

Personnel Placement

Only those employers who will not discriminate on the basis of race, sex, religion, age, color, or national origin should submit Personnel Placement advertising.

POSITIONS WANTED: 40¢ per word; use of Box Number counts as 10 additional words. Minimum charge \$10. Prepayment required. This rate applies to individuals only; personnel agencies and companies take display rate for all advertising.

DISPLAY (POSITIONS OPEN, MARKET PLACE, AND SO FORTH): \$110 per inch, minimum (1 inch is equivalent to 12 lines of 48 characters each). Ads over 1 inch billed to nearest quarter inch. No charge for Box Number. Rates net. No agency commission allowed for ads under 4 inches. No cash discount. Prepayment required for foreign advertising. Purchase orders and billing information must accompany all other advertising.

COPY for ads must reach SCIENCE by Wednesday, 3-1/2 weeks before issue date (Friday of each week) requested. 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

Send copy for display ads, 1/6 page and larger, to:

Scherago Associates, Inc.
11 West 42nd Street
New York, N.Y. 10036

BLIND AD replies should be addressed as follows:

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

Effective 1 January 1976, the display rate (Positions Open, Market Place, Fellowships, and so forth) will be \$130 per inch, minimum, per insertion.

POSITIONS WANTED

Analytical Chemist: B.S. 1967. Seeking R & D position doing materials analysis and characterization. No agencies please. Box 487, SCIENCE. 12/5, 12, 19, 26

Biochemist/Virologist: Educator. Associate professor at major midwestern medical school seeks new academic challenges with appropriate rewards for research, teaching, and service. Prefers smaller university in pleasant community. Many publications, grants, and awards. Box 488, SCIENCE. X

Biochemist-Epidemiologist-Journalist: Ph.D. (biochemistry), MPH (epidemiology), and 7 years of journalism experience, including newspaper reporting and present position as award-winning writer/editor of an international quarterly science magazine featuring reports and reviews on current biomedical and industrial research for professionals. University research and teaching experience; investigative and interviewing skills. Good with words. Seeks a more challenging position along present lines, but will consider other proposals that would employ all these attributes. Box 489, SCIENCE. 12/5, 12

Biologist, successful former department head at large university, seeks return to administration; prefers New England or West. Box 465, SCIENCE. 1/9

Cell and Endocrine Physiologist. Ph.D. 1974; M.S., developmental biology; B.A., microbiology; postdoctoral experience; publications; seeks teaching position, undergraduate college. Box 490, SCIENCE. X

POSITIONS WANTED

Immunologist. Ph.D. Postdoctoral training, research in autoimmunity, quantitative immunofluorescence. Experience: teaching in medical school, supervising clinical laboratory. Publications. Seeks teaching and research position. Box 491, SCIENCE. X

Medical Entomologist/Arthropod Tissue Cultivist. Ph.D., 10 years research/3 years teaching experience, 34 publications. Seeks research/teaching position outside United States. Box 492, SCIENCE. X

Ph.D. Somatic Cell Genetics. Training in population genetics and statistics. Expert with computers. Publications. Desires teaching/research position. Box 478, SCIENCE. X

Veterinarian/Endocrinologist. Ph.D. Many years of experience; mechanism of hormone action, feedback regulation, clinical chemistry, enzymes, receptor binding, chemical and viral carcinogenesis; organ and tissue culture; radioimmunoassay; active participant of breast cancer task force, many publications, good teacher. Seeks research and/or teaching position. Box 493, SCIENCE. X

POSITIONS OPEN

ASSISTANT PROFESSOR OR ASSOCIATE PROFESSOR

The Department of Anatomical Sciences, Pahlavi University, Shiraz, Iran, invites applications for the above position. The appointee will be expected to participate in the teaching of human biomorphology to undergraduates, develop a research program, and participate in graduate teaching. Candidates should possess a medical degree and/or doctoral degree in anatomy. Application forms and further information available from: **Professor J. Tomasch, Chairman, Department of Anatomical Sciences, Medical Faculty, Pahlavi University, Shiraz, Iran.**

ASSISTANT PROFESSOR, Department of Microbiology, for the University of Health Sciences/The Chicago Medical School. **Qualifications:** Strong background in medical microbiology. Responsibilities to include participation in teaching programs in the medical school, school of related health sciences and graduate school, and establishment of an independent research program. **Organization:** A private, nonprofit, nonsectarian, coeducational university and *An Equal Opportunity/Affirmative Action Employer*. **Application:** Send curriculum vitae to: **Dr. Eric R. Brown, Department of Microbiology, University of Health Sciences/The Chicago Medical School, 2020 West Ogden Avenue, Chicago, Ill. 60612.**

DEPARTMENT OF RADIOLOGICAL SCIENCES UNIVERSITY OF CALIFORNIA COLLEGE OF MEDICINE, IRVINE

The Department of Radiological Sciences in the College of Medicine at the University of California, Irvine, invites applications for a position at **Assistant Professor** level in **diagnostic radiology**. Applicants must be qualified radiologists with demonstrated evidence of clinical and academic ability. Preference will be given to candidates with a special interest in ultrasound, chest, and/or genitourinary radiology. Duties will include film-reporting and teaching at graduate and undergraduate levels. Applicants will also be expected to develop their own research protocols.

The individual selected will be a member of the staff of the Veterans Administration Hospital, Long Beach, California (Chief of Radiology, Dr. Henry Pribram), and will be appointed to the faculty of the College of Medicine of the University of California, Irvine.

Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.

If you are interested in this position, please write to the address below including a curriculum vitae, an autobiographical letter, and copies of any publications. Closing date: 1 January 1976.

Eric N. C. Milne, M.B., Ch.B., F.F.R.
Professor and Chairman
Department of Radiological Sciences
College of Medicine
University of California, Irvine
Irvine, California 92664

POSITIONS OPEN

ACADEMIC OPENINGS

CHAIRMAN, Chemical Engineering Department, University of Southern California. The department offers areas of concentration in energy conversion, polymer chemistry, environmental engineering, fluids engineering, and thermodynamics leading to the B.S., M.S., and Ph.D. degrees in chemical engineering. Two additional faculty positions, one at the **ASSOCIATE PROFESSOR** level and one at the **ASSISTANT PROFESSOR** level, will be filled after a Chairman is selected.

Candidates should have a strong research record, an interest in teaching, and demonstrated capabilities in the general field of energy. Applications and nominations should be sent to: **Dr. Victor I. Weingarten, Search Committee Chairman, Department of Civil Engineering, Vivian Hall of Engineering 402, University of Southern California, University Park, Los Angeles, Calif. 90007. The University is an Equal Opportunity and Affirmative Action Employer; female and minority persons are urged to reply.**

If outstanding candidates can be located, the Physics Department of the University of California, Berkeley, expects during the next few years to be making a small number of appointments at the **ASSISTANT PROFESSOR** level. The preferred fields are solid state experimental physics, experimental astrophysics, and particle physics.

It is probable that no appointment will be made before 1 July 1977, although an earlier date is conceivable. Applicants should write to the **Chairman of the Physics Department, University of California, Berkeley, Calif. 94720**, giving curriculum vitae, publication list, and references. *The University of California is an Affirmative Action Employer. Minority and women candidates are encouraged to apply.*

STANFORD UNIVERSITY. The Human Biology Program and Department of Anthropology seek regular **Assistant Professor of Anthropology** to work in an area conjoining the social, biological, and medical sciences. The Human Biology Program is an interdepartmental undergraduate major comprising a broad life-sciences faculty; major themes include human evolution, patterns of adaptation at various levels of social organization, human development throughout the life cycle. Areas of interest include paleoanthropology, preliterate societies, evolution of cultures, social adaptations to stress, or medical anthropology. Preference will be given to persons with teaching and research experience. *Stanford is an Equal Opportunity Employer and adheres to Affirmative Action policies.* Send letter outlining qualifications and curriculum vitae (listing referees and papers), but do not send papers, to **Anthropology Search Committee, Human Biology, Building 80, Stanford University, Stanford, Calif. 94305.** Closing date for applications: 15 January.

The Johns Hopkins University. An assistant professor position in **ORGANIC CHEMISTRY** is available beginning fall 1976. Applicants should submit a complete résumé and arrange to have three letters of recommendation sent directly to **Professor Alex Nickon, Organic Chemistry Search Committee, Department of Chemistry, The Johns Hopkins University, Baltimore, Maryland 21218.** When all supporting letters are in hand, each candidate will be so notified. *The Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF PHARMACOLOGY: Ph.D., with training and experience in biometry, statistics, epidemiology, and pharmacokinetics. Participation in teaching medical, dental, pharmacy, and graduate students. Applicants should send a curriculum vitae, including a list of publications, a summary of teaching and research experience, and the names of three references to **Arthur H. Briggs, M.D., Chairman, Department of Pharmacology, The University of Texas Health Science Center, 7707 Floyd Curl Drive, San Antonio, Texas 78284. An Equal Opportunity/Affirmative Action Employer.**

ASSOCIATE AND ASSISTANT PROFESSOR OF PHARMACOLOGY: Ph.D., with research background in pharmacology of peripheral circulation. Participation in teaching medical, dental, pharmacy, and graduate students. Applicant should send a curriculum vitae, including a list of publications, a summary of teaching and research experience, and the names of three references to **Arthur H. Briggs, M.D., Chairman, Department of Pharmacology, The University of Texas Health Science Center, 7707 Floyd Curl Drive, San Antonio, Texas 78284. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT PROFESSOR IN BIOCHEMISTRY. A position is available in the Biochemistry Division for a highly qualified scientist with research interests in one or more of the following areas: immunology (mechanisms or applications), ultrastructure, or physical biochemistry of macromolecules. In addition to her/his specialty, the applicant must also be qualified to teach general chemistry. The applicant should submit a biographical sketch including publications, research experience, a description of the nature of future research, and the names of three people who can be contacted for letters of reference. Correspondence should be addressed to: **Dr. J. Norman Hansen, Biochemistry Search Committee, Department of Chemistry, University of Maryland, College Park, Maryland 20742. An Equal Opportunity Employer.**

DEPARTMENT OF CHEMISTRY UNIVERSITY OF CALIFORNIA, BERKELEY

Applications are invited for several anticipated positions at the level of **Assistant Professor** of chemistry, beginning fall 1976. We are interested in outstanding candidates, with exceptional promise in teaching and research, whose interests lie in any area of modern chemistry, but with particular emphasis this year on biophysical and inorganic chemistry.

