

tions of these subjects in Brazil (and elsewhere) during his lifetime. Rodolpho essentially was educated by studying at the side of his father, Hermann von Ihering, a physician-natural-historian immigrant from Germany. Hermann von Ihering was an important and innovative Brazilian biologist, founder in 1895 of the Museu Paulista in São Paulo and its director for the next 22 years. Rodolpho was raised in a tradition of work, ambition, social consciousness, and scientific intellectual curiosity, with a special interest and experience in the natural-history sciences. By 1903 Rodolpho was publishing his first papers in entomology on wasps and bees. From 1905 to 1907 he was in Europe, mainly in Heidelberg, to extend his education. From entomology his interests and publications spread over many fields of Brazilian natural history, especially ichthyology and ecology, but also herpetology and ornithology. Owing to the intense feeling against Germans during World War I in Brazil, Hermann von Ihering was forced to retire from the Museu Paulista. In sympathy, Rodolpho also left the museum. Rodolpho left biology altogether for the next ten years and established a small manufacturing business. He did, however, continue to publish popular articles and booklets on natural history, especially for schoolchildren. He also continued his interest in biology, particularly its application in improving the lives of his countrymen.

In 1926, through the encouragement of Laurindo Travassos and other Brazilian biologists, Rodolpho was persuaded to return to biology in the position of chief of the zoology section of the newly created Biological Institute in São Paulo. In 1932 he was given charge of the Technical Commission for Fish Culture of the Northeast, and in 1937 he became chief of the National Fisheries Service. It was during this period, 1926 through 1939, that his greatest contributions to Brazilian biology were made.

Von Ihering had always favored the use of Brazil's abundant native fish fauna for development of freshwater fisheries in association with the establishment of artificial reservoirs in the drought-stricken areas of northeastern Brazil, rather than the introduction into the natural fishery of carp and other foreign fishes that alter the habitat. However, artificial propagation (and thus the maintenance of adequate supplies) of native migratory freshwater fishes had so far been unsuccessful. Between 1934 and 1935 von Ihering and his co-workers developed a method for inducing spawning in captive freshwater fishes through

the use of fish pituitary gland extract. This allowed the introduction of adequate supplies of native fishes into the reservoirs and became a model for the solution of similar problems in other parts of the world.

It is not just the specific scientific contributions made by Rodolpho von Ihering, however, that are important to the natural-history sciences in Brazil. Rather, it is the legacy of an attitude toward science and scientific progress and his advocacy of a blend of conservation with land and water use. Brazilian natural historians and scientists are to be commended for honoring this Brazilian pioneer of their science.

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Avian Architecture

Nest Building and Bird Behavior. NICHOLAS E. COLLIAS and ELSIE C. COLLIAS. Princeton University Press, Princeton, N.J., 1984. xx, 337 pp., illus. \$45; paper, \$16.50.

Nicholas and Elsie Collias are well known to ornithologists everywhere for their years of devotion to nest-building behavior in weaverbirds, master builders of the most highly evolved nests known among vertebrates. Now they have given us a comprehensive picture of nests and nest-building in all birds, analyzed from an evolutionary perspective. No other study of its kind exists. This is a work of fine scholarship that gives insight into the selective forces involved in the evolution of the diverse array of nest types, ranging from a simple depression on the bare ground through excavated cavity nests, open cup-shaped nests, domed nests, and woven nests to the elaborate avian apartments built by the most social of the weaverbirds.

The Collias approach starts with prolonged and detailed field observations, but includes careful experimentation with captive birds in large aviaries. They have succeeded in providing a convincing picture of the general evolution of bird nests, detailed analysis of adaptive radiation and the selective forces involved in their own special group, the weaverbirds, and also an account of the ontogeny of nest-building. In a nutshell, the general picture is that the entire process is genetically programmed, but the expression of the behavior requires access to appropriate environmental

stimuli at appropriate stages of the bird's life. Not surprisingly, within the range of nest-building expertise shown by different individuals of species building complex nests, the most skilled performers are usually also the most experienced.

Not all structures built by birds are receptacles for eggs. Bowerbirds of the Australian region build beautiful structures of twigs, often decorated with flowers, berries, bright stones, bottle caps, and the like, to facilitate courtship and mating. Other birds build nests for roosting. Some build decoy nests or nest compartments to deceive predators. All of this and much more gets careful attention from Collias and Collias as they summarize the vast literature on birds' nests. The book concludes with two appendixes, one listing all bird families of the world and their nest types and the other telling where to find photographs of bird nests.

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Books Received

Applied Developmental Psychology. Vol. 1. Frederick J. Morrison, Catherine Lord, and Daniel P. Keating, Eds. Academic Press, Orlando, Fla., 1984. xiv, 300 pp., illus. \$35.

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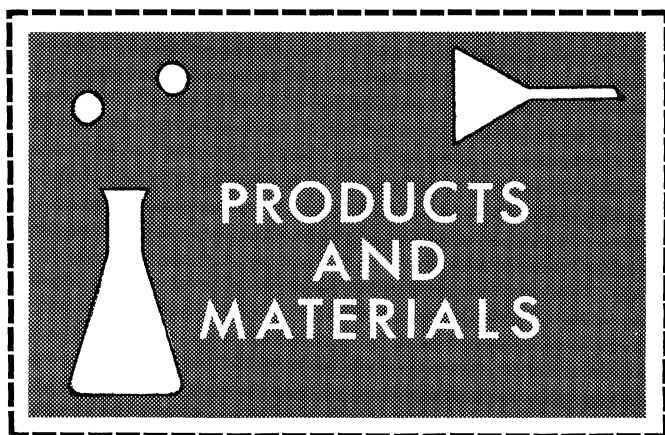
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Amino Acid Analyzer

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Literature

Standard Reference Materials catalog features chemicals, physical properties standards, engineering standards, and a guide to the various services of the bureau. National Bureau of Standards. Circle 556.

Laboratory and Industrial Equipment describes incubators, baths, freezers, blood bank equipment, washers, rooms, ovens, chambers, refrigerators, and laminar flow products. Forma Scientific. Circle 557.

HPLC System Software features the Data Master package with combined gradient control and data analysis functions. Gilson Medical Electronics. Circle 578.

Laboratory Products includes electrophoresis products and equipment for hemostasis, immunology, chromatography, blood testing, and spectrophotometry. Helena Laboratories, Circle 579.

Digital Centrifuges describes the C 411 and the CR 411 tabletop models. Their design specifications and experimental aptitudes are covered. Jouan. Circle 580.

UHV Surface Analysis Components features ion guns, charge neutralizers, electron and particle sources, and much more. Kratos Analytical, a division of Spectros. Circle 581.

Freeze Dry Catalog covers cabinets, tray driers, accessories, and universal glassware. An "introduction to freeze-drying" explains the process. Labconco. Circle 582.

Shakers is devoted to air orbital, controlled environment, and water-bath shakers as well as accessories and special-design devices. Lab-Line Instruments. Circle 583.

