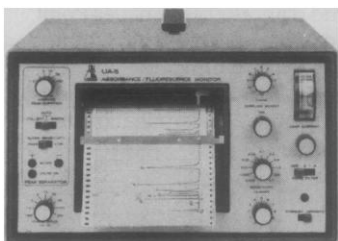
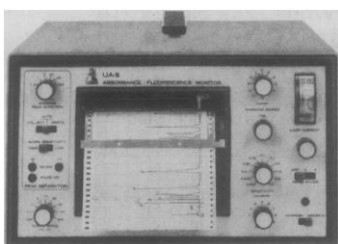


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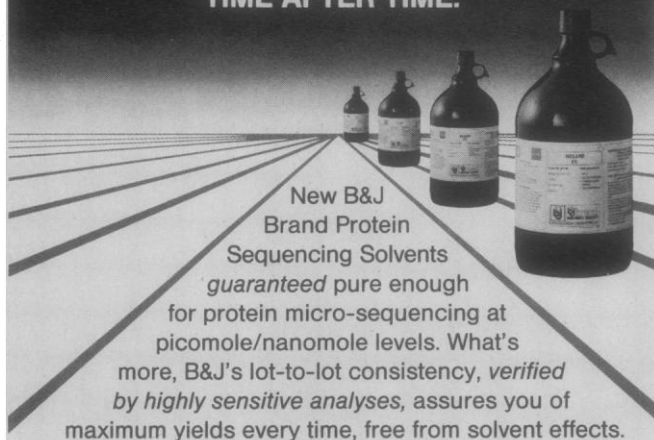
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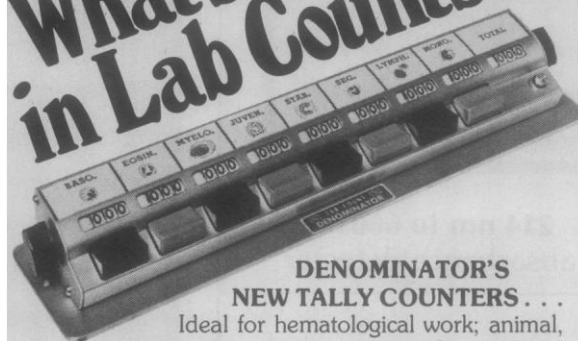
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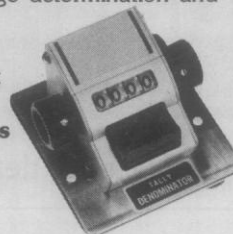


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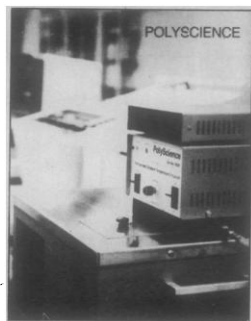
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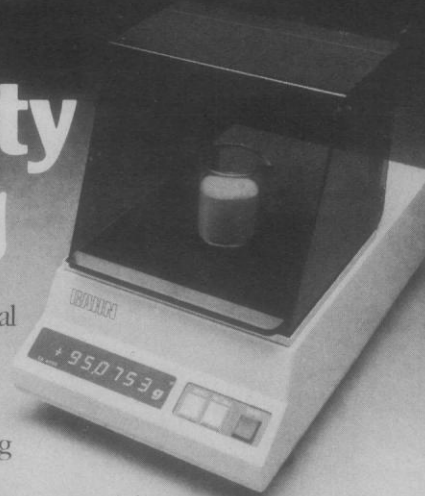
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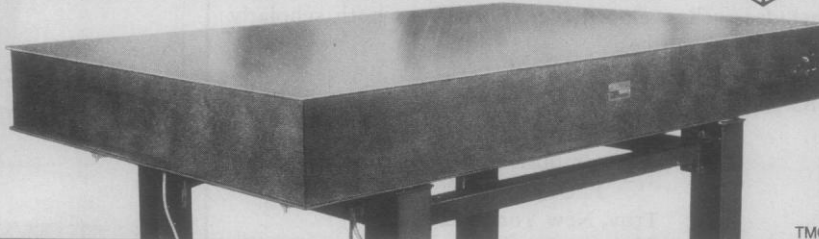
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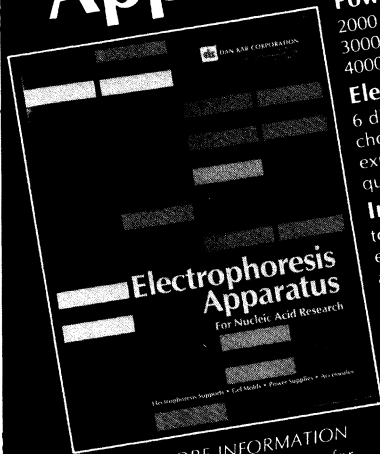
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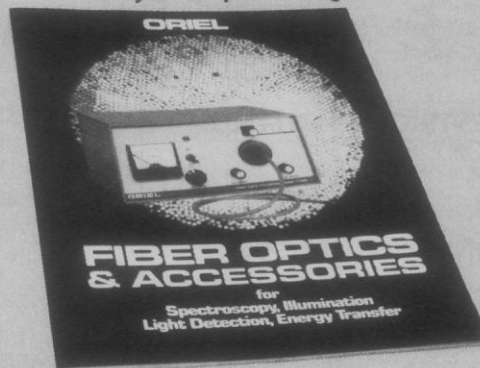
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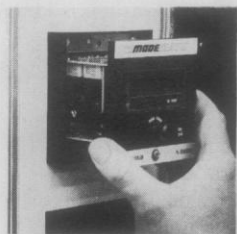
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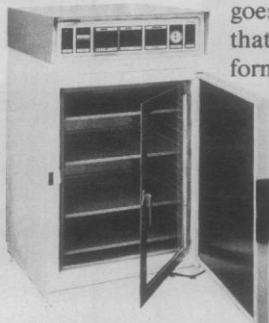
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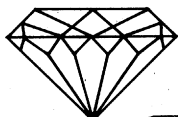
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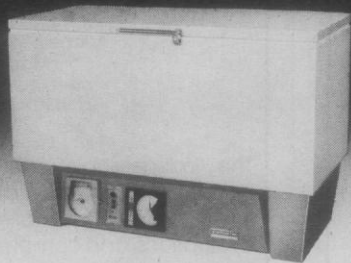
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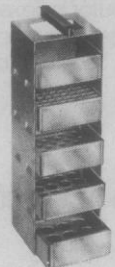
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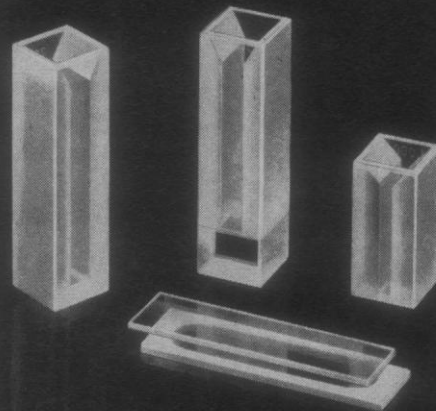
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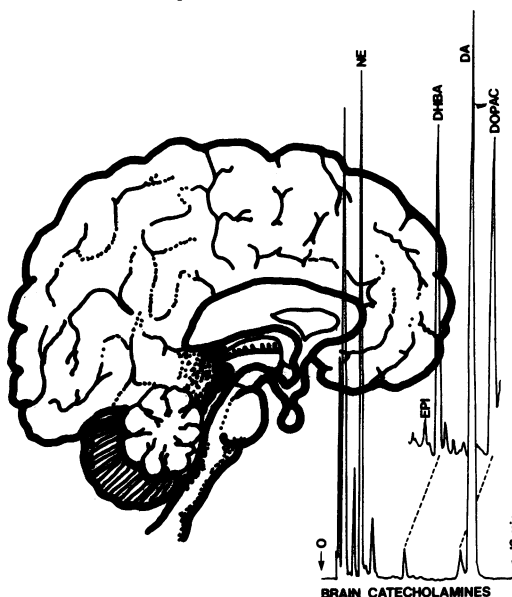
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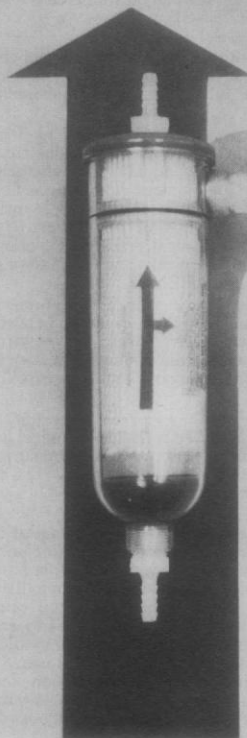
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Ornithologist/Systematist/Administrator. Ph.D. with extensive field (North, South America), museum (modern systematics), management experience. Desires museum, research, teaching, administrative position. Box 36, SCIENCE. X

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M.B.A./Biochemist: M.B.A.-marketing (1981); B.Sc.-biochemistry (1979). Work experience in project (business) analysis, market research, new product and marketing planning. Two years of research experience in molecular biology and fermentation. Strong background in variety of other technical areas. Thesis on structure of biotechnology industry. Box 37, SCIENCE. X

Pathologist with research interests in apheresis therapy and the transfusion-dependent hemoglobinopathies available July 1983. Large metropolitan area preferred. Box 38, SCIENCE. 2/11, 18, 25; 3/4

Physiologist. Ph.D. 1978. Cardiovascular and respiratory physiology of aquatic animals, particularly invertebrates. Good general knowledge of blood gas transport and acid-base chemistry; 2 years at instructor level, teaching of physiology; 3 years of postdoctoral biochemical research experience with human hemoglobins. Seeks teaching and/or research position. Box 27, SCIENCE. X

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Russian Translator. To translate technical articles in either direction. M.D., neuro-psychiatrist, B.A. Russian studies. Reply: P.O. Box 1251, Charlottesville, Va. 22902. Keep this ad. X

Technical-Research Assistant in Biological Oceanography. Two years of experience in zooplankton field and laboratory procedures including plankton identification and copepod grazing, chlorophyll and nutrient analysis; research and advanced open water Scuba certification; experience in SEM and TEM; practical experience in histology and cytology preparation; knowledge of Fortran and Basic; 8 years of darkroom experience; one publication and others undergoing manuscript preparation. Contact: Andrew J. Bebrý, 9 Fruitledge Road, Brookville, N.Y. 11545. Telephone: 516-626-0412. X

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ANALYTIC CHEMIST

Pepperdine University, a private, 4-year liberal arts university with Christian heritage, seeks applicants for a faculty appointment in analytical chemistry. Ph.D. required. Interest in research expected, with limited funding available. Preference given those who support goals of Christian education. Forward curriculum vitae, transcripts, and three letters of recommendation to: **Dr. Warren Kilday, Natural Science Division, Pepperdine University, Malibu, California 90265.**

ANATOMIC PATHOLOGIST. The Dartmouth-Hitchcock Medical Center is seeking to fill a position at the assistant professor level in anatomic pathology. Applicants should be Board-eligible/certified and should have an active interest in teaching and research. Individuals with expertise in hematopathology, immunology, oncology and/or molecular biology are encouraged to apply. Please send curriculum vitae, names of five references, and salary requirements by 18 March 1983 to: **Martha E. Stauffer, M.D., Chairman, Search Committee, Department of Pathology, Dartmouth-Hitchcock Medical Center, Hanover, N.H. 03756.**

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ASSISTANT PROFESSOR. Full-time, state-funded, tenure-track assistant professor position in the Maternal and Child Health Program of the Department of Social and Administrative Health Sciences, effective September 1983. Will participate in planning and teaching courses in maternal and child health and related areas of medical care, conduct research, and engage in customary range of professional/community service. Qualifications include: doctoral degree from a U.S.-accredited institution of higher learning in an academic discipline related to maternal and child health (examples: public health, psychology, behavioral sciences, obstetrics). Salary to be negotiated. Send curriculum vitae, sample of refereed publications, and statement of research/teaching interests to: **Chairman, Department of Social and Administrative Health Sciences, School of Public Health, University of California, Berkeley, California 94720.** Closing date for applications is 15 March 1983. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ANATOMY INSTRUCTOR

The Department of Biology, University of Alabama in Birmingham, invites applications for the position of **INSTRUCTOR OF ANATOMY**, beginning 1 June 1983. Candidates must possess a minimum of a master's degree and have experience in human anatomy. The successful applicant will be expected to have excellent oral communicative skills and a commitment to excellence in teaching students in allied health programs. Interested applicants should submit curriculum vitae, three letters of reference, a statement of teaching competencies, and other pertinent information to: **Dr. Daniel D. Jones, Chairman, Department of Biology, University of Alabama in Birmingham, University Station, Birmingham, Alabama 35294.** *An Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSORSHIPS

The Department of Biomedical Sciences of Western Michigan University invites application for faculty position in either medical microbiology or human physiology/pharmacology. Duties include teaching undergraduate and graduate courses and conducting an independent research program.