Candidates should submit a curriculum vitae, including a list of publications, a summary of their teaching and research objectives, and request three letters of reference, all to be sent to **Chairman, Department of Chemistry, University of California, Berkeley, California 94720.** Deadline for receipt of applications is 2 February 1976. *The University of California is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.*

The Department of Physiology of the University of Minnesota, Duluth, School of Medicine invites applications for a full-time faculty position at the level of **ASSISTANT or ASSOCIATE PROFESSOR.** Candidates should be available by 1 August 1976. The individual would be expected to engage in cardiovascular or renal research and to participate in teaching physiology to undergraduate as well as medical students. Excellent research opportunities. Preference will be given to those candidates with teaching experience in medical school and ability to participate in the development of innovative medical education programs. Curriculum vitae should be sent to **Dr. R. S. Pozos, Chairman, University of Minnesota School of Medicine, Duluth, 2205 East Fifth Street, Duluth, Minnesota 55812. The University of Minnesota, Duluth, is an Equal Opportunity Employer with an Affirmative Action Program.**

The University of California, Irvine, Department of Pathology, is recruiting for a faculty position at the **Associate Professor or Professor** level who will also serve as **Chief of Clinical Pathology** of the Long Beach Veterans Administration, a University teaching hospital. Candidates must be M.D.'s and clinical Board-certified. Service administrative responsibilities include direction and operation of Clinical Laboratory. Teaching responsibilities involve medical students, residents, and paramedical training programs. Expected to develop independent research activities. Experience in operation of clinical laboratory is necessary prerequisite. *Applications from all qualified candidates are welcome: minorities and women are encouraged to apply.* Send curriculum vitae before 1976 to:

**Dr. Edward R. Arquilla, Chairman
Department of Pathology
University of California, Irvine
Irvine, California 92717**

ASSOCIATE DEAN for new primary care-oriented, medical education program centered in Fresno, California. The associate dean will administer VA-funded educational program with professional and educational responsibilities to the Veterans Administration Hospital, Valley Medical Center, and other clinical facilities and associated community hospitals in the Central San Joaquin Valley. Close liaison will also be maintained with the San Francisco campus. Applicants should have an M.D. degree and demonstrated ability in initiating major new medical education activities based on multi-institution support. *The University of California is an Affirmative Action Employer.* Contact: **Fresno Search Committee, Dean's Office, University of California School of Medicine, San Francisco, California 94143.**

POSITIONS OPEN

ASSISTANT PROFESSORSHIPS

**Department of Biology
University of California, Riverside**

The Biology Department at the University of California, Riverside, is seeking appropriate additions to its faculty starting in the 1976 academic year. Candidates must show evidence of ability to initiate and sustain a productive, high-quality research program and show enthusiasm and skill for teaching biology at both undergraduate and graduate levels.

Developmental Biology. Ph.D. degree or equivalent with teaching and research emphasis in one (or more) of the following: animal morphogenesis, cell organization and development, membrane structure and function, developmental genetics. Primary teaching responsibilities in embryology/developmental biology with some participation in upper division introductory and graduate courses expected.

Genetics. Ph.D. degree or equivalent with teaching and research experience in one (or more) of the following: somatic cell genetics, developmental genetics, immunogenetics, experimental cytogenetics, genetics of gametes, polygenic inheritance, or behavioral genetics. Primary teaching duties in general genetics course with participation in other departmental offerings in genetics.

Vertebrate Physiology. Ph.D. degree or equivalent in vertebrate physiology, endocrinology, or other closely related discipline. Teaching duties to include upper division physiology and anatomy courses, with possible participation in lower division and graduate-level biology courses. If interests and specializations allow, participation in the Biomedical Sciences Program may be possible.

Population Ecology. Ph.D. degree or equivalent. Research interest in animal population ecology. Teaching responsibilities to include introductory course in population biology, upper division population ecology, and a graduate-level seminar.

Applicants should provide a curriculum vitae, list of publications, and a brief description of research and teaching interests. Additionally, at least three letters of support should be sent. *The University of California is an Equal Opportunity and Affirmative Action Employer. Applications are invited from all qualified individuals, especially women and members of minority groups.*

Send applications to:

**Chairman
Department of Biology
University of California
Riverside, Calif. 92502**

Applications and supporting documents should be received in Riverside not later than 15 January 1976.

ASSOCIATE DEPUTY ASSISTANT ADMINISTRATOR FOR HEALTH AND ECOLOGICAL EFFECTS

The U.S. Environmental Protection Agency is seeking a manager with a strong background in ecology to assist in the planning, management, and evaluation of a large multidisciplinary research and development office made up of staff offices and field laboratories. The mission of the office is to develop health and ecological data needed for the establishment of standards and criteria for those components of the environment in which specific pollutants or activities may require control; determine the fate, transport, and exposure effect of environmental pollutants; develop and verify methods and models for analyzing the socioeconomic impact of environmental degradation; assess the environmental and socioeconomic impacts of existing and proposed policies and standards; and coordinate Agency policies and programs related to carcinogens and similar agents. Candidates must have a bachelor's or higher degree (preferably Ph.D.) with major study in ecological, biological, or physical sciences and extensive experience relating to the mission of the office.

Location: Washington, D.C.

Salary range: \$36,338 to \$37,800 plus Civil Service benefits.

Contact: Please send a detailed résumé or a completed Standard Form 171 (Personal Qualifications Statement), which can be obtained from any federal government personnel office, to reach EPA no later than 31 December 1975, to:

**Mrs. Brenda Cunningham (PM-212)
Personnel Management Division
Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460**

An Equal Opportunity Employer

POSITIONS OPEN

ASSOCIATE PROFESSORSHIPS IN HUMAN ANATOMY AND HUMAN PHYSIOLOGY

Applications are invited for two positions available 1 September 1976 in the Department of Zoology and Microbiology both at the associate professor level. We are seeking candidates in the area of human anatomy and human physiology. Applicants should hold the Ph.D. degree, have experience and provide evidence of strong ability to teach and to develop and maintain a rigorous program of independent research. The salary is highly competitive. Responsibilities include instruction of undergraduates and graduates in the department and in the medical school program. Primary emphasis will be in the subject area of human gross anatomy or human physiology. Applicants should submit a complete set of curriculum vitae, transcripts, a résumé of teaching and research interests, and the names of three referees by 15 December to **Dr. Ronald J. Downey, Chairman, Department of Zoology and Microbiology, Ohio University, Athens, Ohio 45701. An Equal Opportunity and Affirmative Action Employer.**

ASSOCIATE PROFESSOR—INORGANIC CHEMISTRY. A position may become available in September 1976 for an individual with demonstrated exceptional ability in the area of synthetic inorganic chemistry, with specific interest in new and novel methods. The person will be expected to participate in development of graduate and undergraduate courses in inorganic synthesis, as well as maintain a productive research program of high caliber and originality. A willingness to engage in collaborative efforts in materials sciences is desirable. A curriculum vitae, short description of research plans, and names of three references should be sent to: **Department of Chemistry, The University of Texas at Austin, Austin, Texas 78712, attention of W. H. Wade, Chairman.** All applications must be received by 22 December 1975. *The University of Texas is an Equal Opportunity and Affirmative Action Employer.*

ASSOCIATESHIPS POSTDOCTORAL RESEARCH ASSOCIATESHIPS THE NAVAL MEDICAL RESEARCH INSTITUTE BETHESDA, MARYLAND SPONSORED BY

**The Naval Medical Research and
Development Command in
association with
The National Research Council**

Competitive applications are now being accepted for the year starting 1 July 1976. The areas of research are: behavioral sciences, biochemistry, biophysics, dental sciences, environmental stress, immunology, microbiology, parasitology, pathology, toxicology, and underwater biomedical research. Annual salary: \$16,255.