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POSITIONS WANTED

Biochemist (Ph.D., 1984), M.B.A. (marketing, 1983), seeks challenging product development/research position. Profit/achievement oriented. Research experience in analytical biochemistry (separations science) and molecular genetics. Publications. Excellent communicator. Willing to relocate and travel. Box 85, SCIENCE. X

Chemist/Physician: Ph.D., M.D. Experience in college teaching and clinical chemistry; broad experience in methodology, environmental studies; cancer research instrumentation, health problems; desires core laboratory, R&D. Box 86, SCIENCE. 4/12, 19

Crystallographer. Small molecules, plant viruses, protein secondary structure prediction, molecular evolution; 14 years of postdoctoral, 12 years of teaching experience; good publications, references; seeks faculty position in academic/research institution. Box 87, SCIENCE. X

Fishery Biologist with interest in modeling. Recent Ph.D. now at a small university. Excellent computing, writing skills; published articles, reports. Seeks to broaden background with a challenging position in an outstanding fisheries organization. Box 88, SCIENCE. 4/12, 26

In Vitro Fertilization Laboratory Director (Ph.D.) of large, highly successful and visible private program, seeks similar position in academic or private setting. Box 82, SCIENCE. 4/12, 19, 26

Membrane Biologist. Tenured associate professor seeks strong academic/research department with active collaborative efforts or industrial research position. Broad range of expertise: freeze fracture and thin section electron microscopy; membrane isolation; characterization and reconstitution of ion transport systems; fluorescent probes; phospholipid chemistry and liposomes. Box 89, SCIENCE. 4/12, 19

POSITIONS WANTED

Microbiologist/Biochemist. Ph.D. 1982. Seeks postdoctoral position with university/industry. Extensive experience in microbial enzymology, protein purification, large-scale culture of microorganism and cell fusion; available immediately, any location. Box 83, SCIENCE. X

Physiologist. Ph.D. Stanford, 1977. Four years of postdoctoral training. Extensive experience in basic human research including cardiovascular regulation, muscle metabolism, exercise pathophysiology. Aggressive publication and grant funding record. Excellent references. Seeks medical school academic appointment. Box 76, SCIENCE. 4/12, 19

POSITIONS OPEN

Position available for one **ANATOMIST** (cell biology-histology) at the assistant or associate level. Ongoing research program essential; those with current research grants preferred. Send curriculum vitae and letters of reference to: Stanley R. Nelson, M.D., Chairman, Department of Anatomy, University of Kansas College of Health Sciences and Hospital, Kansas City, Kansas 66103. An Equal Opportunity/Affirmative Action Employer.

ANIMAL PHYSIOLOGIST. Tenure-track position at Indiana University of Pennsylvania (IUP) starting September 1985, at the assistant professor level, salary commensurate with qualifications. Teaching experience preferred; Ph.D. required. Commitment to quality teaching and research essential. Primary teaching responsibilities include physiology to graduate, undergraduate major, and undergraduate non-major students, and may include a non-majors general biology course. Submit résumé, transcripts, statement of research plans, and three letters of recommendation by 16 May 1985 to: Dr. William E. Dietrich, Jr., Search Committee Chair, Biology Department, IUP, Indiana, Pa. 15705. Telephone: 412-357-2352. Minority applications encouraged. IUP is an Affirmative Action/Equal Opportunity Employer.

ANIMAL PHYSIOLOGIST. The Biology Department, University of Santa Clara, seeks a one-year sabbatical replacement (1985-1986 academic year) to teach courses in animal physiology (with laboratory), human anatomy and physiology (with laboratory), a nonlaboratory course in organismal biology, and a fourth course to be determined. Send a résumé, transcripts, and names of three references to: Dr. William Eisinger, Department of Biology, University of Santa Clara, Santa Clara, Calif. 95053, by 10 May 1985. The University of Santa Clara is a Jesuit University and an Equal Opportunity/Affirmative Action Employer, Title IX, M/F/H.

ASSISTANT DIRECTOR, Clinical Chemistry Division—Position available now. Ph.D. or equivalent required; Board-certification preferred. Service laboratory teaching and research experience desired. Civil Service position; *Equal Opportunity Employer*. Submit résumé to: Dr. L. Edwards, Chairman, Search Committee, Erie County Laboratory, Erie County Medical Center, 462 Grider Street, Buffalo, N.Y. 14215-3098.

CHIEF TOXICOLOGIST position available now. Ph.D. or equivalent preferred; experienced in clinical and forensic toxicology. Work involves service, teaching, and research. Civil Service position with *Equal Opportunity Employer*. Submit résumé to: Dr. L. Edwards, Chairman, Search Committee, Erie County Laboratory, Erie County Medical Center, 462 Grider Street, Buffalo, N.Y. 14215-3098.

ASSISTANT PROFESSOR, MICROBIOLOGY

A tenure-track teaching/research position at the assistant professor level is available in the Department of Zoological and Biomedical Sciences, Ohio University, Athens, Ohio. The successful candidate will be expected to contribute to the undergraduate, graduate and/or medical school microbiology curricula (environmental microbiology, immunology, medical technology program). Responsibilities will also include the development of a competitive research program, including the training of students at the master's and Ph.D. levels. Research areas preferred include immunogenetics and immunopathogenics. Send curriculum vitae, including a statement of research interests, and three letters of recommendation by 26 April 1985 to: Chairman, Microbiology Search Committee, Program in Microbiology, Ohio University, Athens, Ohio 45701.

Ohio University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT/ASSOCIATE DIRECTOR OF THE BAYLOR UNIVERSITY INSTITUTE OF ENVIRONMENTAL STUDIES—TENURE-TRACK POSITION

The Institute of Environmental Studies seeks qualified applicants for the assistant/associate director of the Institute. This person will have teaching, research, and administrative responsibilities. Teaching ability is of major importance and covers basic environmental studies introductory courses as well as advanced courses in specific environmental areas. Research is expected in the qualified environmental area of the applicant. Administrative activities include administrative duties responsible to the director of the Institute with special emphasis on undergraduate curriculum, student counseling, and budgetary activity. The Institute is interdisciplinary and will consider any applicant with a Ph.D. in fields where there is clear applicability to environmental studies. The status and salary are negotiable based on qualifications and experience. Send inquiries and résumés to: Dr. W. M. Alexander, CSB Box 402, Baylor University, Waco, Texas 76798. Telephone: 817-755-3405. Applications should be postmarked no later than 3 May 1985. Baylor University is an Equal Opportunity Employer.

ASSISTANT PROFESSORSHIP (nontenure track) position available in human genetics. Applicant should hold the Ph.D. degree and have 2 years of postdoctoral experience. The successful candidate will conduct research and contribute graduate teaching in genetic epidemiology and behavioral/psychiatric genetics. Appointment available 1 July 1985 and renewable annually, contingent on funding. Send curriculum vitae and names and addresses of three referees to: Walter E. Nance, M.D., Ph.D., Chairman, Department of Human Genetics, Medical College of Virginia (MCV)/Virginia Commonwealth University (VCU), Box 33, MCV Station, Richmond, Va. 23298-0001, from whom further information can be obtained. MCV/VCU is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR, MICROBIOLOGY. A one-year sabbatical replacement position for the 1985-1986 academic year. Courses to be taught are introductory and general microbiology, immunology, and a special-interest course during the January interim term. Send curriculum vitae and three letters of recommendation to: Dr. J. E. Lerum, Chair, Department of Biology, Pacific Lutheran University, Tacoma, Wash. 98447, by 1 May 1985. *Equal Opportunity/Affirmative Action Employer*.