Qualified applicants should submit curriculum vitae, a list of publications, summary of research interests, a statement of teaching competency, and three letters of recommendation.

All materials should be submitted to:

Dr. D. A. Buthala, Chairman
Department of Biomedical Sciences
Western Michigan University
Kalamazoo, Michigan 49008

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ASSISTANT PROFESSOR OF ANIMAL BIOLOGY.

The Laboratories of Anatomy, School of Veterinary Medicine, University of Pennsylvania, invite applications for a tenure-track position at the assistant professor level to begin in summer 1983. Candidates must have an advanced degree(s), postdoctoral and teaching experience, and accomplishment in the development of an independent research program in the neurosciences. Teaching responsibilities will be in gross anatomy and neurobiology. Applicants should submit, as soon as possible, complete curriculum vitae and a brief description of their future research program and have one letter of recommendation and names for other references forwarded to: **Dr. Richard R. Miselis, Laboratories of Anatomy, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, Pa. 19104.** *An Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF CROP SCIENCE.

Applications are invited for a tenure-track faculty position available 1 July 1983. The area of specialization is grain crop production, with 70 percent extension and 30 percent research commitments. The extension assignment is to conduct and coordinate educational programs for extension staff and personnel in associated industries and government agencies. The research will be in crop production systems for corn and small grains. There will be opportunity to direct graduate student research.

Applicants should send curriculum vitae, transcripts, and the names of three references to: **R. F. Lucey, Chairman, Department of Agronomy, Cornell University, Ithaca, New York 14853.**

Application deadline is 31 March 1983.

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ASSISTANT PROFESSOR OF PHARMACOLOGY

(tenure-track). This appointment is anticipated 1 July 1983 within the Department of Biomedical Sciences, a multidisciplinary unit with 10 existing faculty, three of whom are pharmacologists. We particularly seek a candidate with demonstrated ability to conduct a strong independent research program. Teaching skills in cardiovascular, autonomic, or CNS pharmacology are preferred, regardless of the specific area of research expertise. We offer a competitive salary, start-up funds, and new facilities in a setting 75 miles west of Chicago and 60 miles south of Madison, in a community of 200,000. Applicants should submit curriculum vitae, summary of research plans, and at least three references prior to 15 March 1983 to:

Chairman, Search Committee for Pharmacology
Department of Biomedical Sciences
University of Illinois, College of Medicine, Rockford
1601 Parkview Avenue
Rockford, Illinois 61107

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POSITIONS OPEN

ASSISTANT PROFESSOR—CERAMIC SCIENCE AND ENGINEERING The Pennsylvania State University

The Department of Materials Science and Engineering at The Pennsylvania State University, University Park, Pennsylvania, seeks an assistant professor of ceramic science and engineering for a tenure-track position effective August 1983.

The successful applicant will undertake teaching at the undergraduate and graduate levels in the general area of physical ceramics. This individual will be expected to develop a strong research program with emphasis on microstructure development and physical properties of ceramics and/or amorphous materials.

A Ph.D. in ceramics or related field is required. Excellence in research and enthusiasm for teaching are important criteria for candidates for this position.

Please submit curriculum vitae and references by 1 April 1983 to:

Professor Richard E. Tressler, Chairman
Ceramic Science and Engineering
The Pennsylvania State University
201 Steidle Building
University Park, Pa. 16802

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ASSISTANT PROFESSOR OF METEOROLOGY

The Wilkes College Department of Earth and Environmental Sciences seeks applications for a meteorologist for the 1983-1984 academic year. This is a tenure-track appointment. Primary responsibility is undergraduate teaching, including courses in synoptic meteorology, dynamic meteorology, and air quality. Ph.D. is preferred; A.B.D. acceptable. Salary and rank commensurate with credentials and experience. Send résumé and three current letters of reference by 15 March to:

Dr. Mike Case
Department of Earth and Environmental Sciences
Wilkes College
P. O. Box 111
Wilkes-Barre, Pa. 18766

Telephone: 717-824-4651, extension 245
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ASSISTANT PROFESSOR—MOLECULAR BIOLOGY-PARASITOLOGY. The Department of Medicine, Division of Geographic Medicine, Case Western Reserve University, invites applications for a faculty position in the molecular biology of parasitism. This position will involve joint appointment in the Department of Molecular Biology and Microbiology. We encourage applications from candidates with strong credentials in molecular biology and a commitment to develop an independent research program in molecular parasitology. This appointment provides excellent opportunities to combine a previous background in molecular biology with a strong center in geographic medicine which is studying several model parasite systems. Send curriculum vitae, a statement of research interests, and names of four references to: **Dr. Adel Mahmoud, Department of Medicine, Division of Geographic Medicine, University Hospitals, 2074 Abington, Cleveland, Ohio 44106.** An *Equal Opportunity/Affirmative Action Employer.*

BIOGEOCHEMIST OR ENVIRONMENTAL INORGANIC CHEMIST

Full-time faculty research position for biogeochemist or environmental inorganic chemist at Savannah River Ecology Laboratory. Ph.D., U.S. citizenship, publications in the open literature, relevant experience, and a strong background in inorganic and environmental chemistry required. Responsibilities will be to develop a strong basic research program and participate in the applied research programs of the laboratory. Emphasis will be on the fate and behavior of inorganic compounds, nutrients, trace elements, and metal complexes in aquatic and terrestrial ecosystems. Rank and salary negotiable. By 1 March 1983, send résumés, reprints, and the names, addresses, and telephone numbers of four references to:

Domy Adriano
Chairman of Search Committee
Savannah River Ecology Laboratory
Drawer E
Aiken, S.C. 29801

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DEPAUW UNIVERSITY DEPARTMENT OF PHYSICS AND ASTRONOMY

Assistant professor, tenure-track appointment, beginning fall semester 1983. A Ph.D. in physics plus a background sufficient to teach introductory astronomy courses are required. Must be strongly motivated toward teaching at a liberal arts institution; some previous college teaching experience highly desirable. A broad knowledge of the basic topics in a strong undergraduate physics curriculum is essential. Applicants must be willing to direct undergraduate research projects in both physics and astronomy. Applications received by 1 April will receive fullest consideration. Send résumés (including a list of references) to: **P. B. Kissinger, Department of Physics and Astronomy, DePauw University, Greencastle, Indiana 46135.** *DePauw University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

An **ASSOCIATE SPECIALIST** position exists in the Sanitary Engineering and Environmental Health Research Laboratory, University of California, Berkeley, to conduct research on activated sludge bulking control with disinfectants. Qualifications are a Ph.D. or equivalent in applied or environmental microbiology or related field, and/or in sanitary engineering or environmental health sciences with experience in microbiology and growth and enumeration of microorganisms required. Salary range: \$23,340 to \$28,116 per year, for 100 percent time, depending on qualifications. Starting date: 1 March 1983 for 12 months; reappointment subject to availability of extramural funds. Application deadline: 28 February 1983, or 30 days from publication date, whichever is later. Send application and three references to: **D. Jenkins, Department of Civil Engineering, 607 Davis Hall, University of California, Berkeley, Calif. 94720.** *The University of California is an Equal Opportunity/Affirmative Action Employer.*

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The Department of Physiology and Biophysics has positions available for which applications are invited. Candidates should have completed their M.D. or Ph.D. (medical physiology) at least 2 years prior to application and demonstrated scientific capabilities in their area of interest. To be considered, individuals must have displayed an ability to effectively teach in other areas of human physiology in a medical school setting. Preference will be given to candidates with research experience in neurophysiology though applicants with expertise in other fields will also be considered. To apply, please send curriculum vitae, bibliography, and names of three references to: **Dr. J. C. Torres, Department of Physiology and Biophysics, Mail Stop 409, Hahnemann University, 230 North Broad Street, Philadelphia, Pennsylvania 19102. An Equal Opportunity/Affirmative Action Employer.** All applications must be completed by 31 March 1983.

BEHAVIORAL ENTOMOLOGIST: Assistant or associate professor to develop a research program and teach courses in insect ethology and related entomology areas. Twelve-month, tenure-track, available 1 July 1983.

Qualifications: Ph.D. with training in entomology, ethology, and field ecology. Some neurophysiology training desirable.

Send inquiries, curriculum vitae, transcripts, list of five references, and a statement of research interests and professional goals to: **Dr. C. W. Pitts, Head, Department of Entomology, 106 Patterson Building, The Pennsylvania State University, University Park, Pa. 16802.** Applications received until 15 March 1983 or until a suitable applicant is found.

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BIOCHEMISTS

Positions open for a recent Ph.D. (associate researcher) and a senior technician with interest in the molecular biology or carcinogenesis. Recombinant DNA experience preferred. Send curriculum vitae and three references to: **Dr. Gerhard Stöhrer, Department of Chemical Carcinogenesis, Sloan-Kettering Institute, 145 Boston Post Road, Rye, N.Y. 10580.**

BIOCHEMISTRY: Assistant professor in expanding department. Postdoctoral experience necessary. Preference given to those using recombinant DNA in plant systems. Send résumé, three letters of reference, and description of research interests to: **Search Committee, Department of Biochemistry, Louisiana State University (LSU), Baton Rouge, La. 70803.** Closing date for applications: 1 March 1983. *LSU is an Equal Opportunity/Affirmative Action Employer.*

BIOLOGIST. Assistant professor, tenure-track. The University of Denver has a second biology opening for September 1983, and seeks an outstanding researcher/teacher to occupy a laboratory in a new research building. He/she will be expected to maintain research productivity, actively pursue extramural support, and direct graduate students at the M.S. and Ph.D. level. Teaching responsibilities will depend in part upon research interests and will be consistent with a strong research program. Applicants should forward curriculum vitae, including a statement of research plans, and names of three references by 15 March 1983 to: **Dr. Judith Snyder, Department of Biological Sciences, University of Denver, Denver, Colo. 80208. An Equal Opportunity/Affirmative Action Employer.**

CHAIRPERSON DEPARTMENT OF ANATOMY

THE MEDICAL COLLEGE OF WISCONSIN is conducting a national search for a chairperson for the College's Department of Anatomy. Applications are invited from established scholars with the highest academic credentials in teaching and research, with demonstrated leadership ability, capable of administering a department with 11 full-time faculty. The Anatomy Department teaches 200 first-year medical students and has graduate students in programs leading to the master of science and doctoral degrees. Interested candidates should submit complete curriculum vitae by 15 March 1983 to: **William J. Stekiel, Ph.D., c/o J. Robert Koewing, Special Assistant to the Dean, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, Wisconsin 53226. The Medical College of Wisconsin is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates are encouraged to apply.**

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Applications, including curriculum vitae, statement of teaching and research interests, and three letters of recommendation, should be sent by 15 March 1983 to: **T. A. Cole, Department of Biology, Wabash College, Crawfordsville, Ind. 47933. An Affirmative Action/Equal Opportunity Employer.**

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BOTANIST

Applications are invited for a tenure-track position at the assistant professor level effective 1 July 1983.

Field of specialization is open but more consideration will be given to candidates specializing in the areas of plant physiology and lower plant biology.

The candidate is expected to initiate a research program, to teach both undergraduate and graduate courses, and to supervise honours B.Sc. and M.Sc. student theses.

The Department of Biology is comprised of 11 faculty with research interests in boreal forest biology.

In accordance with Canadian Immigration Regulations, applicants who are Canadian citizens or landed immigrants will be considered first in this competition.

