LETTERS

(Continued from page 504)

Even though, in my attempt to discuss the scientific understanding of man in a brief essay, I could refer to only a tiny fraction of the large number of contributors to that vast subject, I do, in retrospect, agree with Gyr and Barash that I really ought to have mentioned Piaget's important contributions to the study of cognitive development. Just as Lorenz made the Kantian a priori a part of modern evolutionary biology, so did Piaget bring it into accord with modern ontogenetic biology and the genetic commonplace that the phenotype is the product of a dialectic between genes and environment. I do not agree, however, with Gyr's opinion that Piaget's theory of the connection between thought and sensorimotor processes has brought the central psychological concept of soul or self "well within the range of meaningful scientific study." That theory has indeed "opened the door to a fruitful study of origins and psychological development," but it shares with other structuralist theories the impossibility of validation.

To appreciate the scientific status of Piaget's genetic epistemology, we may consider the example of one of its verifiable empirical consequences offered by Gyr. According to Gyr, the sensorimotor hypothesis provides an argument to show why the human eye is provided with motor systems that cause visual inputs to be transformations imposed by the perceiver on the environment. Whereas it is certainly impressive for a contemporary psychological theory to argue in favor of a fact known to Helmholtz a century ago, it is characteristic of the structuralist nature of the sensorimotor hypothesis that it would not have been falsified by the (conceivably) negative finding that the human eye, like that of the owl, lacks an extraocular musculature. That is to say, Piaget's sensorimotor hypothesis, though couched in quasiphysiological terms, is on an epistemological par with Freud's theory of the Oedipus complex, which also has verifiable empirical consequences, but, nevertheless, cannot be validated by critical experiments or observations. I intend it as no criticism of Piaget when I include him among the structuralists whose theories I categorized as "merely plausible, being, maybe, the best we can do to account for the complex phenomenon of man." On the contrary, I believe that to claim for these theories a status which they do not have is to render their authors a disservice.

GUNTHER S. STENT Department of Molecular Biology, University of California, Berkeley 94720

15 AUGUST 1975

Personnel Placement

POSITIONS WANTED

Bioengineer/Physiologist. Ph.D. 1972. Research inter-ests: applications of signal detection theory to neural data; motor control systems; and sensory information processing. Publications. Teaching experience at grad-uate and undergraduate levels. Experience with digital uate and undergraduate levels. Experience with digital computers, design of physiological instrumentation, biomedical electrode technology, and elec-trophysiology. Seeks junior faculty position in basic science department, with possible joint appointment with department of ophthalmology or neurology. Box 356 SCIENCE X

Experimental Physicist. Ph.D. Extensive academic, reexperimental ruysicst. FinD. Extensive academic, re-search experience. Many publications. Experience in nuclear and atomic physics, Mössbauer spectroscopy, geoscience and medical applications, space program. Producer, host of television science series, consultant. Challenging, responsible senior position sought. Box 357, SCIENCE.

Immunologist, Ph.D. 1966 in microbiology (immunology). Extensive experience in turbrookey (minutology, can-cer cell biology, and tissue culture. Publications. Box 351, SCIENCE. X

Pharmacologist/Physiologist. Research experience, 15 years, in pharmacology and physiology. Desires re-search unit leader position in area of hypertension or shock, with emphasis on the participation of the renin-angiotensin system. Box 358, SCIENCE. X

Ruminant Nutritionist, Ph.D., 2 years of experience university teaching-research, 6 years of industry feed formulation, management, production. Desires aca-demic or industry position. Available immediately. Box 359, SCIENCE. X

Tumor/Molecular Biologist. Ph.D. Seeks research po-sition. Broad background. Fits into new research project easily. Experienced in growing human tumors in vitro and in vivo, breeding nude mice, evaluation of antitumor agents both in vitro and in vivo, and phage genetics. Also familiar with statistics. Publications, Box 360, SCIENCE

Virologist/Immunologist. Ph.D. Over 10 years of university teaching and research experience in virology and immunology. Experienced in infected cell culture studies, radioimmunoassays, clinical virology, and computer modeling of ecosystems and of role of anti-body-forming cells in immune responses. Grants, patents, and publications. Seeks academic or industrial position. Box 361, SCIENCE.

POSITIONS OPEN

ANIMAL AND POULTRY SCIENCE ASSISTANT PROFESSOR-**CONTRACTUAL TERMS**

The Department of Animal and Poultry Science, University of Guelph, Guelph, Ontario, Canada, re-quires an Assistant Professor under contractual terms quires an Assistant Professor under contractual terms with Ph.D. qualifications to conduct research and teach in the area of systems analyses with reference to live-stock and poultry production.

Candidates should submit their curriculum vitae be-fore 30 September 1975 to: W. D. Morrison, Professor and Chairman, Department of Animal and Poultry Sci-ence, Ontario Agricultural College, University of Guelph, Guelph, Ontario, Canada N1G 2W1.

BOTANIST-ECOLOGIST. A position is available at the rank of Assistant Professor to commence 25 Au-gust 1976. Duties include teaching, with another ecologist, an undergraduate course in ecology and evolution to undergraduates for one semester and a course, in the appointee's specialty, for upperclassmen and graduate students in the other semester. Maintaining an active program of research and aiding in the training of gradprogram of research and aiding in the training of grad-uate students is expected. Some preference will be giv-en to candidates interested in physiological ecology or population dynamics. Good laboratory facilities are available. Apply with complete curriculum vitae, tran-scripts, and a list of references sent to: Chairman, De-partment of Botany, University of Iowa, Iowa City, Iowa 52242, by 1 January 1976. The University of Iowa is an Equal Opportunity/Af-firmative Action Employer.

POSITIONS OPEN

ASSISTANT RESEARCH SCIENTIST

Ph.D. to study Drosophila differentiation in vitro with molecular biology techniques. Salary about \$14,000, start approximately 1 September 1975. Sub-mit curriculum vitae, bibliography, two letters of refer-ence, and brief statement of career goals to **Dr. Robert** Secof, Head, Department of Career goals to Dr. Robert Secof, Head, Department of Developmental Biology, City of Hope National Medical Center, Duarte, Calif. 91010.

An Equal Opportunity/Affirmative Action Employer

ASSOCIATE RESEARCH SCIENTIST

Prefer Ph.D. in biophysics or bio-math or master's, plus related experience. Carthogenesis research project related to environmental cancer, utilizing experimental animal research. Send curriculum vitae to Miss M. Kerans, Personnel Department, New York, N.Y. 10016. An Equal Opportunity/Affirmative Action Employer M/F.

