

Spotter for Thin-Layer Chromatography

The Nanomat uses an electromagnetic field control system to deliver samples to thin-layer chromatography plates. Samples may be selected for type or for quantity. The device uses platinum-iridium tipped pipettes for sample sizes down to 5 nanoliters. Pressure of tip on the plate and duration of contact are controlled to monitor position, volume, and diameter of the spots. Camag. Circle 682.

Liquid Chromatography Sampler

Model 420 automatically injects liquid samples for analysis in high-performance liquid chromatographs. This accessory injects up to 42 samples consecutively and eliminates errors caused by manual timing or injection. It feeds chromatographs in the isocratic or gradient modes. Wash volume adjustments limit sample carry-over to less than 0.01 percent. Time-delay settings are provided to accommodate programming or integration requirements. Perkin-Elmer, Circle 683.

Sample Concentrator

Model 1750 produces 50-fold concentrations of samples by electrophoresis and filtration in 90 minutes or less. Concentrated samples are easily recovered with none of the loss, inactivation, or contamination that may occur when samples are concentrated in apparatus with liquid pumps or vacuum lines. Materials suitable for concentration in the model 1750 include proteins, nucleic

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card (on pages 362A and 458A) and placing it in the mailbox. Postage is free. —RICHARD G. SOMMER acids, some whole cells and fragments, or any other water-soluble macromolecules larger than M.W. 3500. Samples may also be separated from nonionic media such as polyacrylamide gels or density-gradient solutions. Instrumentation Specialities (ISCO). Circle 680.

Miniature Peristaltic Pump

The Rabbit has from one to eight channel heads, any of which may be adjusted during operation without affecting flow in adjacent channels. Speed is controllable from 0.5 to 1300 milliliters per hour in either direction. A high-speed switch overrides the set speed for rapid charge or exhaust. The pump heads will accommodate different diameter tubing on each channel. Rainin Instrument. Circle 685.

Venting System for Gas Chromatography

Model 250 controls separation before the sample reaches the main portion of the column with a split-jacket, cold-spot chamber that distributes liquid carbon dioxide around one section of the precolumn. With controls on the front panel, the operator selects length of time and degree of cooling. Column head pressure is accurately controlled during venting so the device may be used with electron capture detectors sensitive to flow. Analytical Biochemistry Laboratories. Circle 684.

Programmable Calculators for Science

Model EL-5806 provides eight-digit, floating-decimal mathematics and eightdigit mantissa, two-digit exponent capacity for scientific notation. It is programmed for 30 scientific functions including standard deviation and provisions for bracketing and delta percent. Model PC-1201 is a programmable handheld computer. It features two dozen programmed scientific functions and may be programmed for up to 128 steps by the operator. The programming/memory system retains data for up to 1 year even with the main power shut off. There are 12 data memories, 12 labels, one level of subroutines, four types of unconditional and conditional jump instructions, and full editing capabilities. Sharp Electronics. Circle 681.

Liquid Chromatograph

Model 150C is a high-speed, controlled-temperature liquid chromatograph that is also suitable for gel-permeation chromatography. It analyzes materials that dissolve at high temperatures or that require high temperatures to reduce their viscosity. Sample preparation, separation, and data reduction are rapid. Microprocessor control of functions renders it easy to operate. Model 150C may be programmed for the operator's specific tasks. Waters Associates. Circle 679.

Literature

Radiochemical catalog includes more than 1000 labeled chemicals with more than 90 new compounds. New England Nuclear. Circle 686.

Spectrofluorometer features the design and operating specifications of the SF-330. Varian Instrument Division. Circle 687.

Monochromators, Light Sources and Photo Detectors lists instruments for the generation and detection of light. Schoeffel Instrument. Circle 688.

Liquid Scintillation Chemicals and Solutions describes a line of products for aqueous and nonaqueous scintillation counting. National Diagnostics. Circle 689.

Urinary Estrogen Test Kit is devoted to a tool for clinical analyses. Sita Associates. Circle 690.

Toxic and Hazardous Industrial Chemicals Safety Manual provides data relevant to handling more than 700 materials. This hard-bound, 580-page volume is available at \$75 per copy. Lab Safety Supply. Circle 691.

Roberts' Handbook of Normal Clinical Values includes tests of blood, urine, cerebrospinal fluid, hormones, and renal function and has sections on forensic science, blood pressure, cardiology, and other medical topics. It is available in pocket size for \$6.95 per copy. Science Editors. Circle 692.

Personnel Placement

Personnel advertising is accepted only with the under-standing that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, or national origin.

Positions Wanted: A0¢ per word; \$4 extra for use of box number. \$10 minimum charge, per insertion. Pre-payment required. Rate available only to individuals; personnel agencies, companies, colleges, and universi-ties take display rate for all advertising.

ties take display rate for all advertising. Display (Positions Open, Market Place, and so forth): \$5.80 per millimeter; \$145 minimum (covers 25 milli-meters on single column; 25 millimeters equals 10 lines of 50 spaces per line), per insertion. No charge for use of box number. Rates net. No agency commission for ads under 4 inches. No cash discount. Prepayment required for foreign advertising. Purchase orders and billing information required for all other ads.

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., NW Washington, D.C. 20005

POSITIONS/WANTED

Biochemist: M.D., Ph.D., assistant professor, wishes to change position. Over 10 years of research, grants, publications. Expertise in induced enzyme biosynthesis, purification and characterization of proteinases and inhibitors. Current research: bioproteinases and innibitors. Current reserves the second clinical aspects of antitrypsin. Box 16, 1/27; 2/3

Biophysicist-Physicist. Ph.D. in physics. Research experience in electrophysiology, single axon prepa-rations, computer data acquisition and analysis. De-sires research or teaching in physics or physiology. Box 21, SCIENCE. X

Generalist. Ph.D. Management oriented, multi-disciplinary, systematic approach concepts in agri-cultural/environmental/biomedical activities of gov-ernment/academia/agribusiness/industry activities. Senior level expertise/services. Negotiable terms. Box 22, SCIENCE. X

Plant Physiologist. Ph.D. (London). Research experience in nutrient uptake/crop yield relationship (es-pecially legumes). University level teaching experi-ence. Seeks teaching/research/industrial position, preferably in Northeast area. Box 23, SCIENCE. X

Resource Scientist, Ph.D., seeking 1- to 3-year man-agement/teaching/research position overseas. Back-ground of contract research and science advisory in topics of water quality, marine resources, and coasttopics of water quality, marine resources, and coast-al land use planning and in areas of policy analysis, impact assessment, and resource management. Nine years of varied experience in field, laboratory, and office modes. Résumé, reports, and papers avail-able. Reply to: D. Zoellner, 5322 41st Street, NW, Washington, D.C. 20015. X

Toxicologist. Ph.D. 1978. Publications in drug metabolism and detoxification. Dissertation on neonatal toxicology. Diverse background in physiology/pathology. Seeking industry/government position with responsibility and chance for advancement. Available fall 1978. Box 24, SCIENCE. X

Accomplished Writer, editor, teacher, Ph.D. phys-icist seeks position in educational research, public re-lations, or science writing. Geometry Laboratory, 44 Lispenard Street, N.Y., N.Y. 10013. Telephone: 212-226-1398. X

POSITIONS OPEN

The Scripps Institution of Oceanography will accept applications for a state-funded ACADEMIC RE-SEARCH POSITION in the Physiological Research Laboratory in the area of comparative or environmen-Laboratory in the area of comparative or environmen-tal physiology. Important criteria: research of out-standing quality as demonstrated by published rec-ord; study of marine organisms should represent a significant portion of research activities. Level of ap-pointment (assistant to full research physiologist) and salary will depend on past record and experi-ence. Positions in the Research Series are 11-month annointments to the academic staff which in salary ence. Positions in the Research Series are 11-month appointments to the academic staff which in salary and rank are parallel to University of California fac-ulty positions. Submit curriculum vitae and names of references to: Fred N. White, Director, Physiological Research Laboratory, Scripps Institution of Oceanog-raphy, University of California, San Diego, La Jolla, California 92093. The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer. Employer.

ADMINISTRATOR ONCOLOGY

Excellent opportunity with a world-renowned health care facility, located near Washington, D.C., is of-fered to management professionals. The Oncology Center's primary functions are conducted in a new facility equally divided between basic laboratory and clinical research.

The administrator will be responsible for the development and monitoring of contract and grant funds from private and governmental sources; developing budgets and financial systems to support and pro-vide timely fiscal analysis; efficiently utilizing per-sonnel, resources, and facilities to accomplish shortand long-range organizational objectives; and serv-ing as a primary liaison for the center to internal, external, and government organizations.

The successful candidate will have related college training (MBA, MHA, or comparable), and 7 to 10 years management experience with a proven track record in health care organizations.

For consideration of this challenging position, for-ward a detailed résumé with salary history. All in-quiries are considered confidential.

Box 29, SCIENCE

AGRICULTURAL BIOCHEMIST. Candidates must AGRICULTURAL BIOCHEMIST. Candidates must have a B.Sc. degree in agricultural biochemistry, Ph.D. in agricultural biochemistry or biochemistry. Must have research experience with cell-free en-zyme systems (aerobic and anaerobic, such as ru-men bacterial enzymes), biochemistry of phytoalex-ins and their elicitors, sesquiterpenoid biosyn-thesis, and rat metabolism studies. Postdoctoral experience in one or two of the above fields re-quired. Submit detailed résumé and two references to: Clare Frischmuth, Zoecon Corporation, 975 Calito: Clare Frischmuth, Zoecon Corporation, 975 Cali-fornia Avenue, Palo Alto, Calif. 94304. An Equal Op-portunity Employer.

DEPARTMENT OF ANATOMY UNIVERSITY OF CALIFORNIA, IRVINE COLLEGE OF MEDICINE

The Department of Anatomy has openings for three regular faculty appointments (one professor and two assistant professors) for fall 1978. Accom-plishments in the neuroscience field and experience in the teaching of embryology, histology, or gross anatomy will be strongly preferred. A minimum of 2 years of postdoctoral research experience is re-quired. Applications from all qualified candidates are welcome; women and minorities are encouraged to apply. Applications must include a curriculum vitae. professional references and conies of major vitae, professional references, and copies of major publications. Send applications to:

John E. Swett, Ph.D. John E. Swett, Fil.D. Department of Anatomy California College of Medicine University of California Irvine, California 92717

ANATOMISTS

There will be three faculty openings in the Depart-ment of Anatomy, Oral Roberts University Medical and Dental Schools, in summer 1978. These posi-tions are in gross anatomy, histology, and neuroanatomy. Applicants must have a doctorate and are expected to conduct an active research pro-gram. Rank and salary commensurate with qualifica-tions and experience. Send curriculum vitae and names of three references to: Dr. John Norvell, De-partment of Anatomy, Oral Roberts University, Tul-sa, Oklahoma 74171. Equal Opportunity/Affirmative Action Employer. Action Employer.

POSITIONS OPEN

ANATOMY FACULTY POSITIONS. Applications ANATOMY FACULTY POSITIONS. Applications are invited from anatomists experienced in teaching gross anatomy and embryology who have active re-search programs or interests. Send curriculum vitae, lists of publications, and supporting references to: Personnel/Manpower Division, School of Medicine, Uniformed Services University of the Health Sciences (USUHS), 4301 Jones Bridge Road, Bethesda, Mary-land 20014. USUHS is an Equal Opportunity Em-ployer. ployer.

ANATOMISTS (2)

Assistant professor and instructor level, Ph.D. or M.D., trained in basic science medical department. Preference to postdoctoral research experience and evidence of ability to develop an active research pro-gram. Teaching responsibilities will be either in hu-man gross anatomy or histology. Position available July or August 1978. Current curriculum vitae and names of references should be submitted to: Dr. A. V. Boccabella, Chairperson, Department of Anatomy, College of Medicine and Dentistry-New Jersey Medi-cal School (CMDNJ-NJMS), 100 Bergen Street, New-ark, New Jersey 07103. Applications should be re-ceived by 1 March 1978. Applications from women and minority candidates are encouraged. CMDNJ-NJMS is an Equal Opportunity/Affirmative Action Employer. M.D., trained in basic science medical department. Employer.

ANATOMY UCR/UCLA PROGRAM IN BIOMEDICAL SCIENCES

The University of California, Riverside (UCR)/University of California, Los Ange-les (UCLA) Program in Biomedical Sci-ences, which offers an accelerated M.D. curences, which offers an accelerated M.D. cur-riculum jointly between the University of California, Riverside, and the UCLA School of Medicine, has an opening in ANATOMY at the ASSISTANT PROFESSOR level. Pri-mary teaching responsibilities will be in gross anatomy but preference will be given to individuals who can also participate to a limited extent in the teaching of medical physiology. Applicants are expected to de-velop an independent research program and to qualify for a joint appointment with the velop an independent research program and to qualify for a joint appointment with the biology graduate faculty. The University of California is an Affirmative Action/Equal Opportunity Employer. Applications, includ-ing a curriculum vitae and names of refer-ences, should be sent to:

Dr. Richard T. Lobl Chairman, Anatomy Search Committee Program in Biomedical Sciences University of California, Riverside Riverside, California 92521

ANATOMY: ASSISTANT PROFESSOR

The Department of Anatomy at Tufts University School of Medicine invites applications for a tenure-track position at the assistant professor level begin-ning 1 July 1978. Preference will be given to individ-uals who have had 1 or 2 years of postdoctoral expe-rience and who show promise of developing an ac-tive and independent research program. Applicants should be qualified to teach prose and the publication should be qualified to teach gross anatomy-embryol-ogy to medical, dental, and graduate students. Quali-fied applicants are invited to submit a curriculum vitae, names of three references, and a letter de-scribing research and teaching interests to: **Dr. Ka** ren R. Hitchcock, Department of Anatomy, Tufts University School of Medicine, 136 Harrison Avenue, Boston, Massachusetts 02111. Tufts University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR OF ANATOMY DEPARTMENT OF SURGERY

University of California, San Diego (UCSD), School of Medicine is seeking a qualified anatomist to fill a position in the group responsible for teaching gross anatomy. Candidates should have experience and expertise in teaching this discipline as well as a long-term commitment to it, with a solid background and motivation in research. Starting date negotiable but not later than 1 July 1979. Salary related to qualifica-tions and experience. Please send curriculum vitae and names of three references to: Nicholas A. Haand names of three references to: Nicholas A. Ha-lasz, M.D., Head, Division of Anatomy, Department of Surgery, 225 West Dickinson Street, San Diego, California 92103.