ASSISTANT PROFESSOR, MOLECULAR BIOLOGY—The Department of Microbiology, University of Maine, invites applications for a 9-month, tenure-track position, available 1 September 1985. Responsibilities include development of an independent, externally funded research program in molecular genetics utilizing recombinant DNA cloning techniques; supervision of graduate students; and development of an undergraduate and graduate course in microbial genetics. Ph.D. and postdoctoral experience required.

Send curriculum vitae and names of three references by 15 May 1985 to: Dr. Bruce L. Nicholson, Chairman, Department of Microbiology, University of Maine at Orono, Orono, Maine 04469. *Equal Opportunity/Affirmative Action Employer*.

BIOLOGY DEPARTMENT

The Biology Department at Indiana University of Pennsylvania is seeking applicants for two tenure-track positions in science education/biology for September 1985, at the assistant professor level. Commitment to quality teaching and research is essential. Ph.D. or Ed.D. with a major in science education with a strong background in the biological sciences is required. Consideration will be given to research in science education, college level teaching experience, and professional involvement in local or regional public education. Duties will include teaching science education courses at the undergraduate and graduate levels, supervising student teachers and prestudent teachers, advising biology education majors, developing innovative programs in science education, teaching nonmajors courses in biology, and directing graduate student research. Minority candidates encouraged.

Send letter of application, résumé, transcripts, statement of research interests, and three letters of recommendation to: Dr. G. M. Ferrence, Science Education/Biology Search Committee, Biology Department, IUP, Indiana, Pa. 15705. Deadline for applications is 15 May 1985.

IUP is an Affirmative Action/Equal Opportunity Employer.

**The Max-Planck-Gesellschaft zur
Förderung der Wissenschaften e.V.**

at the

**Department of Neurochemistry
Max-Planck-Institute for Psychiatry
at Martinsried, Munich**

offers to

SCIENTISTS

*the opportunity to set up their own research
group.*

Applicants should have already accomplished internationally recognized research in neurobiology or related fields, especially in molecular genetics, membrane-receptor biochemistry, neuroimmunology or neuroendocrinology.

The duration of the contract will be 5 years, the salary being within the Germany university salary scale C 3.

The Institute guarantees the salaries for one additional scientist and one technician, provides appropriate space and support for running costs and equipment. The possibility exists to extend this basic research potential by grant applications.

Applications should contain a tabular *curriculum vitae*, a list of publications, and a short description of scientific work both achieved and intended, and should be submitted to

**H. Thoenen, Head of the Department of
Neurochemistry, Max-Planck-Institute for
Psychiatry, Am Klopferspitz 18a, D8033
Martinsried, F.R.G.**

not later than May 31, 1985

Scientist/Drug Metabolism

The Drug Metabolism Dept. of SK&F Laboratories is seeking a Scientist interested in conducting metabolism and disposition studies on drugs, developing *in vitro* techniques for studying metabolism, developing assays for drugs in biological matrices, and participating in basic research.

The successful candidate must have:

- B.S. Biochemistry or Pharmacology and 5 yrs. experience or M.S. and 2 yrs. experience
- Knowledge of theoretical and practical aspects of analytical proceedings for assaying drugs and metabolites
- Knowledge and experience in the use of radioisotopes
- Excellent communication and interpersonal skills

Preferred experience includes:

- *In vitro* techniques for studying drug metabolism
- Handling small animals
- Proven research ability evidenced by scientific publications

Presently located in suburban Philadelphia near King of Prussia, PA, the Department will be relocating to a new state-of-the-art Research and Development facility only minutes away. We offer an excellent salary, benefits, and relocation package as well as the opportunity for personal and professional growth. Please forward your resume to George P. Kissell, Sr. Employment Consultant, SK&F Laboratories, a division of SmithKline Beckman Corporation, 1568 Spring Garden St., Phila., PA 19101. We are an Equal Opportunity Employer, M/F/H/V.

SK&F
A SmithKline Beckman Company

POSITIONS OPEN

ASSISTANT MEMBER. Staff position in the Department of Immunology for a **MOLECULAR BIOLOGIST** to identify and characterize lymphokine genes of cloned T-instructor cells, products that regulate defined effector genes of monocytes-macrophages in the cellular immune response. Must have experience and publication in molecular biology with long-term potential for investigation of gene control. Forward inquiry, curriculum vitae, and references to: **Dr. Thomas S. Edgington, Department of Immunology (IMM-17), Research Institute of Scripps Clinic, 10666 North Torrey Pines Road, La Jolla, Calif. 92037. An Equal Opportunity/Affirmative Action Employer.**

ASSISTANT/ASSOCIATE PROFESSOR (tenure track), Department of Medicine, Stanford. The Division of Oncology of Stanford University is searching for two full-time faculty members for its fully integrated program at the Palo Alto Veterans Administration Medical Center. Candidates should be fully qualified in medical oncology and have demonstrated or have the potential for an independent research program. Research area may be any clinical or laboratory area relevant to oncology. These tenure-line appointments will be at the assistant or associate professor levels. Send résumé, including bibliography and summary of research goals, to: **Dr. Saul A. Rosenberg, Chairman, Search Committee, Room M-211, Stanford University School of Medicine, Stanford, Calif. 94305. Stanford is an Equal Opportunity Employer and welcomes nominations of women and minority group members and applications from them.**

ASSISTANT/ASSOCIATE PROFESSOR MICROBIOLOGY AND IMMUNOLOGY

The Department of Microbiology and Immunology at the University of Washington is recruiting at the assistant or associate professor level for a faculty member with active research interests in the biochemical and/or molecular-genetic aspects of bacterial or viral pathogenesis. Postdoctoral experience is required. Major responsibilities include teaching microbiology to medical students and supervising doctoral candidates. Applicants should submit curriculum vitae, a short statement of research interests, and the names of three references to:

**Dr. Neal Groman
Pathogenesis Search Committee
Department of Microbiology/Immunology, SC-42
University of Washington
Seattle, Washington 98195**

Deadline: 15 May 1985

Affirmative Action/Equal Opportunity Employer

BIOCHEMISTS, PHYSIOLOGISTS, PHARMACOLOGISTS

Needed to write educational material for use with computer assisted instructional software. Newly formed software development house looking for quality teachers to help provide material with a nursing/medical school orientation. Advance and percentage of sales. Please contact:

**SUNTEXT CORPORATION
4076 Germainder Way
Irvine, Calif. 92715**

CELLULAR OR MOLECULAR IMMUNOLOGIST

We invite applications for a tenure-track faculty position in the area of cellular or molecular immunology. The successful candidate will be expected to participate in our teaching programs and to develop a strong, independent research program. Research experiences applying cellular or molecular approaches to immunological problems (for example, cell-cell recognition, regulation of immune responses, immunoglobulin gene expression, genetic approaches in histocompatibility studies) are preferred. Rank and salary are negotiable. Send curriculum vitae, a summary of research plans, and names of three references to: **Dr. David Njus, Department of Biological Sciences, Wayne State University (WSU), Detroit, Mich. 48202. WSU is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

ASSISTANT PROFESSOR OF NUTRITION, University of Wisconsin-Madison. Tenure-track position effective 1 August 1985. Candidates should hold a Ph.D. in nutrition or related doctoral degree and an R.D. with clinical experience. Postdoctoral research training is desirable. Responsibilities include undergraduate and graduate teaching, establishment of an independent research program, and participation in the Dietetics program. Candidates should submit a letter of intent, including research and teaching interests, curriculum vitae, and names and addresses of three references, to: **Dr. J. A. Marlett, Department of Nutritional Sciences, University of Wisconsin, Madison, Wisconsin 53706.**

ASSISTANT/ASSOCIATE PROFESSOR—REPRODUCTIVE IMMUNOLOGY. Qualifications: Ph.D. in reproduction or immunology. Experience and demonstrated interest in immunology as it relates to reproduction is essential. Applicants should have experience in one or more of the following techniques: monoclonal antibodies, recombinant DNA, cell or tissue culture, and an interest in applying biotechnology to domestic animal improvement. Postdoctoral experience desirable; demonstrated ability to do high-quality research and publish results essential. Responsibilities: Teaching and advising at the graduate and undergraduate levels. Participate in a developing departmental biotechnology program by establishing a strong research program funded in part by grants and contracts, in areas such as immunology of pregnancy, fetal-maternal interactions, development of immune system, and so forth. Salary commensurate with qualifications and experience. Applicants should submit, by 30 April 1985, letter of application, statement of research interests, detailed curriculum vitae, transcripts, and the names of four references to: **Dr. James B. Marcum, Chairman, Department of Veterinary and Animal Sciences, 313 Paige Laboratory, University of Massachusetts, Amherst, Mass. 01003. The University of Massachusetts is an Affirmative Action/Equal Opportunity Employer.**

Tenure-track **ASSOCIATE/ASSISTANT PROFESSOR OF BIOMEDICAL ENGINEERING (BME)** at the Worcester Polytechnic Institute (WPI). WPI offers the M.S. and Ph.D. degrees in BME and the M.S. in clinical engineering. Close cooperation exists with the University of Massachusetts Medical School, local hospitals, and the Massachusetts Biotechnology Research Park, with shared instrumentation including a proposed major center for magnetic resonance imaging. Ph.D. in BME or a related discipline required. Preferred areas of specialization are: biomedical imaging and signal processing, application of optics to biomedicine, but all specialties will be given consideration. Applicants should be interested in developing a strong research program and be committed to quality teaching. WPI is located near the heart of the high-technology focus of New England yet offers opportunities for urban, suburban, or rural life-styles as well as varied winter and summer recreational activities. Send résumé, statement of professional interests, and names of three or more references to: **Dr. Robert A. Peura, Coordinator, BME, WPI, Worcester, Mass. 01609. Telephone: 617-793-5447. WPI is an Affirmative Action/Equal Opportunity Employer.**

BIOCHEMIST—Multiyear, renewable contract position available for Ph.D., D.O. or M.D. to perform **BIOCHEMICAL RESEARCH**, seek outside support, and teach part of medical biochemistry course to medical students. New modern laboratories are available for qualified person with track record and publications. Salary, length of renewable contract, and academic rank commensurate with qualifications. Interested candidates should send curriculum vitae and all supportive evidence (current grant support and grant track record and teaching experience) to: **SEARCH COMMITTEE, Dr. Arnold L. Nagler, Associate Dean, Preclinical Medical Education, New York College of Osteopathic Medicine, Old Westbury, New York 11568.**

BOTANY POSITION. To begin September 1985. Instructor/laboratory coordinator. Nontenure appointment. Introductory biology, botany, plant taxonomy, ecology, and administrative duties. Also in charge of greenhouse. Study and/or experience at a liberal arts college preferred. Master's degree minimum. Agnes Scott is a 4-year liberal arts college for women in the Atlanta area. Send application, curriculum vitae, transcripts, and names of three references to: **Dr. Sandra Bowden, Department of Biology, Agnes Scott College, Decatur, Ga. 30030. Applications should be received by 3 May 1985.**

NATIONAL UNIVERSITY OF SINGAPORE DEPARTMENT OF BOTANY

Applications are invited for appointment to a Lectureship in the Department of Botany.

Candidates should have a Ph.D. degree and who are trained in one or more of the following areas: plant molecular biology, recombinant DNA-technology, plant organelle biology, artificial gene transfer systems in relation to plant breeding.

Preference will be given to candidates with both teaching and research experience.

Annual gross emoluments range S\$30,660 to S\$63,570, the initial amount depending on the candidate's qualifications and experience. (US\$1 = S\$2.24 approx.)

Leave and medical benefits are provided. Under the University's Academic Staff Provident Fund Scheme, the staff member and the University are each required to contribute at the present rate of 25% of his salary, the contribution of the staff member and the University being subject to a maximum of S\$1,250 per month and S\$1,750 per month respectively. The sum standing to the staff member's credit in the Fund is tax-free and may be withdrawn when the staff member leaves Singapore/Malaysia permanently.

Depending on the type of contract offered, other benefits may include: a settling-in allowance of S\$1,000 (single) or S\$2,000 (married), subsidized housing at nominal rentals ranging from S\$120 to S\$216 p.m., education allowance for up to three children, subject to a maximum of S\$10,000 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore. Staff members may undertake consultation work, subject to the approval of the University, and retain consultation fees up to a maximum of 60% of their gross annual emoluments in any one year.

Application forms and further information on terms and conditions of service may be obtained from:

The Director
Personnel Department
National University of Singapore
Kent Ridge
Singapore 0511



Mr Peter Lim
Director, North America Office
National University of Singapore
780 Third Avenue, Suite 2403
New York, N.Y. 10017, U.S.A.

ANALYTICAL BIOCHEMIST

The Upjohn Company has openings for analytical biochemists. The successful candidate will be responsible for the development of analytical methods for our biotechnology research effort.

Experience in modern bioanalytical methods such as immunological, hybridization, electrophoretic, and chromatographic procedures and/or the application of modern analytical techniques such as NMR and mass spectroscopy to biochemical problems is essential.

The position requires a Ph.D degree in Biochemistry, Molecular Biology, or a related area, preferably with relevant postdoctoral experience.

Kalamazoo is a mid-sized Southwestern Michigan community offering an excellent mix of cultural/recreational opportunities including lakes, nearby colleges, and a four-season climate. The Upjohn Company offers an excellent salary, benefits, and relocation plan.

For confidential information, please call from outside of Michigan TOLL FREE 1-800-253-8600 extension 3-6767; or inside Michigan COLLECT (616) 323-6767 to request a specialized employment application be sent to you immediately. Please refer to Ad Number 16845-B when calling.