BIOCHEMIST Ph.D., or equivalent for the regional service and developmental hemoglobinopathy laboratory associated with the hematology program at McMaster University. The successful candidate would be required to participate actively in the service, educabe required to participate actively in the service, educa-tional and developmental aspects of hemoglobinopa-thies and hemolytic anemias. Experience in these areas would be an asset. Excellent opportunities exist for in-teraction with the various groups in the hematology program. Funding for this position is through the Dis-trict Program for Laboratory Medicine and appropri-ate academic position with McMaster University will a offered Eurther inquiries found to an to M. All be offered. Further inquiries should be sent to M. Ali, M.D., Ph.D., Director of Hematology, St. Joseph's Hospital, 50 Charlton Ave. East, Hamilton, Ontario, Canada

BIOLOGICAL CONTROL AND PEST MANAGE-MENT. Position available for Assistant or Associate MEENI. Position available for Assistant or Associate Entomologist, depending upon training and experience. Research in biological control and integrated pest management of arthropod pests of grape, deciduous tree fruits, and certain field and forage crops of impor-tance in the San Joaquin Valley. Assignment includes application of concepts and methodology of statistical ecology and systems analysis. Training and experience in biological control or nest management and in statisin biological control or pest management, and in statis-tics, systems ecology, and systems analysis essential. Send curriculum vitae, official transcripts, copies of publications, manuscripts, and letters of evaluation from three qualified referees to: Dr. Robert van den Bosch, Division of Biological Control, University of California, 1050 San Pablo Avenue, Albany, California 94706. The University is an Equal Opportunity/Affirmative Action Employer. Women and minority can-didates are urged to apply. Application closing date: 1 September 1975.

The University of Nebraska College of Dentistry is seeking a CHAIRPERSON with teaching responsi-bilities (pathologist preferred) for its Department of Oral Biology and Basic Sciences. Applicants should have demonstrated competence in dental education and research and possess an aptitude for administration. Salary is negotiable. Please send inquiries and appli-Cations containing curriculum vitae, bibliography, and references to: Dr. A. Birk Adams, Chairman, Search Committee, Department of Oral Biology, College of Dentistry, University of Nebraska, Lincoln, Nebraska 68503. The University of Nebraska is an Equal Oppor-twice Eventopere tunity Employer.

CHAIRPERSON

Applications are being solicited for the position of Chairperson in the Department of Anatomy, College of Veterinary Medicine and Biomedical Sciences, Col-orado State University. The department has a faculty orado State University. Ihe department has a facuity of 12, a graduate program, and a teaching commitment to undergraduate allied health and professional veteri-nary programs. Departmental and interdisciplinary re-search activities include neurobiology, oncology, connective tissue research, and cataractogenesis. The demonstrate size heuses and administrare the Laburerity. seaton activities in the search and cataractogenesis. The department also houses and administers the University Electron Microscope Training Program. Applicants should have a D.V.M., M.D., or Ph.D., academic experience in a department offering the Ph.D., an accomplished research and teaching record, and a demonstrated interest in promoting quality instruction. The position is available 1 January 1976, but a later starting date is negotiable. Send résumé by 1 November 1975 to position is available 1 January 1970, but a later starting date is negotiable. Send résumé by 1 November 1975 to Dean William J. Tietz, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, Colorado 80523. Colorado State is an Affirmative Action/Equal Opportunity Employer.

CANCER IMMUNOLOGIST

Ph.D. required. Background emphasis on clinical and diagnostic procedures highly desirable. Experience re-quired. Apply with curriculum vitae and references to:

W. E. Maldonado, M.D., Director Department of Pathology Edward W. Sparrow Hospital 1215 East Michigan Avenue Lansing, Mich. 48902

Applications are invited for a CHAIRPERSON of the Department of Physiology at DUKE UNIVERSI-TY MEDICAL CENTER.

TY MEDICAL CENTER. The University is seeking candidates with a strong academic background and a broad understanding of teaching and research in Physiology. Candidates should also have administrative experience and a dem-onstrated interest in organizing and developing inter-disciplinary teaching and research programs. Applicants should submit a curriculum vitae, list of publications, and the names of three references to Dr. Robert L. Hill, Chairman, Department of Biochemistry, Duke University Medical Center, Durham, North Car-olina 27710. Duke University is an Affirmative Action/Fourd

Duke University is an Affirmative Action/Equal Opportunity Employer. Women and minority can-didates are encouraged to apply.

JEFFERSON MEDICAL COLLEGE

OF THOMAS JEFFERSON UNIVERSITY

Invites nominations and applications for CHAIR-MAN OF THE DEPARTMENT OF PHARMACOL-OGY.

Nominations and applications should be addressed Nominations and applications should be addressed to: Dr. Russell W. Schaedler, Chairman, Pharmacology Search Committee, Department of Microbiology, Jef-ferson Medical College, Thomas Jefferson University, 1020 Locust Street, Philadelphia, Pa. 19107. An Equal Opportunity/Affirmative Action Employer.

Applications are invited to fill the position, effective 1 January 1976, of CHAIRPERSON AND PROFES-SOR of the Department of Entomology at the Univer-sity of Maryland, College Park. The department is committed to a broad teaching program, cooperative committed to a broad teaching program, cooperative extension service programs, pest management pro-grams, and various basic research areas. Applications must be received by 1 October 1975 and should include curriculum vitae and the names and addresses of at least five references. Send applications to Dr. D. M. Caron, Department of Entomology, University of Maryland, College Park, Maryland 20742.

COMPUTERS IN MEDICINE

Faculty position in School of Medicine at rank of Faculty position in School of Medicine at rank of Assistant or Associate Professor to participate in teaching and research activities in the application of computer technology in health sciences. Applicant must be able to teach effectively in areas of data base concepts, information systems, or health record sys-tems. Previous experience in medical or health care ap-plications is essential.

Applications is essential. Applications are encouraged from recent graduates and established faculty. Please reply to Dr. Robin Lake, Department of Biometry, University Hospitals, Cleveland, Ohio 44106. Case Western Reserve University is an Equal Op-

portunity/Affirmative Action Employer.

ECOSYSTEMS ANALYSIS SPECIALIST, ENTOMOLOGY

Full-time research in ecosystems analysis and mod-eling. To develop programs in quantitative population ecology and crop management, forest insect population dynamics, strategies for management of tree fruit pests, consultation on crop management programs. A successful applicant will guide graduate students; fu-ture fractional teaching appointment likely with devel-opment of courses in applicant's areas of interest. Ph.D. required in the biological sciences, background in entomology desirable, interest in working on ento-mological problems necessary. Must be demonstrably in entomology desirable, interest in working on ento-mological problems necessary. Must be demonstrably familiar with computer utilization, analytical mathe-matics, and statistics with appropriate academic train-ing; experience in ecological modeling, particularly population dynamics, highly desirable. Applications can be received until 31 August 1975 or until a suitable candidate is hired. The position will be filled at the As-sistant Entomologist level, commensurate with train-ing. Send résumé or inquiries to: Robert F. Harwood, Chairman, Department of Entomology, Washington State University, Pullman, Wash. 99163. An Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

CHAIRPERSON DEPARTMENT OF ANATOMY

Applications are invited for this position at the Chi-cago College of Osteopathic Medicine. Send curricu-lum vitae and a list of references to: Dr. A. D. Alexan-der, Chairman, Anatomy Search Committee, Chicago College of Osteopathic Medicine, 1122 East 53 Street, Chicago, Illinois 60615. An Fauel Opportunity Funda

An Equal Opportunity Employer

The University of Colorado at Denver is seeking at the rank of assistant professor a **DEVELOPMENTAL BIOLOGIST** with either genetics or microanatomy as a subspecialty. Excellence in teaching and the ability to implement a research program is considered essential. Curriculum vitae including transcripts and the names, addresses, and telephone numbers of three references should be sent to:

Chairperson, Search Committee for Biology Division of Natural and Physical Sciences University of Colorado at Denver 1100 14th St. Denver, Colo. 80202

Search closes 30 September 1975. Position available January or September 1976, depending upon the avail-ability of the candidate. The University is an Equal Opportunity/Affirmative Action Employer.