Information may be obtained from the National Research Council Office. The proposed adviser should be consulted prior to submitting a research proposal. Interested applicants should submit completed applications not later than 15 January 1976 to: **Associate-ship Office (JH606-N), National Research Council, 2101 Constitution Avenue, NW, Washington, D.C. 20418.**

An Equal Opportunity Employer

Applications are invited for a faculty appointment in **BASIC SCIENCES (GENETICS).** The successful candidate will be an established research worker in the field of genetics and will occupy a position of assistant professor or above. Teaching duties will leave adequate time for research. Applications should be sent together with a curriculum vitae and names of three referees to: **Dr. R. G. Huntsman, Chairman, Genetics Search Committee, Division of Pathology, Faculty of Medicine, Memorial University of Newfoundland, St. John's, Newfoundland, Canada, A1C 5S7.**

BIOLOGIST, Assistant Professor, starting April or September 1976. Candidates will be sought whose primary interest lies in the molecular aspects of mycology and/or phycology and who would teach courses in introductory biology, microbiology, and their specialty area. The appointee will be expected to sustain an active research program in which undergraduates will become involved. Salary competitive. Send résumé, undergraduate and graduate transcripts, publications, and three letters of reference to: **Dr. N. C. Maravolo, Chairman, Department of Biology, Lawrence University, Appleton, Wisconsin 54911.**

Lawrence University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

BIOCHEMIST

Exciting opportunity for research immediately available for investigator familiar with the analytical techniques of blood chemistry and enzymes of laboratory animals and algae nucleoproteins. Person should be able to teach some fundamental courses in biology. Interested persons should submit personal data, curriculum vitae, and letters of references to **Dr. E. Sparks, Biology Department, Stillman College, Tuscaloosa, Alabama 35401.**

BIOLOGY DEPARTMENT AT UCLA

Opening for a faculty member with research interests in molecular, cellular, or biochemical aspects of plant development. Teaching duties at the undergraduate and graduate levels in related areas. Applicants should have postdoctoral research experience. Provide a curriculum vitae noting research and teaching interests and include names of three referees from whom references can be requested. Send materials to: **Chairman, Biology Department, University of California, Los Angeles, California 90024.** Deadline: 1 February 1976.

An Equal Opportunity Employer. Applications from women and members of minority groups are encouraged.

OREGON STATE UNIVERSITY

Applications are invited for **Chairperson** of the Department of Geology starting September 1976. Applicants should have demonstrated experience or potential in leadership and administrative responsibilities, a strong research background and teaching capabilities, and have the qualifications for rank of professor. Contact **Dr. Keith F. Oles, Department of Geology, Oregon State University, Corvallis, Oregon 97331.** Closing date: 2 January 1976. *Oregon State University is an Affirmative Action/Equal Opportunity Employer.*

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG, SOUTH AFRICA SECOND CHAIR OF PHYSIOLOGY

Applications are invited for appointment to the above post in the Department of Physiology at the Medical School. The post does not carry with it the headship of the Department, but a rotating headship may be considered as a possibility in the future. The successful applicant will, however, be required to participate in the administrative work of the Department.

Duties can be assumed as soon as possible, at a time to be mutually arranged.

According to qualifications and experience, the salary attached to the post will be either R15,600 per annum, or within the range R12,150 to R14,400.

Intending applicants should obtain the information sheet relating to this post. *The policy of the University is not to discriminate in the selection of staff or the selection of students on the ground of sex, religion, race, color, or national origin.* Further particulars relating to this policy, and the extent to which it can be implemented in practice are included in the information sheet which should be obtained from the Registrar, University of the Witwatersrand, Jan Smuts Avenue, Johannesburg, South Africa, with whom applications should be lodged not later than 15 February 1976.

POSITIONS OPEN

CHAIRPERSON DEPARTMENT OF BIOCHEMISTRY AND BIOPHYSICS UNIVERSITY OF PENNSYLVANIA TO BE APPOINTED BY 1 JULY 1976

This is a newly merged department in the Medical Center, comprising some 30 faculty members with intensive research programs spanning the entire biomedical spectrum from physics to human biochemistry. It is in the heart of the University campus, interacts extensively with many departments, institutes, and professional schools, and enjoys a special relationship with the Johnson Research Foundation. Its teaching programs serve medical, graduate, and undergraduate students.

Candidates should have an international reputation in scholarship and research, should have demonstrated scientific leadership, and should preferably have acquired management skills.

Send curriculum vitae and no less than three letters of reference to **Dr. Fred Karush, Chairman, Search Committee, Department of Microbiology, 356 Johnson Pavilion/G2, School of Medicine, University of Pennsylvania, Philadelphia, Pa. 19174.**

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

ENVIRONMENTAL STUDIES CHAIRPERSON

A senior position at the full professor level is now open to become **Chairperson** in the Board of Environmental Studies at the University of California, Santa Cruz. We are seeking a person with a strong academic background in the natural sciences whose research and teaching interests focus on the scientific dimensions of environmental issues. Candidates should have the ability to work effectively in an interdisciplinary setting, and candidates must have made important research contributions in one of the natural sciences. Experience in public policy is highly desirable especially with respect to the application of scientific knowledge to significant environmental issues, such as natural resource management, coastal zone planning, or human impact on ecosystems, but not necessarily limited to these areas.

Environmental Studies at Santa Cruz has developed primarily within the social sciences. This year, the Board of Environmental Studies has been expanded to increase the natural science component of the program, and to provide greater opportunities for closer cooperation and interaction among natural science and social science faculty. The person we seek should be particularly interested in and capable of developing this aspect of the program. Candidates must be interested in undergraduate teaching and assisting in developing interdisciplinary research and graduate programs.

Salary is negotiable, but the beginning salary for University of California full professors is \$20,700. Desired appointment date is 1 July 1976. Closing date for applications is 15 January 1976. Résumés should be sent to

**Dr. Léo F. Laporte, Dean
Division of Natural Sciences, and
Chair, Environmental Studies Search Committee
University of California, Santa Cruz
Santa Cruz, Calif. 95064**

The University of California is an Equal Opportunity Employer.

POSITIONS OPEN

BIOLOGY FACULTY

BIOLOGIST, assistant or associate professor. Principal teaching responsibility to manage and participate in multisection introductory biology laboratory course for science majors. Ph.D., publications, and several years of faculty experience required.

CELL BIOLOGIST, assistant professor. Principal teaching responsibility in undergraduate cell biology course with laboratories. Background in molecular biology and proven research interest in the structure and function of eukaryotic cells is preferred. Ph.D. required by date of initial appointment.

Both positions to begin 1 September 1976. Applicants should send curriculum vitae and names of three references before 15 January 1976 to **Dr. Stephan R. Taub, Chairman, Department of Biology, George Mason University, Fairfax, Virginia 22030.** George Mason University is the state university in northern Virginia and is located near the Washington, D.C., metropolitan area. *George Mason University is an Affirmative Action/Equal Opportunity Employer.*

CHAIRPERSON, Department of Physics. Applications are invited of persons qualified by experience in education and success in research. Leadership and administrative skill are important. Preference will be given to those with experience in solid state physics, astrophysics, or biophysics. Interested applicants should send curriculum vitae with initial letter and list the names and addresses of three people willing to be approached as references. These should be sent to **Edmond Brown, Department of Physics, Rensselaer Polytechnic Institute, Troy, New York 12181.** *An Equal Opportunity Employer.*

ECOLOGIST

The Division of Biological Sciences, The University of Michigan, invites applications for a teaching/research position in ecology. It is anticipated that the position will be authorized at the assistant professor level, but an associate professorship may be possible. A curriculum vitae, a detailed statement of academic/research interests, and relevant reprints should be submitted by 15 January 1976. Applicants should also arrange for three letters of recommendation. All materials should be addressed to **Dr. Francis C. Evans, Division of Biological Sciences, The University of Michigan, Ann Arbor, Mich. 48104.**

The University of Michigan is a nondiscriminatory Affirmative Action Employer.

MOLECULAR GENETICIST

The Division of Biological Sciences, The University of Michigan, invites applications for a teaching/research position in molecular genetics of microorganisms or plants. It is anticipated that the position will be authorized at the assistant professor level. A curriculum vitae, detailed statement of academic/research interests, and relevant reprints should be submitted by 15 January 1976. Applicants should also arrange for three letters of recommendation to be sent. All materials should be addressed to: **Dr. Robert B. Helling, Department of Cellular and Molecular Biology, Division of Biological Sciences, The University of Michigan, Ann Arbor, Mich. 48104.**

The University of Michigan is a nondiscriminatory Affirmative Action Employer.

CHEMIST-BIOCHEMIST having minimum of 2 years post doctoral training in isolation and structure elucidation of antibiotics, peptides, and other natural compounds. Experience with 13 spectroscopy, analytical ultracentrifugation and CD spectroscopy desirable.

Qualified Ph.D.'s should send résumé with three references to:

M. L. Knill
Department 210
FREDERICK CANCER RESEARCH CENTER
Litton Bionetics, Inc.
P.O. Box B
Frederick, Maryland 21701
An Equal Opportunity Employer M/F

SENIOR SCIENTIST - CELL BIOLOGIST

A research position is available immediately for a Ph.D. with at least two years postdoctoral training in epithelial cell culture techniques. Experience in intestinal mucosal metabolism would be desirable but not essential. Candidates should be capable of establishing a research program which would interface with existing research activities concerned with the biosynthesis and metabolism of endogenous carcinogens in the digestive system.

Qualified applicants should send a curriculum vitae, complete bibliography and three references to:

M.L. Knill
Department 610
FREDERICK CANCER RESEARCH CENTER
Litton Bionetics, Inc.
P.O. Box B
Frederick, Maryland 21701
An Equal Opportunity Employer M/F

POSITIONS OPEN

BIOLOGISTS THE UNIVERSITY OF TEXAS AT ARLINGTON

The Department of Biology, The University of Texas at Arlington, is seeking applications from qualified persons for fall 1976, in the following areas:

Vascular Plant Systematics. Ph.D., assistant professor.
Population Genetics. Ph.D., assistant professor.
Parasitology. Ph.D., assistant professor.