Applications, as well as three letters of reference, will be received until 1 May 1983 and should be sent as soon as possible to:

**D. E. Ayre
Secretary of the University
Lakehead University
Thunder Bay, Ontario, Canada P7B 5E1**

MEIJI MILK PRODUCTS CO., LTD., a leading food processing company in Japan, is launching an interdisciplinary basic research program of cell biology. Several positions are available at junior and senior levels in protein/glycoprotein characterization, eukaryotic cell biology, hybridoma technology, and genetic engineering. Innovative researchers and clinicians are encouraged to apply. The candidate speaking fluent Japanese and English is most desirable. The company provides a competitive salary, moving expenses, and excellent fringe benefits. Applicant should send curriculum vitae, the names of three or more references, bibliography, and a summary of research accomplishment and research interest in English to: **Masaru Imada, Ph.D., Department-1, MEIJI MILK PRODUCTS CO., LTD., Rockefeller Center Station, P.O. Box 927, New York, N.Y. 10185.**

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POSITIONS OPEN

CHAIRMAN, BIOLOGICAL SCIENCES. The University of Pittsburgh seeks an individual with an established record of research accomplishment and administrative ability to provide research and teaching leadership for a broad, 36-member department with an extensive graduate program and with concentrations in several areas of modern biology. Applications should be sent to: **Dr. Richard L. Russell, Search Committee Chairman, Department of Biological Sciences, University of Pittsburgh, Pittsburgh, Pa. 15260. Equal Opportunity/Affirmative Action Employer.**

THE UNIVERSITY OF MELBOURNE CHAIR OF PHYSIOLOGY

Applications are invited for a chair of physiology which will become vacant following the appointment of Professor I. Darian-Smith to a chair of anatomy in this University, with effect from 1 March 1983.

The University is seeking an appointee who is outstanding in a branch of medical science relevant to the broad discipline of physiology.

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Applications close on 15 April 1983.

CHAIRMAN. The College of Veterinary Medicine, Washington State University, invites applications and nominations for chairman, Department of Veterinary and Comparative Anatomy, Pharmacology, and Physiology. Candidates with the D.V.M. and/or Ph.D. degrees and with superior qualifications and experience in teaching and research will be considered. Academic disciplines in the department include anatomy, physiology, pharmacology, and toxicology. The selection process begins 1 May 1983. Starting date is July 1983 or as soon thereafter as possible.

Inquiries, applications, and nominations should be sent to: **Dr. C. S. Zamora, College of Veterinary Medicine, Washington State University, Pullman, Washington 99164-6520. Washington State University is an Equal Opportunity/Affirmative Action Employer.**

CHAIRPERSON, DEPARTMENT OF PATHOLOGY

THE UNIVERSITY OF COLORADO SCHOOL OF MEDICINE is interested in receiving nominations for the position of Chair of the Department of Pathology. The individual must have exceptional qualities and demonstrable accomplishments as a pathologist, teacher, and investigator. Board-certification or Board-eligibility in either pathologic anatomy or clinical pathology is desirable. He or she must be willing to assume administrative responsibilities in directing a department devoted to professional and graduate education, research and clinical service. Qualified individuals are requested to submit their curriculum vitae and bibliography by 30 April to: **Norman Weiner, M.D., Department of Pharmacology, Box C236, University of Colorado School of Medicine, 4200 East 9th Avenue, Denver, Colorado 80262.**

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DIRECTOR, UNIVERSITY OF WISCONSIN-MADISON ARBORETUM, a teaching and research facility of natural and restored plant communities and horticultural collections. Responsible for implementation of policies set by interdisciplinary faculty committee; staff supervision; budget development; fundraising; public relations; liaison with university administrators, faculty volunteer organization, government officials. At least 4 years of relevant administrative experience; strong background in natural sciences; advanced degree or equivalent professional qualifications; \$27,939 minimum, 12 months. Position available 1 June 1983. Send application letter, résumé, salary history, and names, addresses, and telephone numbers of three references by 11 March 1983 to: **Professor Edward R. Hasselkus, Chairman, Search Committee, Department of Horticulture, 1575 Linden Drive, Madison, Wis. 53706. Telephone: 608-262-1450.**

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SCIENTIST

Endocrinologist

Genentech, Inc., a company at the forefront of recombinant DNA research and manufacturing technology, is presently offering a challenging career opportunity for a strongly motivated individual to join our Pharmacology Department.

The successful candidate will conduct preclinical research in Endocrinology for a variety of human and animal health care products. Qualified applicants will be highly creative scientists with an ability to design and implement preclinical research programs using animal model systems to study drug efficacy and pharmacokinetics related to various aspects of growth and bone metabolism.

This position requires an M.D. or PhD and 4-6 years experience working in the area of bone and growth metabolism.

Located on the beautiful San Francisco peninsula, we offer excellent salaries, comprehensive benefits, a liberal relocation assistance program, and a stimulating, challenging environment. For immediate consideration please send resume to **Human Resources**. Please refer to **Position #SCI-149**.

Genentech, Inc.

**460 Point San Bruno Boulevard
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We are an equal opportunity employer m/f



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**Recruitment Director
1885 33rd Street
Boulder, CO 80301**

(303) 442-7094

MICROBIOLOGIST

We are seeking applicants for a research position at PhD level in a new and innovative research program in the area of microbiology and molecular biology.

Extensive training and experience in microbiology and/or molecular biology is required. Familiarity with fermentation and recombinant DNA technology is desirable.

This is an excellent opportunity with a Fortune 100 Corporation in the Midwest. If you can answer yes to the challenge, please send your resume in confidence to:

Box 29, SCIENCE

**Applicants Must Be U.S. Citizens
Or Possess A Permanent Visa**

**AN EQUAL OPPORTUNITY
EMPLOYER M/F/H/V**

Due to retirement of our present head of Pharmacology in 1983, Duphar B.V. (Dutch Pharmaceuticals) in Holland invites applications for the position of

director/head of pharmacology

from extensively experienced pharmacologists, who can give us evidence of abilities in research-management.

Heading up our new and well equipped laboratories with a research staff of around 60 people, working in the CNS, cardio vascular and gastro-intestinal field is an exciting and challenging job. The total R + D pharmaceutical strength is about 350. And the head of pharmacology will help to steer the entire research strategy.

We offer the successful candidate excellent benefits and an outstanding relocation package.

Candidates from the U.S.A., seeking an opportunity to work in a research-intensive multinational company and to live in the Netherlands in or near Amsterdam, are invited to send resume in confidence to Mr. W. Mathot, Duphar B.V., P.O. Box 2, 1380 AA Weesp, Holland.
Tel. (Holland): 2940-71110 ext. 671.

duphar



**DUPHAR B.V.,
Farmaceutisch-Chemische Industrie**

POSITIONS OPEN

CHEMICAL OCEANOGRAPHER—Assistant professor, tenure-track position for applicants with recent Ph.D. and competence and interest in contemporary marine chemistry or geochemistry. Duties will include development of research projects and some teaching. Salary negotiable, depending upon experience and qualifications. Submit résumé and names and addresses of three references by 1 March 1983 to: **G. Ross Heath, Dean, School of Oceanography, Oregon State University, Corvallis, Oregon 97331.** An Affirmative Action/Equal Opportunity Employer.

CHIEF, PSYCHOLOGY SERVICE

The San Diego Veterans Administration Medical Center and the Department of Psychiatry at the University of California, San Diego, are seeking a Chief, Psychology Service, San Diego Veterans Administration Medical Center. Candidates should have strong research, clinical, and administrative experience. Candidates must hold a Ph.D. in clinical psychology from an APA approved program and must have completed an APA approved or VA internship in clinical psychology. Candidates must qualify for an academic appointment in the University of California at the associate professor level or above, and for licensure in the State of California. Strong publication record is required.

Salary related to academic rank and step within the established salary schedule of the University of California, San Diego.

The San Diego Veterans Administration Medical Center and the University of California, San Diego, are Equal Opportunity/Affirmative Action Employers.

Send curriculum vitae by 25 March 1983 to:

**Chair, Search Committee C
Department of Psychiatry, M-003
University of California, San Diego
La Jolla, California 92093**

CYTOGENETIC POSTDOCTORAL POSITION

For Ph.D. or M.D. interested in studying human acute and chronic myelogenous leukemia using in vitro hemopoietic stem cell assays. Applicants with a Ph.D. should have training either in cytogenetics or hemopoietic stem cell culture. Applicants with an M.D. may proceed toward a Ph.D. in genetics or experimental pathology. Duration of support will be from 2 to 3 years, depending on previous training and goals. Yearly stipend for 1983: approximately \$20,000 plus \$1,200 for each year post-Ph.D. or \$1,500 for each year post-M.D. Applications must be received by 31 March 1983, and should be sent with curriculum vitae and names of three references to: **Allen C. Eaves, M.D., Ph.D., Director, Terry Fox Laboratory, British Columbia Cancer Research Centre, 601 West 10 Avenue, Vancouver, British Columbia, Canada V5Z 1L3.**

ECOSYSTEMS ECOLOGIST. The Ecosystems Center of the Marine Biological Laboratory (MBL) has a position available at the assistant scientist level. The Ecosystems Center has the goal of carrying out basic research in ecology and, where possible, applying this to the solution of environmental problems. The candidate is expected to develop independent research programs as well as to interact with a group of eight scientists on projects related to the biogeochemical cycling of essential elements. Applicants should have postdoctoral experience, familiarity with modeling, and demonstrate expertise in some particular area of ecosystem science. Résumé and names of three references should be sent by 31 March to: **Dr. George M. Woodwell, Director, Ecosystems Center, MBL, Woods Hole, Mass. 02543.**

The MBL is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOW. The Ecosystems Center of the Marine Biological Laboratory (MBL) announces the availability of a 1-year postdoctoral appointment for work in terrestrial or aquatic ecology. Applicants should have completed the requirements for the Ph.D. prior to the start of the appointment and should expect to join in some aspect of the Center's continuing research. Major programs at present are on the biogeochemical cycling of nutrient elements including carbon, nitrogen, and sulphur. The position is available starting 1 July 1983 and is renewable for a second year. Curriculum vitae, statement of objectives, and names of three references should be sent by 15 April to: **Dr. G. M. Woodwell, Director, Ecosystems Center, MBL, Woods Hole, Massachusetts 02543.**

The MBL is an Affirmative Action/Equal Opportunity Institution.

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Syva, a leading immunodiagnostics company, is growing to meet the challenge of providing the healthcare industry with progressive new technologies. Look into these opportunities that we currently have available and accept the challenge.

Senior Biochemist/Immunologist (Ph.D.)

In our cell culture laboratory, you'll develop monoclonal antibodies to a variety of "cell surface antigens"; plus be involved in the development of novel methodology and protocols, and the exploration of new immunochemical assay techniques. To qualify, you should have a Ph.D. in cellular immunology, plus several years of hybridoma technology experience, including a strong background in immunoregulation. An immunochemical, biochemical background is desirable.

Sr. Cell Biologist (Ph.D.)

If you have a background in cell culture, immunochemistry, or protein modification, this may be the opportunity for you. You should have a Ph.D. to qualify, plus several years' post-doctorate experience, including bulk culture of mammalian cells/biochemical techniques/chromatography/electrophoresis.

Research Biochemist (BS/MS)

In our Hybridoma Laboratory, you'll develop monoclonal antibodies to a variety of antigens. Your responsibilities will include immunization of animals, cell fusions, screening and evaluation of antibodies produced. You'll have the opportunity to develop and explore new immunochemical and enzymatic clinical assay methods. You'll need a BS/MS in Biochemistry, Cell Biology, Immunology, or related field to qualify, with careful lab technique and organization also necessary. You should be able to work well independently and have good communications skills. Cell culture experience is desired with hybridoma work experience an asset.

Sr. Research Biochemist (Ph.D.)

The position requires a highly motivated individual with a Ph.D. and two or more years' post-doctoral training to be responsible for the basic R&D of new immunoassay methods. A strong background in biochemistry and immunochemistry is required. Experience in immobilized methods, affinity chromatography, hybridoma techniques and immunoassay techniques is desirable.

Research Biochemist (BS/MS)

You will be responsible for the ongoing R&D program for new methods of immunoassay. You will work in a team-oriented environment and will be required to use various biochemical techniques, including protein and antibody purification and modification, column chromatography and electrophoresis. A BS in Biochemistry/Chemistry and three or more years' post-graduate/industrial lab experience required.

Research Synthetic Chemist (BS/MS)

We're seeking an individual with a BS/MS plus two to four years of research experience in synthesis of organic compounds.

Post-Doc/Visiting Scientist (Ph.D.)

You'll be involved in the synthesis of novel organic compounds for use in immunodiagnostics. To qualify, you'll need a Ph.D. in synthetic organic chemistry with up to two years of post-doctorate experience. Knowledge of biochemistry most helpful.

Physical Scientist (Ph.D.)

We need a Research Physicist with a Ph.D. in experimental physics, physical chemistry or allied area with up to 5 years of experience in optical and electronic instrumentation.

Syva offers an attractive benefits package that includes medical and dental insurance. Please send your resume to: Human Resource Staffing, Syva Company, P.O. Box 10058, Palo Alto, CA 94303. We are committed to an equal opportunity hiring policy m/f/h.