ELECTRON MICROSCOPE TECHNICIAN want-ELECTRON MICROSCOPE TECHNICIAN want-ed. Must be experienced in all routine procedures and preferably Philips 301 microscope. Opportunity for in-dependent or collaborative research. Excellent living and working conditions. Salary open. Write, giving de-tails of background, to: Dr. S. H. Vernick, Department of Pathology, Eastern Virginia Medical School, Mow-bray Arch, Norfolk, Va. 23501.

OREGON STATE UNIVERSITY

Invites Nominations and Applications for DEAN OF THE SCHOOL OF PHARMACY

Nominations and applications should be ad-dressed to Dr. G. H. Constantine, Jr., Chair-man, Dean Search Committee, School of Phar-macy, Oregon State University, Corvalits, Ore. 97331. An Equal Opportunity/Affirmative Ac-tion Event tion Employer.

EMBRYOLOGIST

Position available as instructor or assistant profes-Position available as instructor of assistant profes-sor, to teach embryology and reproductive biology to medical and dental students. Research interest in devel-opmental biology desirable. Chairman, Department of Anatomy, Medical University of South Carolina, 80 Barre Street, Charleston, S.C. 29401. An Equal Opportunity Employer.

UNIVERSITY OF COLORADO SCHOOL OF PHARMACY

SCHOOL OF PHARMACY FACULTY POSITION CLINICAL PHARMACIST IN AMBULATORY CARE The University of Colorado School of Pharmacy an-nounces the full-time faculty position of Clinical Phar-macist in Ambulatory Care. This position involves the development of clinical pharmacy services in an am-bulatory care area and serving as an educator in a role-model for fifth-year clinical students. Responsibilities model for fifth-year clinical students. Responsibilities will include supervision of ambulatory care rotations, participation in the classroom teaching of clinical pharmacy, and some involvement in the continuing education program.

tion program. Applicants having a Ph.D. or Pharm.D. degree and a minimum of 1 year of experience in ambulatory care service are sought. In addition, experience in teaching and institutional pharmacy are most desirable. The po-sition is a full-time (12-month) appointment with sala-

stion is a full-time (12-month) appointment with sate ry and academic rank commensurate with experience. The University of Colorado is an Equal Opportunity Employer complying with all aspects of the Affirma-tive Action Program. Minority and female candidates are encouraged to apply.

Applications for the position must be received by 15 September 1975 and should be submitted to:

Dr. Richard J. Kraemer, Assistant Dean Chairman, Search Committee for Clinical Faculty University of Colorado Medical Center School of Pharmacy, Box C-238 4200 East Ninth Avenue Denver, Colo. 80220

POSITIONS OPEN

ELECTRON MICROSCOPIST

Position open for electron microscopist in the Depart-ment of Microbiology. The level of the position and salary are open and depend upon training and experi-ence. Send curriculum vitae to: Chairman, Department of Microbiology, Vanderbilt University School of Medi-cine, Nashville, Tenn. 37232. Telephone: 615-322-2087. An Equal Opportunity/Affirmative Action Employer.

In Denver, position of EXECUTIVE DIRECTOR to newly formed Colorado Governor's Energy Policy Council. Role of the six-member council is to deter-Council, Role of the six-member council is to deter-mine the state's policy and functions in energy devel-opment, supply and use, interrelations with federal agencies, and state agency activities. Qualifications sought in Executive Director include managerial ad-ministrative capability, technical expertise in energy-related field, and policy development experience. Exec-utive Director will recruit small staff. Salary is \$30,000 plus, depending on experience. Equal Opportunity Em-loyer ref. player. Send complete résumé, including employer ref-erences, to: Energy Policy Council, Governor's Office, State Capitol, Denver, Colorado 80203.

FACULTY POSITION IN INDUSTRIAL HYGIENE

Faculty position at the Assistant Professor level in the Department of Biomedical and Environmental Health Sciences, School of Public Health. Applicants should possess the Ph.D., Sc.D., or Dr.P.H. degree, demonstrated research and professional competence, and a commitment to teaching in industrial hygiene. Salary negotiable. The School is committed to a strong affirmative action policy. Women and minorities are especially urged to apply. Submit curriculum vitae, publications, and letters of reference by 1 November 1975 to Robert C. Cooper, School of Public Health, University of California, Berkeley, Calif. 94720. Faculty position at the Assistant Professor level in

Applications are invited for a temporary faculty po-sition in **GROSS ANATOMY** at our institution.

We are able to make a commitment for this position only for the school year, 1975-76. We will, however, entertain a wide variety of possibilities, from acting in-structor to visiting professor rank, with some latitude in time of employment.

In time of employment. The candidate should have a suitable background in gross anatomy, preferably with additional experience in aspects of human embryology and clinical correla-tion. Duties will include participation in lectures and laboratory instruction for 100 freshman medical stulaboratory instruction for 100 freshman medical stu-dents and anatomy majors during the fall and winter quarters. Facilities are available for various research activities. Please write to: Webster S. S. Jee, Acting Chairman, Department of Anatomy, College of Medi-cine, University of Utah, Salt Lake City, Utah 84132. The University of Utah is an Equal Opportunity Em-ployer. plover.

HEAD, DEPARTMENT OF BIOLOGICAL SCIENCES

BIOLOGICAL SCIENCES The Department of Biological Sciences, University of Idaho, seeks a Head effective 1 July 1976. The de-partment has 19 faculty members and responsibilities in teaching, research, and service appropriate to a pub-lically supported university. Candidates must have a publications, manuscripts, and letters of evaltion record, a dedication to excellence in teaching and con-tinuing research, and successful administrative experi-ence. Send qualifications including curriculum vitae and three letters of reference to: Dr. A. W. Rourke, De-partment of Biological Sciences, University of Idaho, partment of Biological Sciences, University of Idaho, Moscow, Idaho 83843.

The closing date is 16 October 1975 and may be ex-tended until suitable applicant applies. The University of Idaho is an EEO/AA employer.

HEAD, DEPARTMENT OF BIOCHEMISTRY

The University of Illinois College of Medicine in-vites applications and nominations for the position of Head, Department of Biochemistry, in the School of Basic Medical Sciences. The Department is presently constituted of 15 faculty with research programs. Applicants should possess a distinguished record in both research and teaching, as well as administrative obility.

both research and teaching, as wer as administrative ability. Send nominations and applications to: Dr. G. di Mayorca, Chairman, Search Committee, Department of Microbiology, 835 South Wolcott Avenue, Chicago, Illinois. Mailing address: P.O. Box 6998, Chicago, Illi-nois 60680.

The University of Illinois is an Affirmative Action Employer.

SCIENCE, VOL. 189

ENDOCRINE CHEMIST: Ph.D. in biochemistry or closely related discipline with research experience in endocrinology, RIA, and isotopes. Job includes directing an active endocrinology laboratory in a 1100-bed hospital, methodology research and development, with simultaneous clinical investigation in collaboration with Head, Section of Endocrinology. Send references to: **Z. Chek**.

Send résumé and names of references to: Z. Chakmakjian, M.D., Baylor University Medical Center, 3500 Gaston Avenue, Dallas, Texas 75246. An Equal Opportunity Employer.