Applicants should have a strong interest in both teaching and research.

Letters of application should include curriculum vitae, three letters of reference, and transcripts. These should be sent to: **Dr. William C. McDonald, Chairman, Department of Biology, The University of Texas at Arlington, Arlington, Texas 76019. Telephone: 817-273-2871. An Equal Opportunity/Affirmative Action Employer.**

Applications invited for **CHAIRPERSON**, Department of Biology. Applicants must hold doctorate in appropriate discipline, with extensive teaching and research experience. Responsibilities include administration and leadership of undergraduate, M.S., and Ph.D. programs and willingness to work closely with health science programs. Submit curriculum vitae and three references to: **Dr. L. J. Brenner, Chairperson of Search Committee, Department of Biology, Cleveland State University, Cleveland, Ohio 44115. Equal Opportunity/Affirmative Action Employer, M/F.**

DEAN, GRADUATE SCHOOL INDIANA STATE UNIVERSITY

We invite applications for the position of Dean, School of Graduate Studies, Indiana State University. Candidates should have an earned doctorate with a distinguished record in teaching and research. Administrative experience and demonstrated leadership in previous academic positions are desirable, and a sensitivity to current trends in graduate education and research within a variety of master's and doctoral programs is essential. Acceptance of applications will close 9 January 1976.

Submit nominations or credentials to:

**Dr. David T. Turney
Chairman, Search Committee
107 Stalker Hall
Indiana State University
Terre Haute, Indiana 47809**

An Equal Opportunity/Affirmative Action Employer

DIRECTOR OF SPONSORED RESEARCH

Applications are invited for the position of Director of the Division of Sponsored Research, University of Florida. Applicants should have preferably a doctorate, experience in sponsored research and related activities, and administrative skills and experience, as well as an understanding of, and a deep commitment to, the goals and ideals of higher education, particularly as they relate to a complex land-grant university with substantial and diverse research activities. Please note that all names submitted to the committee will be released to the public on request regardless of whether the nominee is aware that he or she has been nominated. Interested persons should respond before 1 January 1976. Send curriculum vitae and appropriate references to:

**Dr. Wayne H. Chen
Dean, College of Engineering
Chairman, Search Committee
University of Florida
Gainesville, Florida 32611**

Equal Employment Opportunity/Affirmative Action Employer

ENVIRONMENTAL RADIOCHEMIST

Department of Oceanography, Texas A & M University, has an opening for a postdoctoral scientist with experience in environmental radiochemistry. The work will involve determinations of plutonium, thorium, and strontium-90 in marine sediments. Seagoing experience is desirable. This project is starting now and will last approximately 2 years. Send inquiries to: **D. R. Schink, Department of Oceanography, Texas A & M University, College Station, Texas 77843.**

An Equal Opportunity Employer

POSITIONS OPEN

The University of California, Irvine, College of Medicine is seeking a **CHAIRMAN** for the Department of Anatomy. Candidates must be eligible for appointment to the rank of professor. Candidates should have demonstrated excellence in biomedical research and teaching and should preferably have administrative experience. Candidates should be capable of providing academic leadership in the reorganization and development of the department. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Send curriculum vitae before 15 December 1975 to **Richard F. Thompson, Chairman of the Search Committee, Department of Psychobiology, University of California, Irvine, California 92664.**

COMPARATIVE PSYCHOLOGIST. Assistant professor, 9-month salary approximately \$12,000. Opening starting fall 1976. Ethology, evolutionary orientation. Research essential. Fieldwork or primatology a plus. Primary teaching responsibilities: comparative psychology at graduate and undergraduate levels. Other courses open. Send curriculum vitae, reprints, and three references to: **Professor I. Bilodeau, Search Committee Chairman, Department of Psychology, Tulane University, New Orleans, La. 70118. Apply by 15 February 1976. Tulane University is an Equal Opportunity Employer.**

ECOLOGISTS (MARINE). The National Oceanic and Atmospheric Administration, U.S. Department of Commerce, announces two Civil Service vacancies in the Deepwater Ports Project Office of the Environmental Data Service, Washington, D.C.

Ecologist (GS 13/12): Incumbent will have primary responsibility for assessing the impact of proposed deepwater port developments on the marine and coastal environment, will act as liaison with federal and private organizations in this field, and will serve as expert on marine and estuarine ecology and effects of pollutants on associated ecosystems. Entrance level salary is \$19,386 or \$22,906 per annum depending upon experience and level of Civil Service rating.

Ecologist (GS 11/19): Incumbent will provide staff assistance in assessing the ecological and environmental impacts of deepwater port development on marine and coastal environmental areas. Entrance level salary is \$13,482 or \$16,255 per annum depending upon experience and level of Civil Service rating.

Qualifications: graduate degree preferred. Minimum of a bachelor's degree or equivalent experience in marine ecology, marine biology, environmental chemistry, or related fields. An additional three years of progressive professional experience in above fields (graduate education may be substituted for some of this experience). At least 1 year of professional experience must have been at a level of difficulty comparable to the next lower grade in the federal service. Additional information may be obtained by contacting **Dr. Dail W. Brown (Telephone: 202-634-7379).** Applications (SF-171) should be submitted to the **Personnel Division, AD412, Page Building 2, 2001 Wisconsin Ave., NW, Washington, D.C. 20235, Attention: Mrs. Collier,** by 12 December 1975. *The U.S. Department of Commerce is an Equal Opportunity Employer.*

EMBRYOLOGIST, ENTOMOLOGIST, OR IMMUNOLOGIST

Two faculty positions available September 1976 at the University of Mississippi at Oxford. Prefer persons with postdoctoral experience and demonstrated capacity for research and undergraduate and graduate teaching. Rank and salary open. Application deadline: 15 March. Send curriculum vitae and names of references to: **L. A. Magee, Department of Biology, University of Mississippi, University, Miss. 38677. Equal Opportunity Employer.**

UNIVERSITY OF CHICAGO

The Department of Pharmacological and Physiological Sciences invites applications for **faculty appointments** from qualified candidates working in the general area of pharmacology. *From the time of its original charter, the principle of the University has been to appoint scholars without regard to race, color, religion, sex, or national origin.* Applicants should submit résumés and significant publications as well as arrange to have letters of recommendation sent directly to:

**Alfred Heller, Professor and Chairman
Department of Pharmacological
and Physiological Sciences
University of Chicago
947 East 58 Street
Chicago, Illinois 60637**

POSITIONS OPEN

DIRECTOR, SANDERS-BROWN KENTUCKY RESEARCH CENTER ON AGING

The University of Kentucky is establishing an institute for study of the basic biological processes of aging. For a director, we seek a person of international scientific stature, firmly committed to the scientific study of the aging process. The Sanders-Brown Center, expected to be completed in late 1977, will consist of 17,500 square feet of space including ten laboratories, offices, conference rooms, library, animal space, and administrative offices. We need a director who can begin to develop programs and funding in temporary quarters until the Center is completed. Write to: **Dr. J. W. Hollingsworth, Department of Medicine, University of Kentucky College of Medicine, Lexington, Kentucky 40506. The University of Kentucky is an Equal Opportunity and Affirmative Action Employer.**

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

The Department, a large multidisciplinary teaching and research unit with activities in all principal areas of nutrition and food science, is seeking applicants to fill two faculty positions: (i) an M.D. with training and experience in the areas of clinical nutrition, nutrition field studies, and epidemiology and an interest in international nutrition planning. The appointee will be expected to develop the nutritional and epidemiological aspects of the international program, to participate in the work of the MIT Clinical Research Center, and to teach in the clinical nutrition courses and nutritional epidemiology; (ii) a Ph.D. or M.D. who has received training in biochemistry or metabolism and whose major interests are in human nutrition, nutritional biochemistry, or mammalian metabolism. Duties will include teaching mammalian biochemistry or mammalian nutrition, and participation in the nutrition research programs of the MIT Clinical Research Center.

The appointees will be expected to generate vigorous research programs in their respective fields.