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Molecular Biologist & Microbial Ecologist

Two challenging career-oriented positions are available in the Infectious and Neoplastic Disease Research Section, Medical Research Division of American Cyanamid Company.

One requires a Ph.D. in Molecular Biology or Molecular Genetics with a minimum of two years postdoctoral training and demonstrated skills in recombinant DNA methodology, gene isolation and vector manipulation. The successful candidate will be responsible for initiating new and innovative antimicrobial screening procedures using recombinant DNA methodologies.

The second position requires a Ph.D. in Microbiology with a minimum of two years postdoctoral experience in microbial ecology or soil microbiology. A strong background in computers is preferred. The individual selected will initiate and implement novel enrichment procedures for microorganisms used in our antimicrobial screening programs.

American Cyanamid offers competitive salaries, excellent benefits, and a stimulating scientific environment. Please send resume, including salary requirements, in confidence to: Mrs. K. McDevitt, Professional Employment Coordinator



American Cyanamid Company
Medical Research Division, Lederle Laboratories
 Pearl River, N.Y. 10965
 An Equal Opportunity Employer m/f

MATERIALS SCIENCE FACULTY

MIT's Department of Materials Science & Engineering has several professorships at varying levels available for the current academic year as well as 1983-84. The positions involve teaching and research in the following:

- **ELECTRONIC MATERIALS:** Focuses on semiconductors. Background in processing electronic properties relationships, thin films, and interfaces preferred. **Assistant/Associate/Full Professorships.**
- **ELECTRONIC MATERIALS:** Focuses on superconducting materials. Background in processing electrical materials properties, and thin films preferred. **Assistant/Associate Professorships.**
- **POLYMERS:** Full professorships being offered jointly with Department of Chemical Engineering.
- **CERAMIC PROCESSING:** Background in colloid-surface chemistry preferred. **Assistant/Associate Professorships.**

Requires doctorate in relevant field, while industrial experience is preferred. Salaries are competitive and benefits excellent.

Submit resume, including citizenship and/or visa status, publications list and references to: Prof. Merton C. Flemings, Department Head of Materials Science & Engineering, Massachusetts Institute of Technology, 8-307, 77 Massachusetts Avenue, Cambridge, MA 02139. MIT is an equal opportunity/affirmative action employer.

MIT

POSITIONS OPEN

DEVELOPMENTAL BIOLOGY Brock University

A 3-year appointment at the assistant professor level
 Applications are invited from individuals with a Ph.D. and postdoctoral experience with research interests in any area of developmental biology but with emphasis on its cellular, molecular, or genetic aspects. The successful candidate will be expected to teach developmental biology to upper-level undergraduates and graduate students, to participate in team-taught courses at the first- or second-year level, and to carry on independent research. The appointment will be effective approximately July 1983. Please send curriculum vitae and the names of three referees to: **Chairman, Search Committee, Department of Biological Sciences, Brock University, St. Catharines, Ontario, Canada L2S 3A1.**

In accordance with Canadian Immigration requirements this advertisement is directed primarily to Canadian citizens and permanent residents.

FACULTY POSITION IN NUTRITION/ FOOD POLICY AND PLANNING

The Department of Nutritional Sciences, University of California, Berkeley, invites applications for an 11-month faculty appointment in nutrition/food policy and planning. The position is open at the assistant, associate, or full professor level. The applicant must hold a Ph.D. (or equivalent) degree in nutritional sciences, with primary or secondary emphasis on public policy, nutritional anthropology, economics, or political science. The appointee is expected to develop a new academic and research program concerned with food systems and distribution and the nutritional state of people, from the point of view of policy analysis, at the national and international levels. Research topics could include the ecologic, geographic, economic, or cultural aspects of food distribution and utilization patterns; nutritional status measurement; and/or analysis of intervention methodologies and risk assessment.

The position will be available 1 July 1983. To apply, please send curriculum vitae, bibliography, statement of research and teaching interests, and the names of five referees who may be contacted. Apply to: **Dr. Norman Kretchmer, Chair, Nutrition/Food Policy and Planning Search Committee, Department of Nutritional Sciences, University of California, Berkeley, Calif. 94720.** Application deadline: 1 March 1983 or until position is filled. Salary: commensurate with qualifications. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

FACULTY TEACHING AND RESEARCH POSITION, Institute of Marine Science, University of Alaska, Fairbanks. Research interests should include the numerical modeling of estuarine, coastal and open ocean physical oceanography in subpolar or polar environments. Participation in interdisciplinary studies is encouraged. Applicant should have an extensive background in hydrodynamics and numerical modeling. Ph.D. degree in physical oceanography is preferred (or its equivalent in training or experience). Rank and salary will be determined by experience. Candidates should send resume and names of three referees to: **Dr. Vera Alexander, Director, Institute of Marine Science, University of Alaska, Fairbanks, Alaska 99701.** Closing date: 15 March 1983. *The University of Alaska is an Equal Opportunity/Affirmative Action Employer and Educational Institution.* Your application for employment with the University of Alaska may be subject to public disclosure if you are selected as a finalist.

FACULTY POSITION—BIOCHEMISTRY

The Department of Biochemistry in the Faculty of Medicine, Queen's University, Kingston, Ontario, is seeking applicants for a position at the assistant professor level for its "metabolism and hormones" section. The appointment is contingent on the applicant being successful in obtaining a Medical Research Council of Canada Scholarship which is awarded for a period of 5 years. A minimum of 2 years of postdoctoral experience is required. The successful applicant will be expected to devote at least 75 percent time to research with limited teaching duties, and to supervise graduate students. *In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents.* Candidates should send a copy of their curriculum vitae and three letters of recommendation to:

**Dr. J. H. Spencer, Head
 Department of Biochemistry
 Queen's University
 Kingston, Ontario, Canada K7L 3N6**

PROTEIN ENGINEERING

GENEX Corporation, an innovative biotechnology company, is establishing a new division to develop Protein Engineering Technology. By combining knowledge of protein crystal structure and protein chemistry with artificial gene synthesis, GENEX scientists are directly modifying the structure and function of enzymes and other proteins to improve their properties for industrial applications. GENEX is seeking both senior and junior level scientists with exceptional backgrounds in the following disciplines:

Protein Crystallography

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- Synchrotron Sources
- Molecular Replacement
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- Oligonucleotide and Other Site-Directed Techniques
- Rapid DNA Sequencing Methodology

Protein Chemistry

- Chemical Modification of Enzymes
- Enzyme Mechanisms
- Peptide Synthesis
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Protein Modeling

- Structure Prediction
- Energy Minimization
- Dynamics Calculations

Langmuir-Blodgett Film Techniques

- Monomolecular Film Preparation and Analysis for Proteins and Other Biomolecules

GENEX offers a stimulating, cooperative research and business environment, competitive salaries and fringe benefits, and excellent research facilities. GENEX is located in Rockville and Gaithersburg, Maryland.

A curriculum vitae describing your scientific background, publications, and three professional references should be submitted prior to March 1, in confidence to:

 **Genex CORPORATION**
Department U
6110 Executive Boulevard
Rockville, Maryland 20852

An Equal Opportunity Employer

Principals Only

DISTINGUISHED UNIVERSITY PROFESSORSHIP IN GERONTOLOGY at the University of Vermont

The University of Vermont is seeking a scholar in gerontology to be the first incumbent of the newly established *Bishop Robert F. Joyce Distinguished University Professorship*. The Joyce Professor will be a critical force in determining the focus and direction of gerontological research and teaching efforts at the University and in coalescing the efforts of other campus scholars from both the social and biomedical sciences. Specifically, candidates are sought who possess:

- demonstrated records of original research in the field of gerontology (preference will be given individuals with interests in health or health-related issues);
- the skills and commitment to contribute to quality undergraduate and graduate instruction in gerontology;
- the academic skills and personal traits that will facilitate and enhance collaborative efforts involving professionals from different academic disciplines within the University; and
- an interest in fostering a close, mutually beneficial working relationship among University faculty and the practicing gerontological community.

The incumbent will receive an academic appointment in an appropriate department in the social or biomedical sciences. The position will be tenure-eligible, rank will be based on qualifications, with salary and benefits commensurate with the nature of the appointment.

Letters of nomination or application, and supporting materials, should be forwarded to:

**Dr. Raymond T. Coward, Chairperson
Joyce Distinguished University
Professorship Search Committee
Room 448 - Waterman Building
The University of Vermont
Burlington, Vermont 05405**



Or, for further information and details call Dr. Coward at 802-656-3263.

Materials that are forwarded will be held in strict confidence and should be received no later than **March 1, 1983** to be assured of full consideration.

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

RESEARCH MANAGER - MOLECULAR BIOLOGY

The Upjohn Company, a leader in pharmaceutical research and development of new therapeutic agents, is extending its biotechnology research effort and is seeking a Research Manager for its enlarging Molecular Biology Research Unit. This essentially basic research unit will study and develop recombinant DNA applications to all areas of Upjohn therapeutics research.

Applicants must have a Ph.D. or M.D. with research concentration in molecular biology, genetics and biochemistry, have a substantial publication record, and be a recognized contributor in the field. The successful candidate should have administrative and supervisory experience and demonstrated ability to guide and maintain an active, large, and expanding laboratory program.

The Upjohn Company offers excellent salary, benefits, work atmosphere, and relocation assistance. Kalamazoo, a mid-sized community, provides an outstanding cultural, educational, and recreational environment. Please send your curriculum vitae in confidence to:

Gerald L. Potratz, Department 32353
THE UPJOHN COMPANY
7000 Portage Road • Kalamazoo, MI 49001

Equal Opportunity Employer M/F

Upjohn

POSITIONS OPEN

DIRECTOR OF CLINICAL IMMUNOLOGY

Immediate opening for a Ph.D. and/or M.D. immunologist, or clinical pathologist with expertise in immunology, to direct a Clinical Immunology Service Laboratory with an academic appointment in the Department of Immunology/Microbiology at Rush-Presbyterian-St. Luke's Medical Center. The Clinical Immunology Laboratory is comprised of four subspecialty units, each headed by a director, and provides diagnostic services for a major medical center with a 1000-bed hospital. This laboratory and the Department of Immunology/Microbiology provide excellent opportunities for conducting basic and clinical research, and instructing medical, graduate, and undergraduate students. The applicant should have a strong academic background, and documented service, managerial, research, and educational experience appropriate for this position. Submit résumé and references by 15 April 1983 to:

**Henry Gewurz, M.D.
Chairman, Selection Committee
Office of Consolidated Laboratory Service
Professor and Chairman
Department of Immunology/Microbiology
Rush-Presbyterian-St. Luke's Medical Center
1753 West Congress Parkway
Chicago, Ill. 60612**

Rush is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION IN FUNCTIONAL ANATOMY AND GENERAL BIOLOGY. The Biology Department, Millersville State College, Pennsylvania, invites applications for a tenure-track position at the assistant professor level, starting fall 1983. Earned doctorate required. Primary responsibility to teach integrated anatomy-physiology in new program for nursing students. Candidate should be willing and able to teach comparative chordate anatomy and general biology for majors and/or nonmajors. Demonstrated competence in teaching is preferred. (Research is encouraged.) Send curriculum vitae, official transcripts, and three letters of recommendation by 15 March 1983 to: **Dr. Alex Henderson, Search Chairperson, Roddy Science Center, Millersville State College, Millersville, Pa. 17551.** Millersville State College earnestly seeks and is eager to receive applications from women and minority candidates.

IMMUNOCHEMIST

Applications are invited for an instructor level position with Ph.D. or equivalent. Preference to applicants with experience in affinity purifications, organic and inorganic reactions, or having a strong interest in the same. Position involves assuming major responsibility for a project in immunoregulation by antigen structure. Experience in monoclonal antibody production, FACS, anti-idiotypic work useful. Faculty appointment and salary commensurate with experience. Send curriculum vitae, reprints, and supporting documents to: **Dr. J. N. Woody, Lombardi Cancer Center, Georgetown University Hospital, 3800 Reservoir Road, NW, Washington, D.C. 20007.** Georgetown University is an Equal Opportunity/Affirmative Action Employer. Applications from women and minorities are encouraged.

MARINE ICTHYOLOGIST/MINORITY SCIENCE COORDINATOR. Lectureship (assistant professor) to begin 1 September 1983. Ph.D. required. Must be qualified to teach beginning biology and marine ichthyology at undergraduate and graduate level. Active research program in ichthyology required. Incumbent will also direct recruitment and instructional program in science for minority students. Curriculum vitae listing publications and research interests and three references should be sent to: **Dr. Kenneth C. Jones, Chairman, Department of Biology, California State University, Northridge, Calif. 91330,** by 15 April 1983. The University is an Equal Opportunity/Affirmative Action Employer.