UCSD is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR POSITION **Department of Geological Sciences** The University of Texas at Austin

The University of Texas at Austin An assistant professor position is available in the field of geophysics, effective 1 September 1978. Pref-erence will be given to candidates whose research interests are related to the inference of earth struc-ture from seismic wave observations, as applied ei-ther to petroleum exploration or crustal and upper mantle problems. However, those with experience involving nonseismic geophysical studies will also be considered. The successful applicant for this position will be specied to participate in undergraduate teaching programs in addition to graduate courses in the indi-vidual's specialty. Applicants should demonstrate their ability to develop their own research programs and to publish the results of that research in recog-nized journals in the field of geophysics. Interested persons should submit their résumé, names of three references, and a description of re-search interests to: Dr. Robert E. Boyer, Chairman

Dr. Robert E. Boyer, Chairman Department of Geological Sciences The University of Texas at Austin P.O. Box 7909 Austin, Texas 78712 Equal Opportunity/Affirmative Action Employer, M/F

TWO POSITIONS OF ASSISTANT PROFESSOR

Are available as of 1 July 1978, in the Section of Cytology at Yale University School of Medicine. In-vestigators of recognized ability, in an early career stage, whose research interests are compatible with those of the cytology/cell biology faculty are fa-vored. Membrane composition, function, and ul-trastructure; membrane phospholipids, marker en-zymes, and membrane biogenesis are areas of major interest. Participation in the teaching of medical and graduate students is expected. Applicants should Interest. Participation in the teaching of medical and graduate students is expected. Applicants should send letter of application by 1 March 1978. This should include research plans, curriculum vitae, bib-liography, and names of three references. Send to: Dr. R. J. Barnett, Section of Cytology, Yale Universi-ty School of Medicine, 333 Cedar Street, New Haven, Connecticut 06510. Yale University is an Equal Op-portunity/Affirmative Action Employer.

Applications are invited for TWO ASSISTANT PRO-FESSOR tenure-track positions and ONE LECTUR-ER position available 28 August 1978. All candidates Exposition available 26 August 1976. All candidates should have a Ph.D. within one of the disciplines de-scribed below. Tenure-track faculty are expected to carry out an active research program, supervise graduate student research, and contribute to coher-ent team research projects with other faculty. Cell Biologist: experience in eukaryotic cell biology and electron microscopy required. Teaching duties in-clude courses in these subjects. Phytoplankton ecolo-gist-algologist: research experience relating to phyto-inclute and/or mearcascopic alive required. Teach plankton and/or macroscopic algae required. Teach-ing duties include general botany, selections from established courses, and phytoplankton and algae, and specialty courses to be developed. **Plant bio**-systematist (lecturer): research experience in chemotaxonomy, cytotaxonomy, and/or taximetrics re-quired. Teaching duties include courses from the following: plant taxonomy and biosystematics, ornamental plants, biometry, and general botany. Appointment for 1 year with possibility of renewal for second year only

Send curriculum vitae and letter of interest (include name of position) to: Search Committee, Department of Biology, San Francisco State University, San Fran-cisco, Calif. 94132.

An Affirmative Action/Title IX Employer

ASSISTANT PROFESSOR OF AGRONOMY AND ASSISTANT AGRONOMIST

The Department of Agronomy and Soils seeks a Ph.D. to teach undergraduate course in forages and conduct research in crop production and manage-ment. Salary is open. Applicants should submit ré-sumé, statement of research interests, academic transcripts, and names of three references to:

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

Washington State University is an Equal Opportu-nity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR. The Department of Mi-ASSISTANT PROFESSOR. The Department of Microbiology is seeking candidates with strong research backgrounds in procaryotic or eucaryotic genetics, although outstanding candidates with research interests in eucaryotic cellular biology also may be considered. Interested persons should submit a curriculum vitae, a short outline of prior research experience and future research plans, and the names of several references to: Dr. L. Rothfield, Chairman, Department of Microbiology, University of Connecticut Health Center, Farmington, Conn. 06032. An Equal Opportunity Employer, M/F.

UNIVERSITY OF WISCONSIN ASSISTANT PROFESSOR IN BIOCHEMISTRY

The Department of Biochemistry invites appli-cations for the above position. Preference will be given to candidates in the areas of immuno-biochemistry, plant biochemistry, and x-ray crystal-borrow. lography. Female and minority candidates are espe-cially encouraged to apply. Send detailed curricu-lum vitae, names of three references, and a short statement of research interests to: H. F. DeLuca, De partment of Biochemistry, University of Wisconsin, Madison, Wis. 53706. The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

The University of Toronto, Department of Botany. Applications are invited for a tenure-stream position as **ASSISTANT PROFESSOR** in the Department of Botany. The position will be filled *either* by a plant virologist or by a higher plant taxonomist; can-didates from both disciplines are invited to apply. A doctoral degree will be required, with commensurate recearch and tenching anonication. research and teaching experience. The starting date for the post will be 1 July 1978. The salary range for assistant professor is currently \$15,900 to \$27,100, with starting salary determined by experience. Fur-ther particulars can be obtained from: **Professor T**. C. Hutchinson, Chairman, Department of Botany, University of Toronto, Toronto, Canada, M5S 1A1, to whom applications and the names and addresses of three referees should be sent before 1 March 1978.

ASSISTANT/ASSOCIATE PROFESSOR—ELEC-TRICAL ENGINEERING AND COMPUTER SCI-ENCE. Salary commensurate with experience. Two faculty positions will be available September 1978. Applicants for the first position should have educa-tion or experience in digital communications and data transmission. The second position requires background in one or more of the following areas: biomedical instrumentation microelectronic circuits biomedical instrumentation, microelectronic circuits and systems; digital filtering and signal processing. Both positions require a doctorate and an interest in undergraduate laboratory development. Successful applicants will be hired at the assistant or associate applicants will be hired at the assistant or associate professor level, will teach undergraduate and gradu-ate courses, and will be expected to initiate an ap-propriate research program. Send applications to: Dr. Y. T. Chien, Chairman, Department of Electrical Engineering and Computer Science, Box U-157, Uni-versity of Connecticut, Storrs, Conn. 06268. An Equal Opportunity Employer.

ASSISTANT PROFESSOR-PEDIATRICS/NUTRITION

The Medical College of Pennsylvania seeks a pedi-atrician with a research interest in nutrition whose major teaching function will be to coordinate the teaching of an interdisciplinary course in nutrition to medical students and to instruct residents and felmedical students and to instruct residents and fel-lows in nutritional aspects of pediatric practice. A joint appointment in biochemistry is possible. Inter-ested applicants should send curriculum vitae to: Sumner R. Ziegra, M.D., Department of Pediatrics, Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia, Pa. 19129. The Medical College of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

The Department of Pharmacology invites appli-cations for TWO faculty positions at the ASSIST-ANT PROFESSOR level. One of these will be a joint appointment with the Department of Biochemistry. Candidates should be dedicated to independent research and are expected to participate in graduate and medical school teaching programs in the depart-ment. Applications will be accepted until 28 Febru-ary 1978. Nominations or curriculum vitae and three letters of reference should be sent to:

Dr. A. G. Gilman Department of Pharmacology University of Virginia School of Medicine Charlottesville, Virginia 22901 An Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

ASSISTANT PROFESSOR OF MICROBIOLOGY AND MOLECULAR GENETICS

The Harvard Medical School invites applications for the position of assistant professor of micro-biology and molecular genetics. Candidates should have a background in animal virology with particular interests in molecular biology, viral-host interaction, and pathogenesis of viral diseases.

The University is an Equal Opportunity Employer. Please have three professional persons acquainted with your work send letters of recommendation di-rectly to us. Applications should include your re-sume, copies of major publications, and a summary of research goals. Please send to:

Chairman Department of Microbiology and Molecular Genetics Harvard Medical School 25 Shattuck Street Boston, Massachusetts 02115

prior to 15 March 1978.

ASSISTANT PROFESSOR OF PHARMACOLOGY, University of Kentucky College of Medicine. Appli-cations for a position of assistant professor of phar-macology are invited from candidates whose prima-ry research interests and training are in the area of neuropsychopharmacology. Responsibilities include the teaching of neuropharmacology to graduate stu-dents, pharmacology of centrally acting drugs to medical students, and the developing of a research program. Inquiries with a curriculum vitae and bibli-ography should be sent to: ography should be sent to:

Dr. William R. Martin, Chairman Department of Pharmacology Room MR 111 Research Facility No. 2 University of Kentucky Lexington, Kentucky 40506 An Equal Opportunity Employer

ASSISTANT PROFESSOR/PHARMACOLOGY. Department of Medicine, with interests in molecu-lar, biochemical, or biophysical pharmacology, spe-cifically the effect of drugs on enzymes, membrane properties or receptors. Responsibilities include teaching of medical and graduate students and su-pervision of Ph.D. thesis research in pharmacology. Applicants should have a strong background in bio-chemistry or biophysics and have interest in teach-ing pharmacology. Salary related to rank and step of appointment within the established salary schedule of the University of California, San Diego, School of Medicine faculty compensation plan. Address in-quiries to: Dr. Steven Mayer, Division of Pharmacolo-gy, Department of Medicine, M-013, University of California, San Diego, La Jolla, California 92093. The University of California is an Equal Opportunity/Af-firmative Action Employer. ASSISTANT PROFESSOR/PHARMACOLOGY.

University of Toronto. Full-time ASSOCIATE PRO-FESSOR position in dental anatomy-dental anthro-pology for July 1978. Duties: teaching subjects to un-dergraduate and graduate dental students. Dental degree necessary. Ph.D. and teaching research ex-perience desirable. Send curriculum vitae and names of referees to: Professor A. M. Hunt, Faculty of Den-tistry, University of Toronto, 124 Edward Street, To-ronto, Canada M5G 1G6.

Applications are invited for an ASSISTANT PRO-FESSOR position in virology and molecular biology. Candidates must have a Ph.D. degree in micro-biology and will be expected to demonstrate teach-ing proficiency as well as generate and maintain a research program. The 9-month appointment will be-gin 1 September 1978. Applicants should submit cur-riculum vitae and have three letters of recommenda-tion forwarded by 31 March 1978 to: Dr. John J. Skvarla, Chair, Search Committee, Department of Botany and Microbiology, University of Oklahoma, Norman, Oklahoma 73019.

An Equal Opportunity/Affirmative Action Employer

CELLULAR IMMUNOLOGIST

The Institute for Cancer Research is seeking appli-cants for a faculty position in cellular immunology or immunogenetics. Applicants at all levels of experi-ence will be considered. Send curriculum vitae, names of three references (letters need not be sent at this time, and a statement of research interests to: Dr. Alfred G. Knudson, Jr., Director, the Institute for Cancer Research, 7701 Burholme Avenue, Fox Chase, Philadelphia, Pa. 1911. An Equal Opportu-nity/Affirmative Action Employer.

27 JANUARY 1978

ASSOCIATE PROFESSOR OF MICROBIAL GE-NETICS. Applications are solicited for a 9-month, tenure-track faculty appointment in the Department of Microbiology of The Ohio State University start-ing 1 October 1978. Applicants must have an earned doctorate from an accredited university and demon-strated research and teaching experience commen-surate with the appointment. The salary is com-petitive. The successful candidate will be expected to maintain an active, high-quality research pro-gram, and to advise graduate students on aspects of microbial genetics in addition to teaching under-graduate students. Interested candidates should for-ward a complete biographical sketch, including cop-ies of published articles and a list of five references from whom recommendations can be solicited, to: Patrick R. Dugan, Chairman, Search Committee, De-partment of Microbiology, The Ohio State University, 484 West 12th Avenue, Columbus, Ohio 43210. Appli-cations will be accepted until 1 April 1978. The Ohio State University is an Equal Opportunity/Affir-mative Action Employer. Qualified women and mi-norities as well as all other candidates are encour-aged to apply.

BIOCHEMIST

The Department of Biochemistry in the College of Human Medicine at the University of Wyoming has several faculty positions open for individuals inter-ested in planning the integrated medical curriculum and teaching in a community-based medical school. The candidates will also be expected to participate in an active research and graduate and undergraduate an active research and graduate and undergraduate program in biochemistry. Salary and rank will de-pend on qualifications and experience. Individuals with research interests and experience in endocrine, nutritional, or physical biochemistry are especially encouraged to apply. Applicants should send their curriculum vitae and a description of their future re-search plans by 1 March 1978, to:

Chairman Department of Biochemistry College of Human Medicine University of Wyoming Laramie, Wyoming 82071

BIOLOGY. Two 2-year appointments. Begin Sep-

tember. Vertebrate-evolutionary biologist, field-oriented, su-perlative teacher. Teach vertebrate zoology, evolu-tion, plus seminars, and introductory courses. Su-pervision of museum collections of fish and herps in cluding direction of student projects. Interest in leading off-campus field programs in marine, aquat-ic, tropical, or other habitats. Lower vertebrate re-cent devariance. search experience.

search experience. **Developmental biologist**, organism oriented, superla-tive teacher. Teach developmental biology, ge-netics, and possibly microbiology, plus seminars, and introductory courses in botanical and zoological areas. Developmental research experience and inter-est in supervising student research in this and related areas. Send letter, curriculum vitae and three referareas. Send letter, curriculum vitae, and three refer-ences to: Jerry Woolpy, Department of Biology, Earl-ham College, Richmond, Indiana 47374 before March. Equal Opportunity/Affirmative Action Employer.