Curriculum vitae, together with representative publications and the names of five referees, should be submitted before 1 January 1976 to:

**Dr. V. R. Young
Secretary, Search Committee
Room 56-333
Massachusetts Institute of Technology
Cambridge, Mass. 02139
*An Equal Opportunity Employer***

The new Department of Neurobiology at Stanford University School of Medicine invites applications from qualified individuals for three **FACULTY POSITIONS** available 1 September 1976. The levels of appointment will be consistent with the selected candidates' backgrounds. Preference may be given to applicants with interests in functional neuroanatomy or the biochemistry of the nervous system. Applications, including a curriculum vitae, and the names of three references should be addressed to **Dr. Eric M. Shooter, Chairman, Department of Neurobiology, Stanford University School of Medicine, Stanford, California 94305. Stanford is an Equal Opportunity Employer and welcomes nominations of women and minority group members and applications from them.**

FACULTY POSITION IN BOTANY. The Department of Botany at the University of Minnesota invites applications for a faculty position for a developmental plant biologist with a molecular orientation. The position will start in September 1976, and is for an assistant professor, although there is a possibility that it might be filled at a higher rank. The specialty is open, although applications are invited especially from persons in these areas: transcription-translation, tissue culture, and hormones. There are possibilities of interacting with several plant science research groups within and outside the Botany Department. Teaching will include an introductory course such as general botany or plant-human relationships and a beginning or advanced course in a specialty area. Preference will be given to applicants with postdoctoral experience. Applications are due 15 January and should include curriculum vitae, list of undergraduate and graduate courses, résumé of research interests and future plans, statement of teaching experience and interests, reprints of published papers and copies of unpublished manuscripts, and three letters of reference. Respond to **Professor D. C. Pratt, Head, Department of Botany, 220 BioScience Center, University of Minnesota, St. Paul, Minn. 55108. An Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

FACULTY POSITION IN ECOLOGY: The Division of Environmental Studies, an interdisciplinary teaching and research unit of the University of California, Davis, seeks to hire a theoretical ecologist. Teaching responsibilities include team teaching a basic undergraduate ecology course, an advanced undergraduate course in either population or community ecology, and developing a graduate-level course in theoretical ecology. Research interests of applicants should center on the mathematical or statistical analysis of the behavior of populations or communities. Appointment will be made at a level appropriate to experience and qualifications. Appointee will be expected to maintain a formal relationship with an appropriate disciplinary department. Applicants should send curriculum vitae, reprints, manuscripts in progress, and other evidence of innovative and creative scholarly accomplishments, and the names of three referees to **Chairman, Theoretical Ecologist Search Committee, Division of Environmental Studies, University of California, Davis, Calif. 95616**. Applications received after 15 January 1976 cannot be assured of consideration. *An Equal Opportunity/Affirmative Action Employer.*

FRESHWATER RESOURCE ECOLOGIST

Vacancy January to June 1976. Teach, advise undergraduate students; research in applied ecology, aquatic ecosystem management, ecosystem modeling. Ph.D., environmental studies experience preferred. Curriculum vitae, three letters of recommendation by 15 December 1975, to **Dean Ruth F. Weiner, Huxley College of Environmental Studies, Western Washington State College, Bellingham, Wash. 98225**. *Women, minorities encouraged.*

GENERAL PHYSIOLOGIST

An opening at the assistant professor level is available September 1976 for a general physiologist with research interests in the physiology of excitable cells at the cellular-molecular level. Candidates will be expected to share in the instruction of a course in physiology for advanced undergraduates and graduate students, teach a course in their specialty and develop a strong, independent research program. Postdoctoral experience is desirable. Exceptional qualifications may lead to appointment at higher academic rank.

Send curriculum vitae, reprints, and three letters of recommendation by 15 January 1976 to: **John Schaefer, Ph.D., Biology Department, Tufts University, Medford, Mass. 02155**.

Tufts University is an Equal Opportunity/Affirmative Action Employer. Applications from minority group members and women are encouraged.

HUMAN PHYSIOLOGIST, to develop and teach two-term anatomy-physiology course for new nursing program. Also, one term of general zoology, senior seminar. Fall 1976. Assistant professor. To apply, send résumé, transcripts, summary of Ph.D. thesis, and names of three references to: **Dr. W. K. Patton, Department of Zoology, Ohio Wesleyan University, Delaware, Ohio 43015**. *An Equal Opportunity/Affirmative Action Employer.*

IMMUNOLOGIST/CELL BIOLOGIST. Assistant professorship is available for an individual with postdoctoral experience and a strong commitment to research. Interests in immunology, chemical carcinogenesis, or mammalian cell biology are desirable; an ability to teach an undergraduate course in immunology is necessary. Applicants should send a curriculum vitae, the names and addresses of four references, and an outline of their proposed research to:

**Dr. L. N. Zimmerman, Head
Department of Microbiology and Cell Biology
The Pennsylvania State University
S101 Frear Building
University Park, Pa. 16802**

An Affirmative Action/Equal Opportunity Employer

MAMMALIAN PHYSIOLOGICAL ECOLOGIST with environmental interest. Teaching and research in specialty, as well as teaching in environmental science and physiology. Assistant professor level; Ph.D. required. Closing date: 15 February 1976. Send curriculum vitae to: **Dr. W. R. Hanson, Chairman, Search Committee, Biology Department, California State University, Los Angeles, Calif. 90032**. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

DEPARTMENT OF LIFE SCIENCES UNIVERSITY OF PITTSBURGH

Applications are invited for a number of positions available in a newly organized Department of Life Sciences formed by merger of existing Departments of Biochemistry, Biology, and Biophysics and Microbiology, with Dr. M. Sussman as chairman. Areas of interest include immunobiology, neurophysiology, animal virology, genetics, chromosome structure and function in eukaryotes, and systems analysis of ecological problems. Applicants should provide evidence of creative and productive research capability, as well as excellence in teaching. Successful applicants will be expected to participate in graduate and undergraduate teaching and to establish vigorous research programs with grant support. Rank and salary will be commensurate with the qualifications of the applicants. Curriculum vitae and the names of at least three referees should be sent to: **Dr. T. G. Cooper, Department of Biochemistry, Faculty of Arts and Sciences, University of Pittsburgh, Pittsburgh, Pennsylvania 15261**. Deadline for receipt of applications is 10 January 1976.

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

MARINE BIOLOGIST

One, possibly two, positions in the area of marine ecology, including marine botany, zoology, microbiology, or biochemistry, at the rank of assistant professor, will be open September 1976. Teaching will include graduate and undergraduate courses in specialty area and possibly other undergraduate courses. Applicant is expected to develop an independent program of research and to participate in graduate training in his/her specialty. Postdoctoral experience or equivalent is desirable. Applicants should send curriculum vitae and three letters of reference to: **Dr. Joe L. Key, Chairman, Division of Biological Sciences, University of Georgia, Athens, Georgia 30602**, prior to 1 January 1976.

The University of Georgia is an Equal Employment Opportunity/Affirmative Action Employer and encourages applications from women and individuals from minority groups.

MEDICAL MICROBIOLOGIST

We seek a Ph.D. or M.D. with experience in Medical Microbiology to head a section of ten persons within the Microbiology Department of The Wellcome Research Laboratories. This is an opportunity for a research-oriented medical microbiologist to collaborate with organic chemists, biochemists, and other microbiologists in the design and testing of innovative, new chemotherapeutic drugs. Previous research experience in chemotherapy and pathogenic microbiology is highly desirable.

Please send résumé to:



**Dr. James Burchall
The Wellcome Research Laboratories
Burroughs Wellcome Co.
3030 Cornwallis Road
Research Triangle Park, N.C. 27709
Equal Opportunity Employer, M/F**

The Section of Neurobiology and Behavior in the Division of Biological Sciences at Cornell University has an opening for a **NEUROBIOLOGIST**. The position will be filled at the assistant professor level. The candidate must have strong training and research commitment in fundamental problems involving cellular or molecular approaches to the nervous system. Areas of research could include, but are not restricted to: neurodevelopment, neural integration, or synaptic transmission. A curriculum vitae with bibliography, one or two recent reprints, and letters from three people who know the candidate's work well should be sent to: **Dr. Jeffrey M. Camhi, Chairman, Neurobiology Search Committee, Section of Neurobiology and Behavior, Langmuir Laboratory, Cornell University, Ithaca, New York 14853**. Deadline for receipt of applications is 1 March 1976.

Pathologist AP-CP, to complete hospital-based group in university-affiliated teaching hospital. Upper Midwest. Financial arrangements open to negotiation. Stimulating situation, excellent working environment. Send résumé to

Box 494, SCIENCE

INDUSTRIAL ENVIRONMENTAL TOXICOLOGIST

San Francisco Bay Area



Stanford Research Institute's Center for Occupational and Environmental Safety and Health is seeking an Industrial Environmental Toxicologist to participate in its activities in contract research and consulting research and consulting services for government and commercial clients.

Initial assignments will be associated with the Center's activities in the preparation of NIOSH criteria documents for recommended occupational health standards in SRI's Washington, D.C. office; and in support of a contract with the National Cancer Institute in Environmental Carcinogenesis in SRI's main office at Menlo Park, California. Successful applicants will have solid background in inhalation toxicology and the toxicological aspects of Industrial Hygiene.

Emphasis will be given in evaluating applicants for their ability to critically review the biomedical literature and develop statements to support proposed standards. Previous experience is desirable but can be substituted by unusually strong academic background.



Send resume in confidence to:

STANFORD RESEARCH INSTITUTE

**Center for Occupational and
Environmental Safety and Health
333 Ravenswood Avenue
Menlo Park, CA 94025**

SRI is an equal opportunity employer

POSITIONS OPEN

NEUROANATOMIST

Applications are invited from qualified persons holding the M.D. or Ph.D. degree for a faculty position in neuroanatomy (rank and salary negotiable), available 1 March 1976 or sooner. Primary responsibilities will be to design and teach course in neuroanatomy in the new School of Medicine, to participate in graduate program, and to carry on an active research program. Submit curriculum vitae and references to **Dr. Antonio Zappala, Chairman, Department of Anatomy, Wright State University, Dayton, Ohio 45431. Wright State University is an Equal Opportunity/Affirmative Action Employer.**

Two to three faculty positions in **PETROLEUM ENGINEERING** are open at West Virginia University. One position begins on 1 January 1976 and the other(s) to be filled by 16 August 1976. Faculty rank dependent on qualifications and experience. Applicants should have a Ph.D. in petroleum engineering with industrial experience preferred. January position includes teaching petroleum production. Other teaching areas are drilling and completion, well stimulation and testing, natural gas engineering, well log interpretation, oil property education, and reservoir simulation. Opportunities for research wide open. Applications should be sent to **Professor J. A. Wasson, Chairman, Petroleum Engineering Program, College of Mineral and Energy Resources, West Virginia University, Morgantown, West Virginia 26506. An Equal Opportunity and Affirmative Action Employer.**

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

A position is available in the Cosmic Ray Laboratory for a **PHYSICIST** at the senior research associate level in the field of gamma-ray/cosmic-ray astronomy. The candidate should have a Ph.D. in a space science related field and have research experience in gamma-ray astronomy or cosmic rays. Experience with balloon or satellite instrument and data systems is essential.