MEDICAL TECHNOLOGY EDUCATION COORDINATOR-INSTRUCTOR. Lectureship (instructor) to begin 1 September 1983. Requirements: B.A. degree, eligibility for California State License for Clinical Laboratory Technologist and M.T. certification from ASCP, at least 5 years of bench and medical technology education experience. Duties: Coordinate clinical training portion of Medical Technology Program, lecture and seminar series, phlebotomy training. Develop accreditation application to NAACLS. Curriculum vitae and three references should be sent to: **Dr. Kenneth C. Jones, Chairman, Department of Biology, California State University, Northridge, Calif. 91330,** by 15 April 1983. The University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

FACULTY POSITION in the Fels Research Institute. A new tenure-track position is available in the biochemistry program in the **FELS RESEARCH INSTITUTE**, Temple University School of Medicine. This position is for an assistant professor but a higher level will be considered. Areas of particular interest are: biochemistry of the cell nucleus with special reference to the genetic elements and proteins, animal-or immunogenetics, cytoskeletal structure, and receptors. Send curriculum vitae and a brief statement of independent research plans, and have three letters of recommendation sent to: **Dr. Gerald Litwack, Chairman, Search Committee, Fels Research Institute, Temple University School of Medicine, 3420 North Broad Street, Philadelphia, Pa. 19140. An Equal Opportunity Employer.**

MEDICAL PHYSICIST: The Medical Department at Brookhaven National Laboratory invites applications from medical physicists interested in performing research in the development of nuclear techniques for clinical application. The primary program involves in vivo neutron activation analysis. Ph.D. in medical physics or nuclear sciences is required, and a knowledge of neutron physics is desirable. Apply (include curriculum vitae and publications) to: **Dr. Stanton H. Cohn, Medical Research Center, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, New York 11973. Equal Opportunity Employer, M/F.**

MICROBIOLOGISTS: Applications are invited for tenure-track positions at the level of assistant or associate professor beginning fall 1983. Our priorities are for a **MICROBIAL ECOLOGIST**, a **MICROBIAL GENETICIST** (with emphasis in recombinant DNA technology), and a **MICROBIAL PHYSIOLOGIST**. Applicants must have a Ph.D. with postdoctoral experience desirable. Successful applicants are expected to develop an independent research program and teach courses at the graduate and undergraduate levels. Send curriculum vitae (including a brief outline of future research interests and objectives) and two recent publications, and have three letters of recommendation forwarded to: **Chairman, Search Committee, Department of Biology, Memphis State University, Memphis, Tenn. 38152. Application deadline is 21 March 1983.**

Memphis State University is an Equal Opportunity/Affirmative Action Employer.

MOLECULAR GENETICS ASSISTANT PROFESSOR, tenure-track. New research facilities and start-up support available. Must have research credentials in gene regulation in a eukaryote cell system. Interest in gene expression in normal or transformed cells, virus-infected cells, or immune cells desired. Must have experience in gene splicing, recombinant DNA, or cell hybridization techniques. A strong background in general or medical microbiology is required. Teaching experience desired. Closing date: 31 March 1983. Send curriculum vitae, description of professional aspirations, and names of three references to: **Dr. Byron Burlingham, Department of Microbiology, School of Medicine, East Carolina University, Greenville, N.C. 27834. An Equal Opportunity through Affirmative Action Employer.**

MOLECULAR PHARMACOLOGY AND VIROLOGY. Applications are invited for a faculty rank position (instructor, \$26,311 first year; renewable for a 3-year period) to participate in research on persistent viral infections of cultured cells. The regulation of macro-molecular metabolism of cells and virions by factors such as cyclic nucleotides, inorganic ions, and prostaglandins is of particular interest. Send curriculum vitae and names of three references to: **Dr. Bruce Breckenridge, Department of Pharmacology, UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY—Rutgers Medical School, P.O. Box 101, Piscataway, New Jersey 08854. An Equal Opportunity/Affirmative Action Employer, M/F.**

PLANT PHYSIOLOGIST. Tenure-track position at assistant professor rank to begin fall 1983. Applicants must have a Ph.D. with postdoctoral experience desirable. Successful applicant will develop a strong experimental research program and instruct graduate and undergraduate courses. Send curriculum vitae (including a brief outline of future research interests and objectives) and two recent publications, and have three letters of recommendation forwarded to: **Chairman, Search Committee, Department of Biology, Memphis State University, Memphis, Tenn. 38152. Application deadline is 21 March 1983.**

Memphis State University is an Equal Opportunity/Affirmative Action Employer.

FUNGICIDE RESEARCH

Rohm and Haas, a leading multinational chemical company, has two PhD level openings at the corporate research headquarters in Spring House, PA, an attractive suburb of Philadelphia:

SENIOR SCIENTIST-PLANT PATHOLOGY: Direct screening and advanced testing of experimental fungicides. You must be able to supervise the design and execution of testing of a variety of pathogens on a number of host crops, and provide critical interpretation and analysis of results in support of synthesis efforts. You will also assist in field test design for advanced experimentals and in interpretation of test results for discovery of new commercial fungicides. A PhD in plant pathology and 3-5 years' experience in fungicide research are required.

SENIOR SCIENTIST-FUNGAL PHYSIOLOGY/BIOCHEMISTRY: Conduct studies in fungal physiology/biochemistry on economically important plant pathogens in order to identify metabolic pathways susceptible to attack by toxicants. You will work with synthesis groups to develop information relating to mechanism of action, binding, inhibition, transport and metabolism of experimental agricultural fungicide compounds and define their action against target enzymes. PhD in mycology, microbial or fungal physiology, or biochemistry is required, with post-doctoral experience desirable.

We offer modern research facilities and an excellent salary and benefits program. Address inquiries including education and experience, in confidence, to Dr. Fred J. Hirsekorn:

Recruiting and Placement #583



An Equal Opportunity Employer M/F.

Director Medicinal Chemistry Department

The Research & Development Division of G. D. Searle & Co. has an immediate key scientific-leadership position available offering significant professional challenge.

Reporting to the Director, Department of Product Research, this individual will be responsible for providing a focal point of scientific leadership and management of approximately 65 professionals, including 30 Ph.D.'s. This position significantly impacts the choice of drug discovery objectives and their timely attainment.

Ideal qualifications include a Ph.D. in organic or medicinal chemistry with 10-15 years experience with design and synthesis of potential therapeutic agents, preferably in an industrial environment. A plus will be a record of having contributed to the design and/or synthesis of agents having advanced to the level of human trials.

The Director must exhibit outstanding communication skills and a balanced appreciation of the need for excellence in the conceptualization of potential target compounds/series, based upon biological principles, and for excellence in synthetic approaches.

This key scientific-leadership position is accompanied by an attractive compensation, benefits, and relocation package. Interested applicants are encouraged to send their detailed resume or curriculum vitae to:

**Barbara Gardner
#8310-0714**

**Searle Research and Development
Division of G. D. Searle & Co.
4901 Searle Parkway
Skokie, Illinois 60077**

An Equal Opportunity Employer M/F/H

SEARLE

POSITIONS OPEN

MARINE SCIENTIST

The nation's leading consultant in evaluation of marine waste disposal seeks qualified engineers and scientists for ongoing projects.

Positions require minimum M.S. and marine pollution studies experience in any of the following disciplines:

Chemistry
Environmental Engineering
Ecology
Numerical Modeling
Data Management

Respond in confidence with letter of introduction, résumé, and salary history to:



Tetra Tech, Inc.
1900-116th Avenue, NE
Bellevue, Washington 98004

Tetra Tech is an Equal Opportunity/Affirmative Action Employer.

OCEANOGRAPHER—Ph.D. in biological oceanography or marine biology and meticulous technical writing and editing capabilities required. Ability to integrate multidisciplinary data essential. Knowledge of Gulf of Mexico, deep water environs, and statistics advantageous but not required. Forward curriculum vitae, statement of professional goals, and three references to: **Dr. Richard M. Hammer, Continental Shelf Associates, Inc., P.O. Box 3609, Tequesta, Florida 33458.**

PHYSICS TEACHING POSITION

Tenure-track faculty position for person to teach general physics and upper-level courses in a small liberal arts college emphasizing science and pre-professional programs. Candidates should have a Ph.D. degree and a strong interest in laboratory courses and in pre-engineering programs. Send résumé to: **Dr. Charles Haggard, Division of Natural Sciences and Mathematics, Transylvania University, Lexington, Kentucky 40508. Equal Opportunity Employer.**

POSITIONS OPEN

Ph.D. with research training to study mechanisms of insulin action and insulin receptor structure. A strong background in biochemistry is desirable. Salary commensurate with experience. Address inquiries and curriculum vitae to: **Section Head, Endocrinology and Metabolism, East Carolina University, School of Medicine, Greenville, N.C. 27834. Equal Opportunity Employer through Affirmative Action.**

PHYSIOLOGIST

Full-time position available in May 1983, teaching general physiology with laboratory. Ph.D. required. Applicants with additional experience in anatomy and/or biochemistry are preferred. Development of an independent research project in an interest area of the applicant as it relates to health science is encouraged. Interested persons are invited to submit a letter discussing teaching and research experience. Enclose curriculum vitae with names and addresses of three references to: **Search Committee, Basic Science Division, Northwestern College of Chiropractic, 1834 South Mississippi River Boulevard, St. Paul, Minnesota 55116. An Equal Opportunity Employer.**

PLANT TISSUE CULTURIST

A young, actively growing company doing research and development work, seeks a plant tissue culturist immediately. Should have a Ph.D. in botany with specialization in tissue culture; experience with woody plants is preferred. Candidates with a degree (M.S. or B.S.) in plant sciences and considerable experience in tissue culture are also encouraged to apply. Responsibilities include micropropagation of jojoba cultivars, protoplast fusion work, and some greenhouse or field work. Must be willing to do team work. Excellent salary commensurate with qualifications and experience. Send statement of research experience and interest, curriculum vitae, and at least three letters of reference immediately to:

Prem P. Jauhar, Ph.D.
Research Director
U.S. Agri Laboratories
12155 Magnolia Avenue, Suite 4C
Riverside, California 92503

POSITIONS OPEN

PLANT CYTOGENETICIST. Research associate position, methodology and practice of introduction of alien variation in wheat. Ph.D. with background in cytogenetics or equivalent experience. Initially for 1 year; salary: \$15,500 plus staff benefits. Closing date: 15 March 1983, or until suitable applicant found. Reply to: **G. Kimber, 220 Curtis Hall, University of Missouri-Columbia, Columbia, Missouri 65211. Telephone: 314-882-7017. An Equal Opportunity Employer.**

POPULATION GENETICIST. A tenure-track position for a population geneticist working on natural populations is available at the assistant professor level beginning fall 1983. This position will be a joint appointment in the Program in Genetics and Cell Biology and the Department of Botany or Zoology, depending upon the background of the candidate. Applicants whose research focuses on local dynamics of the genetic structure of populations, effective population size, or patterns of gene flow within and between populations especially are invited to apply, although applications are not limited to these areas. Teaching responsibilities will include a graduate level course in ecological genetics plus an undergraduate course appropriate to the candidate's qualifications. Applications should send curriculum vitae, a statement of current and proposed research direction, three letters of reference, and selected publications to: **Dr. John N. Thompson, Chairman, Population Geneticist Search Committee, Departments of Botany and Zoology, Washington State University, Pullman, Wash. 99164-4220, before 4 April 1983. Washington State University is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL ASSOCIATES: Two positions available immediately for investigation of Mg^{2+} transport, Mg^{2+} -selective ionophores, and Mg^{2+} regulation of adenylate cyclase. Salary: NIH scale plus fringe; higher with experience. Available for interviews at FASEB meeting. Send résumé, letters of recommendation, and publications to: **Dr. Michael E. Maguire, Department of Pharmacology, Case Western Reserve University, Cleveland, Ohio 44106. Equal Opportunity/Affirmative Action Employer.**

Research Scientists

Biogenex Laboratories, a biotechnology company located in the San Francisco bay area, is expanding its scientific staff. We seek imaginative researchers with broad interests in the following area:

Hybridoma Technology
Tumor Immunology
Diagnostic Chemistry
Immunohistology

Positions are currently available for Project Leaders, Research Scientists, Fellows, and Research Associates on our active and growing biotechnology team. BioGenex offers competitive compensation (including a bonus plan and stock option program) as well as definite career advancement opportunities.