BIOLOGIST. Teach developmental biology, general biology, animal behavior, and ecology. Salary and rank negotiable. Ph.D. required. Address all correspondence to:

Joseph T. Evans, Ph.D., Chairman Biology Department University of Scranton Scranton, Pa. 18510

The University of Scranton, a Jesuit Institution, is an Equal Opportunity/Affirmative Action Employer.

BOTANIST

BOTANIST Opening available at the assistant professor level or possibly above. Effective September 1978. Appli-cants should have a broad training in botany with special research interests in expanding areas of bot-any such as genetics or plant-microbe interactions. Candidates are expected to have active research programs and will teach three or four courses a year including an introductory course. Credentials will be reviewed when complete. Interested persons should send their curriculum vitae, graduate and under-graduate transcripts, bried outline of research plans, and at least one letter of recommendation to: Dr. Mary D. Coyne, Chairman, Department of Biological Sciences, Wellesley College, Wellesley, Mass. 02181. An Equal Opportunity/Affirmative Action Employer An Equal Opportunity/Affirmative Action Employer

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POSITIONS OPEN

BIOLOGISTS

The Chesapeake Bay Institute of the Johns Hop the Chesapeake Bay institute of the Johns Hop-kins University is seeking ecologists in the areas of fisheries biology (population dynamics), estuarine bi-ology (shellfish), and wildlife biology to participate in regional impact assessment programs relating to the regional impact assessment programs relating to the development of natural resources of the Chesapeake Bay. Candidates for the fisheries and shellfish posi-tions must have a Ph. D. and a demonstrated capabil-ity in technical writing. The wildlife position is at the M.Sc. level and requires a demonstrated knowledge of the flora and fauna of the Mid-Atlantic region. Sal-aries are commensurate with experience. All posi-tions are available immediately. Applicants should submit curriculum vitae, salary history, and the names of three references to: Biology Search Com-mittee, Chesapeake Bay Institute, the Johns Hopkins University, Baltimore, Maryland 21218. Closing date: 1 March 1978. Eaual Opnortunity Employer M/F

Equal Opportunity Employer, M/F

SUMMER TERM TEACHING POSITIONS IN BOTANY AT OREGON STATE UNIVERSITY

The following teaching positions are available for summer term 1978:

Position 1 Bot 201-202. General Botany. 20 June to 13 July; 17 July to 10 August. Lecture and laboratory on: phylo-genetic survey of the plant kingdom, morphology; structure and physiology of seed plants.

Position 2

Position 2 Bot 451. Plant Disease Diagnosis. 20 June to 10 Au-gust. Field trips and laboratory on plant disease identification and control. For advanced under-graduate and graduate students.

Position 1 could be divided, each person having re-sponsibility for only one course, if necessary. All po-sitions are for summer term only.

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

Address inquiries and applications (including cur-riculum vitae and two letters of recommendation) prior to 14 April 1978 to:

r to 14 April 1976 to. Dr. Thomas C. Moore, Chairman Department of Botany and Plant Pathology Oregon State University Corvallis, Oregon 97331

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

CELLULAR IMMUNOLOGIST

Applications are invited for a staff position in cellular immunology at the Oregon Regional Primate Re-search Center. This institution has a major comsearch Center. This institution has a major com-mitment to reproductive biology. Persons with a postdoctoral experience interested in the application of immunologic principles to developmental biology or reproduction will receive greater consideration. Applicants are expected to carry on their own re-search program and be willing to develop programs related to primate biology. Deadline for application is 15 March 1978. Send curriculum vitae and refer-process of Dr. Acthur Mellow, Chairmer of Score-18 15 March 19/8. Send curriculum vitae and refer-ences to: Dr. Arthur Malley, Chairman of Search Committee, Oregon Regional Primate Research Cen-ter, 505 Northwest 185th Avenue, Beaverton, Oregon 97005. An Equal Opportunity Employer.

CURATOR-PALEONTOLOGY

Conduct paleontological research. Maintain and Conduct paleontological research. Maintain and broaden present collection, primarily of marine in-vertebrate and fish fossils. Head the department. Qualifications require Ph.D., significant pub-lications, experience in obtaining grants, demon-strated ability to work well with colleagues and su-periors, and at least 4 years of related work experi-ence. Submit credentials to: Chief Scientist, Natural History Museum, P.O. Box 1390, San Diego, Calif. 92112. An Equal Opportunity Employer.

University of Utah Medical Center needs a Ph.D., CYTOGENETICIST, with research experience in polymorphic chromosome markers and to assist in coordination of clinical service activities. Send cur-riculum vitae to: Dr. Robert M. Fineman, Depart-ment of Pediatrics, University of Utah Medical Cen-ter, Salt Lake City, Utah 84132. The University of Utah is an Equal Opportunity Employer.

POSITIONS OPEN

CHAIRPERSON DEPARTMENT OF BIOCHEMISTRY

The Albany Medical College of Union University seeks a highly qualified individual for the position of chairperson and professor of biochemistry. Ph.D. and/or M.D. required. A commitment to teaching and a record of accomplishment in research essen-

Applicants should send curriculum vitae, bibliog-raphy, and names of three references to:

Dr. Lawrence A. Caliguiri, Chairman Biochemistry Search Committee Albany Medical College of Union University Albany, New York 12208

An Equal Opportunity/Affirmative Action Employer

THE UNIVERSITY OF MELBOURNE CHAIR OF OPTOMETRY

Applications are invited for appointment to the newly established chair of optometry.

Salary: A\$31,248 per annum.

Further information, including details of appli-cation procedure, superannuation, travel and re-moval expenses, housing assistance, and conditions of appointment, is available from the registrar. All correspondence (marked "Confidential") should be addressed to: The Registrar, University of Mel-bourne, Parkville, Victoria, 3052, Australia.

Applications close on 31 March 1978.

THE UNIVERSITY OF MELBOURNE CHAIR OF METEOROLOGY (Foundation Appointment)

Applications are invited for appointment to the newly established chair of meteorology.

Salary: A\$31,248 per annum.

Further information, including details of appli-Further information, including details of appli-cation procedure, superannuation, travel and re-moval expenses, housing assistance, and conditions of appointment, is available from the registrar. All correspondence (marked "Confidential") should be addressed to: The Registrar, University of Melbourne, Parkville, Victoria, 3052, Australia.

Applications close on 31 March 1978.

CHAIRPERSON, DEPARTMENT OF ANATOMY

The Medical University of South Carolina is seek-ing a highly qualified individual to assume the posi-tion of professor and chairperson of the Department of Anatomy. Candidates must have the Ph.D. and/or M.D. degree, administrative-leadership abilities, a M.D. degree, administrative-leadership abilities, a commitment to teaching, and a strong ongoing research program related to some aspect of the anatomical sciences. Exciting opportunities exist for the right person in this highly dynamic, evolving institution, dedicated to education and research in all aspects of the health care system. Nominations and applications should be sent to: Dr. George E. Lindenmayer, Chairman, Search Committee for Anatomy, Department of Pharmacology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S.C. 29403. An Equal Opportunity/Affirmative Action Employer. Employer.

CHIEF OF SERVICE. The Division of Nuclear Med-icine has available a position as chief of service at the Bronx Municipal Hospital Center in nuclear medicine. The requirements for this position are at least 2 years of training in nuclear medicine with ei-ther Board-eligibility or -certification in that field or a related field. An individual is sought with a strong research interest in the field of nuclear medicine who would combine some clinical responsibilities with an active laboratory program. Interest in the field of ap-plication of nuclear medicine techniques to the can-cer patient is particularly desirable. Faculty appoint-ment commensurate with experience. Send curricu-lum vitae to: Dr. M. Donald Blaufox, Director, Nuclear Medicine, Albert Einstein College of Medi-cine, 1300 Morris Park Avenue, Room 220, Mazer Dorm, Bronx, N.Y. 10461. An Equal Opportunity Employer. Employer.

EDITOR for much expanded version of Clin-EDITOR for much expanded version of *Clin-ical Chemistry News*. Experience in the field of newsletter and/or newspaper editing is necessary. Scientific background very desir-able. Contact: Dr. William J. Campbell, American Association for Clinical Chemistry, 1725 K Street, NW, Washington, D.C. 20006. Telephone: 202-833-3590.

The University of Oregon is seeking a **DIRECTOR** for a proposed Interdisciplinary Research Program in the Neurosciences, with members from the biol-ogy, psychology, and chemistry departments. The appointment will be at the level of professor of biol-ogy. Applicants should have proven ability to con-duct a sustained program of original research, as well as an interest in training students. The success-ful candidate will be expected to foster interactions among research groups whose interests range from the study of behavior to the analysis of structure and function of the nervous system at all levels of organi-zation. The director will play a major role in recruit-ing new staff and in formulating future goals for the neurosciences at the University of Oregon. The di-rector will be responsible for initiating and coordi-nating training programs in the neurosciences. The University of Oregon is seeking a DIRECTOR

rector will be responsible for initiating and coordi-nating training programs in the neurosciences. We will also consider proposals from two persons to share the academic appointment with one desig-nated as director. The deadline for applications is 15 February 1978. The University of Oregon is an Equal Opportunity/Affirmative Action/Title IX Insti-tution. Qualified persons should submit a curriculum vitae, a statement of research interests, copies of relevant publications, and the names and addresses of three persons willing to serve as referees to: Dr. Russell D. Fernald, Chairman, Search Committee, Department of Biology, University of Oregon, Eu-Department of Biology, University of Oregon, Eugene, Oregon 97403.

DIRECTOR FOR INTERPROFESSIONAL EDUCA-TION. The University of Louisville invites qualified applicants for the position of director for inter-professional education in the Office of the Vice Pres-ident for Health Affairs and appropriate faculty appointment depending on the applicant's qualifica-tions. The person selected will be responsible for design and implementation of extramural education in all units of the Health Sciences Center, field facul-ty development, development of educational support systems, student assessment, student evalua-tion, faculty evaluation, assisting in developing grant applications to the Council on Higher Education, and establishing test models for interprofessional education in extramural settings. Applicants for the education in extramural settings. Applicants for the position should possess an advanced degree in edu-cation, educational psychology, or a comparable de-gree. Submit nomination or résumé to: William P. VonderHaar, M.D., Assistant Vice President for Health Affairs (Community and Regional Health Care Programs), University of Louisville, 500 South Pres-ton Street, Louisville, Kentucky 40232. An Equal Op-portunity/Affirmative Action Employer.

TWO ECOLOGISTS

Illinois State University (ISU), Department of Bio-Illinois State University (ISU), Department of Blo-logical Sciences, invites applications for two tenure-track positions at the assistant or associate professor rank beginning 15 August 1978. Openings exist for an evolutionary vertebrate ecologist, and an ecolo-gist with expertise in invertebrate behavior. Persons with interest in plant-insect interactions will be con-sidered. Appointees will be expected to teach under-reducte and graduate course supervise meeter/ graduate and graduate courses, supervise master's and Ph.D. students, and establish vigorous research programs. Curriculum vitae, including lists of publications and graduate courses, a statement of teach-ing and research interests, and three letters of rec-ommendation, should be sent to: Chairperson, De-partment of Biological Sciences, Illinois State University, Normal, Ill. 61761, before 15 March 1978. Rank and salary dependent upon qualifications. ISU is an Equal Opportunity/Affirmative Action Employer.

TWO MICROBIOLOGISTS

Illinois State University (ISU), Department of Bio-logical Sciences, invites applications for two tenure-track positions at the assistant or associate professor rank beginning 15 August 1978. Applicants must have strong backgrounds in microbiology and spe-cialized training in an area such as immunology, medical microbiology, virology, or microbial physi-ology. Postdoctoral research and/or academic expe-rience is preferred. Appointees will be expected to teach undergraduate and graduate courses, super-vise master's and Ph.D. students, and establish vig-orous research programs. Curriculum vitae, includ-ing lists of publications and graduate courses, a statement of teaching and research interests, and three letters of recommendation, should be sent to: Chairperson, Department of Biological Sciences, Illi-nois State University, Normal, Ill. 61761 before 15 March 1978. Rank and salary dependent upon quali-fications. *ISU is an Equal Opportunity/Affirmative Action Employer*. Illinois State University (ISU), Department of Bio-Action Employer.