DEPARTMENT HEAD

Nominations and applications are invited for Head of the Chemistry Department. Programs include doctoral. Teaching experience, research publications, and earned doctorate are required. Continuing research encouraged. Preferred starting date 15 September 1976. Salary competitive. Please contact Professor Paul Garn, Chairman of Search Committee, Chemistry Department, The University of Akron, Akron, Ohio 44325. An Equal Opportunity/Affirmative Action Employer.

HEALTH SERVICES RESEARCH EXPERT

Immediate opening at University of Vermont College of Medicine and Medical Center Hospital for qualified M.D. and/or Ph.D. with demonstrated skills and experience to serve as research director for major, well-funded 2-year evaluation of computerized, problem-oriented record system. Position requires solid working knowledge of experimental design, methods of evaluating health care quality, and familiarity with problems involved in conducting health services research in busy patient-care setting.

problems involved in conducting health services research in busy patient-care setting. Salary competitive, study resources and staff present, exact academic appointment negotiable. Earliest possible starting date desired no later than 1 October 1975. For details write or call: Chairman, Department of Medicine, University of Vermont College of Medicine, Burlington, Vermont 05401, or telephone 802-656-2574.

An Equal Employment Opportunity/Affirmative Action Employer

POSITIONS OPEN

EXPERIENCED HYDROLOGIST OR HYDRO-GEOLOGIST with management background to fill a demanding and responsible position. Hydrologists, hydrogeologists, or engineers with experience in technical aspects of water resources management and/or proficiency in technical analysis of surface and ground water problems. Positions offer challenging opportunities for professional growth. Send résumés to: The Southwest Florida Water Management District, Personnel Department, P.O. Box 457, Brooksville, Florida 33512. Telephone: 904-796-7211. Equal Opportunity Employer

DEPARTMENT OF ANATOMY AND CELL BIOLOGY UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE

Applications are invited for a full-time faculty position at the level of Instructor or Assistant Professor from candidates with accomplishments in the teaching of gross anatomy, and possibly neuroanatomy. Completed postdoctoral study is preferred. Applicants should be prepared to initiate independent research programs, preferably in the neurobiological field, and to fund these from extramural sources, after an initial period of departmental support. Please submit a curriculum vita and an outline of research plans to: Dr. Nikolajs Cauna, Chairman, Department of Anatomy and Cell Biology, 820 Scaife Hall, University of Pittsburgh, Pittsburgh, Pennsylvania 15261.

An Equal Opportunity, Affirmative Action Employer

LECTURER, ASSISTANT RESEARCH NEURO-PHYSIOLOGIST. To supervise undergraduate laboratory courses in psychobiology, teach lecture course in neural systems, and perform research on transmitter action in the hippocampus. Must have a doctorate, expertise in bioelectronics, and experience in multibarrel iontophoretic techniques. Send résumé no later than 25 August 1975 to Dr. N. M. Weinberger, Professor and Chairman, Department of Psychobiology, School of Biological Sciences, University of California, Irvine, Calif. 92664. Applications from all qualified candidates are welcome; applications from minorities and women are encouraged.

POSITIONS OPEN

HEALTH SCIENTIST ADMINISTRATOR

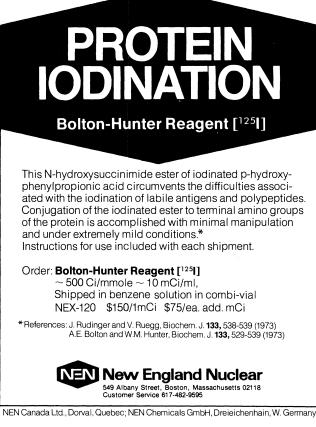
The National Institute of General Medical Science, National Institutes of Health, Public Health Service, has position available for Health Scientist Administrator, GS-601-13/14 (\$21,816 to \$25,581). Ph.D.-level scientist with administrative experience desired with emphasis in either molecular, population, or medical genetics. Responsible for scientific development, administration and evaluation of national research grants, research training grants, and research fellowships utilized in the Genetics Program. Send curriculum vitae, bibliography to Public Health Service, National Institutes of Health, National Institute of General Medical Sciences, Personnel Office, Building 31, Room 4A-33, 9000 Rockville Pike, Bethesda, Maryland 20014.

LUNG CELL BIOLOGIST

Research position for Cell Biologist to work as part of interdisciplinary effort oriented to further understanding of the effects of environmental and energyrelated agents on lung tissue. Experience in biochemistry, autoradiography, histochemistry, and electron microscopy desirable. Opportunity to participate in graduate-level teaching. Send résumé to: Dr. W. S. Taylor, Director, California Primate Research Center, University of California, Davis, Calif. 95616. The University of California is an Equal Opportunity Employer. We encourage applications from persons regardless of sex, ethnic, or racial background.

POSTDOCTORAL LUNG RESEARCH PROGRAM

U.C. Davis postdoctoral fellowships available in lung biochemistry, physiology, and pathobiology for 1975-76 and 1976-77. Program designed primarily for those interested in interdisciplinary approaches to studies of lung diseases, especially those relating to environmental toxicology. Applicants must be committed to academic or research careers. Send résumé to: Dr. C. E. Cross, Section of Pulmonary Medicine, School of Medicine, University of California, Davis, Calif. 95616. The University of California is an Equal Opportunity Employer. We encourage applications from persons regardless of sex, ethnic, or racial background.



ASSOCIATE DIRECTOR For Clinical Care, NIH

DIRECTOR, The Clinical Center

The National Institutes of Health invites nomination and applications for the position of Associate Director for Clinical Care, NIH/Director, The Clinical Center. The Clinical Center is a 500 bed research hospital in which 10 research Institutes conduct clinical investigations. The incumbent is responsible for the leadership and direction of this program, and for advising the Director, NIH on policies relating to clinical research.

Applicants should have a doctorate in medicine and demonstrated achievement in clinical research. The position requires a high degree of scientific knowledge, leadership and executive ability.

Position will be filled by appointment to the U.S. Public Health Service Commissioned Corps or to a top U.S. Civil Service grade. Salary will range between \$36,000 and \$45,000 depending on qualifications. Letters of interest, curriculum vitae, and bibliography should be sent to the Chairman of the Search Committee:

Dr. Phillip Gorden, Clinical Director National Institute of Arthritis, Metabolism and Digestive Diseases

NATIONAL INSTITUTES OF HEALTH

Public Health Service Building 10, Room 9N-222, Bethesda, Maryland 20014

An Equal Opportunity Employer

IMMUNOLOGIST. Associate Professor. Individual must have proven outstanding research contributions in the area of cellular immunology. Background and research interests preferred: cell culture, metabolism of nucleic acids, proteins, and cyclic nucleotides. Present research area preferred is the regulation of antibody synthesis. The candidate should also have a broad background in molecular biology and an interest in bi-ological regulatory mechanisms. The candidate should demonstrate an existing vigorous research program. The successful candidate would be expected to partici-pate in the instruction of medical students, underparduate and graduate students, and would also be ex-pected to direct the research of graduate students and postdoctoral fellows. Ph.D. required. Postdoctoral ex-perience strongly preferred. Applications from quali-fied applicants are welcome: minorities and women are encouraged to apply. The application deadline is 8 Sep-tember 1975. Applications consisting of curriculum vitae and the names of three references should be sent

Dr. Paul S. Sypherd Department of Medical Microbiology University of California, Irvine Irvine, California 92664

NEUROBIOLOGIST

Applications are invited from individuals with a Ph.D. and/or M.D. degree and independent research experi-ence for a senior or junior faculty position. Candidates must have interest in and ability to conduct research programs relating cellular and molecular function to programs relating cellular and molecular function to neuronal ultrastructure, a working knowledge of regu-latory biochemistry and neuromorphology, and re-search experience in areas such as neuronal differ-entiation, cellular plasticity, or synaptic and active membrane function. Please send curriculum vitae, a brief description of experience and currient interests, a statement of present research support, and the names and addresses of at least three references to: Neurobiol-ogy Search Committee, Worcester Foundation for Ex-perimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545. An Equal Opportunity/Affirmative Ac-tion Employer.