We invite you to submit your resume in confidence to:

BioGenex Laboratories
6529 Sierra Ln.
Dublin, CA 94566

Chair

Anatomy and Cell Biology

The University of Massachusetts Medical School is seeking a distinguished scientist and academic leader for the position of Professor and Chair, Department of Anatomy. The successful candidate must demonstrate outstanding leadership ability, and will have the opportunity to direct a department which has significant growth potential. The institution is particularly interested in further developing strength in the areas of cell biology and neurosciences. The department is well-equipped and has access to outstanding institutional core facilities such as those for tissue culture, fluorescence-activated cell sorting, and protein sequencing. Other basic science departments in the institution provide a stimulating environment conducive to contemporary scholarship in the bio-medical sciences. The department chair will be responsible for promoting excellence in research and teaching, and for administering the financial resources in the department. Candidates may be nominated or may apply by sending a letter of interest, a curriculum vitae, and names of three individuals to be contacted as references. Please address correspondence to: **Dr. Michael P. Czech, Anatomy/Cell Biology Search Committee, Department of Biochemistry, University of Massachusetts Medical School, Worcester, MA 01605.**

**University of Massachusetts
Medical Center**

55 Lake Avenue North Worcester, MA 01605
An equal opportunity/affirmative action employer

EXECUTIVE POSITION AVAILABLE

Executive Director for a Washington based national scientific organization with a membership of 6,000 individuals and 35 member societies. Minimum qualifications—a substantial knowledge of organizational management, business administration and public relations, principles and practice. Ability to generate, promote, and execute ideas and programs. A high degree of skill in communications, both oral and written, and proficiency in dealing with people (academic, industrial and public officials). Academic experience and/or scientific background essential. Salary negotiable. Send complete resume and present compensation to **Box 30, Science.**

Allelix^{INC}

Creative Scientists/Engineers Genetic Engineering — Plant Genetics Fermentation

You may have seen our advertisement for scientific leaders in an earlier issue of *Science*. Allelix continues to seek creative scientists and engineers to begin challenging research in this start-up opportunity. We welcome applications from those having private industry experience and from those with academic backgrounds who wish to see specific products or processes result from their efforts.

Initially, research at Allelix will be focussed on two broad areas:

- Improved agricultural crops, based on the genetic manipulation of both plant and soil organisms.
- High-value chemicals, enzymes or polymers produced by fermentation of micro-organisms and plant cells.

Another area being seriously considered is monoclonal antibody technology for industrial and agricultural applications.

To implement these programs, we need scientists and biochemical engineers in three key areas:

Recombinant DNA—Scientists with ideas and experience in conventional and new approaches to genetic manipulation of bacterial, yeast, plant and mammalian cells.

Plant Genetics—Plant bioscientists with experience in one or more disciplines, including cell and tissue culture, cell fusion, genetic vectors, plant physiology/biochemistry, classical genetics, and soil organisms. This team will be involved in specific projects, ranging from crop improvements to bacteria-plant interactions to expression of secondary metabolites.

Fermentation Microbiology—Innovative microbiologists and biochemical engineers with experience in fermentation processes involving prokaryotic and eukaryotic cells. This team will identify naturally-occurring organisms for specific biotransformations, pilot methods for reliable expression of cloned cells, and develop commercial fermentation processes.

We are also seeking scientists in the following areas:

- Monoclonal antibodies for industrial and agricultural applications;
- DNA and protein sequencing and synthesis;
- Analytical biochemistry.

Qualifications—Candidates should have 3 or more years of industrial and/or post-doctoral experience in the area of interest. Applicants should have worked on R & D projects with well-defined product or process objectives or be strongly motivated in that direction. If you have already written Allelix, your application is in our active file and will be reviewed along with new ones received.

Location—Research will be carried out in a new, well-equipped \$20 million, 75,000 sq.ft. laboratory near the Toronto International Airport. The Toronto area offers a full scope of metropolitan activities. Nearby housing accommodations range from urban to rural.

Benefits—Salaries and benefits are fully competitive and a realistic opportunity exists to share in the growth of Allelix through a form of equity participation.

The Company—Allelix, Inc., Canada's first major biotechnology company, was established jointly in 1982 to develop and commercialize discoveries with value to industry and agriculture. The financial base is strong, with approximately \$100 million committed by three large organizations to assure long-term viability.

Please send résumés in confidence to:

**Dr. Derek C. Burke, Scientific Director, Allelix Inc.
6850 Goreway Drive, Mississauga, Ontario CANADA L4V 1P1**

BIOTECHNOLOGY RESEARCH OPPORTUNITIES

The Biotechnology Group of Miles Laboratories, Inc., has several scientific opportunities in Molecular Biology and Biochemistry.

Research Scientist (L-1)

The successful candidate should possess a Ph.D. in Microbiology, Physiology, or Biochemistry with coursework in Taxonomy and at least two years of postdoctoral experience including research in organic chemistry. Necessary skills include a demonstrated ability to design detection/selection systems for natural and engineered microbiological products. The individual must also be able to do preliminary taxonomic identification and maintain culture collections.

Research Scientist (L-2)

The successful candidate should possess a Ph.D. in Microbial Physiology or Yeast Genetics and at least two years of postdoctoral experience in yeast fermentations, physiology, or fungal biochemistry. Necessary skills include a demonstrated ability to analyze metabolic pathways and the ability to interact with a multidisciplinary team for scale-up of novel yeast fermentations.

Research Scientist (B-1)

The successful candidate will possess a Ph.D. in Genetics or Molecular Biology with major emphasis on yeast. This individual should also have substantial knowledge of modern techniques of molecular biology and biochemistry including, but not limited to, cloning procedures and characterization of DNA and RNA. This scientist will be a member of the Yeast Genetics group involved in elucidating chromosome behaviour in yeast and in developing yeast cloning vectors for large scale synthesis of products needed in the pharmaceutical and food industries.

Research Scientist (B-2)

The successful candidate will possess a Ph.D. in Biochemistry or Microbiology with emphasis on cell physiology. Specific experience with yeast is necessary. This individual should have expertise in the areas of intermediary metabolism, enzymes, and pathways. The ability to isolate, purify, and characterize various proteins and nucleic acids is expected. Some familiarity with fermentations in batch or continuous culture is desirable. The duties will be similar to those outlined in the position mentioned above (B-1).

Research Scientist (G-1)

The successful candidate will possess a Ph.D. in Microbiology or Molecular Biology with expertise in the genetics and biology of *E. coli*, and a minimum of two years postdoctoral experience in the cloning and expression of eucaryotic and procaryotic genes in *E. coli* host-vector systems. This individual should be highly motivated and desire to work in collaboration with other scientists in the group to apply recombinant DNA technology towards the development of clinical diagnostics.

Associate Research Scientist (G-2)

The successful candidate will possess a M.S. degree in Molecular Biology or Microbiology and 1-3 years of post-degree experience in recombinant DNA methodology (DNA isolation and gene enrichment, nucleic acid hybridization, cloning and expression).

Miles Laboratories, Inc., is located in Elkhart, Indiana, ninety miles from Chicago with easy access to lower Michigan. Our close proximity to South Bend provides many cultural and recreational opportunities. We offer a competitive starting salary as well as an excellent benefits program, including company-paid relocation. Please send your resume, indicating the position(s) for which you are qualified, as well as your salary requirements, in confidence to:

Linda A. Heiland
Corporate Salaried Placement
Department 135

Miles Laboratories, Inc.
P.O. Box 40 Elkhart, Indiana 46515

An Equal Opportunity Employer M/F/H



POSITIONS OPEN

MARINE SCIENTIST

Applications are invited for the position of marine scientist at Harbor Branch Foundation, Inc., a not-for-profit corporation established primarily for research in the marine sciences and for the development of tools and systems for underwater oceanographic research. The successful candidate will be expected to supervise research assistants, advise postdoctoral research associates, and continue active research in some aspect of marine science.

Candidates must have an earned doctorate in a marine related science, a distinguished publication record, and must demonstrate grant success. Primary consideration will be given to scientists working in one of the following disciplines: macroalgal botany, organic geochemistry, physiological ecology, or physical oceanography, though other qualified individuals may apply.

Applicants must submit a formal letter of application, a résumé, and names of three references by 1 April 1983 to:

Dr. Marsh Youngbluth
Harbor Branch Foundation, Inc.
R.R. 1, Box 196
Fort Pierce, Florida 33450

Harbor Branch Foundation, Inc. is an Equal Opportunity Employer.

POSTDOCTORAL POSITION Fluorescence Studies of Protein Dynamics

Position available early spring for a Ph.D. experienced in modern luminescence spectroscopy as applied to biomolecules to investigate rapid structural fluctuations of globular proteins. Experience in protein chemistry desirable. Much of the work to be carried out at Bell Laboratories, Murray Hill, New Jersey. Send résumé to: Dr. A. A. Lamola, Department of Dermatology, College of Physicians & Surgeons, Columbia University, 630 West 168 Street, New York, N.Y. 10032.

University of Chicago The Ben May Laboratory for Cancer Research NICHD Program Project

A POSTDOCTORAL POSITION is available immediately for a Ph.D. biochemist to participate in a project involving purification of human progesterone receptor and preparation of monoclonal antibodies. Experience with steroid receptors, protein purification techniques, and/or monoclonal antibody production is desired.

A position is also available immediately for a TISSUE CULTURE TECHNOLOGIST to supervise a cell culture laboratory. This person will be responsible for the production and culturing of hybridomas as well as the maintenance of human cell cultures.

Applicants for both positions should send curriculum vitae and letters of recommendation to: Dr. Geoffrey L. Greene, Box 424, Ben May Laboratory for Cancer Research, The University of Chicago, 950 East 59 Street, Chicago, Illinois 60637. An Equal Opportunity Employer.

A POSTDOCTORAL POSITION will be available soon for suitably qualified applicants interested in studying immunity to cancer. The research program of the Trudeau Institute involves the use of animal models of infectious diseases and cancer to analyze mechanisms of protective immunity at the physiological, cellular, and molecular levels. Applicants should have some training in immunobiology. The starting salary is \$14,500 and campus housing may be available. Send résumé to: Dr. Robert J. North, Director, Trudeau Institute, Inc., P.O. Box 59, Saranac Lake, N.Y. 12983.

An Equal Opportunity Employer

POSTDOCTORAL POSITIONS for up to 3 years to start in 1983; studying regulation of gene expression and the organization of proteins along active and inactive genes in chromatin. Previous training desirable (but not necessary) in recombinant DNA or hybridoma technology, cell culture, protein chemistry, and immunology. Familiarity with eukaryotic molecular biology highly preferred. Send curriculum vitae, summary of previous research experience, and two letters of reference to: Dr. William T. Garrard, Division of Molecular Biology, The University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, Texas 75235. Equal Opportunity University.

THE SALK INSTITUTE BIOTECHNOLOGY/INDUSTRIAL ASSOCIATES, INC.

SIBIA

is a new biotechnology company interested in the whole spectrum of biotechnology and is located in La Jolla, a seaside community in northern San Diego, California.

SIBIA is a company which:

1. **has a strong basic research component;**
2. **maintains close ties to very senior academic consultants; and**
3. **is actively engaged in challenging, multi-disciplinary research projects.**

You are invited to submit an application for the position of

STAFF SCIENTIST

This position requires a PhD in molecular biology with 3-7 years of research experience in molecular and cellular biology, including recombinant DNA techniques and familiarity with gene regulation and expression in prokaryotic and eukaryotic systems. Knowledge of microinjection techniques is desirable.

Applications, including a curriculum vitae, a statement of research interests and goals, a list of publications, and the names of three professional references should be submitted to:

SIBIA

P.O. Box 85800

Dept. OMT

San Diego, CA 92138

SIBIA is an equal opportunity employer.

If you would like to do research in a new industrial company which:

1. **has a strong basic research component;**
2. **maintains close ties to very senior academic consultants; and**
3. **is actively engaged in challenging, multi-disciplinary research projects;**

then you should investigate a position as a

RESEARCH ASSOCIATE

in

THE SALK INSTITUTE BIOTECHNOLOGY/INDUSTRIAL ASSOCIATES, INC.

SIBIA

SIBIA is a new biotechnology company interested in the whole spectrum of biotechnology and is located in La Jolla, California.

Candidates for this position should have a BS/MS in molecular and cellular biology, microbiology, or biochemistry. Knowledge of recombinant DNA techniques such as cloning, nucleic acid sequencing, and/or microinjection is required.