POSITIONS OPEN

POSITIONS OPEN

XX XX 22 DEAN NATURAL SCIENCES AND MATHEMATICS STATE UNIVERSITY OF NEW YORK AT BUFFALO (SUNYAB) SUNYAB, the largest unit of the State University system, is seeking a dean for the Faculty of Natural Sciences and Mathematics. The faculty includes astronomy, biology, chemistry, computer science, geology, mathematics, physics, and statistics. The dean has fiscal as well as academic responsibility. Candidates should have demonstrated an understanding and commitment to scholarly excellence. Previous administrative experience is required. Candidates are expected to qualify for a tenured full professorship in one of the above disciplines. Letters of inquiry and curriculum vitae should be sent by 1 March 1978 to: Professor Alexander C. Brownie, Search Committee Chairperson State University of New York at Buffalo Personnel Department Crofts Building Amherst, New York 14260

SUNYAB is an Equal Opportunity/Affirmative Action Employer. ж XX

DIRECTOR FOR EXTRAMURAL EDUCATION PROGRAM DEVELOPMENT. The University of Louisville invites qualified applicants for the posi-tion of director for extramural education program development and appropriate faculty appointment depending on the person applying. Person selected will be responsible for innovation of the area health will be responsible for innovation of the area health education programs, assisting Health Sciences Cen-ter units in curriculum development, promoting area health education system concept, facilitating sub-mission of grant requests to the state Council on Higher Education, preparing Health Sciences Cen-ter area health education system budget, improving ongoing projects, coordinating medical, dental, nursing, and allied health programs. The candidate must possess one of the following degrees: M.D., D.M.D., D.D.S., Ph.D. in nursing or allied health disciplines. Nominations or résumés should be di-rected to: rected to:

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William P. VonderHaar, M.D. Assistant Vice President for Health Affairs (Community and Regional Health Care Programs) University of Louisville Health Sciences Center 500 South Preston Stre Louisville, Kentucky 40232 An Equal Opportunity/Affirmative Action Employer

DIRECTOR, ANIMAL RESOURCES CENTER, Harvard Medical School. Responsible for the imple-mentation of uniform policies for animal care and ex-perimentation throughout the medical area and directing the school's centralized resources which pro-vide veterinary services, diagnostic laboratory support, and centralized animal care. An indepensupport, and centralized animal care. An indepen-dent research program is encouraged. Reports to the office of the dean and the Committee on Animals. Requires M.D. or D.V.M., experience in laboratory animal care and research, good communication skills, and strong organizational ability. Interested applicants should forward curriculum vitae to: Dr. R. D. Hunt, Chairman Animal Resources Search Committee, New England Regional Primate Research Center, Harvard Medical School, Southborough, Mass. 01772. Harvard University is an Equal Oppor-tunity/Affirmative Action Employer. tunity/Affirmative Action Employer.

DEPARTMENT OF NUTRITION AND FOOD SCIENCE MASSACHUSETTS INSTITUTE OF TECHNOLOGY FACULTY POSITION

The department, a large multidisciplinary teaching and research unit with activities in all principal areas of nutrition and food science, is seeking an applicant to fill the following faculty position:

An M.D., with research training and preferably with a Ph.D. degree and experience and a major in-terest in human and clinical nutrition. The appointee will be expected to teach graduate-level courses con-cerned with human and clinical nutrition, to develop a vigorous research program, and become actively involved in the research programs of the MIT Clini-cal Research Center.

The appointment will be at the assistant or associ-ate professor rank, depending upon the qualification of the successful applicant.

Curriculum vitae, together with representative ublications, and the names of five referees should e submitted before 1 March 1978 to: Dr. V. R. Young, Chairman, Search Committee, Room 56-331, Massachusetts Institute of Technology, Cambridge, Mass. 02139.

MIT is an Equal Opportunity Employer. Repre-sentatives of minority groups are urged to apply.

DIRECTOR, Multidisciplinary Center for the Study of the Aging State University of New York at Buffalo (SUNYAB)

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Applicant should have doctorate or equivalent ter-minal degree in academic discipline relating to ger-ontology. Preferably 5 years of experience in combi-nation of the following areas: teaching, research, program administration in academic or community program administration in academic of community setting, grantsmanship experience required. Position to be filled by 1 July 1978. Salary negotiable. SU-NYAB is an Affirmative Action/Equal Opportunity Employer. Letters of application, curriculum vitae, and supporting documents should be sent to: J. Warren Perry, Ph.D., Chairperson, Search Committee for Director of Aging, Graduate School, SUNYAB, 548 Capen Hall, Amherst, N.Y. 14260.

Applications invited for two positions, Ph.D., assist-ant professor level, beginning fall 1978. ENTOMOL-OGIST: candidate should have strong background in insect systematics and ecology. Responsibilities in-clude teaching introductory entomology and ad-vanced courses in area of specialization, pursuing a vigorous research program and management of in vanced courses in area of specialization, pursuing a vigorous research program, and management of in-sect collection. AQUATIC BIOLOGIST: candidate should have strong background in aquatic biology and ichthyology. Responsibilities include teaching limnology, ichthyology and advanced course in area of specialization, pursuing a vigorous research pro-gram, and curating a fish collection. Send appli-cations by 28 February 1978 to: Chairman, Search Committee, Department of Biology, University of Ne-vada, Reno, Nevada 89557. The University of Ne-vada is an Affirmative Action/Equal Opportunity Employer. Employer.

FACULTY POSITION IN EPIDEMIOLOGY. The Department of Preventive Medicine and Environ-mental Health at the University of Iowa is seeking a mental Health at the University of Iowa is seeking a medical epidemiologist to participate in teaching ac-tivities and research in the areas of cardiovascular disease, cancer, mental health, or environmental sci-ences. Rank commensurate with background. M.D. and advanced training in epidemiology preferred. Ample ongoing research and clinical activities avail-able. Send résumé to: Robert B. Wallace, M.D., Uni-versity of Iowa College of Medicine, Iowa City, Iowa 52242. The University of Iowa is an Affirmative Ac-tion/Equal Opportunity Employer. tion/Equal Opportunity Employer.

FACULTY POSITIONS. The Department of Mechanical and Aerospace Sciences, University of Rochester, has two tenure-track appointments avail-Rochester, has two tenure-track appointments avail-able at the assistant professor level (or possibly high-er) for the fall semester of 1978. One is for a theoreti-cal plasma scientist and the other for an experimen-tal plasma scientist. Either candidate will be expected to participate in both undergraduate and graduate teaching. The candidate will also be ex-pected to be active in research in nuclear fusion and nuclear engineering and to direct graduate student research. Preference will be given to applicants with engineering experience in industry or national labo-ratories. The department offers an undergraduate degree in mechanical engineering. It also cooperates closely with the university's ongoing research pro-gram in laser fusion. Applicants should send a cur-riculum vitae, a statement of research and teaching interests, and the names of at least three referees to: Albert Simon, Professor and Chairman, Mechanical and Aerospace Sciences, University of Rochester, Rochester, New York 14627.

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

FACULTY POSITION, Department of Environmental Sciences and Engineering, University of North Carolina. Opening for assistant professor to develop a graduate teaching and research program focusing on human health effects from environmental agents. Will be expected to participate in related research Will be expected to participate in related research and teaching activities (environmental, occupation-al, and radiological health) and to maintain collabo-rative relationships with other human health effects studies on campus and in the Research Triangle Park. Ph.D. in human biology (physiology, tox-icology, biochemistry) or related discipline with sub-stantive preparation in environmental health sci-ences and established proficiency in communication skills. Applicants should send résumé including names of three references to: Dr. Alvis G. Turner, Department of Environmental Sciences and Engineer-ing, School of Public Health, University of North Car-olina, Chapel Hill, N.C. 27514. An Equal Opportu-nity/Affirmative Action Employer.

FACULTY POSITION. The Department of Biology, George Mason University, the State University of Northern Virginia, announces a tenure-track posi-Northern Virginia, announces a tenure-track posi-tion at the assistant professor level beginning fall se-mester of 1978 in the environmental biology area. Responsibilities to include: teaching introductory bi-ology and a graduate course in biological resource management; participating in further development of the graduate program in environmental biology, and the establishment of an active research program. The applicant must have the Ph.D. degree by Sep-tember 1978. Send curriculum vitae, transcripts, and three letters of reference by 13 March 1978 to: Envi-ronmental Search Committee. Biology Department. three letters of reference by 13 March 19/8 for Envi-ronmental Search Committee, Biology Department, George Mason University, Fairfax, Virginia 22030. George Mason is an Affirmative Action/Equal Op-portunity Employer.

Applications are invited for a possible assistant pro-fessor level FACULTY POSITION in the ENVIRON-MENTAL SCIENCE AND ENGINEERING PRO-GRAM, University of California, Los Angeles. Ph.D. or an equivalent preparation in science or en-gineering is essential. This graduate professional program focuses on problem-solving related to ener-or and other resources air and water quality and gy and other resources, air and water quality, and the urban environment. Applicants should have in-terests and skills in formulating research programs, teaching groups of students through contemporary interdisciplinary research and study projects, and in obtaining research funding. Send curriculum vitae and references to: **Chairman, Search Committee, En** vironmental Science and Engineering Program, University of California, Los Angeles, California 90024. The University of California is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION IN HUMAN GENETICS

An M.D. and/or Ph.D. active in research at the biochemical or molecular level with an interest/exoriginal of molecular level with an interested perion of genetics. Send curriculum vitae to: Dr. David Pettijohn, Department of Biophysics/Genetics, University of Colorado Medical Center, 4200 East Ninth Avenue, #B121, Denver, Colorado 80262.

Equal Opportunity/Affirmative Action Employer

FISH ECOLOGIST

Postdoctoral or research associate level. Candidates with experience in larval fish ecology/population dy-namics (marine or freshwater) especially welcomed. Forward curriculum vitae, two letters of reference, and statement of research interest by 1 March 1978 to:

> Dr. W. C. Leggett Department of Biology McGill University 1205 McGregor Avenue Montreal, Canada H3A 1B1

POSTDOCTORAL POSITION-LIMNOLOGY

Spring 1978 opening for a freshwater or marine sci-entist with interests in physical, chemical, or biologi-cal limnology. Applicants with interests in nutrient cycling, sediment-water interactions, or littoral zone dynamics particularly welcomed. The successful candidate will join a team of 14 staff and students. Send application and three letters of reference, prior to 1 March 1978, to: Dr. J. Kalff, Biology Depart-ment, McGill University, 1205 McGregor Avenue, Montreal, Canada H3A 1B1.

POSITIONS OPEN

DREXEL UNIVERSITY Department of Physics and Atmospheric Science

Several visiting FACULTY POSITIONS are available for the 1978–1979 academic year, with extensions possible. Applicants should hold an earned doctorate and current active research interests in atmospheric science, biophysics, experimental phys-ics, or theoretical physics. Rank will be based on experience; there are openings at all levels. Applicants should forward résumés to: Dr. William W. Eidson, Head, Department of Physics and Atmospheric Sci-ence, Drexel University, Philadelphia, Pa. 19104. Drexel is a private institution; it is an Equal Opportunity/Affirmative Action Employer.

Saskatchewan, Canada-FACULTY POSITION in Saskatchewan, Canada-FACULTY POSITION in clinical pharmacology, University of Saskatchewan, Saskatcon, Saskatchewan. Appointment in Depart-ments of Pharmacology and Medicine. Candidate should have M.D., postgraduate training in internal medicine and pharmacology, and eligibility for li-censure in Province of Saskatchewan. Send curricu-lum vitae to: Dr. G. E. Johnson, Head, Department of Pharmacology, College of Medicine, University of Saskatchewan, Saskatoon, Canada S7N 0W0.

The Pahlavi University Medical School invites appli-cations for a FACULTY POSITION IN PHYSIOLO-GY to begin summer/fall 1978. Appointment requires teaching a graduate course in physiology and medi-cal physiology. Send curriculum vitae, a brief de-scription of current research interests, and names of three references to: Dr. M. S. Shahid Salles, Acting Chairman, Department of Physiology, School of Med-icine, Pahlavi University, Shiraz, Iran.

FACULTY POSITION IN PARASITOLOGY AND BACTERIOLOGY

The Department of Microbiology and Immunolo-y is seeking a faculty member with either the Ph.D. m.D. degree with training and research experience in parasitology and/or bacteriology. Individuals with research interests in the immunological or molecular aspects of parasitic or bacterial diseases are preferred. Formal teaching duties would include teaching of parasitology and bacteriology to medical students. Rank and salary dependent on qualifica-tions. Curriculum vitae, including a list of pub-lication of parasitology and bacteriology to medical students. Rank and salary dependent on qualifica-tions. lications and names of referees, should be sent by 1 April 1978, to:

Dr. Marietta Voge Department of Microbiology and Immunology School of Medicine University of California, Los Angeles (UCLA) Los Angeles, California 90024

UCLA is an Equal Opportunity/Affirmative Action Employer.

INHALATION TOXICOLOGIST

International Research and Development Corporation (IRDC) is a rapidly expanding contract research laboratory located near Kalamazoo, Michigan. We have a position available as assistant director in in-halation toxicology. You will assist in teaching and nalation toxicology. You will assist in teaching and supervising laboratory technicians in conducting toxicological experiments. Prefer a Ph.D. with in-halation toxicology experience and report writing ability. Must have experience in using analytical in-struments and operating exposure equipment. Start-ing salary commensurate with qualifications. Send résumé to:

J. M. Ragen, Director, Personnel International Research and Development Corporation Mattawan, Michigan 49071

Equal Opportunity Employer

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF OTORHINOLARYNGOLOGY

New position available for Instructor to Professor 1 July 1978. M.D. degree; must be eligible for or have certification by the American Board of Otolaryngol-ogy. Must be competent in all phases of clinical otorhinolaryngology. Responsibilities will include patient care, medical student teaching, and house of-ficer education. Will also be expected to engage in basic or clinical research. This person possibly will have similar responsibilities at VA Hospital and Wayne County General Hospital. Code 200HO. Send résumé to: Box 30, SCIENCE. A non-discrimi-natory, Affirmative Action Employer.

POSITIONS OPEN

MEMORIAL UNIVERSITY OF NEWFOUNDLAND DEPARTMENT OF BIOLOGY **FISHERIES BIOLOGIST**

Applications are invited for a faculty position (rank open), with primary responsibility in the devel-opment of a graduate programme (M.Sc. and Ph.D.) in the field of fisheries biology. Preference will be given to candidates with an established background given to candidates with an established background and practical experience in applied fisheries re-search. Applicants should submit a full curriculum vitae and names of three referees to: Dr. G. Robin South, Head Department of Biology, Memorial Uni-versity of Newfoundland, St. John's, Newfoundland, Canada A1B 3X9, by 20 March 1978.