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An Equal Employment Opportunity Employer M/F

Coors BioTech Products Company

Coors Biotech Products Company, located in Johnstown, Colorado, is seeking the following professionals for the Research and Development Dept:

BIOTECHNOLOGY PROCESS ENGINEER

The ideal candidate will have a Master of Science Degree in Biochemical Engineering with two years experience in fermentation technology and the design of systems for the purification of biological substances. This individual should have demonstrated project leadership skills and be able to function with minimal supervision in the development of processes at the pilot and production scales to produce new product lines. **Include salary history and resume. Respond to Dept. WS26505 at the address below.**

FERMENTATION MICROBIOLOGIST

The ideal candidate will possess a Ph.D in Microbiology, Microbial Physiology or a related field with 4 years experience in the development of fermentation systems/processes. Experience at the pilot scale a must. This individual should have demonstrated supervisory skills and the ability to act as a project/team leader in the development of new processes and projects. **Respond to Dept. JC27727 at the address below. Include salary history.**

SEPARATIONS CHEMIST

The ideal candidate will possess a Ph.D in Biochemistry or Organic Chemistry with 2 years experience in the separation of biological substances at the pilot or production scale. The individual should possess a demonstrated background in the use of techniques such as crystallization, solvent extraction, resin/ion exchange methodology, and the scale-up of such systems. **Send salary history and resume to Dept. JC26514 at the address below.**

Coors Biotech Products Company offers you an excellent salary and company paid benefits.

**Coors Placement Center
1221 Ford Street
Golden, CO 80401**

Equal Opportunity Employer M F H V

POSITIONS OPEN

ASSISTANT PROFESSOR—EVOLUTIONARY BOTANY/PALYNOLOGY. Tenure-track position available 16 August 1985. Ph.D. required; preference to applicants with postdoctoral research experience in pre-Quaternary palynology and/or paleobotany. The successful candidate will be expected to establish a vigorous research program and direct graduate students. Teaching responsibilities may include core botany and specialty areas. Send curriculum vitae, statement of research interests, and three letters of recommendation to: **Dr. Stan R. Szarek, Department of Botany and Microbiology, Arizona State University, Tempe, Ariz. 85287**, by 3 May 1985. *An Equal Opportunity/Affirmative Action Employer.*

BIOCHEMIST—QUEENS COLLEGE—City University of New York (CUNY). The Department of Chemistry at Queens College-CUNY invites applications for a tenure-track position as assistant professor starting September 1985 or February 1986. While the specific research area is open, applicants should have recent postdoctoral experience, a demonstrated record of excellence in biochemical research, be able to establish an independent and productive research program, and have a strong commitment to excellence in teaching at the undergraduate and graduate levels. Applicants should send their curriculum vitae and a statement of future research plans, and have three letters of recommendation sent by 1 June 1985 to: **Dr. George Axelrad, Chairman, Department of Chemistry, Queens College-CUNY, Flushing, N.Y. 11367.** *An Affirmative Action/Equal Opportunity Employer.*

COORDINATOR OF INSTRUCTIONAL PROGRAM IN TOXICOLOGY. New Mexico State University invites applications for the position of coordinator of Instructional Program in Toxicology. Faculty rank and salary will be commensurate with qualifications and experience. Candidates should have a Ph.D. degree or equivalent in toxicology, pharmacology, or closely allied discipline with interest and experience in teaching and research. A broad perspective on toxicology is highly desirable. A record of successful relationships with industry and regulatory agencies is important, and the ability to work effectively with students, faculty, staff, administrators, and industrial clientele is essential. The coordinator is responsible for the coordination of courses, curriculum, and related activities of students and faculty to assure quality of instruction and effective administration of the Instructional Program in Toxicology. Send résumé and names, addresses, and telephone numbers of three references to: **Dr. Lynford Ames, Box 3C, New Mexico State University, Las Cruces, N.M. 88003.** *An Equal Opportunity/Affirmative Action Employer.*

CURATOR, VERTEBRATE PALEONTOLOGY. Permanent position at assistant, associate, or full curator level, depending on qualifications. Duties include collection-oriented research, fieldwork, curation, and involvement in public programs. Ph.D., strong publication record, and substantial curatorial experience essential. Lower vertebrate specialization preferred. Send résumé and names of three references by 30 April 1985 to: **Dr. L. G. Barnes, Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, Calif. 90007.** *An Equal Opportunity Employer.*

DEVELOPMENTAL BIOLOGIST/ANATOMIST—Applications are invited for the position of assistant professor of anatomy. Candidates with postdoctoral experience will be given preference. Research areas include: developmental biology, neurobiology, or toxicology. Teaching in the gross anatomy course is required. Position available on 1 July 1985. Send curriculum vitae and three references to: **Dr. Richard Skalko, Chairman, Department of Anatomy, Quillen-Dishner College of Medicine, East Tennessee State University, Johnson City, Tenn. 37614.**

U.S. CONSUMER PRODUCT SAFETY COMMISSION

DIRECTOR, ASSOCIATE EXECUTIVE DIRECTOR FOR HEALTH SCIENCES. Responsible for management of the Consumer Product Safety Commission's Health Sciences Program. Must have a degree and at least 6 years of experience in field relating to health sciences, biological sciences, or related sciences. Senior Executive Service position: \$61,297 to \$72,300. Send SF-171 (application for federal employment) to: **Consumer Product Safety Commission, 5401 Westbard Avenue, Room 300, Bethesda, Md. 20207; attention: Beverly McGrath.**

POSITIONS OPEN

BIOLOGY LIBRARIAN: Manages the Biology Library; performs bibliographic duties and is responsible for collection development in biological sciences and related areas; works in general reference services; performs on-line searches in scientific databases. **Qualifications:** M.L.S. from an ALA-accredited library school; degree in science highly desirable; candidates with extensive knowledge of science literature and academic library experience also acceptable; reading knowledge of at least one foreign language; experience in academic science librarianship highly desirable; experience in on-line database searching and supervisory work highly desirable. Minimum salary: \$19,932. Send letter of application, résumé, and three letters of reference to: **Virginia F. Toliver, Director, Library Personnel and Administrative Services, Washington University Libraries, St. Louis, Mo. 63130**, by 31 May 1985. *Washington University is an Affirmative Action/Equal Opportunity Employer.*

DEPARTMENT OF ZOOLOGY UNIVERSITY OF ALBERTA

The Department of Zoology, University of Alberta, has two positions available, in the areas of **DEVELOPMENTAL NEUROBIOLOGY** and **MOLECULAR NEUROBIOLOGY**, the latter with particular interests in the actions/mechanism of action of peptides and/or transmitters. Interaction with an active group of neurobiologists and developmental biologists in the department and across the campus is expected. Applicants should minimally have a Ph.D. degree or equivalent and postdoctoral experience, and must be highly qualified investigators capable of a vigorous independent biomedical research program. The successful applicants will be expected to compete for support from the Alberta Heritage Foundation for Medical Research. Appointments will be made at the rank of assistant professor (1984-1985 salary: \$29,720 to \$42,920) or associate professor (1984-1985 salary: \$37,420 to \$54,364). Applicants should forward their curriculum vitae with names of three referees and selected reprints to: **Dr. R. E. Peter, Chairman, Department of Zoology, University of Alberta, Edmonton, Alberta, Canada, T6G 2E9**, by 15 May 1985.