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

SIBIA

P.O. Box 85800

Dept. CAB

San Diego, CA 92138

SIBIA is an equal opportunity employer.

Senior Deputy Director

One of the nation's outstanding scientific and engineering institutions operated by the University of Chicago for the Department of Energy offers the opportunity to play a major role in its management and direction.

As Senior Deputy Director, you will report directly to the Laboratory Director/Vice President for Research, University of Chicago. You will manage the activities of the various Laboratory Divisions, working through associate laboratory and division directors and two deputy directors. Responsibilities include operations, planning, implementation, high level staffing, and budgeting. You will have responsibility for ongoing assessment of the Laboratory's results in terms of their implications for future activities and directions.

This is a role that demands unusually high credentials in several areas: academic, scientific/engineering achievement, the management of advanced research

and development, communications and social skills.

Argonne National Laboratory is a research and development laboratory with 4500 employees including a technical staff of 1800 scientists and engineers, and a Fiscal Year 1983 operating budget of 234 million dollars. The major location is a campus-like setting 25 miles from the Chicago Loop. The second location is 40 miles west of Idaho Falls at the Idaho National Engineering Laboratory Facility. Argonne National Laboratory's program activities include nuclear reactor development, energy and environmental research and development, biological and medical research, and research in the physical, chemical, and material sciences.

If you wish to be considered for this position, please direct a letter outlining your qualifications to: **Dr. Walter E. Massey, Director, Box D-OTD-15593-55, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439.**

A more detailed vita will be asked of candidates whose backgrounds are of special interest to the search committee.



An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

POSTDOCTORAL POSITION available September 1983 in laboratory studying effects of cancer therapeutic agents on various immune defense systems, their development and regulation. Background in cellular immunology and/or pharmacology is essential. Techniques used include tissue culture, in vivo and in vitro primary sensitization, radiolabeled target cell assays, functional and physical cell separation, and utilization of monoclonal antibodies. Please send statement of research interest, curriculum vitae, and names and addresses of three references to: **Dr. E. Mihich, Director of Grace Cancer Drug Center and Department of Experimental Therapeutics, Roswell Park Memorial Institute, 666 Elm Street, Buffalo, New York 14263. An Equal Opportunity Employer, M/F.**

POSTDOCTORAL POSITION IN BASIC PATHOBIOLOGY available 1 July 1983. Initial appointment is for 1 to 2 years with opportunities for renewal for a subsequent year. Emphasis will be on research training in cell differentiation related to pathobiology. Applicants having an M.D. and/or Ph.D. degrees will be considered. In the case of those with a Ph.D., trainees focusing on disease mechanisms will be favored. *Applicants must have made arrangements with an intended research sponsor at The University of Chicago.* Applicants should send curriculum vitae, biographical sketch, a statement of career objectives and of the anticipated value of training to be undertaken, transcripts of graduate and undergraduate course work, three letters of recommendation including one from the intended research sponsor, and an outline of proposed research to: **Dr. G. S. Getz, The University of Chicago, Department of Pathology—Box 414, 950 East 59 Street, Chicago, Ill. 60637. Deadline for receipt of applications: 15 March 1983.**

POSTDOCTORAL POSITION, ENDOCRINE RESEARCH—Opportunity for postdoctoral fellow/research associate with a strong background in steroid chemistry to participate in ongoing programs in vitamin D-related research. Contact: **R. Kumar, M.D., Mayo Clinic, 200 First Street, SW, Rochester, Minnesota 55905, or telephone: 507-285-4300. An Affirmative Action/Equal Opportunity Institution.**

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately for study of neurotransmitter regulation of cardiac function in heart of embryonic and hatched chicks. Areas of study include neurotransmitter action and interaction on contractility, and on membrane potentials of single heart cells, binding of radioactive ligands to muscarinic and β -adrenergic receptors, and regulation of adenylate cyclase activity. Send curriculum vitae, bibliography, and letters of recommendation to: **Dr. A. J. Pappano, Department of Pharmacology, University of Connecticut Health Center, Farmington, Conn. 06032. An Equal Opportunity/Affirmative Action Employer, M/W/H.**

POSTDOCTORAL POSITION

Available for 1 to 3 years starting 1 July 1983. Areas of research include high altitude physiology, control of respiration (neurophysiology and sleep), vascular smooth muscle physiology and pharmacology, microcirculation, collateral ventilation, and control of the pulmonary circulation. Send curriculum vitae to: **Dr. Wiltz W. Wagner, Jr., Cardiovascular Pulmonary Laboratory, Box B-133, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Denver, Colo. 80262.**

Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL POSITION IN ASTRONOMY

We are inviting applicants for a postdoctoral appointment. The selected applicant will be participating in an experiment in very narrow band speckle interferometry and speckle spectroscopy using the MMT and other telescopes at the University of Arizona to study millisecond of arc phenomena on bright stellar objects. The applicant should have an interest and background in experimental astrophysics, preferably in the areas of image detection, image reconstruction, and/or computer image analysis. This appointment will be subject to the renewal of a proposal to the NSF. Applications, including résumé, should be submitted to: **Dr. J. M. Beckers, Multiple Mirror Telescope Observatory, University of Arizona, Tucson, Arizona 85721. For more information, telephone: J. M. Beckers, 602-626-1812, or E. K. Hege, 602-626-1049. An Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN IMMUNOPARASITOLOGY. Two recent Ph.D.'s needed for studies on immunoregulation and immunochemical characterization of relevant antigens in protozoan parasitic infections (*Trypanosoma cruzi* and *Leishmania* spp.). Salary: \$16,000 to \$18,000; 2 to 3 years. Send curriculum vitae and names of three referees to: **Dr. Raymond Kuhn, Department of Biology, Box 7325, Wake Forest University, Winston-Salem, N.C. 27109.**

POSTDOCTORAL POSITION. Investigate the functional dynamics of the ear in collaboration with investigators using physiological, EM, and neuroanatomical approaches to the study of fish audition. Background in biomechanics or physics desirable. Some knowledge of the auditory system and microscopy also of value. Salary competitive. Position available 1 April 1983. Send curriculum vitae and names of three references to: **Dr. Arthur N. Popper, Department of Anatomy, Georgetown University, 3900 Reservoir Road, NW, Washington, D.C. 20007. Georgetown University is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION available for studies on local protein synthesis in dendrites, soma and axon, as well as axoplasmic and dendroplasmic transport in the normal and axotomized goldfish Mauthner neuron. Specialized microtechniques are available for quantitative and compositional analysis of protein at a cellular level. Send résumé and three letters of reference to: **Dr. Edward Koenig, Division of Neurobiology, 313 Cary Hall, State University of New York (SUNY), School of Medicine, Buffalo, N.Y. 14214. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE position in reproductive endocrinology available immediately for candidate with training in cell and molecular endocrinology to study the central and peripheral control of luteinizing hormone and prolactin secretion. Send curriculum vitae, list of publications, and names of three references to: **Dr. M. E. Freeman, Department of Biological Science, Florida State University, Tallahassee, Florida 32306.**

BIOCHEMICAL, BIOLOGICAL & GENETIC RESEARCH

Collaborative Research, Inc. is increasing the scope of its projects in biochemical, biological and genetic research. We are an aggressive, dynamic organization offering excellent opportunities created by our ongoing growth.

CRI currently has an opening to work in new product development on the purification of nucleic acid enzymes for a:

Research Scientist/ Nucleic Acid Enzymologist

We seek an individual with experience in enzymes/protein purification and characterization and a strong background in enzymology and molecular biology techniques.

Qualified candidates should hold a PhD in Biochemistry or Molecular Biology or MS with a minimum of 4-5 years direct experience.

Our salary and benefits program, as well as our informal work environment, reflect the exceptional nature of our company. Please respond by **resume only**, including salary history, to:

**Nancy Thimot
Collaborative Research, Inc.
128 Spring Street, Lexington, MA 02173
an equal opportunity employer**

CR Collaborative Research, Inc.

SYNTRO CORPORATION

announces an

INTERNATIONAL CONFERENCE

at

**STANFORD UNIVERSITY
GENETICS AND BIOTECHNOLOGY
OF BACILLI
JULY 5-8, 1983**

SPONSORED BY

**STANFORD UNIVERSITY
MEDICAL SCHOOL**

AND

**SYNTRO CORPORATION
SAN DIEGO, CALIFORNIA**

FOR INFORMATION CONTACT:

**DR. A. T. GANESAN
DEPARTMENT OF GENETICS
STANFORD UNIVERSITY MEDICAL SCHOOL
STANFORD, CALIFORNIA 94305**

Research Department Head

SYNTEX Corporation is meeting the challenges of the world's healthcare needs. If you want to share our pride as an international life sciences company, then consider this outstanding opportunity with Syntex.

The person appointed will direct a bioassay laboratory with a staff of 12 persons. Activities will include the management of current assay systems for anti-inflammatory and other biological activities and the development of new assay systems as required. The candidate will represent the Institute on selected product development project teams. Qualifications should include a doctorate in a relevant biological speciality, e.g., biology, physiology, immunology, medicine or veterinary medicine, and at least five years' experience in conducting/supervising biological testing. Industrial experience is preferred. The candidate should be a good administrator of research, including capacity to manage personnel, and should have shown willingness and ability to adapt to changing needs. Verbal and written communication skills are required. Proven capacity to undertake and publish original research would be a recommendation.

Applications, with curriculum vitae, list of publications and addresses of two persons willing to provide references, should be sent to Personnel Dept., Syntex Corporation, Opportunity No. 10506, 3401 Hillview Avenue, Palo Alto, CA 94303. We are an equal opportunity employer.



SCIENTISTS

Biomedical Scientist

Lawrence Livermore National Laboratory, operated by the University of California, has a position available for a PhD or equivalent level scientist to establish a recombinant DNA facility and work collaboratively in the area of somatic cell genetics. Programmatic objectives include the isolation and characterization of mammalian DNA repair genes, the establishment of human chromosomal DNA libraries, and the application of these resources to study gene structure and regulation. This individual must be experienced in recombinant DNA techniques and mammalian cell structure. Interest in DNA repair and chromosome structure/gene mapping is desired. The suitable candidate must be willing to work in a team research environment and interact with scientists of different disciplines who may wish to utilize recombinant DNA methods. Qualified candidates are invited to forward their curriculum vitae to: Earl G. Morrell, Employment Division, LAWRENCE LIVERMORE NATIONAL LABORATORY, P.O. Box 5510, KSC-013, Livermore, CA 94550.

Cytogeneticist Postdoctoral Research Position

The Environmental Sciences Division of Lawrence Livermore National Laboratory has a postdoctoral position available immediately for a Cytogeneticist with an interest in environmental sciences. The appointment will be for one year with a possible extension to two or three years. The scientist will be responsible for developing, evaluating, and implementing cytogenetic assays in a group studying aquatic toxicology. The successful applicant will join an interactive group of environmental and biomedical scientists performing research on effects of chronic exposures to low levels of pollutants. Qualified candidates are invited to forward their curriculum vitae and 3 letters of recommendation to: Earl G. Morrell, Employment Division, LAWRENCE LIVERMORE NATIONAL LABORATORY, P.O. Box 5510, KSC-013, Livermore, CA 94550.

U.S. Citizenship is required.
An Equal Opportunity Employer M/F/H/V.

University of California



**Lawrence Livermore
National Laboratory**

POSITIONS OPEN

CYTOGEN Princeton, N.J.

CYTOGEN CORPORATION is seeking professional personnel to grow with an innovative, problem-solving monoclonal antibody and antibody modification company. CytoGen is recruiting qualified persons (Ph.D. level or equivalent) with two or more years of industrial or academic experience in the following areas:

- Immunoassay Development
- Fluorescence/Luminescence
- Tumor Immunology
- Tissue Culture
- Organic Synthesis

Please send résumé and salary history to:

Thomas J. McKearn, M.D. Ph.D.
Vice President R & D
CYTOGEN CORPORATION
201 College Road East
Princeton Forrestal Center
Princeton, N.J. 08540
Telephone: 609-452-8848

Cytogen Corporation is an Equal Opportunity Employer.

RESEARCH ASSOCIATES, with Ph.D. in biochemistry, cell, or molecular biology. Positions are available immediately to study the role of cyclic AMP-dependent phosphorylation in hormonal regulation of gluconeogenesis and transport in kidney. These processes will be examined with purified enzymes and isolated epithelial cells. Other positions are available to study the biosynthesis and secretion of cell surface antigens in tumor cells and acidic mucin glycoproteins in respiratory tissue. These studies will include carbohydrate structural analysis and gene regulation in isolated cell systems using current DNA technology. Salary: \$17,000.