GROSS ANATOMIST/NEUROANATOMIST, beginning 1 July 1978. Ph.D. with 3 to 6 years experience teaching in medical or dental school preferred; rank and salary negotiable. The West Virginia School of Osteopathic Medicine is an Equal Opportunity/Af-firmative Action Employer. Closing date: 15 April 1978. Send curriculum vitae to:

Dr. Frances H. Higginbotham, Chairman Dr. Frances H. Higginbotham, Chairman Department of Anatomy West Virginia School of Osteopathic Medicine 400 North Lee Street Lewisburg, West Virginia 24901

HEAD-ANIMAL FACILITIES

Research-oriented medical center in New York metropolitan area. Broad responsibilities for administra-tive supervision of all laboratory animal facilities at the medical school and new cancer center. Responsible for supervising diagnostic necropsy and disease diagnostic functions and maintaining standards set by DHEW-NIH. D.V.M. degree required; certifica-tion in pathology and/or research interest are encouraged. Applicants should have 3 years of super-visory experience in large animal facility. Salary commensurate with qualifications and experience. *An Equal Opportunity Employer*. Send résumé to: **Box 25, SCIENCE.**

INVERTEBRATE ZOOLOGIST LECTURER, TEMPORARY

Academic-year faculty position available starting Academic-year faculty position available starting 1 September 1978 for a biologist working in in-vertebrate zoology, preferably with interests in ma-rine biology. To teach course in invertebrate zoolo gy with laboratory, advanced course in specialty, and participate in teaching of introductory biology. Candidate must have Ph.D. and should have teach-ing available. ing experience. Please send curriculum vitae, reprints, and three

letters of recommendation to:

Professor Edward S. Hodgson Biology Department Tufts University Medford, Mass. 02155

Application deadline: 1 March 1978.

Tufts University is an Equal Opportunity Employ-er; minorities, women, and the handicapped are encouraged to apply.

INVERTEBRATE ZOOLOGY

The Department of Biological Sciences has an opening for an assistant professor in invertebrate zoology for the 1978-1979 academic year. Teaching in in-vertebrate zoology, freshman biology, and research in freshwater invertebrates, excluding insects. Re-search in the natural environment and the development of an active graduate program will be expected.

Applications with curriculum vitae, list of pub-lications, names of references, and summary of re-search interests should be sent to:

Dr. James E. Deacon, Chairman Department of Biological Sciences UNIVERSITY OF NEVADA, LAS VEGAS Las Vegas, Nevada 89154

Applications must be postmarked no later than 15

February 1978

The University of Nevada, Las Vegas, is an Equal Opportunity Employer.

MARINE CHEMIST (MARINE SCIENTIST II)

For laboratory and shipboard oceanographic re-search at the University of Delaware. M.S. or B.S. with 2 years of experience. Send résumé to: Doris Manship, College of Marine Studies, Lewes, Delaware 19958

We are an Affirmative Action/Equal Opportunity Employer.

ANIMAL NUTRITIONIST

Large pet foods manufacturer is seeking an animal nutritionist to manage its nutritional research program. Requires a Ph.D. in animal nutrition or allied field. Professional experience preferred but not required. Responsibilities include long-term research planning, managing internal and external nutritional research programs, technical direction for marketing programs, liaison with regulatory agencies, and serving as an integral part of the overall management team. Competitive salary and excellent benefits program. Send résumé to:

Box 26, SCIENCE

An Equal Opportunity Employer, M/F

SCIENTIFIC POSITIONS. The National Science Foundation (NSF) is seeking qualified applicants for a number of positions in the Directorate for Biological, Behavioral, and Social Sciences.

cal, Behavioral, and Social Sciences. DIRECTOR, DIVISION OF ENVIRONMENTAL BIOLOGY. This division is responsible for basic research in areas such as systematics, evolutionary, biology, ecology, and ecosystems sciences. Applicants should be recognized authorities and have demonstrated national and international leadership in one of these fields. The position is excepted from the competitive civil service and is equivalent to a GS-17 position. Applicants should submit a résumé to: NSF, Division of Personnel and Management, 1800 G Street, NW, Washington, D.C., 20550, Attention: Section B, Announcement No. EX 77-41. For further information, call: 202-634-1553. PROGRAM DIRECTOR AND ASSOCIATE PRO-

information, call: 202-634-1553. PROGRAM DIRECTOR AND ASSOCIATE PRO-GRAM DIRECTOR. Program officers administer programs of basic research grant support, including advising applicants, reviewing proposals, and other administrative duties. These are "rotational" positions with a duration of 1 or 2 years beginning in summer or fall 1978. Applicants should be employed in a position from which they may take a leave of absence. Applicants for the position of program director should have 6 to 8 years of active research experience beyond the doctorate in the appropriate the doctorate. Salaries range from \$26,022 to \$47,025 per annum, depending on qualifications and experience. Vacancies for program director and associate program director are anticipated in the following areas: program directors actoly, ecosystems, systematic biology, biophysics, cell biology, developmental biology, genetic biology, biochemistry, regulatory biology, and associate program directors —systematic biology and economics.

Other program positions in the biological, behavioral, and social sciences will be available at later dates, and expressions of interest from persons in disciplines not in the above list are also welcome. Applicants should send a letter of application accompanied by curriculum vitae and a list of at least three reference persons to the above listed address (excluding the announcement number). Applications for these positions should be received no later than 15 February 1978. The National Science Foundation is an Equal Opportunity/Affirmative Action Employer.

27 JANUARY 1978

FOURTH EMBO ANNUAL SYMPOSIUM 3rd-7th May, 1978 "MOLECULAR NEUROBIOLOGY"

The Symposium will be held at the European Molecular Biology Laboratory, Heidelberg, which is to be opened on Friday, May 5th, by the President of the Federal Republic of Germany.

Topics covered at the Symposium will include neuroreceptors, neuropeptides, development of the nervous system, neutral cytoskeletons, higher brain functions.

Plenary Sessions: The speakers will include

B. Boycott (England), D. Bray (England), M. Brownstein (USA), J.-P. Changeux (France), M. Cuénod (Switzerland), G. Edelman (USA), S. Fuchs (Israel), D. Gilbert (England), J. Glowinski (France), B. Hamprecht (Germany), E. Helmreich (Germany), J. Heuser (USA), T. Hökfelt (Sweden), J. Jansen (Norway), M. Lazdunski (France), R. Levi-Montalcini (Italy), U. Littauer (Israel), J. Massoulié (France), E. Neher (Germany), Ph. Nelson (USA), L. Olson (Sweden), W. Reichardt (Germany), M. Schramm (USA), W. Singer (Germany), J. Stinnakre (England), N. Strausfeld (Germany), L. Terenius (Sweden), H. Thoenen (Switzerland).

Poster Sessions

In addition to the plenary sessions poster sessions will be held each day during the Symposium to allow participants to present contributions on topics related to or complementing the plenary sessions as well as on recent technical developments.

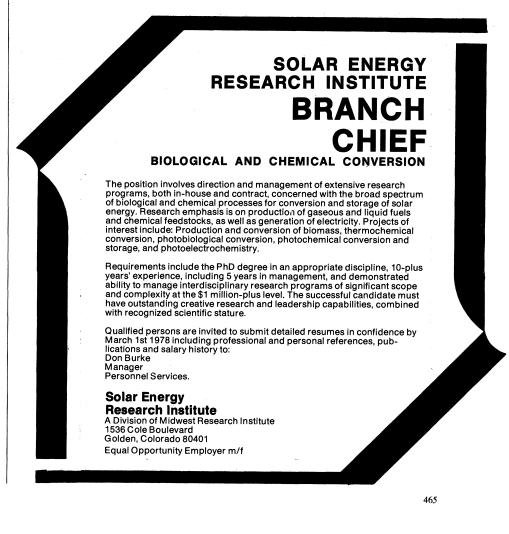
Participation

Applications should reach Dr. J. Tooze, Executive Secretary, European Molecular Biology Organization, Postfach 1022.40, 69 Heidelberg 1, West Germany, before the end of February. They should include a curriculum vitae, an indication of the applicant's scientific background, and curent research interests. Participants who wish to contribute a poster should submit a title and an abstract of 1-2 pages. A registration fee of DM 80 will be charged. Bed and breakfast and accommodation (DM 20-40 per day) in the vicinity of the EMBL will be arranged by the Symposium secretariat. Participants will be responsible for their living and travel expenses.

Organizing Committee:

Chairman: J.-P. Changeux

J. Glowinski, B. Hamprecht, T. Hökfelt, R. Levi-Montalcini, R. Miledi, N. Strausfeld Secretary: J. Tooze



HIGH ENERGY PHYSICS

The Ames Laboratory of the Department of Energy, Iowa State University, has an opening for an associ-ate physicist in the field of experimental high energy physics in the field of experimental high energy physics. Minimal requirements are a Ph.D. in phys-ics and at least 2 years of postdoctoral experience in experimental high energy physics. Our present ex-perimental program emphasizes work with a large wire chamber spectrometer (LASS at SLAC). Experience with this or equivalent devices is highly desir-able. Qualified individuals should send a complete résumé and the names and addresses of three references to:

Personnel Office Ames Laboratory 127 Spedding Hall Iowa State University Ames, Iowa 50011

Application deadline is 15 February 1978. The Ames Laboratory is an Equal Opportunity Employer. Applications from minority or female candidates are encouraged.

The Deep Sea Drilling Project, Scripps Institution of Oceanography, University of California, San Diego, is currently seeking to fill positions for MARINE SEDIMENTOLOGISTS or GEOPHYSICISTS, Ph.D. level. Sedimentologists should have strong background in mineralogy and sedimentary petrolo-gy. Geophysicists should have working knowledge of marine multichannel seismic, magnetics, gravity, and heat flow systems. These positions exist as proj-ect staff scientists who will engage in project-related and independent scientific research. Appointment anticipated in the assistant through associated pro-fessional research series; salary commensurate with experience. Please send completed résumé and experience. Please send completed résumé and names of at least three referees to: Dr. David G. Moore, Deep Sea Drilling Project, A-031, La Jolla, Calif, 92093. The University of California is an Equal Opportunity/Affirmative Action Employer.

POSITIONS FOR MEDICAL ENTOMOLOGISTS

Applications are invited for two positions, open im-

POSTDOCTORATE to participate in laboratory POSTDOCTORATE to participate in laboratory **POSTDOCTORATE** to participate in laboratory studies on intrinsic factors affecting vector compe-tence of mosquitoes for arboviruses at the Naval Bioscience Laboratory in Oakland and Berkeley, California. Position requires training in medical en-tomology, including biology, physiology, and ge-netics of mosquito vectors of disease, and a knowl-edge of medical microbiology. Training in electron microscopy and gel electrophoresis desirable. **MEDICAL ENTOMOLOGIST** to do research at the master's or postdoctoral level to join a field proj-ect in Bakersfield, California, to evaluate the genetic control and vector competence of mosquito vectors of arboviruses. Training in mosquito bionomics and

of arboviruses. Training in mosquito bionomics and control required. Knowledge of population genetics and arboviruses desirable.

and arboviruses desirable. Send three letters of reference, undergraduate and graduate transcripts, copies of publications, a cur-riculum vitae, and a statement of research interests to: Dr. J. L. Hardy, Department of Biomedical and Environmental Health Sciences, University of Califor-nia, Earl Warren Hall, Berkeley, Calif. 94720. Appli-cation deadline is 1 March 1978. The University of California, Barkalow, is an Equal Opportunity/AF. California, Berkeley, is an Equal Opportunity/Af-firmative Action Employer.

NUTRITIONIST. To do research and teaching in an established program. Graduate students have inter-ests in all areas of poultry nutrition and related management. Opportunity to cooperate with allied de-partments. Teaching involves both undergraduate and graduate programs. Assistant or associate pro-fessor position. Send résumé to: M. L. Sunde, Poultry Science Department, University of Wisconsin, Madison, Wis. 53706. Equal Opportunity Employer.

PHYSIOLOGICAL GENETICIST

Ph.D. with training in biochemistry and organis mic physiology interested in applying genetic manip-ulations at cellular and organismal levels. The posi-tion also includes teaching at both undergraduate and graduate levels. Preference will be given to the candidates with

Preference will be given to the candidates with postdoctoral experience. Send applications including curriculum vitae, three references, transcripts, and publications to: Dr. Gojko Jelenkovic, Chairman, Search Committee, Department of Horticulture and Forestry, P.O. Box 231, Rutgers University, New Brunswick, New Jersey 08903. Applications must be received before 15 March 1978. An Equal Opportunity/Affirmative Ac-tion Femployer tion Employer.

POSITIONS OPEN

The Department of Biological Sciences is seeking applications for several positions open in MICRO-BIOLOGY and in ANATOMY/PHYSIOLOGY for BIOLOGY and in ANATOMY/PHYSIOLOGY for appointment in August 1978. Applicants may expect primary teaching assignment in courses associated with allied health programs. Research activity is en-couraged. Although these tenure-track appoint ments are anticipated at assistant professor level, senior faculty interested in administration with ap-pointment as department chairman are urged to ap-bly. Bank and salary are one ply. Rank and salary are open.

pty. Kank and salary are open. Applications from candidates should be received no later than 3 March 1978. Curriculum vitae, three or more references, and preliminary supporting infor-mation such as reprints should be forwarded to: Dr. W. Davies, Chairman, Department of Biological Sci-ences, Indiana University-Purdue University at Fort Wayne, 2102 Coliseum Boulevard East, Fort Wayne, Indiana 46805. An Equal Opportunity/Affirmative Action Employer.

