research division of an ethical pharmaceutical company located in an attractive suburban mid-Atlantic area. Successful applicant will assume complete responsibility for directing activities of a group of scientists engaged in the screening and evaluation of new cardiovascular drugs in experimental models.

Preferred candidate would have 5 years of postdoctoral academic or industrial experience in cardiovascular pharmacology. Excellent salary and benefits and relocation assistance.

Call or write, in complete confidence, to: L. Crowley, Blendow, Crowley & Oliver, Inc., 420 Lexington Avenue, New York, N.Y. 10017. Telephone: 212-986-0303.

SEMINARS

ELECTRON MICROSCOPY SEMINARS

Introduction to SEM, 18 to 22 May and 20 to 24 July SEM of Materials, 1 to 5 June and 27 to 30 July Introduction to TEM, 13 to 17 July Microscopy of Particles, 3 to 7 August

Introductory level seminars designed for professionals will be conducted at Elmhurst College. For more information, contact: B. L. Gabriel, Department of Physics, Elmhurst College, Elmhurst, Illinois 60126, or telephone: 312-279-4100.

COURSE

ELECTRON MICROSCOPY. For those desiring to use TEM in biological research, the course will provide practical training in preparation of biological specimens, use and maintenance of Zeiss 9S-2 EM, darkroom procedures, and micrograph interpretation. Certificate or graduate credit awarded. Tuition: \$475; two identical sessions, 6 to 22 July and 27 July to 12 August. For brochure and registration form, contact: Dr. Dan Scheirer, Department of Biology, Northeastern University, Boston, Mass. 02115; telephone: 617-437-2256, 2260.

PROGRAM

PREDOCTORAL AND POSTDOCTORAL TRAINING IN NEUROBIOLOGY AND MEMBRANE BIOPHYSICS UNIVERSITY OF MIAMI SCHOOL OF MEDICINE

The Department of Physiology and Biophysics emphasizes cellular and molecular approaches to biological problems and offers training in neurobiology, membrane biophysics, and muscle contraction. Traineeships and assistantships are available. Predoctoral stipend: \$7500 plus tuition. For details, write: Dr. S. J. Socolar, Department of Physiology and Biophysics, R430, University of Miami School of Medicine, Box 016430, Miami, Fla. 33101.

An Equal Opportunity/Affirmative Action Employer

FELLOWSHIPS

The University of California, Irvine, College of Medicine, offers a POSTDOCTORAL FELLOW-SHIP IN NEUROPHYSIOLOGY to work on neuronal mechanisms of alcohol in the CNS. The research primarily involves using single-unit recording techniques and a background in electrophysiology is required. Interested persons please send curriculum vitae and request three letters of reference to be sent to: Nai-Shin Chu, M.D., Ph.D., Department of Neurology, College of Medicine, University of California, Irvine, Calif. 92717. Salary range: \$1243 to \$1561 per month. Position available summer 1981. Affirmative Action Employer.

NEW ZEALAND SENIOR AND POSTDOCTORAL RESEARCH FELLOWSHIPS

The New Zealand National Research Advisory Council invites applications for 12 Senior and Post-doctoral Research Fellowships to be taken up in 1982. The awards will be for scientific research in government departments. A good working knowledge of English is required. Successful candidates must meet the requirements of the New Zealand immigration authorities.

Return economy class air fares and reasonable traveling expenses incurred in connection with the research work in New Zealand will be paid.

All emoluments are taxable.

Senior Research Fellowships—Applicants should have a distinguished record of scientific research and/or administration and possess expertise in a field of particular interest to New Zealand.

Postdoctoral Research Fellowships—Applicants should possess a Ph.D. or equivalent degree and have some research experience since graduation.

Application forms and further particulars may be obtained from:

National Research Advisory Council
Box 12240
Wellington
New Zealand

or from: New Zealand Embassy, 37 Observatory Circle, NW, Washington, D.C. 20008. Telephone: 202-328-4800. Applications should reach the Council's office by I September 1981. Late or incomplete applications will not be accepted.

POSTDOCTORAL POSITION in regulation of neonatal glucose and fat metabolism with emphasis on hormonal effects on intermediary metabolism. The applicant must be a Ph.D. in nutritional biochemistry or biochemistry or an M.D. with experience in this field. Available immediately. Send curriculum vitae and names of three references to: Dr. Robert Kliegman, Cleveland Metropolitan General Hospital, Department of Pediatrics, Bell Greve W721, 3395 Scranton Road, Cleveland, Ohio 44109. An Equal Opportunity/Affirmative Action Employer.