Immediate openings available for RECENT Ph.D.'s in biochemistry with training in enzymology and tissue culture or bioenergetics. Work involves basic research culture or bioenergetics. Work involves basic research in the fields of lipid synthesis or bioenergetics. Salary \$11,000. Send curriculum vitae and references to: De-partment of Biochemistry, Public Health Research In-stitute, 455 First Ave., New York, N.Y. 10016.

An Equal Opportunity Employer

PHYSICAL OCEANOGRAPHER

Theoretically oriented physical oceanographer having interests in coastal, shelf, and shelf break processes. Excellent opportunity to develop programs based on ongoing field work in the North Pacific and Bering Sea. Participation in graduate oceanography teaching program will be expected. Permanent faculty position with salary and rank dependent upon qualifications. Con-tact: Dr. Donald W. Hood, Director, Institute of Ma-rine Science, University of Alaska, Fairbanks, Alaska 99701. An Affirmative Action/Equal Opportunity Emplover.

POPULATION GENETICIST. Assistant professor **POPULATION GENETICIST.** Assistant professor preferred. Higher level may be considered. Research interests in population genetics supported by broad background in genetics and strength in population ge-netics theory. Undergraduate and graduate teaching. Applicants to provide biographical sketch, graduate transcripts, copies of publications, three confidential reference letters, outline of research interests, and statement of teaching capabilities, experience, and in-terests. Applications received after 1 October 1975 can-not be assured consideration. Applications from minot be assured consideration. Applications from mi-norities and women are encouraged. Address appli-cations and inquiries to: Franklin D. Enfield, Depart-ment of Genetics and Cell Biology, 254 BioScience Center, University of Minnesota, St. Paul, Minnesota 55108.

An Equal Opportunity Employer

POSTDOCTORAL POSITION in insect pathology for in-depth study of either a cytoplasmic polyhedrosis virus or microsporidian pathogens of blackflies. Re-search to be integrated into an overall program aimed at developing microbial agents for blackfly control. Ex-perience with pathogens of biting Diptera highly desir-able. Send letter of application including résumé and names of three referees to: Dr. Marshall Laird, Direc-tor, Research Unit on Vector Pathology, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1C 5S7.

POSITIONS OPEN

PHYSIOLOGIST/CELL BIOLOGIST

Research position available for recent Ph.D. to work on physiologic and morphologic problems of epithelial transport. Send curriculum vitae and names of two ref-erences to: Vincent A. DiScala, M.D., Chief, Renal Service, U.S. Public Health Service Hospital, Staten Island, New York 10304.

POSTDOCTORAL POSITION available at once for studies on the role of mitochondrial monoamine oxi-dase in the metabolism of biogenic amines. Experience in mitochondrial or membrane biochemistry and/or in in mitochondrial or memorane blochemistry and/or in biogenic metabolism is essential. Knowledge of and ex-perience in ultrastructural approaches to membrane structure/function are desirable. Send curriculum vitae and letters of recommendation to: John W. Greenawalt, Descenave of Used Department of Biotenaviety. The Professor and Head, Department of Biochemistry, The University of Tennessee, Knoxville, Tenn. 37916. Affirmative Action/Equal Opportunity Employer

UNIVERSITY OF MASSACHUSETTS AMHERST

Postdoctoral Position: Person trained in tissue culture or lipid metabolism to study fatty acid transport and utilization in arterial endothelial and smooth muscle cells. Department has several groups working on mem-brane structure and function with excellent cooperation brane structure and function with excellent cooperation among the groups; position offers opportunity to work on these cooperative projects. Available immediately, for 1 year, renewable. Résumé to: Linda Slakey, Bio-chemistry Department, Graduate Research Center, Uni-versity of Massachusetts, Amherst, Mass. 01002. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS—Organic Chemist: Work to involve synthesis of chemical carcinogens in conjunction with biomedical research team. **Analytical** conjunction with biomedical research team. Analytical Chemist: Analysis of body fluids of animals treated with chemical carcinogens. Contact: John L. Seymour, Pathology Department, University of Wisconsin, Madi-son, Wisconsin 53706. Telephone: 608-263-3524.

Equal Opportunity Employer

POSTDOCTORAL POSITION. Immediate opening with project in somatic cell genetics; will involve mu-tant isolation, somatic cell hybridization, human gene tant isolation, somatic cell hybridization, human gene mapping, viral gene transfer in mammalian cells, and regulation of gene expression. Candidates must have Ph.D. in biology, microbiology, or biochemistry. Start-ing salary \$8500. Send résumé to: Dr. Teh-Sheng Chan, Physiology Department, University of Connecticut Health Center, Farmington, Conn. 06032. An Equal Opportunity Employer.

POSTDOCTORAL POSITION. Individual with a re-POSTDOCTORAL POSITION. Individual with a re-cent Ph.D. for immediately available position carrying the title of **Research Instructor**. Training and/or expe-rience in microbial biochemistry/physiology with an interest in electron microscopy desirable. Send detailed résumé to: Dr. M. L. Higgins, Department of Micro-biology and Immunology, Temple University School of Medicine, Philadelphia, Pa. 19140. An Equal Opportu-nity/Affirmative Action Employer.

POSTDOCTORAL POSITION available for work on development of new radio chemical detection system for solar neutrinos. Experience in radio chemistry or nuclear chemistry desired. Send résumé to: Chairman, Chemietry Desertement Prochemen Netional Labora Chemistry Department, Brookhaven National Labora-tory, Associated Universities, Inc., Upton, L.I., New York 11973.

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POSTDOCTORAL POSITION

Recent Ph.D. in biochemistry to study cytochrome P-450 in invertebrates, available immediately to U.S. citi-zens or permanent residents. \$10,000 tax-free. Send Curriculum vitae, including two letters of reference, to: Dr. M. Agosin, Department of Zoology, University of Georgia, Athens, Ga. 30602.

POSTDOCTORAL POSITION available for studies on the molecular properties of the steroid receptors. Biochemical background, preferably in protein isolabiotentical background, precleanly in protein isolar complex analysis. Applicants should submit a curricu-lum vitae, transcript, and have two letters of recom-mendation sent to: Dr. A. C. Notides, Department of Pharmacology, University of Rochester, School of Med-icine, Rochester, N.Y. 14642.