MICROBIOLOGIST/CELL BIOLOGIST. Assistant professor, effective August 1978. Ph.D. required. Primary duties associated with the position will involve teaching undergraduate courses in micro-biology and cell biology as well as participation in biology and cell biology as well as participation in the introductory biology courses for majors and non-majors. Emphasis is on quality instruction but re-search is encouraged and expected. Applicants should send curriculum vitae, unofficial transcripts, and three letters of reference to: Dr. Robert L. Wat-son, Chairman, Department of Biology, University of Arkansas at Little Rock, 33rd and University Ave-nues, Little Rock, Arkansas 72204. An Affirmative Action Employer Action Employer.

MOLECULAR BIOLOGIST (MOLECULAR GENETICS)

(MOLECULAR GENETICS) The Department of Biology, Bucknell University, announces an opening at the rank of instructor/as-sistant professor (visiting), depending on education-al qualifications. The appointment is for 3 years, subject to renewal for an additional 2 years, depend-ing upon the needs of the department. Teaching re-sponsibilities include participation in a one semester course in principles of biology, required of all fresh-man majors, and three advanced courses in the ap-plicant's area of specialty. The person should be broadly trained, as indicated by the teaching assign-ment in principles of biology. Research facilities will be available. Send letter, résumé, transcripts, re-prints, and three letters of recommendation to: Dr. Jack Harclerode, Head, Department of Biology, Bucknell University, Lewisburg, Pa. 17837, by 15 February 1978. February 1978.

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

VEUROPHYSIOLOGY (HUMAN)-ACADEMIC POSI-TION. Unexpected opening; immediate availability. Evoked potentials, EEG, sleep, skin conductance; applications to mental health. Ongoing projects in-clude studies of hemispheric lateralization, psycho-pharmacology, acupuncture. Successful candidate pharmacology, acupuncture. Successful candidate expected to contribute to the ongoing research effort as well as to develop own research program. Compe-tence in human neurophysiology and psycho-physiology essential. Skills in electronics and mini-computer programming desirable. Salary dependent upon qualifications. Send curriculum vitae to: Dr. Warren A. Thompson, Missouri Institute of Psychiatry, School of Medicine, University of Missouri-Columbia, 5400 Arsenal Street, St. Louis, Missouri 63139.

Equal Opportunity Employer

PLANT SYSTEMATIST

Applications and nominations are invited for a Applications and nominations are invited for a tenured **curator-professorship** in the Arnold Arbore-tum and the Gray Herbarium, Harvard University. Position involves teaching, administrative duties in connection with the combined herbaria of the Gray Herbarium and Arnold Arboretum, and research. A broadly trained herbarium-oriented systematist with interest and ability in administration and demon-strated ability in taching and systematic research is sought for this position in a stimulating academic en-vironment. Position effective 1 July 1979. Letters of application or nomination with résumé

Letters of application or nomination with résumé and three references should be sent by 28 February 1978, to: Professor C. E. Wood, Harvard University Herbaria, 22 Divinity Avenue, Cambridge, Mass. 02138. An Affirmative Action/Equal Opportunity Emplover

POSITIONS OPEN

NEUROBIOCHEMIST

The Department of Biological Chemistry invites applications for a faculty position at the assistant pro-fessor level (although candidates at the level of asso-ciate professor will be considered).

The department seeks a person having a strong background in chemistry whose research involves the study of a fundamental aspect of neurochemis-try. Applicants are expected to have demonstrated originality and productivity in research and the po-tential for excellence in teaching.

The department participates in the training of medi-cal, graduate, and undergraduate students. Appli-cants should have the background to participate both in advanced courses in neurochemistry and in survey courses in biochemistry. The successful ap-plicant will be appointed to the faculty of the School of Medicine and of the College of Science and Engi-nearing. Surd curriculum with a shift statement of neering. Send curriculum vitae, a brief statement of research plans, and three letters of recommendation

to: Search Committee, Department of Biological Chem-istry, Wright State University, Dayton, Ohio 45435. Applications received after 15 March 1978 may not be considered. Wright State University is an Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF SOUTHERN CALIFORNIA (USC) ORE PETROLOGIST

The Department of Geological Sciences invites ap-plications for a possible opening in ore petrology be-ginning September 1978, at the assistant professor level. Applicant must hold Ph.D. and be field orient-ed with creating in metomorphic actinguishing the second s ed with expertise in metamorphic or igneous petrology and high-temperature geochemistry. Additional background in one or more of the following areas is background in one or more of the following areas is desirable, but not required: structural geology, geo-thermal and other energy resources, applied geo-physics, and environmental or engineering geology. Appointee will be expected to develop a teaching and research program in economic geology and de-velop cooperative relationships with the mineral in-dustry. Please send résumés, including three refer-ences, to: Dr. Gregory A. Davis, Chairman, Depart-ment of Geological Sciences, University of Southern California, Los Angeles, California 90007. USC is an Afirmative Action/Equal Opportunity Employer.

PHYSIOLOGICAL PSYCHOLOGIST. Ph.D. in PHYSIOLOGICAL PSYCHOLOGIST. Ph.D. in physiological psychology preferably with research emphasis in primate research but all areas of special-ization will be considered. Assistant professorship (limited term; 1 or 2 years) with undergraduate and graduate teaching. Ability to teach undergraduate human neuropsychology required. Current salary floor around \$17,000. Send curriculum vitae and names of references to: Dr. Peter Cain, Department of Psychology, University of Western Ontario, Lon-don, Ontario, Canada N6A 5C2.

DEPARTMENT OF BIOCHEMISTRY POSTDOCTORAL FELLOW PHYSICAL BIOCHEMISTRY

A postdoctoral position in the area of physical bio-chemistry of lipids in natural and artificial mem-branes and lung surfactant is available for 1 year ef-fective immediately. Salary: \$11,200 per annum. Send résumé and names of three referees to:

Dr. K. M. Keough Department of Biochemistry Memorial University of Newfoundland St. John's, Newfoundland, Canada A1B 3X9

POSTDOCTORAL POSITION. Immunology-nutri-POSTDOCTORAL POSITION. Immunology-nutri-tional biochemistry. Mechanistic study in humans and animals of immune systems under nutritional stress. Strong interest and/or background in immu-nology, germ-free animals and/or nutritional bio-chemistry is desirable. Send résumé and references to: Dr. Ronald Watson, Department of Microbiology and Immunology, Indiana University School of Medi-cine, Indianapolis, Ind. 46202.

POSTDOCTORAL POSITION available immediately for Ph.D. in biochemistry. Two-year appoint-ment for research in mammary cancer. Experience in radioimmunoassay and protein purification desir-able. Applicants should send their curriculum vitae to: Dr. Thomas L. Dao, Director, Department of Breast Surgery and Breast Cancer Research Unit, Roswell Park Memorial Institute, Buffalo, New York 14263.

GRADUATE TRAINING IN MEDICAL COMPUTING FOR PHYSICIANS

The University of Illinois as Urbana-Champaign College of Medicine and Department of Computer Science are accepting applications for a two-year program in medical computing, leading to the degree of Master of Computer Science.

All applicants must have a M.D. degree, U.S. citzen (or permanent resident), and preferably some residency training. A basic stipend of \$15,000 per year will be provided to qualified applicants.

The Department of Computer Sci-ence offers a well-established gradu-ate program with 35 full time faculty. Research interests include advanced instrumentation, information engi-neering, image processing and arti-ficial intelligence. The College of Medicine's Medical Computing Labo-ratory supports research in interactive medical consultation and other aspects of medical informatics, espethose cially involved with man: machine interaction.

Inquiries should be directed to Al-lan H. Levy, M.D., 567 Medical Sci-ences Building, University of Illinois, Urbana, Illinois 61801 (Telephone: 217/333-2284).

The University of Illinois is in full compliance with all federal and state nondiscrimination and equal opportunity laws, orders and regulations, and will not discriminate against any person in any of its educational programs and activities.

SYSTEMS SCIENTIST VERY LARGE ARRAY

Operations positions at the VLA site in New Mexico involving investigation of instrumental effects in radio astronomy telescopes. The responsibilities include the determination of the causes of instrumental effects, the implementation of algorithms or software to control the effects, and assisting visiting observers in the use of the VLA. Some time will be available for the pursuit of independent research. A Ph.D. in radio astronomy, or equivalent, is required. Experience with radio interferometers is desirable. Applications should include a resume outlining professional qualifications and the names of three persons who may be contacted for references. Salary is open.

DR. D. S. HEESCHEN, DIRECTOR

NATIONAL RADIO ASTRONOMY OBSERVA-TORY

Edgemont Road Charlottesville, VA 22901

An Equal Opportunity Employer M/F

Physical Oceanographers GS-13/14 (TWO POSITIONS)

GS-13 Salary Range from \$26,022 to \$33,825 per/annum GS-14 Salary Range from \$30,750 to \$39,975 per/annum

OFFICE OF NAVAL RESEARCH Announcement 77-080-K

The successful applicants will become Scientific Officers in the Physical Oceanography Program of the Office of Naval Research's Ocean Science and Technology Division. The individuals will be responsible to the Program Manager for initiating, planning, organizing, directing and carrying through to completion broad research projects in physical oceanography. This is a con-tract search program, primarily at aca-demic institutions, and is presently budgeted at \$8,250,000 per year. Although the tasks in the program are unclassified, it is oriented toward the

mission problems of the Navy. Educa-tion at the PhD level in physical ocean-ography or a related physical science, or equivalent professional experience, as demonstrated by published articles, management experience, and an ability to make lucid technical presentations, are required. It is desirable that applicants have considerable seagoing experience.

Interested candidates should submit personal qualifications statement, Standard Form 171, including publications and reference to:

Civilian Personnel Office (Code 123) Naval Ocean Research and Development Activity **NSTL Station, Mississippi 39529**

Career Service with all Civil Service benefits

These positions may be located ei-ther at NSTL Station, Mississippi (approximately 45 minutes drive east of downtown New Orleans, LA) or at Ar-

These positions are in the Federal lington, Virginia (approximately 10 min-areer Service with all Civil Service utes drive southwest of Washington, DC). Applicants must indicate which of

these duty stations is/are acceptable. These positions will be held open until such time as suitable applications have been obtained.

An Equal Opportunity Employer-M/F

ACADEMY OF NATURAL SCIENCES **OF PHILADELPHIA** ALGAL ECOLOGIST POSITION

Training and experience in algal physiology and ecology, including primary productivity studies. Applicant must hold a Ph.D and have demonstrated competence in research. An interest in solving environmental related problems is highly desirable. Resumes should be submitted to: Dr. James Mears, Div. of Systematics and Evolution, Academy of Natural Sciences, 19th and the Parkway, Phila., PA 19103. An Eq. Oppor. Empl.

SUMMER COURSE RIVERS, LAKES, AND ESTUARIES (Jun 5 thru Jul 14, 1978)

The Academy of Natural Sciences will sponsor a summer course at its 3 field stations: Lake Lacawac Sanctuary, Stroud Water Research Center, and the Benedict Estuarine Laboratory. Courses will include methods of field study, field and laboratory experiments and interpretation of data. Recommended 5 college credits. Prerequisite: chemistry, calculus, and ecology, Tuition: \$315; meals and longing will be arranged by the Academy et al. Tuition: \$315; meals and lodging will be arranged by the Academy at a cost of \$535. For applications please contact Dr. Clyde E. Goulden, Academy of Natural Sciences, 19th and the Parkway, Phila., PA 19103.

Book—Just Published, December, 1977

Changing Scenes in the Natural Sciences—1776-1976

Publication of a Bicentennial Symposium

Held at the Academy of Natural Sciences of Philadelphia in 1976

CONTRIBUTORS:

Drs. R. D. Alexander, A. J. Cain, W. J. Ewens, E. B. Ford, J. L. Harper, G. E. Hutchinson, D. H. Janzen, R. M. May, E. Mayr, R. T. Paine, R. Patrick, P. H. Raven, H. L. Sanders, R. R. Sokal, E. Stellar, T. Uzzell, A. C. Wilson, E. O. Wilson, Edited by Dr. C. E. Goulden.

PRICE: Paperback-\$15.00, Hardback-\$25.00. Send check or money order to Academy of Natural Sciences of Philadelphia, ATTN: Pub-lications Department, 19th and the Parkway, Philadelphia, PA 19103.

POSTDOCTORAL APPOINTMENT available for 2 years starting February 1978. Ongoing studies in-volving cultured hepatocytes. The primary aim is the characterization of transport processes and glycoprotein receptors in the plasma membrane. Send ré-sumé to: Dr. J. Galivan or Dr. A. Tarentino, Division of Laboratories and Research, New York State De-partment of Health, Empire State Plaza, Albany, New York, 1320 York 12201.

POSTDOCTORAL POSITION available immediately. Qualified individual with experience in cell bi-ology and/or cell membrane study is required. Send résumé and references to: J. K. Reddy, M.D., De-partment of Pathology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago Illinois 60611. An Affirmative Action/Equal Opportunitv Employer.

POSTDOCTORAL POSITION REPRODUCTION RESEARCH LABORATORY ST. LUKE'S EPISCOPAL HOSPITAL and DEPARTMENT OF OBSTETRICS AND GYNECOLOGY BAYLOR COLLEGE OF MEDICINE HOUSTON, TEXAS 77030

A Ph.D., D.V.M., or M.D. fellow with a physiology of reproduction background is sought for a 2-year fellowship in the area of reproductive tract receptor research with primary emphasis on the biochemistry of the placenta. Thus, some advanced chemistry and biochemistry courses are essential.

Salary range is in keeping with experience. We are Salary range is in keeping with experience. we are an Equal Opportunity Employer. There are currently eight other postdoctoral fellows in the department and 39 residents. This individual joins a research team already active in reproductive research and should send his résumé to **Paige K. Besch, Ph.D.**, Professor and Director, at the above address

POSTDOCTORAL POSITION for research on the pathobiology of cystic fibrosis. Knowledge of cell bi-ology and cellular mechanisms of fluid and elecology and cellular mechanisms of fluid and elec-trolyte transport and experience in tissue culture and/or transmission and scanning electron micros-copy desirable. Salary: \$12,500. Send curriculum vitae and references to: Dr. Samuel S. Spicer, De-partment of Pathology, Medical University of South Carolina, Charleston, S.C. 29403. An Equal Oppor-tunity/Affirmative Action Employer.