The University is an Equal Opportunity Employer, but in accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

THE UNIVERSITY OF IOWA DIRECTOR OF THE UNIVERSITY OFFICE OF INFORMATION TECHNOLOGY

The Director of Information Technology provides intellectual and managerial leadership on a University-wide basis for the implementation and maintenance of information technology on campus. Committed to full exploitation of continuing technological changes, The University of Iowa maintains state-of-the-art resources for the support of educational innovation, research, and administration. The Office of Information Technology is the organizational focus of this commitment. Specific duties include planning and coordinating the development of the University's communication systems and primary responsibility for academic and administrative computing. A Ph.D. degree and experience in computing or a related field or the equivalent combination of education and experience are required. Salary is open.

Screening of candidates will begin immediately. Please send résumé and supporting materials to: **D. C. Priestersbach, Chair, Search Committee for Director of Information Technology, 201 Gilmore Hall, The University of Iowa, Iowa City, Iowa 52242.** *The University of Iowa is an Equal Opportunity/Affirmative Action Employer.*

EPITHELIAL GROWTH AND DIFFERENTIATION

Postdoctoral fellow or instructor position to study keratin filaments, epithelial stem cells, and mechanism of epithelial-mesenchymal interaction. Prior experience in protein chemistry and/or cDNA cloning required. For our recent work, see *J. Cell Biol.* 97:244 (1983); 97:1131 (1983); 98:1388 (1984); 98:1397 (1984); 99:2279 (1984); *Cancer Res.* 44:1600 (1984); and *Cancer Cell, Cold Spring Harbor Lab* 1:169 (1984). Send curriculum vitae and names of three references to: **Dr. T.-T. Sun, New York University Medical Center, Departments of Dermatology and Pharmacology, 560 First Avenue, New York, N.Y. 10016.**

POSITIONS OPEN

STANFORD UNIVERSITY CHAIRPERSON SEARCH ANNOUNCEMENT DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING STANFORD, CALIFORNIA 94305

The Department of Materials Science and Engineering at Stanford University invites applications from highly qualified individuals to serve as **professor and chairperson**. Qualifications include an earned doctorate or equivalent degree in materials science and engineering or a related field, a strong reputation in materials research, and evidence of ability to provide leadership, coordination, and administration. The department offers B.S., M.S., and Ph.D. degrees and has an outstanding reputation for both teaching and research. The successful candidate should have a research orientation directed towards electronic materials, semiconductor processing, or characterization. *Stanford University is an Equal Opportunity Employer and encourages nominations and applications of women and minority group members.*

Applications will be evaluated between 1 June 1985 and 1 August 1985 and should be sent to: **Professor Robert Sinclair, Chairman, Search Committee, Department of Materials Science, and Engineering, Stanford University, Stanford, California 94305.**

ENVIRONMENTAL STUDIES: STOCKTON STATE COLLEGE. **Pollution Management, half-time.** M.S. or Ph.D. in chemistry with experience in regulatory agency required; teaching experience sought. **Wildlife Management, half-time;** M.S. or Ph.D. in wildlife biology with field management experience required; teaching experience sought. Both positions in large, undergraduate Environmental Studies Program, teaching half-time including guiding student projects. Starts September 1985; M.S.: \$9,042 to \$10,398; Ph.D.: \$10,990 to \$12,640. *Stockton is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.* Screening begins 26 April. Send letter, résumé, and three references to: **Elizabeth Marsh, Ph.D., Chair, Division of Natural Sciences and Mathematics, Stockton State College, Pomona, N.J. 08240.**

EXECUTIVE DIRECTOR—For newly merged scientific research organization located in Washington, D.C. Strong administrative and communications skills, plus experience in scientific related fields essential. Individual will manage staff of three senior professionals, plus scientific and office support personnel. A knowledge of the Washington scene and media relations helpful. Write: **Dr. Paul F. Hopper, International Life Sciences Institute/Nutrition Foundation, 1126 16th Street, NW, Washington, D.C. 20036.**

INSTRUCTOR POSITIONS

Two special 1-year positions as instructor to gain experience in patient care, education, and research in one of the various subspecialties of ophthalmology. Contact: **Paul R. Lichter, M.D., Chairman, Department of Ophthalmology, University of Michigan, W. K. Kellogg Eye Center, 1000 Wall Street, Ann Arbor, Mich. 48105.** *The University of Michigan is a nondiscriminatory, Affirmative Action Employer.*

MARINE SCIENCE: STOCKTON STATE COLLEGE. Assistant Professor of Coastal Oceanography: Ph.D. in chemical or physical oceanography required; teaching and applied management experience in estuarine and nearshore waters preferred. Teach undergraduate marine science and public policy. Guide student research, and help develop new management track. **Assistant Professor of Fisheries Management:** Ph.D. in marine biology with fisheries or shellfisheries specialization required; teaching and applied management experience preferred. In undergraduate Marine Science Program: teaching introductory and advanced courses, guiding student research, and developing new management track. Salary: \$21,981 to \$25,279. Starts September 1985 or January 1986. *Stockton is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.* Screening begins 26 April. Send letter, résumé, and three references to: **Elizabeth Marsh, Ph.D., Chairperson, Division of Natural Sciences and Mathematics, Stockton State College, Pomona, N.J. 08240.**

DIRECTOR, UNIVERSITY OF CALIFORNIA CONSORTIUM ON MEXICO AND THE UNITED STATES, AND TENURED FACULTY APPOINTMENT

Nominations and applications are invited for the position of **director** of the University of California Consortium on Mexico and the United States (UC MEXUS), a nine-campus organized research program which supports and coordinates UC activities in the areas of (i) Mexican studies, (ii) United States-Mexican relations, (iii) Chicano studies, and (iv) collaborative research between UC and Mexican scholars in the humanities, social sciences, biological sciences, physical sciences, and agricultural sciences. It is expected that the Consortium will eventually become a formally recognized Multi-Campus Research Unit (MRU) of the University of California. The director is the chief academic and administrative officer of the program with full executive and financial responsibility for its administration. The director shall report to the president of the University through the chancellor of the Riverside campus, where the Consortium is headquartered. The position is accompanied by a tenured appointment in an academic department appropriate to the final candidate's qualifications.

Qualifications: Candidates should demonstrate distinguished scholarly achievement in a field of interest to UC MEXUS and must be eligible for a tenured, full-time faculty appointment in the University of California. In addition, candidates should possess proven administrative ability and experience in obtaining grants, raising funds, and program development. The ability to interact effectively with a wide variety of faculty and administrative personnel, fluency in Spanish and English, and direct knowledge of Mexico and its institutions are also required.

Application procedure: Applicants should submit their curriculum vitae and other pertinent materials to: **Professor Rodolfo Ruibal, Chair, Search Committee, UC MEXUS, University of California, Riverside, Calif. 92521.**

Deadline: To ensure consideration, submit materials by 10 May 1985.