POSITIONS OPEN

POSTDOCTORAL POSITION

Available immediately to investigate changes in bio-chemical properties of cell surface of normal and viruswith techniques for isolate on hormar and whose with techniques for isolation and characterization of proteins is required. Stipend \$10,000, plus fringe bene-fits. Send curriculum vitae, including research back-ground, and references to:

Dr. Prasanta Datta Department of Biological Chemistry The University of Michigan Medical School Ann Arbor, Michigan 48104

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POSTDOCTORAL POSITION

Biochemist or molecular biologist to work on synthesis and assembly of protein of dual genetic origin. Imme-diate opening, \$10,000 a year. Send résumé and three letters of recommendation to:

Dr. Harry Roy Department of Life Sciences Polytechnic Institute of New York 333 Jay Street Brooklyn, New York 11201 Equal Opportunity Employer

University of California, Irvine. Several positions available for **POSTDOCTORAL FELLOWS**, begin-ning 15 September 1975, in the Center for Pathobiol-ogy. Recent Ph.D. required, preferably in the area of cell biology, developmental biology, or genetics. Can-didates to work on problems of pattern formation, de-termination or morphogenesis in hydra (with Drs. R. D. Campbell or H. R. Bode), *Drosophila* (with Drs. R. J. Bryant or H. A. Schneiderman), or amphibian ap-pendages (with Dr. S. V. Bryant). *Applications from all qualified candidates are welcome; minorities and wom-en are encouraged to apply*. Send résumé, the names of three references, and a brief description of research in-terests to: Dr. S. V. Bryant, Center for Pathobiology, University of California, Irvine, Irvine, Calif. 92664, by 31 August 1975.

POSTDOCTORAL RESEARCH

Applications are invited for a position involving studies on immunological aspects of solid cancers. Experience in cellular immunology required. Some biochemical background desirable. Excellent salary. Send curricu-lum vitae and names and addresses of three persons familiar with your work to Box 362, SCIENCE.

An Equal Opportunity Employer

The University of Lethbridge offers the following employment opportunity: **Position: POSTDOCTORAL RESEARCH FEL- LOW** in physiological psychology (preferably with in-terest in hippocampal function). **Salary: \$850** per month with possible stipend for as-resident explanation the Dependence of Banchology.

Sociated teaching in the Department of Psychology. Commencement Date: 1 September 1975. Applications should be directed to: Dr. Ian Whishaw, Department of Psychology, The University of Leth-bridge, 4401 University Drive, Lethbridge, Alberta, T1K 3M4, Canada.

POSTDOCTORAL RESEARCH POSITION

Position for Postdoctoral Fellow available 1 Sep-tember. Recent Ph.D. required, preferably in biochem-istry, biology, or chemistry, to work in the area of pro-tein synthesis with Dr. K. Moldave. Other positions may also be available to work in the areas of metabolic may also be available to work in the areas of metabolic regulation (with Dr. S. Arfin), protein chemistry (with Dr. D. Piszkiewicz), enzymology (with Dr. K. Ibsen), and cell biology (with Dr. J. Clark). *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply*. Send résumé, names of two references (or letters), and a brief description of research interests to: Postdoctoral Committee, Depart-ment of Biological Chemistry, University of California, Irvine, College of Medicine, Irvine, California 92664, by 1 September.

POSTDOCTORAL-MICROCALORIMETRY, ul-**FUSTIOUCIUKAL**—MICKOCALORIMETRY, ul-tracentrifugation, protein isolations. Bioluminescence and energetics of protein reactions. Immediate open-ing. Send résumé to Neal Langerman, Utah State Uni-versity, Department of Chemistry-UMC 03, Logan, Utah 84322.

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SCIENCE, VOL. 189

ENGINEER / BIOMEDICAL ENGINEER

The National Institutes of Health in Bethesda, Maryland is recruiting for Chief of Biomedical Engineering and Instrumentation Branch, Division of Research Services. The Branch, a national focal point for biomedical engineering, has 110 professional and support staff, and provides direct and consultative engineering support to clinical and biomedical research programs including systems analysis, research design, development, fabrication, equipment maintenance and repair. The position requires either major competence in engineering (preferably at the doctorate level) with a biomedical background or biomedical science background with in-depth engineering experience; demonstrated managerial expertise; demonstrated ability to communicate with individuals at all organizational levels and with varying educational experience; and sensitivity to the aspirations of minorities and women. Salary range of \$34,607 to \$36,000 dependent upon qualifications. Applicants should contact Rebecca Wilner, Personnel Officer, Division of Research Services, by calling collect at 301-496-5621.

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Public Health Service

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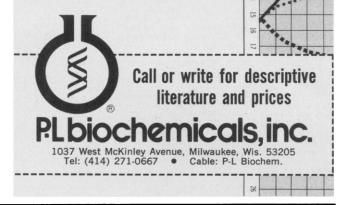
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A Medicinal/Organic Chemist with a Ph.D. degree and industrial experience in design and synthesis of CNS drug candidates is required for our expanding program.

Primary responsibility will be to design and synthesize CNS active drugs. We seek a creative individual who can generate and conduct his own research program.

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Due to continued growth and expansion, ICI UNITED STATES, INC., presently has a vacancy for a Neurochemist.

The position requires a Ph.D. degree in Pharmacology or Biochemistry with a minimum of 1.3 years Post-Doctoral or Industrial Research experience in CNS Pharmacology. Previous experience involving studies of the biochemical mechanisms of centrally acting drugs is desirable. This position will also be an integral part of the drug discovery team and will permit substantial individual latitude in generating and leading CNS research programs.

We offer an excellent salary and benefits package, convenient suburban location and a highly professional environment with excellent growth prospects due to planned expansion. Reply in complete confidence including salary requirements to:

> S. Wyant Professional Employment

ICI United States Inc. Wilmington, DE 19897

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PHYSICIAN with specialty interest and experience in tissue typing serology and newer histocompatibility techniques. Cross appointment with the Medical Re-search Council Transplantation Group (University of Alberta) or Department of Clinical Medicine is envis-aged for suitable applicants. Please reply to: Dr. H. E. Bell, Chairman, Department of Laboratory Medicine, University Hospital, Edmonton, Alberta, Canada T6G

POSTDOCTORAL TRAINEESHIPS IN MEM-BRANE BIOLOGY. Three-year interdisciplinary pro-gram on membrane molecular biology of mammalian cells. Two positions (\$11,000 to \$13,000) available im-mediately to qualified candidates with M.D. or Ph.D. Send résumé and two letters of reference to: Dr. D. F. H. Wallach, Division of Radiobiology, Department of Therapeutic Radiology, Tufts-New England Medical Center, 171 Harrison Ave., Boston, Mass. 02111.

PRE- AND POSTDOCTORAL POSITIONS are available for studies on the protein synthesizing system with special emphasis on ribosomes—topography, biogenesis, and function—under various conditions of biogenesis, and function—under various conditions of growth and development. Teaching opportunities avail-able. Reply with résumé to: **Professor Bruce H. Sells**, Laboratories of Molecular Biology, Faculty of Medi-cine, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1C 5S7.

Position: Professor and Head, Department of Biochemistry

Responsibilities to be fulfilled: Direct the education, research, and training programs of the Biochemistry Department in the College of Medicine. Qualifications desired: Ph.D. and/or M.D. degree, or equivalent, and a demonstrated scholar and leader in

Biochemistry.