POSTDOCTORAL POSITION IN BIOORGANIC CHEMISTRY

Position immediately available for Ph.D. organic chemist with background in quinone chemistry to as-sist in the investigation of the mode of action of vita-min K and regulation of prothrombin synthesis in the Department of Biochemistry. Send curriculum vitae and names of three references to: Dr. Robert E. Ol-son, St. Louis University Medical Center, c'o Person-al Services 1356 Coroling Street St. Louis Microwick onel Services, 3556 Caroline Street, St. Louis, Missouri 63104.

Equal Opportunity Employer

POSTDOCTORAL POSITIONS available. To study control of mammalian hemoglobin synthesis or the generation of antibody diversity. Experiments cur-rently in progress in the laboratory of Dr. J. B. Ling-rel involve cloning hemoglobin genes and study of the structure and synthesis of the initial globin mRNA transcript. Doctors R. D. Brown and R. W. Armentrout are cloning the immunoglobulin genes to study the molecular events during the onset of imstudy the molecular events during the onset of im-munoglobulin synthesis during development. Send résumés to any of the above at: Department of Bio-logical Chemistry, University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, Ohio 45267. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE

Research on the enzymology of cross-linking of elastin and collagen. Experience in enzyme mechanisms and purification required. Experi-ence with oxidase enzymes helpful. Salary com-mensure with oxidase Cond. Sourd cond when some of the second sec

POSITIONS OPEN

POSTDOCTORAL POSITION IN CELL BIOLOGY/ENZYMOLOGY

A position is available immediately for research on A position is available immediately for research on the regulation of nucleotide biosynthesis in cultured animal cells. Previous experience in animal cell cul-ture and/or enzymology is required. Starting salary is about \$11,000, depending on experience. Send curriculum vitae and names of two references to: Dr. Henry Paulus, Department of Metabolic Regulation, Boston Biomedical Research Institute, 20 Staniford Street, Boston, Mass. 02114. An Equal Opportunity/ Affirmative Action Employer Affirmative Action Employer

POSTDOCTORAL POSITIONS in cell biology/biochemistry available. (i). Project with Dr. Gary Gold-stein involves brain capillary function in vitro. (ii) Project with Dr. Ivan Diamond involves receptor regulation in the nervous system and tissue culture. Send curriculum vitae and names of three references to:

Department of Neurology, M-794 University of California San Francisco, California 94143

POSTDOCTORAL RESEARCH

Applications are invited for a position involving studies on immunological aspects of solid cancers. Background in biochemical and immunochemical techniques required. Experience with radioimmuno-construction that for a possible to the part of the form assay desirable. Excellent salary and benefits. Send curriculum vitae and references to:

Department of Immunochemistry Research Evanston Hospital 2650 Ridge Avenue Evanston, Illinois 60201 An Equal Opportunity Employer

POSTDOCTORAL RESEARCH ASSOCIATE posi-POSIDOCIORAL RESEARCH ASSOCIATE posi-tion available. Biochemist, pharmacologist, or chemist with research experience in drug metabo-lism to work on the metabolism and toxicity of pyr-rolizidine alkaloids in animals. Salary up to \$13,000 will be dependent on experience and qualifications. Applicants should send curriculum vitae and three letters of reference before 15 February 1978 to: Dr. Donald R. Buhler Department of A consolvant Chemistry and

Department of Agricultural Chemistry and Environmental Health Sciences Center Oregon State University Corvallis, Oregon 97331 An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL RESEARCH FELLOW POSTDOCTORAL RESEARCH FELLOW To work on localization of purified protein with immunologic-microscopic techniques or to study protein synthesis by lung cell cul-ture techniques. Please send curriculum vitae to: Dr. Barry L. Fanburg, Pulmonary Division, New England Medical Center Hospi-tal, 171 Harrison Avenue, Boston, Mass. 02111.

RESEARCH ASSOCIATE

Position available for recent Ph.D. in biochemical genetics. Must be experienced in karyological analy-sis, bonding techniques, and tissue culture tech-niques. Familiarity with chemical carcinogenesis and nucleic acid hybridization techniques would be helpful but not necessary. Send résumé and salary requirement to:

Dr. A. Fuscaldo The Cancer Institute Hahnemann Medical College 230 North Broad Street Deil Jahris D. 10100 Philadelphia, Pa. 19102

RESEARCH ASSOCIATE DEPARTMENT OF DERMATOLOGY CASE WESTERN RESERVE UNIVERSITY CLEVELAND, OHIO 44106

Research associate to study the metabolism of drugs, environmental chemicals, and polycyclic aro-matic carcinogens primarily in skin but also in other tissues. Ph.D. and postdoctoral training in pharma-cology or biochemistry preferred. Experience in protein purification and in assessing binding of ra-diolabeled chemicals to cellular macromolecules de-sirable. Send curriculum vitae to:

Dr. David R. Bickers, Professor of Medicine Department of Dermatology University Hospitals 2065 Adelbert Road Cleveland, Ohio 44106

POSITIONS OPEN

RESEARCH ASSOCIATE position available January 1978 to study neuroactive peptides. Isolation, bioassay, and structural analysis by HPLC and MS. Applicant should have experience in protein peptide isolation and derivatization. Salary commensurate with experience. Please send curriculum vitae and two letters of reference to: Dr. J. S. Kittredge, Ma-rine Biomedical Institute, University of Texas Medical Branch, UTMB Substation Box 146, Galveston, Texas 77550. An Equal Opportunity Employer, M/F/H.

RESEARCH ASSOCIATE. Applications are invited for a position as project manager for a project con-cerning the nondesignated 208 water quality work for the state of Indiana. Qualifications: advanced de-gree in environmental science or engineering; thorough knowledge of water quality parameters and as-sessment practices; working knowledge of comput-ers desirable. Salary: \$13,000 to \$16,000 depending on qualifications and experience. Available 1 May 1978 for approximately 1 year (reappointment sub-ject to availability of funds). Résumés should be sent prior to 31 March 1978 to: Dr. John S. Zogorski, En-vironmental Systems Application Center, School of Public and Environmental Affairs, Indiana Universi-ty, Bloomington, Ind. 47401. An Equal Employment/Affirmative Action Employer

RESEARCH PROFESSORSHIP

RESEARCH PROFESSORSHIP Department of Pathology in the College of Medi-cine of the University of Utah is seeking applicants to develop a program in pyrolysis mass spectrome-try which will interface with a number of various re-search programs at the University of Utah. The suc-cessful applicant must possess M.D. and Ph.D. de-grees or an equivalent amount of experience. Since this program will rely heavily upon sophisticated pattern recognition techniques, the applicant must be completely conversant with these techniques. The appointment will be a research professorship with a monthly salary of \$2500. The University of Utah is an Equal Opportunity Employer. Interested applicants should contact: applicants should contact:

> **Mike Harding** Job Service 1234 South Main Salt Lake City, Utah 84147 Telephone: 801-533-2416

SENIOR LIMNOLOGIST

The Environmental Systems Division of Tetra Tech, Inc., has a position available offering challenging long-term research, competitive salary, and excellent career growth potential.

We prefer a Ph.D. with experience in quantitative analysis as well as fieldwork. Biological emphasis is required.

For consideration, submit résumé, including salary requirements, in confidence to:

Dr. Marc Lorenzen Tetra Tech, Inc. 3700 Mt. Diablo Boulevard Lafavette, California 94549 Equal Opportunity Employer, M/F

SENIOR RESEARCH FELLOW IN ATOMIC/MOLECULAR PHYSICS

The University of Maryland and the National Bu-reau of Standards in Washington, D.C., are an-nouncing a 1-year fellowship for a senior research scientist to pursue research at the NBS Synchrotron Ultraviolet Research Facility (SURF). The SURF fellow will hold an appointment in the Institute of Physical Science and Technology at the College Park Campus of the University of Maryland. In addi-tion to his/her research activities at SURF, the ap-onintee will interact with the faculty and students at pointee will interact with the faculty and students at the University, principally through lectures and seminars

seminars. Applications are now being accepted for the aca-demic years 1978–1979 and 1979–1980, with detailed schedule to be negotiated. Salary and faculty rank will be commensurate with current position. We are initially seeking an individual interested in pursuing atomic/molecular physics at SURF. Experience in the use of synchrotron radiation and/or photoelec-tron spectroscopy of gases will be considered partic-ularly valuable for the 1978–1979 appointment. Later appointments may be in other fields. Send résumé, desired starting date, and research plans to:

plans to:

Professor Joseph Silverman Institute for Physical Science and Technology University of Maryland College Park, Maryland 20742

Director, **Center for Visual Science University of Rochester**

The University of Rochester is seeking a senior visual scientist to assume the directorship of its Center for Visual Science. The Center is an interdisciplinary facility, with extensive research and instructional programs in visual psychophysics, sensory physiology, general neurophysiology, op-tics, visual perception, and related aspects

tics, visual perception, and related aspects of cognition. The Center is located in the University's new Psychology Building and many mem-bers hold joint appointments with the De-partment of Psychology. Joint appoint-ments and other active collaborative relationships exist also with: The Institure of Optics, Electrical Engineering, Com-puter Science, Education, and relevant dis-ciplines in the University's Medical School, such as Anatomy, Ophthalmology, and the Center for Brain Research. The Director must have an outstanding record of scien-tific achievement, successful teaching, and administrative experience in aspects of vitific achievement, successful teaching, and administrative experience in aspects of vi-sual science that would justify a tenured appointment in psychology, or another relevant discipline. The Director has de-partment chairman's status in the Univer-sity's College of Arts and Science and is responsible for a substantial budget of Uni-versity funds, grants, and contracts

responsible for a substantial budget of University funds, grants, and contracts. Salary and fringe benefits are negotiable and competitive. The starting date for this appointment is also negotiable, preferably no later than September 1, 1978. A letter of application should be accom-panied by a curriculum vitae and the names of at least three appropriate refer-ences. Address all correspondence to: CVS Director Search Committee, c/o Prof. Forrest L. Vance, Department of Psychol-ogy, University of Rochester, Rochester New York 14627. The University of Rochester is an affirm-ative action, equal opportunity employer

ative action, equal opportunity employer and welcomes applications from women and minority group candidates.

HEAD DEPARTMENT OF GEOLOGY UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

The Department of Geology of the University of Illinois at Urbana-Champaign invites applications for the position of Head of the Department of Geology. Candidates should have the Ph.D. and a demonstrable record of excellence in research and professional leadership in the geological sciences

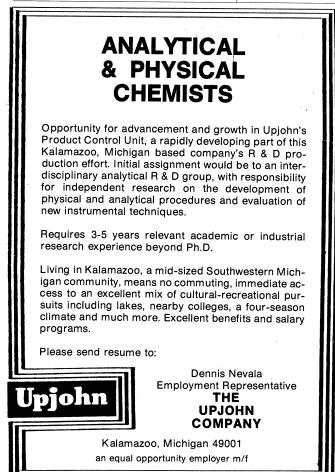
The Geology Department currently has 19 full-time faculty members and grants degrees at the Bachelor's, Master's and Doctoral levels. The Head is responsible for maintaining a high standard of quality in both teaching and research within the Department.

Appointment will normally be made at the rank of Full Professor; salary is open. For equal consideration, applications should be received by March 1. 1978. The desired starting date is August 21, 1978. The University of Illinois is an equal opportunity/affirmative action employer. Interested persons should submit a letter of application, vitae and names of references to the Chairperson of the Search Committee:

Professor Charles Wert Head, Department of Metallurgy and Mining Eng. 201 Metallurgy and Mining Building University of Illinois at Urbana-Champaign Urbana, Illinois 61801

(217)333-1440

SXC



We are a suburban Washington, D.C.-based, multimillion-dollar, diversified professional services firm with current requirements in our biomedical programs area for three very special individuals who possess the following qualifications:

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BIOMEDICAL PROGRAM RESEARCH/PLANNING CONSULTANT

- Individual must have: M.D. or M.D./Ph.D.

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M.D. or M.D./Ph.D.,
 Institutional/research background,
 Capability of assuming a lead role in expanding this program area in both government and commercial activities, and
 Successful experience in, and familiarity with, government/industry bio-medical experience any commenter.

Buccessing experience in, and rammarity with, government/industry oro-medical research sponsoring environments. Potential candidate must be a self-starter, good writer, and may presently be located or affiliated with a medical/biomedical/research-oriented industry, com-pany institution, or university component. Compensation will be based on prior experience and future potential and would include the opportunity for equity in the comporation the corporation.

SENIOR BIOMETRICIAN/EPIDEMIOLOGIST

SENIOR BIOMETRICIA//ETDEMIOLOGIST Individual should have proven scientific competence and accomplishments in medical applications of epidemiological and statistical principles, be adept at interpersonal relations, and be interested in assuming a lead role in business development. Credentials should include pragmatic scientific publications, con-sulting experience, project supervision, and a Ph.D. or a M.D. degree. Experi-ence in cancer, heart, lung, and blood diseases, environmental health problems, occupational safety and health, or health planning is desirable.

MEDICAL SCIENCES OPERATIONS RESEARCH CONSULTANT

Individual should have ten or more years of broad-based experience in biomedi-cal and medical applications of systems operations research analysis/tech-niques. Requisite experience should include information system design, devel-opment, and implementation; and demonstrated ability to assume a user per-spective, interface successfully with clients, and write well. Individual desired should also be growth-oriented, hold an advanced degree in management, and be capable of rapidly adjusting to a highly dynamic and fluid work environment. Additional areas of expertise such as statistics, accounting, finance, or econom-ics are highly desirable. Familiarity with cancer or blood service would be a definite plus.