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

RESEARCH CENTER DIRECTOR

Applications and nominations are invited for a Director, Center for Atmospheric and Biospheric Effects of Combustion, located in the Applied Science Division. The scope of the Center is interdisciplinary and includes four major areas: Combustion and Abatement, Atmospheric Pathways and Chemistry, Radiative Balance, and Ecosystem Pathways and Effects. The Director will coordinate the efforts of a number of scientists, including chemists, physicists, engineers, biologists, geologists, meteorologists, and energy analysts to carry out the objectives of the Center; will be responsible for obtaining research support from governmental and non-governmental organizations; will represent the Laboratory at various related national and international meetings; and will also carry out research within the Center. This position requires a Ph.D., and a record of distinguished leadership, outstanding research accomplishments and an international reputation in one or more of the above areas. Experience and background in program planning, development, implementation, administration and evaluation is required. The incumbent should also have experience in obtaining research funds and have a familiarity with organizations that provide these research funds. Salary will be negotiable. The successful candidate will be appointed a Senior Staff Scientist at the Lawrence Berkeley Laboratory. Applications and/or nominations should be forwarded to: Lawrence Berkeley Laboratory, One Cyclotron Road, Employment Office 90-1042, Berkeley, CA 94720. Please specify Job #A/3330. An Equal Opportunity Employer M/F/H.



**LAWRENCE
BERKELEY
LABORATORY**

Research Opportunities

Within Growing Dallas/Fort Worth-Based Pharmaceutical Company

As a rapidly expanding \$350 million plus, multi-national pharmaceutical manufacturer, Alcon Laboratories is presently building its overall capability to generate new technology in the 1980-90s. The primary thrust of this effort is the development of innovative new drugs to treat certain eye and skin diseases. We have an immediate need for two creative Senior Scientists capable of working independently in fulfilling the scientific responsibilities outlined in the following new positions:

Senior Scientist, Immunologist

You will provide leadership in the development and implementation of the appropriate Immunological techniques to assess immune related components of ocular disease. Responsibilities include the development of the "best" method for isolating, characterizing appropriate biological factors/molecules important to diagnosis/treatment of ophthalmic infective and inflammatory disease; produce monoclonal antibodies and assess specificities and the development of in vivo and in vitro immunological assays to establish immune mechanisms and define inflammatory processes.

Minimum requirements include:

- ☐ Ph.D. in Immunology, Immune-pharmacology, Molecular Biology or related scientific discipline
- ☐ 2-5 years of post-doctoral training or equivalent special training and experience in Immunology, Pharmacology, Molecular Biology or Tissue Culture Technology to include specific experience with in vivo/in vitro immune mechanism work, drug action and cell sorting. Supervisory exposure and experience with ocular tissues are highly desirable

Senior Scientist, Biochemist

You will develop and implement appropriate Biological/Molecular techniques to assess components of ocular inflammatory disease. Responsibilities include the development of techniques for screening monoclonal antibodies, methods to isolate and show activity of ocular biologic molecules (enzymes, receptors, etc.), and in vivo or in vitro biochemical assays pertinent to established research goals or drug evaluation/development activities.

Minimum requirements include:

- ☐ Ph.D. in Biochemistry, Immunology, Molecular or Cell Biology or related scientific discipline
- ☐ 0-2 years of post-doctoral training or equivalent special training and experience in Biochemistry, Enzymology, Immunology, Pharmacology or Molecular Biology to include specific experience in the application of monoclonal antibodies to cell component/product research. Experience with ocular tissues highly desirable

These positions offer an excellent opportunity for professional recognition and career growth. We offer highly competitive starting salaries, company-paid benefits, an excellent profit sharing plan, and a desirable Fort Worth location with recreational, cultural and economic advantages indigenous to the Sunbelt. If you are seeking a career opportunity involving challenging work within a dynamic state-of-the-art research environment, please send resume with salary history to:

Tom D. Faver, Employee Relations - Employment Manager



Alcon Laboratories, Inc.
P.O. Box 1959
Fort Worth, Texas 76101

Equal Opportunity Employer, M/F/V/H
Principals Only, Please!

POSTDOCTORAL APPOINTMENT LIFE SCIENCES

The Pathology Group at Los Alamos National Laboratory is looking for a postdoctoral fellow to participate in a collaborative project with the Division of Viral Diseases, Center for Infectious Diseases at the Federal Center for Disease Control (CDC) in Atlanta, Georgia.

Responsibilities

- The research will last for approximately two years and include developing rapid and highly sensitive physical and biochemical methods for identifying human viruses and other microbiological agents.
- Opportunities also exist for basic studies using biophysical methods for probing the physical organization within the virion of the genomes of several groups of viruses.

Education

Requirements for this appointment include:

- Ph.D. in virology, microbiology, biochemistry or allied discipline;
- excellent academic credentials;
- a strong background and interest in physical methods.

Benefits

- Postdoctoral appointments pay \$27,900 to \$29,376 per annum.
- Appointees receive employee benefits, travel, and moving expenses to Atlanta will be included.

Candidates no more than three years past their Ph.D. are invited to apply. Please send your resume, bibliography, three letters of reference and undergraduate and graduate transcripts to:

Sandra Harding, DIV 85-BU
Personnel Administration Division
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

University
of California



An Affirmative Action/Equal
Opportunity Employer

GENETIC TOXICOLOGY

Shell Development Company currently has a position available in Toxicology Research at its Westhollow Research Center located in Houston, Texas.

This entry-level laboratory position requires a PhD in genetics or a related field, and experience in cytogenetics. Training in genetic assays using whole animals or mammalian cells is desirable. The qualified individual will function as a study director in the design, conduct, and interpretation of experiments; and will be involved in the evaluation of genetic toxicology data and in program development to assess the genotoxicity of selected chemicals. Good communication skills are essential.

Shell offers a competitive salary and excellent benefits. Interested applicants should send a resume, in confidence to:

RESEARCH RECRUITMENT
Shell Development Company
P.O. Box 1380
Houston, Texas 77001.

Applicants should be a U.S. citizen or have a permanent resident visa.

An Equal Opportunity Employer M/F.