Applications close on 15 December 1975. Applicants should send résumés and arrange for three references to be submitted to:

**Dr. Larry L. Smalley, Chairman
Department of Physics
The University of Alabama in Huntsville
Huntsville, Alabama 35807**

The University of Alabama in Huntsville is an Equal Opportunity/Affirmative Action institution.

POSTDOCTORAL IN DEVELOPMENTAL NEUROSCIENCE

Postdoctoral training is available in various aspects of developmental neuroscience. Stipend \$10,000 to \$13,200, depending on experience. Applicants with M.D. or Ph.D. should send curriculum vitae, summary of research interests, and names of two references to: **Dr. Marcus Jacobson, Department of Physiology and Biophysics, University of Miami School of Medicine, P.O. Box 520875, Biscayne Annex, Miami, Florida 33152.**

POSTDOCTORAL FELLOW

The Laboratory of Human Reproduction and Reproductive Biology is seeking a postdoctoral fellow trained in bioorganic chemistry with experience in mass spectrometry. The individual appointed would also carry the title of research fellow in biological chemistry. The subjects of major interest are steroid hormones and peptides in relation to human reproduction. Opening available 1 January 1976. Send application, including curriculum vitae and bibliography, and solicit letters from three persons familiar with your research, to **Dr. Lewis L. Engel, Laboratory of Human Reproduction and Reproductive Biology, Harvard Medical School, 45 Shattuck Street, Boston, Mass. 02115. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS

- 1) Basic Immunologist to conduct research on endocrine influences on immune function with emphasis on the role of milk.
- 2) Immunologist to study immunogenetics of human histocompatibility antigens including LD and Ia markers.

Applicants should have either a Ph.D. or M.D. degree. Send curriculum vitae and references to **Dr. Rene J. Duquesnoy, Director of Research and Development, Milwaukee Blood Center, Inc., 763 North 18 Street, Milwaukee, Wisconsin 53233.**

POSITIONS OPEN

PHARMACOLOGY

The Department of Pharmacology and Therapeutics, Schools of Medicine and Dentistry, State University of New York at Buffalo, invites applications for a full-time faculty position as assistant professor or, if especially qualified, associate professor. Candidates for assistant professorship must have a Ph.D. or M.D. degree and two or more years of research experience and publications. Duties include teaching of medical, dental, and graduate students. The position will best be filled by an individual who plans a lifelong career of research and teaching in academic pharmacology.

Send curriculum vitae and also request that three letters of recommendation be sent directly to: **Dr. Edward A. Carr, Jr., 122 Farber Hall, Box M, State University of New York at Buffalo, Buffalo, N.Y. 14214.**

An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION(S): Research on enzyme mechanisms and mechanisms of organic reactions related to enzyme action. Experience in organic chemistry or biochemistry preferred. Send résumé, and two letters of reference to: **Dr. R. M. Pollack, Department of Chemistry, University of Maryland Baltimore County, 5401 Wilkens Avenue, Baltimore, Md. 21228. University of Maryland Baltimore County is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS

The Veterans Administration Hospital is inviting applications from postdoctoral-level scientists to assist with research programs in the areas of (i) molecular mechanisms of chemical carcinogenesis and (ii) metabolism of chemical carcinogens. Applicants should possess training in molecular biology or analytical biochemistry. Interested persons should send a curriculum vitae and three names for references to: **Dr. K. David Straub, Associate Chief of Staff for Research, VA Hospital, 300 East Roosevelt Road, Little Rock, Ark. 72206.**

DISTINGUISHED PROFESSORSHIP. The School of Chemical Engineering at Cornell University is seeking nominations of candidates for its Herbert Fisk Johnson Professorship of Industrial Chemistry. Nominees are expected to present a record of outstanding research accomplishment; evidence of interest in innovative teaching in chemical engineering; and a Ph.D. in chemical engineering or chemistry. Candidates should have research interests in one or more aspects of applied chemistry and chemical engineering, including (but not limited to) surface chemistry, catalysis, and reaction kinetics. The committee welcomes candidates from industry or government laboratories, as well as from the academic community. An appointment to the professorship carries tenure, professional travel and support funds, and excellent fringe benefits. Please forward suggestions or résumés to **Professor Julian C. Smith, Director, School of Chemical Engineering, Cornell University, Ithaca, New York 14853.**

An Equal Opportunity/Affirmative Action Employer

ALASKA LEGISLATIVE STAFF PROFESSIONAL OPPORTUNITY

The Alaska State Legislature is receiving applications for Research Analyst positions with the Legislative Affairs Agency in Juneau, at salaries ranging from \$16,000 to \$25,000 per year. Persons applying for these posts should have a demonstrated ability to apply technical expertise and/or economic theory to complex public issues; they should be capable of communicating the implications of various policy alternatives to persons with nontechnical backgrounds. The successful applicants will probably have at least 6 years of professional education and/or experience, some of which will have brought them into contact with legislative decision-makers. Experience and present or prior residence in Alaska, though not mandatory, would be desirable. Persons with program experience in the following areas (or allied fields) are particularly urged to apply:

**FISHERIES, Renewable Resource Economics, Common Property Resource Management
LAND USE MANAGEMENT and Planning, Land Economics
PUBLIC UTILITY REGULATION, Government Regulation of Business, Transportation System; Planning**

Applications and detailed résumés accompanied, if possible, by a representative sample of prior work should be submitted to:

**Director of Research Services
Legislative Affairs Agency
Pouch Y
Juneau, Alaska 99811**

POSITIONS OPEN

PHARMACOLOGY

Ph.D. or M.D. for neuropharmacological research in neurotransmitters. Please send curriculum vitae to:

**THE MOUNT SINAI
MEDICAL CENTER
19 East 98 Street
New York, N.Y. 10029**

An Equal Opportunity Employer

POSTDOCTORAL POSITION VISUAL ELECTROPHYSIOLOGY

Training and research position. Single unit studies of receptive field properties of retinal ganglion cells. Emphasis on developmental aspects. Two-year position beginning summer 1976. Applicants with Ph.D. send curriculum vitae and three letters of recommendation to: **Dr. D. I. Hamasaki, Bascom Palmer Eye Institute, University of Miami School of Medicine, P.O. Box 520875, Biscayne Annex, Miami, Florida 33152.**

POSTDOCTORAL RESEARCH. *Bacillus subtilis* RNA polymerase mutants, subunit structure, sporulation. Ph.D. biochemistry/molecular biology. Experience in enzyme purification. Available 1 February 1976. Salary is NIH scale. Send curriculum vitae and statement of interests to **Dr. A. L. Sonenshein, Department of Molecular Biology, Tufts University School of Medicine, Boston, Mass. 02111. An Equal Opportunity/Affirmative Action Employer.**

PROGRAM MANAGER for large, multidisciplinary project at large, mid-Atlantic marine science laboratory. Ph.D. in marine science or closely related field and 1 or 2 years of postdoctoral experience, including management responsibilities. *Equal Opportunity Employer.* Reply to **Box 495, SCIENCE.**

TOXICOLOGY MANAGER

**Join us as we enter
a dynamic growth period**

The key to our growth is the Trans-Alaska Pipeline which will link us with our reserves in the Prudhoe Bay Area. We're gearing now for dramatically expanded operations. This is a ground floor opportunity.

Our immediate toxicologist opening plans, organizes & coordinates all aspects of company efforts in occupational health area of toxicology relating to product safety, employee health & compliance with legal requirements. Reports to Medical Director. Responsible for accumulation and organization of toxicological & related information on all products, developing protocols for contracting & managing studies performed by outside labs.

B.S. Chem, or Bio-Sciences required plus M.S. in Toxicology & minimum 5 years' experience.

Send resume in confidence to:

**L.L.WILLIS
The Standard Oil Co.
104C5 Midland Building
Cleveland, Ohio 44115**

*An Equal Opportunity
Employer M/F*

RESEARCH ENTOMOLOGIST

Johnson Wax Corporate Research and Development is seeking someone to fill a challenging position. The successful candidate is likely to have a Ph.D. or a combination of experience and education equivalent to a Ph.D. The job involves direct responsibility for corporate research and evaluation of insect toxicants and insect repellents. A strong background in insecticide chemistry, mode of action, and toxicity applicable to household insect pest control is essential.

Starting salary commensurate with experience plus excellent benefit package including cash and deferred profit sharing. Candidates should send résumé or letter of application to: **A. R. Hornisch.**

S. C. JOHNSON & SON, INC.
1525 Howe Street
Racine, Wisconsin 53403

An Equal Opportunity Employer M/F

THE INTERNATIONAL CENTRE OF INSECT PHYSIOLOGY AND ECOLOGY

CONTROLLER FOR INSECTARY SERVICES (REF.SCI/75/4)

Applications are invited from suitably qualified candidates for this post.