Please send résumés only to:

No telephone calls, please.

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Karen Wise JRB Associates, Inc. 8400 Westpark Drive McLean, Va. 22101

Equal Opportunity Employer, M/F

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27 JANUARY 1978

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Columbus Children's Hospital and its research foun-dation in cooperation with The Ohio State Universi-ty College of Medicine has an immediate opening for a person in SPONSORED RESEARCH DEVEL-OPMENT. The position requires assisting faculty in program planning sponsor identification, proposal preparation, and other related duties. The applicant should have prior avanciance with Groupserd net preparation, and other related duties. The applicant should have prior experience with sponsored pro-grams and possess writing and other communication skills. A Ph.D. is preferred. An Equal Opportunity/ Affirmative Action Employer. Send résumé and ref-erences to: Stuart W. Williams, Executive Director, Children's Hospital, 700 Children's Drive, Columbus, Obio 43205 Ohio 43205.

TERATOLOGIST

Excellent opportunity to join expanding Midwest ethi-cal pharmaceutical firm. Responsibilities will include the development of a research group to perform te-ratology and segments 1 and 3 reproduction studies, supervision and training of technical personnel, data evaluation, and preparation of reports.

Must have 5 years of industry experience in reproduc-tion toxicology. B.S. or M.S. degree required. Send résumé, including salary history, to

> Box 27, SCIENCE An Equal Opportunity Employer, M/F

Toxicologist

Career opportunity to join a very successful and ex-panding ethical pharmaceutical firm relocating to the Midwest. Responsibilities will include the design and supervision of drug safety evaluation studies, super-vision of the preparation of draft toxicology reports, and preparation of final reports.

Ph.D. in toxicology, pharmacology, or related area with some pharmaceutical industry experience reauired.

Send résumé, including salary history, to: Box 28, SCIENCE An Equal Opportunity Employer, M/F

ASSOCIATESHIPS

RESEARCH ASSOCIATESHIP PHAGE GENETICS

Sizable group using in vitro systems to study mechanisms of control of gene expression, general-ized recombination, viral assembly, and DNA matu-ration in bacteriophage seeks senior postdoctoral fellow. Minimum of 2 years of postdoctoral experi-ence with training in nucleic acid and protein chemis-try, enzymology or microbial genetics. Salary to try, enzymology or microbial genetics. Salary to \$20,000, depending on qualifications. Send inquiries to:

> Dr. Mark L. Pearson Department of Medical Genetics University of Toronto Medical Sciences Building Toronto, Ontario, Canada M5S 1A8

FELLOWSHIPS

PHS POSTDOCTORAL FELLOWSHIPS for research training in etiology of alcoholism. Appli-cations invited from holders of doctorate in health, biological, and behavioral sciences for 2-year ap-pointment beginning 1 July 1978. Stipend: \$10,000 to \$13,200 plus allowance for tuition and research ex-penses. Send curriculum vitae, transcripts, two let-ters of recommendation, and letter outlining research interests and experience to: Marc Schuckit, M.D., Director, Alcoholism and Drug Abuse Insti-tute, NL-15, University of Washington, Seattle, Wash. 98195. Deadline: 1 March 1978; applicants no-tified 15 April. Affirmative Action/Equal Opportunity Employer

FELLOWSHIPS

Two-year POSTDOCTORAL FELLOWSHIP in biochemistry/cell biology available 1 July 1978 at the Jules Stein Eye Institute, University of California, Los Angeles (UCLA). Eligibility limited to United States citizens and permanent residents. Position States citizens and permanent residents. Position should attract someone wishing to work on mecha-nism of phagocytosis and/or chemistry of plasma membranes. Send résumé, statement of research in-terest, and names of three references to: Dr. Michael Hall, Jules Stein Eye Institute, UCLA School of Medi-cine, Los Angeles, Calif. 90024. An Affirmative Ac-tion/Equal Opportunity Employer.

UNIVERSITY OF MELBOURNE POSTDOCTORAL RESEARCH FELLOWSHIP in the DEPARTMENT OF MICROBIOLOGY

Applications are invited from Ph.D. graduates for the above position which is funded by the Australian National Health and Medical Research Council and is available from January 1978 or soon after. The candidate will participate in a programme to develop continuous cell lines derived from immune lympho-outes. Previous experience in outplony, especially in cytes. Previous experience in cytology, especially in the use of fusion hybrid techniques, would be an ad-vantage. The position is available for 2 years with the possibility of renewal.

Salary: \$17,279 per annum.

Inquiries will be welcomed by: Dr. W. Boyle, De-partment of Microbiology, University of Melbourne, Parkville, Victoria, 3052, Australia. Applications re-ferring to position number 526 355 should be ad-dressed to: The Registrar, University of Melbourne, Parkville, Victoria, 3052, Australia.

DEPARTMENT OF MICROBIOLOGY DALHOUSIE UNIVERSITY HALIFAX, NOVA SCOTIA, CANADA

Applications are invited for postdoctoral fellowships to study viral pathogenesis with special emphasis on the role of interferon. Fellowships beginning 1 July 1978 are available for a period of 2 years with an initial stipend of \$12,720 per annum. Candidates should have research experience in the field of animal virology, preferably with an interest in the bio-chemistry of nucleic acid biosynthesis. Appli-cations, consisting of curriculum vitae and names of two referees, should be sent not later than 30 March 1978 to: Dr. K. R. Rozee, Professor and Head, De-partment of Microbiology, Faculty of Medicine, Dal-housie University, Halifax, Nova Scotia, Canada B3H 4H6.

POSTDOCTORAL FELLOWSHIPS

The Department of Human Genetics and Develop-The Department of Human Genetics and Develop-ment of Columbia University, New York, is seeking candidates for NIH postdoctoral fellowships in all major areas of cellular, molecular, and clinical ge-netics. Send letters of inquiry with curriculum vitae to: Dr. Arthur D. Bloom, Chairman, Training Com-mittee-Department of Human Genetics and Develop-ment, Columbia University, 630 West 168 Street, New York N.Y. 10032. New York, N.Y. 10032.

POSTDOCTORAL FELLOWSHIP, protein struc-ture, stability, and assembly mechanisms. Experi-ence with protein and peptide purification methods desirable. Available 1 June; minimum stipend \$11,000 per year, renewable. Send résumé and refer-ence letters to: Dr. D. Wetlaufer, Department of Chemistry, University of Delaware, Newark, Dela-ware 19711. An Equal Opportunity/Affirmative Ac-tion Employer.

THE AMERICAN FUND FOR ALTERNATIVES TO ANIMAL RESEARCH (AFAAR)

Applications are invited for awards by this newly established fund.

Adherence to the following stipulations is a condition of any grant:

- The research project must, in the opinion of the AFAAR board, be likely to lead to the alleviation of human or animal suf-fering or to lead to the advancement of knowledge useful for saving or pro-longing life,
 The project shall not at any stage involve
- The project shall not at any stage involve the use of live animals for experimental purposes, and 2)
- Progress Progress reports shall be submitted to AFAAR from time to time as agreed.

Kindly send for an application form to: AFAAR, c/o Thurston, 175 West 12 Street, New York, N.Y. 10011.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS: 2-year NIMH/ NRSA training program: "Evaluation of Mental Health Care Delivery Systems." Approaches pro-gram evaluation via mathematical modeling and computer simulation. Start; July 1978. Seeking di-verse backgrounds and skills in behavioral and quan-titative sciences, for example, anthropology, eco-nomics, management, public health, urban planning, and so forth; and computer simulation, mathemati-cal statistics, modeling, O.R., topology, and so forth. Current fellows include an anthropologist, mathematical sociologist, and physiological psychol-ogist. For information write: Martin W. Denker, M.D., Department of Psychiatry, College of Medi-cine, University of South Florida, 12901 North 30 Street, Tampa, Florida 33612. Telephone: 813-974-2118.

POSTDOCTORAL FELLOWSHIP, available immediately for research on the structure and function of complex lipids in plants and fungi. Send curriculum vitae and references to: R. A. Laine or R. L. Lester, Department of Biochemistry, University of Kentucky **College of Medicine, Lexington, Kentucky 40506.** A Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIP IN BIOCHEMIS-TRY OF HYPERTENSION. Available July 1978. Ph.D. or M.D. biochemical and immunological char-acterization of angiotensin I converting enzyme and angiotensin II receptor. Some experience with bio-logically active proteins desirable. For further infor-mation, write to: Dr. R. L. Soffer, Departments of Biochemistry and Medicine, Cornell University Medi-cal College, 1300 York Avenue, New York, New York 10021. 10021

POSTDOCTORAL FELLOWSHIP in dermatology, NIH-sponsored (up to 2 years of experience), avail-able immediately for biochemist to study enzymatic able immediately for biochemist to study enzymatic processes and membrane modifications occurring during keratinization of skin in humans and experi-mental animals. Strong emphasis on protein and lip-id chemistry with application to human disease pro-cesses. Send curriculum vitae and two letters of recommendation to: Dr. Melodie M. Buxman, Dermatology, University of Oregon Health Sciences Center, Portland, Oregon 97201.

POSTDOCTORAL FELLOWSHIP-IMMUNOLO-GY. Available June 1978 for new or recent Ph.D. or M.D. to study basic immunology of the lung and/or clinical studies in hypersensitivity pneumonitis, al-lergy, or asthma. Cooperative research and training program between Wood VA Hospital, Medical Col-lege of Wisconsin, and Marquette University. Send curriculum vitae, reprints, and references to: Dr. Pe-ter Abramoff, Biology Department, Marquette Uni-versity, Milwaukee, Wis. 53233. Equal Opportunity/ Affirmative Action Employer. GY. Available June 1978 for new or recent Ph.D. or

Third- or fourth-year **RESEARCH RESIDENCY FELLOWSHIP** position in clinical psychopharma-FELLOWSHIP position in clinical psychopharma-cology. Clinical and laboratory research in psycho-pharmacology. Approved residency program. Candidates should have M.D. from U.S. or Ca-nadian medical school, have completed at least 2 years of psychiatric residency in medical school af-filiated residency program, and be eligible for medi-cal license in Texas. Stipend: \$17,000 to \$20,000, de-pending on level and training. Send curiculum vitre and letter describing experience and interests to: Robert C. Smith, M.D., Ph.D., Chief, Behavioral Neurochemistry, Texas Research Institute of Mental Sciences, 1300 Moursund Avenue, Houston, Texas 77030.

SYMPOSIUM

MICROCOSMS IN ECOLOGICAL RESEARCH 8 to 11 November 1978—Augusta, Georgia

Savannah River Ecology Laboratory, in coopera-tion with University of Georgia's Institute of Ecol-ogy; United States Department of Energy; National Environmental Research Park program; United States EPA's Environmental Research Laboratory, Athens, Ga.; and Electric Power Research Insti-tute's Environmental Assessment Department, will best explosing a superson use of microcorps in tute's Environmental Assessment Department, will host ecological symposium on use of microcosms in ecological research. Symposium format will include presentations by invited speakers, panel dis-cussions, and contributed papers. Abstracts due 1 July; manuscripts due 1 September 1978. For regis-tration and additional information contact: Dr. John P. Giesy, Jr., Symposium Chairman, Savannah River Ecology Laboratory, Drawer E, Aiken, S.C. 29801.

The LKB Adaptable



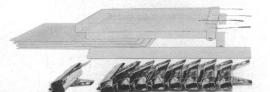
Several techniques in one instrument

LKB Multiphor was designed from the start for use with techniques of today and of the future. Each technique needs only a simple addition to the basic unit.

By running horizontally you can analyse several samples together. This ensures that each sample is subjected to the same running conditions, and it simplifies greatly gel preparation, staining and destaining, as well as storing for future reference.

The very efficient glass cooling plate lets you use the high power of LKB 2103 power supply for high resolution and rapid separations. The safety lid of Multiphor, and interlocks in 2103, protect the user at all times.

Analytical electrofocusing



With the gel moulding set you can make thin layer gels to your own recipes, using Ampholine[®] carrier ampholytes. Ready-to-use Ampholine[®] PAGplates for electrofocusing are also available, prepared under controlled conditions for reproducible results.

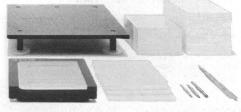
24 samples can be resolved together in under 2 h. Filter paper pieces are simply soaked in the sample solution and placed on the gel. Special electrode lids allow electrofocusing along or across the gel.

Electrophoresis



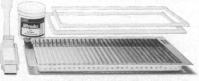
Plug-in electrodes allow electrophoresis in two dimensions, and a voltage probe can be inserted through the lid of Multiphor for checking the field strength. The buffer vessels are designed so that electrolytic products do not contaminate the buffer.

Immunoelectrophoresis



The kit contains gel punchers and templates for the techniques of Grabar & Williams, Laurell and fused rocket, crossed and tandem-crossed immuno-electrophoresis, double and single diffusion.

Preparative flat bed electrofocusing



LKB Ultrodex is a specially-prepared gel for flat bed electrofocusing, for the separation of large amounts of sample. Sample may be applied throughout the gel, or in a narrow zone using a sample applicator. A unique fractionating grid lets you quickly and easily collect the separated fractions.

LKB 2103: an adaptable power supply

The high constant power output of LKB 2103 gives rapid separations with Multiphor. It can also be used in constant voltage and constant current modes to give you optimum separations in isotachophoresis and electrophoresis in other LKB equipment.

For more details on LKB Multiphor and LKB 2103 power supply please contact us.



LKB Instruments Inc. 12221 Parklawn Drive, Rockville, Maryland 20852 Tel: (301) 881-2510

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