Salary: Appropriate for qualifications and responsi-bilities for a Professor and Head of Biochemistry. Ex-

cellent fringe benefits. Employer: The University of Iowa, Iowa City, Iowa 52242, is an Equal Opportunity Employer. Application: Interested persons are invited to direct inquiries and submit curriculum vitae to:

Dr. T. R. Tephly, Professor Department of Pharmacology College of Medicine University of Iowa Iowa City, Iowa 52242

RADIATION BIOLOGIST

Doctoral degree with 2 years of experience with trans-plantable tumor systems and studies of normal tissue response to radiation, to assist with a study of hyper-thermia and radiation on tumor and normal tissues. Should develop independent research in general area of experimental oncology. Send résumé and two refer-ences to Dr. Edward L. Gillette, Director of Com-parative Oncology, Department of Radiology and Radi-ation Biology, Colorado State University, Fort Collins, Colo. 80523. An Affirmative Action/Equal Opportu-rity Employer. nity Employer.

RESEARCH ASSISTANT PROFESSOR—Position requires Board certification in pathologic anatomy and requires Board certification in pathologic anatomy and clinical pathology. Applicant must have experience in research with publications. The research will be con-cerned with the biology and immunology of human malignant melanoma and certain analogous systems in the guinea pig. Reply to: Ms. O. Kushch, Temple Uni-versity Medical School, 3401 North Broad St., Phila-delphia, Pa. 19140. An Equal Opportunity, Affirmative Action Fundover Action Employer.

The Michigan Cancer Foundation, a private, universi-ty-affiliated research foundation, has two openings for postdoctoral **RESEARCH ASSOCIATES**:

(1) Chemical Carcinogenesis: Molecular Biologist to study the effect of DNA repair on mutagenesis and on-cogenic transformation of human cells in culture by radiation or chemical carcinogens.

(2) Molecular Biology: Biophysicist, Molecular Biologist, or Biochemist for analysis of the transformation of human cells by RNA tumor viruses and/or chemical carcinogens, utilizing nucleic acid hybridization techniques. Experience with nucleic acids desirable.

Applications, including complete curriculum vitae, re-prints, and list of references should be submitted to: Dr. J. J. McCormick or Dr. V. M. Maher, Michigan Can-cer Foundation, 110 East Warren Ave., Detroit, Mich. 48201.

POSITIONS OPEN

POSTDOCTORAL TRAINEESHIPS ENVIRONMENTAL SCIENCES/STATISTICS

The Departments of Oceanography and Statistics at the Florida State University invite applications for two postdoctoral NIH traineeships from individuals interested in an interdisciplinary program of study in envi-ronmental health measurement and statistics. One po-sition is available for a Ph.D. in a basic science and one for a Ph.D. in statistics or biostatistics. Informal in-quiries are encouraged. Apply to the program director: Professor F. W. Leysieffer, Department of Statistics, Florida State University, Tallahassee, Florida 32306. Telephone: 904-644-3034. Closing date: 15 September 1075

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RESEARCH BIOCHEMIST: Recent Ph.D. recipient to collaborate in studies on paramyxoviruses. Experience in molecular virology, radioimmunoassays, or nu-cleic acid hybridization desirable. Send résumé and let-ters of reference to: Dr. F. E. Payne, Department of Epidemiology, School of Public Health, The University of Michigan, Ann Arbor, Michigan 48104.

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CANCER

CENTER

We are seeking a senior investigator with demon-strated experience and in-terest in the biochemistry terest in the biochemistry and mechanism of action of antitumor agents. The position would serve as a bridge between the basic and clinical sciences, and closely collaborate with our clinical oncology group. A person with an M.D. degree would be pre-ferred although this is not icentific and funding record

a requirement. A proven scientific and funding record is essential. Adequate facilities, space, and some techni-cal assistance will be made available to the successful candidate. Interested applicants should send a curricu-lum vitae, list of publications, and names of three references to: L. S. Harris, Chairman, Department of Phar-macology, Medical College of Virginia, Virginia Com-monwealth University, Box 27, Richmond, Virginia 23298

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Applications are invited for a **SENIOR NEURO-ANATOMIST** position to begin on or before 1 July 1976. Position will include responsibilities in the neuro-anatomy teaching program for medical and graduate anatomy teaching program for includar and graduate train-ing program. It is expected that the successful appli-cant will have an established program of high quality research involving some aspect of neurostructure. Qualified individuals should submit current curriculum include the bit is with current curriculum vitae including bibliography to:

Department of Anatomy University of Iowa College of Medicine, 1-470 BSB Iowa City, Iowa 52242

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

STATISTICIAN, Ph.D. with biological, medical back-ground needed for senior position in established data center, clinical cooperative studies on cancer, universi-ty setting, Brussels; English required, French desirable; approximately \$25,000 per year. Send curriculum vita to: Dr. M. Staquet, Institut Bordet, 1 rue Héger-Bordet, 1000 Brussels, Belgium.

VETERINARIAN VACANCIES

The Plum Island Animal Disease Center of the USDA's Agricultural Research Service has immediate openings for **Research Veterinary Medical Officers** at Grades **65**-11, 12, or 13 (\$15,481 to \$28,359) and a **Veterinary Pathologist**, **GS**-12-15 (\$18,463 to \$36,000). Incumbents will conduct basic and/or applied research on the pathogenesis, diagnosis, pathology, and/or con-trol of foot-and-mouth disease and/or other exotic dis-eases of animals. U.S. citizens will be considered with-our regard to race, color, religion, sex, age, or national out regard to race, color, religion, sex, age, or hallohad origin. All positions require (as a minimum) the posses-sion of a D.V.M. degree plus experience which has demonstrated the ability to perform research. Credit will be given for advanced training. Plum Island Animal Disease Center, USDA, Agricultural Research Service, P.O. Box 848, Greenport, New York 11944. Attention: William E. Burgess, Personnel Officer.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS IN MEDICAL GENETICS

Positions are available immediately and in July 1976 to M.D.'s and Ph.D's for broad training in the clinical and research aspects of medical genetics (including ge-netic counseling, dysmorphology, cytogenetics, devel-opmental genetics, biochemical genetics, and somatic cell genetics).

Write for application forms and further information to:

Dr. Charles J. Epstein Department of Pediatrics University of California San Francisco, Calif. 94143

POSTDOCTORAL FELLOWSHIPS

Two (2) NRSA postdoctoral fellowships available in vision research. Appointments could begin August 1975 to June 1976. Preference given to candidates with a strong background in biochemistry, developmental biology, electron microscopy, or neurobiology. Two-year appointment, \$10,000 per annum. Send statement of background and research interest with three refer-ences to:

Dr. Gunter K. von Noorden Department of Ophthalmology Baylor College of Medicine Houston, Texas 77025

POSTDOCTORAL FELLOWSHIP

A postdoctoral fellowship position is available as of September 1975 for the study of structure-function relationships of yeast ribosomes. Applicants should have a strong background in biochemistry and previous experience working with yeast. Send résumé to: A. E. Dahlberg, Box G, Brown University, Providence, Rhode Island 02912. Brown is an Equal Opportunity Employ-

POSTDOCTORAL FELLOWSHIP in immuno-chemistry of cellular antigens with emphasis on bacte-rial and tumor cells. Applicants should submit curricu-lum vitae and bibliography to: Professor A. Nowotny, Temple University School of Medicine, Philadelphia, Pa. 19140. Equal Opportunity/Affirmative Action Em-clause ployer.