Qualifications: Candidates should be in possession of a Ph.D. degree, preferably in insect or animal pathology, but possibly also in zoology, biology, or physiology. They should have strong technical training and a solid scientific or research background at a senior level. They should necessarily be interested in insect breeding problems and techniques.

Responsibilities: The successful candidate will be required to (i) plan the insect and animal breeding unit; (ii) carry out experiments needed to establish routines for the breeding of each of the target insect species and required laboratory animals; (iii) supervise the operations of the insect and animal breeding unit; and (iv) train staff working under him. It is expected also that he will monitor the health of insects under his care. It is hoped that the successful candidate will be able to commence work on 1 February 1976 or soon thereafter.

Salary: The basic salary will be in the scale K.Shs.46,800 by 1,860 to K.Shs.61,680 per annum. A higher scale may be considered for a candidate with exceptional qualifications. Benefits include a housing allowance; a 10 percent gratuity on basic salary earned; a transport allowance; membership of a group medical insurance scheme; and generous leave.

Applications, in four copies, including the names of at least three referees (one to report on academic career; one on professional performance; and at least one on personality and character) and photostat copies of certificates and testimonials, should be sent to:

Deputy Director (Special Duties)
ICIPE Research Centre
P.O. Box 30772
Nairobi, Kenya

to reach him not later than 25 December 1975.

UNIVERSITY OF CINCINNATI Invites Applications for the Position of DEAN OF THE McMICKEN COLLEGE OF ARTS AND SCIENCES

The Dean of the McMicken College of Arts and Sciences provides academic and administrative leadership to the largest of the sixteen colleges comprising the University of Cincinnati, which has a total enrollment of 38,000 students. The College enrolls 5,000 undergraduates and 1,300 graduate students within nineteen departments having a total of 475 faculty and awards B.A. or B.S. degrees in thirty-seven disciplinary and cross-disciplinary areas. As one of the two universities designated by the Ohio Board of Regents as comprehensive graduate institutions in Ohio, it offers doctoral programs in seventeen disciplines.

Applicants should present evidence of scholarly achievement in addition to an aptitude for academic and administrative leadership.

Candidates must be able to assume the position no later than September 1, 1976.

Applications and/or letters of nomination (with full professional vita) should be sent by February 1, 1976, to:

Gene D. Lewis, Provost
Attn: A&S Search Committee
101 Administration Bldg.
University of Cincinnati
Cincinnati, Ohio 45221
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Action Employer

Scientists/Scholars

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Times Square Station, New York, N.Y. 10036



State of
New South Wales

NATIONAL PARKS
AND WILDLIFE
SERVICE

CHIEF RESEARCH OFFICER

SALARY: \$A16,461.

QUALIFICATIONS: A university degree in the natural sciences with higher qualifications essential.

EXPERIENCE: Demonstrated ability in ecological research, preferably with experience in Wildlife ecology. Experience in the management and direction of research and allied scientific activities.

DUTIES:

1. Responsible for co-ordinating, programming, implementing and extension of research work of the Service.
2. Provision of research leadership for a team of approximately 6 Scientific Officers and 12 Ranger/Naturalists on a State-wide basis.
3. Personal research contribution permissible in problems selected by the National Parks and Wildlife Service.

CONDITIONS: Subject to certain conditions the successful applicant will be eligible for:

- Payment of fares to Sydney.
- Financial assistance towards cost of removal expenses.
- Financial assistance towards initial accommodation expenses.

ENQUIRIES: Further information and application forms may be obtained from: The Agent General for N.S.W., The Strand, London, WC2.

Applications close on 5th January, 1976.

POSITIONS OPEN

UNIVERSITY OF CALIFORNIA, IRVINE

Position as **Professor of Psychology** in the School of Social Sciences. Duties involve graduate and undergraduate teaching in the area of perception and psychophysics. Candidate's research interests should also lie in this area, preferably with an emphasis on quantitative theoretical problems as well as experimental work. The School is seeking an established scientist who will pursue an active program of research and graduate training. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.* Send curriculum vitae and the names of five references to **Dean Christian Werner, School of Social Sciences, University of California, Irvine, Irvine, Calif. 92717**, before 1 February 1976.

Vacancy: **PROFESSOR AND HEAD**, Department of Physiology, Queen's University.

Qualifications: M.D. and/or Ph.D. with demonstrated competence in teaching, research, and administration.

Duties: Teaching in programmes in medicine, arts and science, and paramedical schools. Promotion of vigorous departmental research with associated M.Sc. and Ph.D. graduate programmes.

Salary: Commensurate with qualifications and experience.

Reply to: **Dr. H. G. Kelly, Vice-Principal for the Health Sciences, Queen's University, Kingston, Ontario.**

Effective date: 1 July 1976.

RESEARCH ASSOCIATE IN BIOCHEMICAL GENETICS

Ph.D. or M.D. to actively collaborate in an existing program concerned with the development of new methods for detecting and studying inborn errors of metabolism in newborn infants. Independent research in biochemical genetics, including work previously carried on elsewhere, will receive equal support from already available funds. Salary negotiable, depending on qualifications and experience. Apply to: **Robert Guthrie, Ph.D., M.D., Department of Pediatrics, State University of New York at Buffalo, and Children's Hospital, P.O. Box U, Station B, Buffalo, New York 14207.**

RESEARCH ASSOCIATE with training and experience in microbiology and immunology to work on etiology of periodontitis. Salary commensurate with experience. Interested candidates should write **Professor A. Nowotny, Department of Microbiology and Immunology, Temple University School of Medicine, Philadelphia, Pa. 19140.** *An Equal Opportunity Employer.*

RESEARCH ASSOCIATE: Ph.D. biochemist, or radiation biologist. Interested in drug suppression of collagen synthesis in animals. Salary \$13,000 to \$15,000. Submit curriculum vitae and references to: **Personnel Department, Albert Einstein Medical Center, York and Tabor Roads, Philadelphia, Pa. 19141.**

SENIOR SCIENTIST SKIN BIOLOGY

A leading pharmaceutical company in the Southwest is seeking a senior candidate who will develop and implement animal models for study of skin care products. This candidate should be well versed in skin physiology, dermatotoxicology, and dermatopharmacology. Required ability includes protocol development for preclinical IND studies in animals (safety and efficacy) with experience in preparing governmental documents. This individual will be starting a new group within an established technical base to study biological influences of skin and hair products in animal models as well as participate in clinical evaluations. A Ph.D. degree and some industrial experience is required for this position.

Alcon Laboratories offers excellent working conditions and benefits including free employee life and medical care insurance as well as excellent profit-sharing program. Please send résumé with salary requirements in confidence to:

**T. A. Gisi
Alcon Laboratories, Inc.
P.O. Box 1959
Ft. Worth, Texas 76101**

An Equal Opportunity Employer

POSITIONS OPEN

SCIENTIST POSITION

A position of staff or senior scientist is available at the Worcester Foundation for Experimental Biology for a person with sound knowledge and experience in endocrinology and biochemistry. The chosen candidate will be expected to work at the physiological and molecular levels on the mode of action of ACTH, and should be willing to work collaboratively with other scientists in efforts to further develop aspects of ongoing research with both normal and neoplastic tissues. Send résumé, three letters of references, and a summary of research objectives to: **Ashton Gibbons, Ph.D., Director of Personnel, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545.**

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SENIOR MICROBIOLOGIST. Group leader to supervise laboratory and train for responsibility as assistant manager. Requires a Ph.D. in microbiology with 1 to 3 years of industrial experience in pharmaceutical, cosmetic, or OTC products. Knowledge of preservative testing and tissue culture desired. Please send résumé and salary requirements to: **Raymond W. Anderson, Corporate Employment Manager, Bausch & Lomb, P.O. Box 450, Rochester, N.Y. 14602.** *An Equal Opportunity Employer M/F.*

Needed: **TECHNOLOGISTS or TECHNICIANS** in these specialties: Analytical methodology in all branches of chemistry, biological and medical sciences, tissue culture, spectroscopy, chromatography, electron microscopy, radioactive isotopes, computer sciences, water sciences, atmospheric sciences, and ecology. Proof of training in the sciences, for example, associate or bachelor of science degrees or equivalent, are required. Work conditions are congenial and salaries are competitive in an attractive Arab Middle Eastern city on the Mediterranean. For practical purposes, Arab-speaking applicants are preferred; but, all will be considered for the large number of available positions. Send applications with three names of references to: **Director General, Arab Development Institute, P.O. Box 8004, Tripoli, Libyan Arab Republic; or Technical Counselor for Scientific Research, Embassy of the Libyan Arab Republic, Suite 605, 1717 Massachusetts Avenue, NW, Washington, D.C. 20036.**

TOXICOLOGIST. Assistant professor. The Food Research Institute (Department of Food Microbiology and Toxicology), University of Wisconsin, is seeking an individual with a Ph.D. or professional degree in the area of toxicology, toxicopathology, or related field to conduct research relating to mode of action of food-borne toxicants. An individual whose training has emphasized biochemistry and morphological pathology including electron microscopy is desirable. In addition to developing an independent research program, a portion of the time will be spent in cooperative research. Send curriculum vitae and three letters of recommendation to: **E. M. Foster, Director, Food Research Institute, University of Wisconsin, Madison, Wisconsin 53706.** *An Equal Opportunity/Affirmative Action Employer.*

FELLOWSHIPS

FELLOWSHIPS IN VISION RESEARCH AT WASHINGTON UNIVERSITY

Predoctoral and postdoctoral fellowships are available under an NIH training program for the study of vision at Washington University in St. Louis. Training is available in basic anatomical, physiological, and biochemical approaches to the developing and mature visual system. Send inquiries and applications to **Dr. Nigel W. Daw, Box 8101, Washington University Medical School, 4566 Scott Avenue, St. Louis, Missouri 63110.**

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FELLOWSHIP

Interested in teaching college biology? Our Doctor of Arts program stresses individual needs and requires dedication to college teaching. Applicants must hold an M.S. degree. Fellowships (\$2900) with tuition waiver available. Our D.A.'s find jobs! Contact: **Chairman, Department of Biology, Idaho State University, Pocatello, Idaho 83209.**

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS in HUMAN and MEDICAL GENETICS

Training available in clinical, biochemical, immunological, and population genetics. Candidates must have Ph.D., M.D., D.V.M., or comparable degree and be U.S. citizens or permanent residents. Fellowships will begin 1 July 1976. The stipend is \$10,000 to \$13,200, depending upon previous postdoctoral experience.