MARKETPLACE

STANFORD UNIVERSITY SLEEP DISORDERS CENTER would like to buy six used Model 7 solid state Grass POLYGRAPHS SPECIF: 8 channel, 16" chart drive, 8 7DA driver amps, 8 7P5 pre amps, 24 lead selector panel; or equivalent equipment. Contact: Wesley Seidel, Sleep Disorders Center, Stanford University, Stanford, Calif. 94305. Telephone: 415-497-6601.



Circle No. 12 on Readers' Service Card

CELL HYBRID IMMUNOLOGIST

The Upjohn Company, a leading pharmaceutical company dedicated to the development of new diagnostic and therapeutic agents through basic research, is seeking a scientist to develop new somatic cell hybrids and their products. This independent research program will be integrated with established programs in an active immunology department primarily involved in cellular immunology and immediate hypersensitivity research

In addition to a Ph.D. in Biology, candidates must have experience in hybridoma or cell fusion technology and a strong background in immunology and mammalian cell culture. Experience in the areas of lymphocyte surface immunology, immunochemistry, and biochemistry is desirable.

The Upjohn Company provides excellent salary, benefits, and opportunity for career growth. The Kalamazoo area provides a comfortable living environment with ample cultural, educational and recreational resources.

Please send a resume in confidence to:

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toxicologist

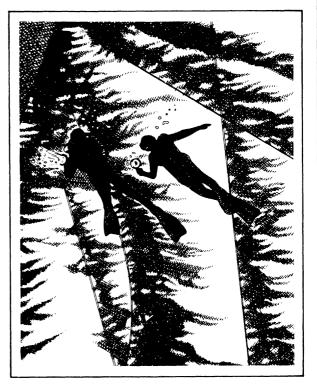
FMC's Chemical R & D Center, in Princeton, N.J. has an opportunity for a Toxicologist with a PhD and 3 to 5 years of contract research background in the chronic toxicity testing area. Must be familiar with agricultural chemical registration requirements.



Will monitor the conduct of chronic toxicity studies, interface with operating groups and provide information for registration documentation.

We offer a salary commensurate with your experience, a full range of benefits plus opportunity and challenge in an industrial R & D environment. Contact Ed Politi, FMC CORPORATION, Chemical R & D Center, U.S. Route 1, P.O. Box 8, Princeton, N.J. 08540, (609) 452-2300 COLLECT. An Equal Opportunity Employer, M/F.





Marine Biomass Energy R&D

PROJECT MANAGER: Marine Biomass Research

A position is available in our Supply Division for an individual with a strong technical background in ocean energy systems (PhD/MS in marine biology, ocean engineering or biological ocean-ography) plus 2-3 years of project management experience. Experience with macroalgal growth and/or ocean structures would be particularly desirable

GRI, as an energy research organization, finances, plans, and manages research and development programs related to the natural gas industry in a broad spectrum of energy areas including the development of marine biomass as a future source of methane.

GRI's Marine Biomass Programs include the development of the open-ocean energy farming of the California Giant Kelp and other macroalgal species found in the Northeastern and Southeastern United States. The individual selected for this position will have responsibility for the technical management and coordination of biomass production studies associated with these programs.

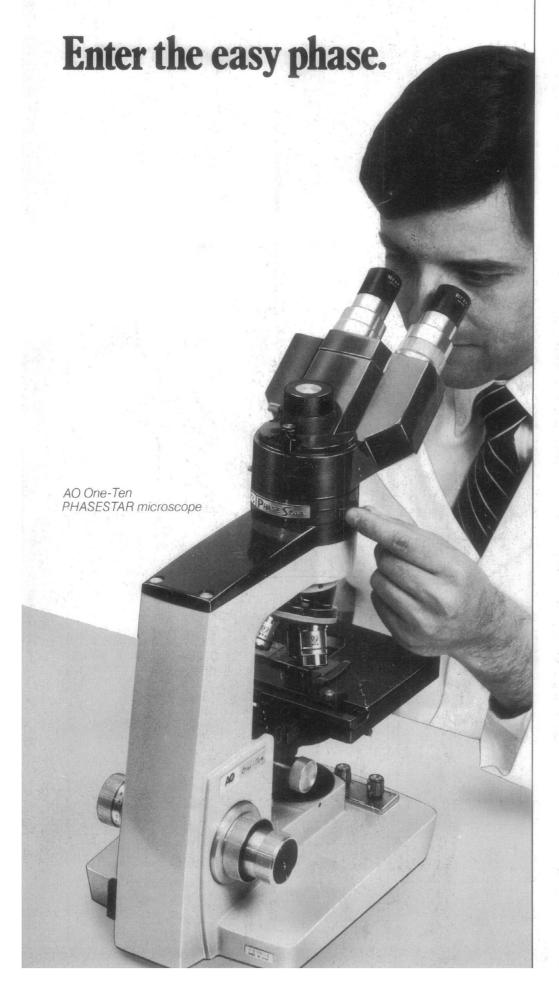
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