POSTDOCTORAL FELLOWSHIPS CLINICAL PHARMACOLOGY JOHNS HOPKINS

Research positions in clinical pharmacology are cur-rently available for qualified M.D.'s or Ph.D.'s. Areas of faculty research include: mechanism of action and tourisity. toxicity of chemotherapeutic agents, pharma-cokinetics, hormone receptor interactions, develcokinetics, hormone receptor interactions, devel-opmental pharmacology, cardiovascular pharmacolo-gy, and drug metabolism. Salaries are provided through NIH stipends. Applicants should send a cur-riculum vitae, list of publications, and names of three references to Dr. Paul S. Lietman, Director, Division of Clinical Pharmacology, Johns Hopkins University School of Medicine, Baltimore, Maryland 21205.

Announcing a NEW PROGRAM in the Molecular Biology of Prokaryotes and Eukaryotes leading to the Ph.D. degree. Areas of research include bacterial and animal viruses, cell surfaces, and membranes and bio-logical regulatory mechanisms. Applications are invited for enrollment in the program as of September 1975. Annual stipend is \$3900 and tuition is waived. Application forms and details of required qualifica-Application forms and details of required qualifica-tions can be obtained from: Dr. Andrew Wright, Train-ing Grant Coordinator, Department of Molecular Biol-ogy, Tufts Medical School, 136 Harrison Ave., Boston, Mass. 02111.

SYMPOSIUM

EIGHTH ANNUAL RED CROSS SCIENTIFIC SYMPOSIUM "The Granulocyte: Function and Clinical Utilization"

The Eighth Annual Red Cross Scientific Symposium will be held in Washington, D.C., 12 and 13 May 1976. Invited papers will be devoted to the biochemistry and immunology of granulocytes, their isolation, preserva-tion, and clinical use. For further information write to the Research Director, The American National Red Cross, Blood Research Laboratory, 9312 Old George-town Road, Bethesda, Maryland 20014.

SCIENCE, VOL. 189

DIRECTOR OF VIRAL ONCOLOGY

Unusual opportunity to provide scientific leadership to an ongoing, multi-faceted program of research in viral oncology and to conduct a personally directed research project in his/her area of expertise. Will be closely associated with colleagues in immunobiology and chemical carcinogenesis. Excellent laboratory facilities, a good scientific library, an extensive experimental animal farm and other related support activities are available.

Candidates should have a doctorate degree in one of the biomedical sciences and a mimimum of 10 years' subsequent experience. Evidence must be presented of research originality and productivity.

The successful candidate will be offered a liberal salary, attractive benefits and relocation expenses.

Letters of application, accompanied by a comprehensive curriculum vitae, complete bibliography, and three references will be accepted until Sept. 5, 1975.

All correspondence should be addressed to:

Dr. Robert E. Stevenson Chairman, Search Committee Litton Bionetics, Inc. Frederick Cancer Research Center Post Office Box B Frederick, Maryland 21701

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Senior Scientist

BIOMATERIALS/PHYSIOLOGY RESEARCH

The Medical Sciences and Engineering Division seeks a qualified applicant to perform research projects involving the application of biomaterials and physiology to device development related to artificial internal organs. The work will be carried out in our well-equipped, active laboratory currently heavily involved in reproductive and artificial internal organs research.

Requirements include Ph.D. with several years of responsible experience in biomaterials research and physiology; scientific training and experience in animal surgery; proficiency in applications of biomaterials to medical research; ability to utilize various devices in the process of formulating, initiating and developing creative new concepts for fertility control. Interest and experience in cardiovascular and reproductive physiology is highly desirable. Excellent communicative skills are required.

Responsibilities include the design of experiments, evaluation of devices for safety and efficacy in animals, evaluation and documentation of test results and research project management.

IIT Research Institute is an independent contract research organization serving industry and government. Its activities encompass nearly all of the physical, biological and social sciences and their related technologies.

Qualified applicants should forward resumes and salary requirements to: Emma Waters



10 West 35th Street, Chicago, Illinois 60616

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PROGRAM ANNOUNCEMENT

NATIONAL INSTITUTES OF HEALTH NATIONAL HEART AND LUNG INSTITUTE

DIVISION OF LUNG DISEASES

Young Investigator Pulmonary Research Grant

The Division of Lung Diseases, National Heart and Lung Institute invites national competition for Young Investigators Pulmonary Research Grants. This program is intended to foster the pulmonary research interests of young scientists and physicians by providing them with modest, independent support for a project of their own design. It is also designed to encourage young investigators who are in basic science disciplines to channel their interests into pulmonary-related research. At the same time, it welcomes participation by investigators in various clinical departments.

Applicants must be below age 35, and must hold a doctorate in a field relevant to the purpose of the grant. Grants will not be available to anyone who is or has been a principal investigator in an NIH-supported center, program project, regular research grant or contract; or a recipient of an NIH Special Reseach Fellowship or a Research Career Development Award.

Applications must be received prior to November 1, 1975 for review at the March meeting of the National Heart and Lung Advisory Council. Awards will be made with a beginning date prior to July 1, 1976. Application folders with all necessary information may be obtained by writing to:

Manager, Manpower Program Division of Lung Diseases NATIONAL HEART AND LUNG INSTITUTE, NIH The Westwood Building—Room 6A15 5333 Westbard Avenue Washington, D. C. 20016



RULES

1) The aim of this competition is to encourage and recognize outstanding writing on the sciences and their engineering and technological application in newspapers and general circulation magazines. The following categories are not eligible: articles on the field of medicine, articles published originally in AAAS publications, articles by employees of the AAAS or Westinghouse Electric Corporation.

 Each entrant in a newspaper award competition and each entrant in the magazine award competition may submit three entries.

3) An entry for a newspaper competition may be any of the following: a single story; a series of articles; or a group of three unrelated stories, articles, editorials, or columns published during the contest year. A magazine entry may be a single story or series published during the contest year.

4) A completed entry blank must be submitted together with five copies of each entry in the form of tear sheets, clippings, reprints, or syndicate copy (not over $8\frac{1}{2'} \times 11''$), showing name and date of the publication. ENTRIES MUST NOT BE ELABORATE.

5) Each entry must have been published in a newspaper or general circulation magazine within the United States during the contest year—1 October 1974 through 30 October 1975. (In the case of a series, more than half of the articles comprising it must have been published during the contest year.) Date on the issue in which an article appeared will be considered as the date of publication. All entries must be postmarked on or before midnight, 15 November 1975.

6) Persons other than the author may submit entries in accordance with these rules. Entries will not be returned.

7) Winners of the 1974 awards are not eligible for the 1975 awards. Persons winning three times are no longer eligible.

8) The Judging Committee, whose decisions are final, will choose the winners. There are three awards of \$1000: for the winning entry in the over-100,000 daily circulation newspapers competition; for the winning entry in the under-100,000 circulation newspapers competition; and for the winning entry in the general circulation magazine competition. For award purposes, newspaper circulation will be sworn ABC daily circulation as of 30 September 1975. The Judging Committee may cite other entries for honorable mention.

9) The awards will be presented at the dinner meeting of the National Association of Science Writers, during the 1976 meeting of the American Association for the Advancement of Science in Boston. Travel and hotel expenses of the award winners will be paid. Entrants agree that, if they win, they will be present to receive their awards, unless prevented by circumstances beyond their control.

Grayce A. Finger AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE 1515 Massachusetts Avenue, N.W. Washington, D.C. 20005