Send résumé and references to:

Dr. Joseph Mendicino
Department of Biochemistry
University of Georgia
Athens, Ga. 30602

POSITIONS OPEN

POSTDOCTORAL POSITION available for performing research on the role of protein phosphorylation in the regulation of catecholamine transmitter synthesis in cultured chromaffin cells [see *J. Biol. Chem.* 257, 13699 (1982)]. A background in enzymology, protein chemistry, and immunochemical methods is desired. Send curriculum vitae and names of three references to:

Dr. Jack Waymire
Neurobiology and Anatomy
The University of Texas Medical School
P.O. Box 20708
Houston, Texas 77025

An Equal Opportunity Employer; women and minorities are encouraged to apply.

POSTDOCTORAL RESEARCH ASSOCIATE

Position for Ph.D. in biochemistry/chemistry for research on nonenzymatic glucosylation and glucose-dependent cross-linking of protein (Maillard reactions) in vitro and their role in vivo in pathology of diabetes and physiology of aging in mammals. Background in analytical/organic chemistry would be helpful for isolation and characterization of products formed by reactions between glucose and protein.

Send curriculum vitae and references to:

Dr. John W. Baynes
Department of Chemistry
University of South Carolina
Columbia, S.C. 29208
Telephone: 803-777-7272

RESEARCH ASSOCIATE IN PHOTOSYNTHESIS. The research involves spectroscopic and biochemical studies in thylakoid membranes in order to characterize the pathways and reaction rates of light-driven electron and proton transfer. The position is available in spring or summer 1983. Applicants should send their curriculum vitae and the name of their references to: Dr. John Whitmarsh, Department of Botany, University of Illinois, 505 South Goodwin Avenue, Urbana, Ill. 61801. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE. Seek Ph.D. with strong background in biochemistry, molecular biology, or biophysical chemistry to study the biochemistry and biophysics of DNA photoreactivating enzymes. Possible projects include structural determinations, investigation of enzyme binding and photolysis of pyrimidine dimers in vitro synthesized oligomers and/or cloned DNA fragments of known sequence. Initial appointment for 1 year, renewable. Salaries start at \$16,000 per year for new Ph.D. Apply, with curriculum vitae (including list of publications) and names of three references to: Dr. Betsy M. Sutherland, Biology Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, New York 11973. Equal Opportunity Employer, M/F.

THE DEPARTMENT OF PSYCHOLOGY at New York University (NYU) hopes to have a junior-level, tenure-track position starting in fall 1983. Preference will be given to candidates with interests in the application of modern quantitative and computer methods to psychology and with interests in applied areas of psychology. Applicants should demonstrate excellence in and commitment to an active program of research. Applications, including curriculum vitae, three letters of reference, and copies of relevant publications, should be sent to: Professor J. Anthony Movshon, NYU Department of Psychology, 6 Washington Place, 8th Floor, New York, N.Y. 10003. NYU is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE, Ph.D. in physiology or biochemistry and experience in enzyme chemistry. Will have to know or learn micromanipulation. Studies on packaging, distribution, and secretion of pancreatic enzymes. Use of a microfluorescence method to measure extremely small quantities, in the 0.3 10⁻¹⁸ M range of alpha chymotrypsinogen and of amylase in single, individual zymogen granules purified from rat pancreas. Studies of enzymes secretion from single pancreatic acinar cells. Send résumés to: Claude Lechene, M.D., Department of Physiology and Biophysics, Harvard Medical School, 221 Longwood Avenue, Boston, Mass. 02115.

BIOCHEMIST/ MOLECULAR GENETICIST/ PROTEIN CHEMIST

ACTAGEN, a young company with exciting ideas in the field of medical diagnostics, is considering the addition of three senior scientists. Applicants should have a Ph.D. degree and at least two years of relevant post-doctoral research experience as follows:

Biochemist—interested in the mechanisms of recombination in both prokaryotic and eukaryotic organisms.

Molecular Geneticist—familiar with *B. subtilis* genetics and current cloning techniques.

Protein Chemist—experience with nucleotide modification.

In addition to a very competitive salary and fringe benefit package, these positions offer opportunities for growth and responsibility limited only by the abilities of the applicant.

ACTAGEN is located in Westchester County, New York, only 30 minutes from Manhattan while enjoying easy access to a wide range of affordable suburban and rural housing.

To apply, send your curriculum vitae and the names of three references to:

Dr. Jeffrey Glassberg
ACTAGEN, INC.
4 Westchester Plaza
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Molecular Biologists

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The Ocean Research Division at Scripps Institution of Oceanography invites **PHYSICAL OCEANOGRAPHERS** to apply for a position as **ASSISTANT RESEARCH OCEANOGRAPHER**, the research equivalent of assistant professor (Ph.D. in physical sciences or equivalent degree required). Candidate must have strong background in applied mathematics and fluid dynamics; strong interest in ocean dynamics; and proven research and publication record in physical oceanography. This position is funded through ONR contract for 2 years. Appointment beyond 2 years is contingent on candidate obtaining extramural support. It is expected that the majority of research effort during the 2 years will be devoted to the theory and analysis of data on Kuroshio variability. Salary range is \$22,900 to \$26,800, commensurate on qualifications. Position start date is approximately 1 April 1983. Please send résumé and at least three references to: **Dr. Russ Davis, Chairman (S), Ocean Research Division A030, Scripps Institution of Oceanography, La Jolla, Calif. 92093**, by 28 February 1983. For additional information about the position, contact: **Dr. Peter Niller, telephone: 619-452-4100, The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer.**

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RESEARCH ASSOCIATE I-B/H; master's degree in genetics/microbiology and 1 year of laboratory experience, or an equivalent education and experience, is required; isolates, characterizes, and constructs yeast strains; characterizes mutant phenotypes using enzyme, protein DNA, and RNA analysis; trains and supervises staff and students; trains students in genetics and biochemical techniques; assists in preparing experimental results for publication and presentation; orders supplies; maintains laboratory. Salary: \$15,720 to \$17,520. Please contact: **Betty Williams, Ohio Bureau of Employment Services, 3434 Cleveland Avenue, Columbus, Ohio 43224.**

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COMMEMORATION

A commemoration for Professor Charles Heidelberger will be held on Saturday, 19 February 1983, at 2 p.m. at the Mayer Auditorium on the Medical Campus of the University of Southern California at 2025 Zonal Avenue, Los Angeles, California. All those who wish to participate in this tribute are welcome.

CONFERENCE

The Second International Conference on Malaria and Babesiosis will take place 19 to 22 September 1983 in Annecy, France. An informative package for the conference is available. Those interested in receiving the package may address their request to: **Dr. Micha Roumiantzeff, Foundation Merieux, 17 Rue Bourgelat, 69002 Lyon, France; telephone 838-06-10/extension 512; or Dr. Miodrag Ristic, College of Veterinary Medicine, University of Illinois, Urbana, Ill. 61801; telephone: 217-333-2671.**

SYMPOSIUM

MOLECULAR CONCEPTS OF LIPID A

An international symposium will be held at the Walter Reed Army Institute of Research, Washington, D.C., on 6 to 8 April 1983. Organized by David C. Morrison (Emory University), Inger Mattsby-Baltzer (Walter Reed), and Carl R. Alving (Walter Reed), and cosponsored by Emory University and Walter Reed.

Tentative session topics will include: chemical structure of lipid A; synthesis of lipid A; interactions of lipid A with membranes; interactions of lipid A with immunologically active cells; and lipid A immunology and host protection. There will also be a poster session.

Speakers will include: O. Lüderitz, E. Rietschel, H. Mayer, K. Takayama, M. J. Osborn, P. Rick, C. Raetz, L. Anderson, T. Shiba, H. Nikaido, L. Leive, S. Mergenhagen, D. M. Jacobs, A. Coutinho, S. Vogel, M. Kern, C. Galanos, S. C. Kinsky, and E. Ribí.

For information on registration, contact: **Dr. Howard Noyes, Walter Reed Army Institute of Research, Washington, D.C. 20012.**

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POSTDOCTORAL FELLOWSHIPS, ENVIRONMENTAL TOXICOLOGY

Department of Environmental Health, University of Cincinnati Medical Center, offers postdoctoral fellowships in environmental toxicology. These are NIH-sponsored institutional fellowships. One is available 1 April 1983 and another before 1 July 1983. Preference given to applicants who obtained Ph.D. degree in a basic biomedical discipline. For information, contact: **Dr. P. B. Hammond, Department of Environmental Health (Number 56), University of Cincinnati Medical Center, Cincinnati, Ohio 45267.** *An Equal Opportunity Employer.*

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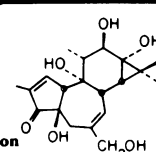
Applicants may write to: **Professor William N. Lipscomb, Gibbs Chemical Laboratory, Harvard University, Cambridge, Mass. 02138.** *Harvard University is an Affirmative Action/Equal Opportunity Employer.*

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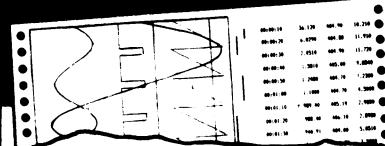
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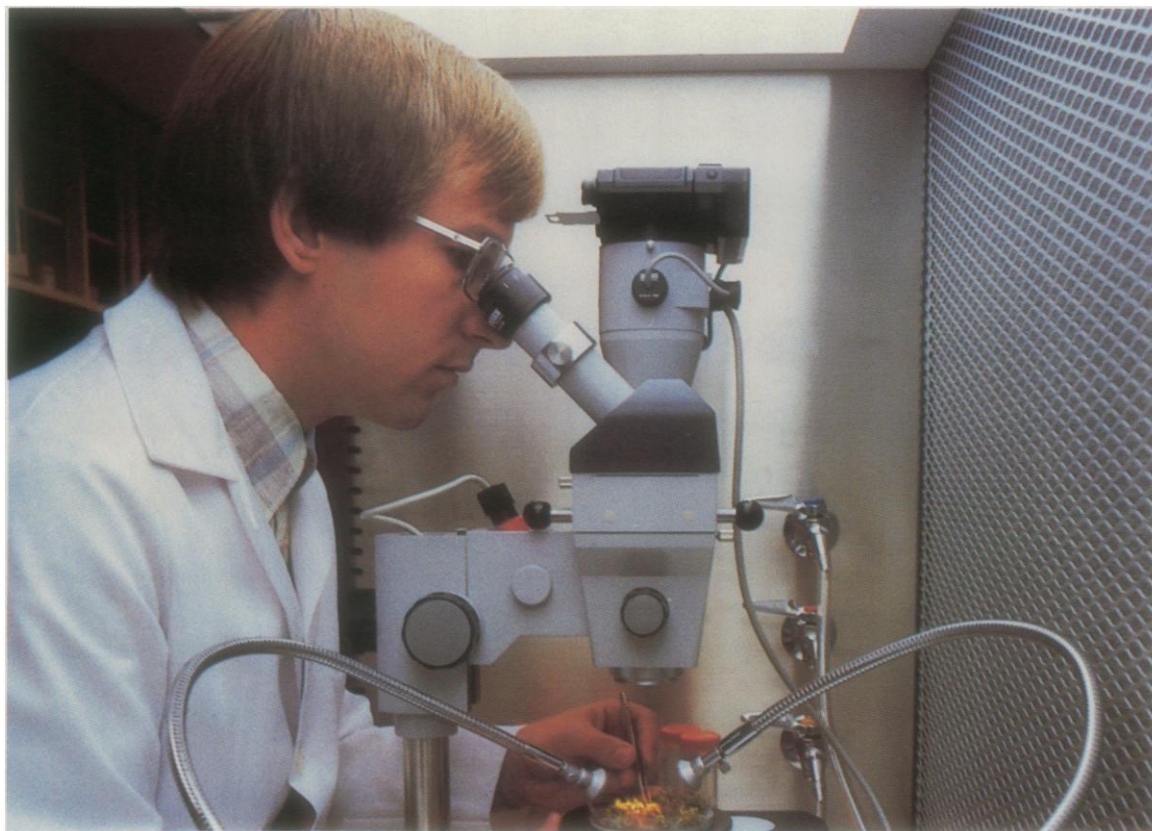


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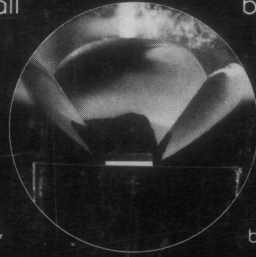
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