Send curriculum vitae and the names of three references to: **Dr. Arthur G. Steinberg, Case Western Reserve University, Cleveland, Ohio 44106.**

REPRODUCTIVE ENDOCRINOLOGY PROGRAM, PREDOCTORAL AND POSTDOCTORAL FELLOWSHIPS

Training can be obtained in association with faculty in anatomy, biochemistry, cell and molecular biology, obstetrics and gynecology, pathology, pediatrics, physiology, and zoology. Applications and other information may be obtained from **Dr. J. S. Richards, Program Coordinator, Reproductive Endocrinology Program, The University of Michigan, Ann Arbor, Michigan 48104.**

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PROGRAMS

DOCTORAL PROGRAM—PHARMACOLOGY

Medical University of South Carolina, Department of Pharmacology, seeks candidates for Ph.D. program. Interdisciplinary environment with capabilities ranging from GC-MS through cell cultures and animal studies to clinical studies of patients. Research training available in biochemical, cardiovascular and clinical pharmacology, drug metabolism, toxicology, and analytical chemistry. Stipends available: \$3900 per year. Contact: **Department of Pharmacology, Medical University of South Carolina, Charleston, S.C. 29401.**

MARKET PLACE

A.I.D./A.C.S. Announces its Third Annual Analytical Instrumentation Symposium:

"Spectroscopy and
Sample Preparation Techniques"
April 29 & 30, 1976
Little Rock Convention Center
Little Rock, Ark.

For information write Marge Brewster, Ph.D., Analytical Instrumentation Discussion Group, P.O. Box 5592, Little Rock, Ark. 72205; Phone (501) 664-5000, Ext. 467.

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*Stadtman, T. C., Cherkes, A., and Anfinsen, C. B., (1954) *J. Biol. Chem.* **206**, 511-523.
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NEUROSCIENCE ADMINISTRATOR

A position is open for a Health Scientist Administrator at the National Institute of Neurological and Communicative Disorders and Stroke, Neurological Disorders Program, Bethesda, Maryland.

Experience should include at least three postdoctoral years in neuroscience research in addition to 1 year postdoctorate experience in research program administration. Incumbent will be responsible for administration of grants that support research on disorders of the nervous system. Salary range, \$19,386 to \$26,861, depending upon specific qualifications of applicants.

Forward Standard Form 171 (available from Personnel Office, NINCDS, Bethesda, Md. 20014, any Federal Civil Service Office, or U.S. Post Office) no later than December 31, 1975 to:

Ms. Bonnie Kalberer, Personnel Officer
Bldg. 31, Room 8A-25
National Institute of Neurological
& Communicative Disorders and Stroke
NATIONAL INSTITUTES
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Public Health Service
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June 8-10, 1976

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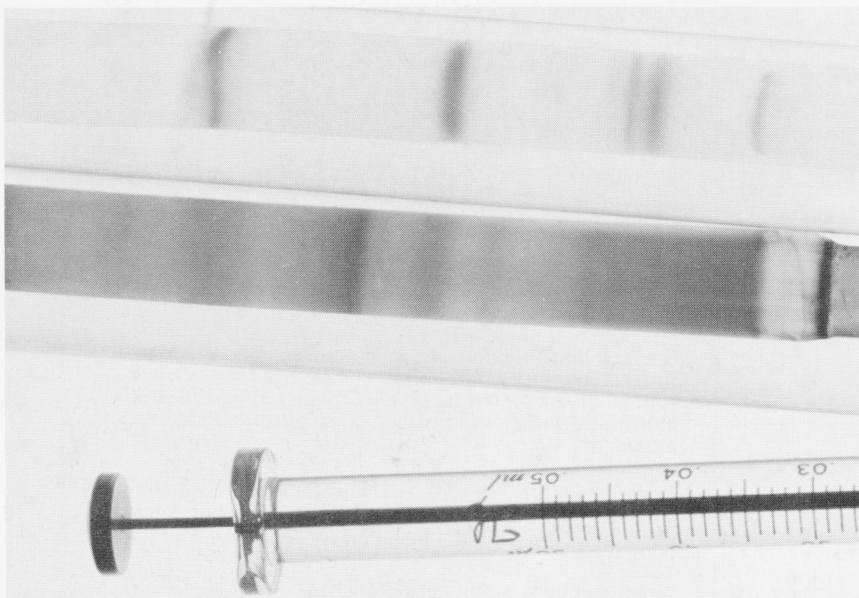
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For clearing up a few mysteries

(without bothering anybody else)

Polyacrylamide gel electrophoresis (PAGE) is a nice way (and not just in the colloquial sense) to separate proteins, polysaccharides, or other biological macromolecules. PAGE has come

along rather well since we brought it to widespread attention in one of these ads 14 years ago. Now we announce a line of PAGE reagent sets, just in case you are a serious investigator who does not

have the resources of a well-stocked molecular biology laboratory at your command yet prefer to do your own investigating instead of appealing for analytical help from someone with other fish to fry. The kits should prove convenient for obtaining the right chemicals in reasonable quantity. In them are detailed instruction booklets that give suggestions for readings that may well lead you beyond reliance on instruction booklets.

For the sweet satisfaction of unraveling molecular mysteries of the plant, animal, or fungal kingdoms with your own fingers, you may wish to ignore the present availability from several instrument manufacturers of PAGE equipment. You can assemble your own from simple components with directions given in a reprint we have been distributing free since 1964. (Request "Disc Electrophoresis II" from Dept. 55W, Kodak, Rochester, N.Y. 14650. There is also Kodak Publication JJ-11, which tells about many more reagents for PAGE than are included in the kits.)

① 100 g of Acrylamide (Electrophoresis Grade), the basic monomer for forming the gel through which the electric field migrates the molecules at a speed depending on their mass, charge, and configuration, and on the size of the pores formed in the gel. Sufficient for about 700 gels 5 mm x 12 cm.

② 25 g of Sodium Dodecyl Sulfate. Works with buffers to dissociate protein aggregates, maintain protein solubility, negate charge differences between proteins to permit determining their molecular weight from migration speed. Instruction booklet tells how.

③ 10 g of *N,N'*-Diallyltartardiamide for use in place of "Bis" to prepare a gel that is more readily dissolved to recover fractionated material for liquid scintillation counting or other further work.

④ 10 g of specially recrystallized *N,N'*-Methylenebisacrylamide, "Bis," the original cross-linking monomer for PAGE. Polymerization begins upon addition of catalyst and initiator to the mixture of the two monomers. Acrylamide-Bis ratio is an important determinant of physical characteristics of the gel.

⑤ 25 ml of 0.1% Bromophenol Blue Solution to mark the boundary behind which the sample is electrophoretically separating. (Unsuitable for acidic buffers, where Methylene Blue works better.)

⑥ 10 g of Periodic Acid for dissolving gels cross-linked with diallyltartardiamide. Purified against quenching of liquid scintillation. Generally does not denature proteins at 2% concentration used.

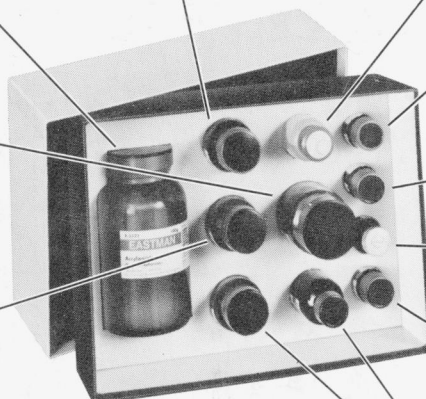
⑦ 10 g of Ammonium Persulfate, the catalyst to initiate the small-pore separation gel.

⑧ 5 g of *N,N,N',N'*-Tetramethylethylenediamine (TEMED). Works with either ammonium persulfate or riboflavin to initiate polymerization.

⑨ 5 g of Riboflavin, for preparing large-pore-gel initiator. Less likely than persulfate to denature samples. A "stacking" gel of large pore size placed on top of the separation gel is commonly used to concentrate the test mixture to a thin layer from which differential migration starts.

⑩ 25 g of 2-Mercaptoethanol to help solubilize protein by reducing disulfide linkages.

⑪ 5 g of stain selective for proteins as against gel background. Works with acidic, neutral, or basic buffers.



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- Order the EASTMAN 13203 set if you just want to separate components for recovery. We omit ②, ④, ⑨, ⑩, and ⑪ and let you supply your own stain.

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