Shell

POSITIONS OPEN

ADMINISTRATIVE POSITION RESEARCH INSTITUTE OF PHARMACEUTICAL SCIENCES SCHOOL OF PHARMACY UNIVERSITY OF MISSISSIPPI

DIRECTOR, Research Institute of Pharmaceutical Sciences, School of Pharmacy, University of Mississippi. Requirements: doctorate in pharmaceutical or related sciences. Qualifications: experience in research administration with demonstrated record of funded research and publications. Responsibility: to direct the further development and growth of a dynamic multidisciplinary research institute presently supported by state, federal, and private funds. Salary: commensurate with qualifications. Available after 1 July 1985. Application deadline: 1 May. Contact: **Dr. Mahmoud Elsohly, Chairman, Search Committee, Research Institute of Pharmaceutical Sciences, School of Pharmacy, University of Mississippi, University, Miss. 38677. Equal Opportunity Employer.**

The Department of Cell Biology at Baylor College of Medicine currently has **TWO FACULTY POSITIONS** open for outstanding scientists, at either a junior or senior level, in the area of contemporary molecular genetics. We are particularly interested in candidates who are involved in applying techniques of recombinant DNA research for studying basic problems in cell and developmental biology. The present well-funded and nationally renowned faculty in this department reflects a diverse set of research interests, and the existing resources should be an attractive feature for prospective candidates. Send curriculum vitae with names of three references to:

Dr. Jeffrey M. Rosen
Professor, Department of Cell Biology
Baylor College of Medicine
1 Baylor Plaza
Houston, Texas 77030

FACULTY POSITION

Full-time position available immediately for a person possessing either a Ph.D. or a master's degree in microbiology. Major responsibility will be teaching a laboratory course and assisting with our three team-taught lecture courses in the area of your expertise. The specific details of the job will depend on your qualifications and prior experience. Salary is commensurate with prior experience and degree. Send résumé and three letters of recommendation to:

Dr. Calvin C. Kuehner
Chairman, Search Committee
Department of Microbiology
The National College of Chiropractic
200 East Roosevelt Road
Lombard, Illinois 60148

FACULTY POSITIONS IN PHYSIOLOGY

The Department of Physiology at Wright State University (WSU) School of Medicine and College of Science and Engineering invites applications for three faculty positions available at the assistant or associate professor level in the following general areas:

- 1) **ENDOCRINE-BIOPHYSICS** (secretion, ionic channels, intracellular signaling)
- 2) **CARDIAC AND SMOOTH MUSCLE PHYSIOLOGY/BIOPHYSICS** (electrogenic and non-electrogenic transport, pumps, ionic channels, metabolism)
- 3) **EPITHELIAL PHYSIOLOGY/BIOPHYSICS** (active and passive transport mechanisms, channels, intracellular ionic activities and metabolism)

Applicants should have a Ph.D. in physiology or related field, or M.D. or M.D./Ph.D., with at least 2 years of postdoctoral experience and be committed to develop or continue a first-rate active research program. Primary teaching responsibilities are in physiology in the School of Medicine and/or in physiology and biophysics in the Biomedical Sciences Ph.D. Program. Compensation commensurate with professional experience and standards of WSU.

Applicants should submit curriculum vitae, the names and addresses of three references, and a statement on present and future research support and interest to: **Dr. Peter K. Lauf, Chairman-Designate, Department of Physiology, Box 927, Wright State University School of Medicine, Dayton, Ohio 45401.** Applications must be received by 15 June 1985 to be considered. *Wright State University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ENTOMOLOGY TECHNICIAN AND SCIENTIFIC ILLUSTRATOR (3 years, hourly, half-time). To prepare technical drawings of midges and microscope slide mounts. Deadline: 1 May 1985. **Charles L. Hogue, Natural History Museum, 900 Exposition Boulevard, Los Angeles, Calif. 90007. Telephone: 213-744-3363. Equal Opportunity Employer, M/F.**

FACULTY POSITIONS

The Department of Biological Sciences invites applications for tenure-track positions at all professional levels for its expanding programs. The department is especially interested in candidates with research interests in eukaryotic molecular/cell biology, molecular genetics, virology, and immunology. Appointees are expected to establish an independent research program and to participate in team-taught courses in their areas of expertise at the undergraduate and/or graduate level. Send curriculum vitae, future research interests, and names of three referees to:

Professor Harvey L. Ozer
Department of Biological Sciences
P.O. Box 1221

Hunter College, City University of New York
695 Park Avenue
New York, N.Y. 10021

An Equal Opportunity/Affirmative Action Employer

FACULTY POSITIONS/OCCIDENTAL COLLEGE. The Geology Department invites applicants for a regular faculty position at the assistant professor level. Candidates should have a Ph.D. and teaching and research interests in either of the following broad fields: sedimentation, paleontology, field geology; and/or structural geology, geophysics, planetary sciences. Occidental is a small liberal arts college with a commitment to educational excellence. This is a unique opportunity to become involved in the geology curriculum due to recent retirements in the department. Applicants should submit complete curriculum vitae, a statement of research and teaching interests, and the names of at least three references to: **Dr. James A. Woodhead, Chair, Geology Department, Occidental College, 1600 Campus Road, Los Angeles, Calif. 90041. Closing date is 30 April 1985.**

Occidental is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

MOLECULAR BIOLOGIST

The Department of Pathology at the University of Pittsburgh is seeking a molecular biologist with interest and experience in recombinant DNA and cell-transformation methodology for a full-time, tenure-track position at a level commensurate with the candidate's experience. We are looking for a molecular biologist to complement our existing strengths in rat genetics and immunobiology, tissue transplantation, and experimental carcinogenesis. The successful applicant should be able to carry out independent research in one or more of these areas and to interact with our established research groups.

Submit curriculum vitae, the names of three references, and a description of your future research plans to:

University of Pittsburgh
School of Medicine
Department of Pathology
Administrative Office
776 Scaife Hall
Pittsburgh, Pa. 15216
Attention: A. Roman-Koller

Closing date: 15 May 1985.

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

Ph.D. TO JOIN CARDIOLOGY SECTION of Department of Internal Medicine to supervise animal electrophysiology laboratory, provide instruction and support to interested faculty and fellows, and conduct original research. Can participate in programs of Department of Physiology. Must have suitable research and publication experience. Training in cellular electrophysiology and microelectrode technique desirable. Laboratory support and start-up funding available. Curriculum vitae to: **Toby Engel, M.D., Chief, Cardiology Section, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, Neb. 68105. An Affirmative Action/Equal Opportunity Employer.**

Postdoctoral Positions

Three postdoctoral positions are available for 1 year with possible extension up to 3 years for basic research on

a) **Gene regulation in *B. thuringiensis*:**

Recombinant DNA techniques and basic microbiology are needed to study the genetics and the regulation of the expression of the entomocidal δ -endotoxin gene in the gram positive bacterium *B. thuringiensis*.

b) **Secretion in yeast:**

The goal to secrete foreign proteins in yeast (*S. cer.*) requires more basic understanding of the mechanism of sorting molecules in the secretory pathway. A combination of recombinant DNA technology and protein chemical analysis will be applied.

c) **Plasmid copy number control in yeast:**

Combining molecular biology techniques with classical genetic tools we are trying to understand the basic principles of plasmid copy number control and plasmid segregation behaviour. Our aim is to develop yeast expression vectors with built-in amplification properties.

Qualified candidates with strong background in the relevant technologies will be given preference.

The positions offer an excellent opportunity to train in a scientifically exciting and active environment.

Application should include a summary of background and training, curriculum vitae and the names of references to **Dr. U. Spaeti, CIBA-GEIGY LTD, Personnel Department, P.O. Box CH-4002, Basel, Switzerland.**

CIBA—GEIGY

POSITIONS OPEN

HEAD, Department of Genetics. North Carolina State University invites applications for the headship of its Department of Genetics. Candidates should have an established reputation in genetics, a Ph.D. degree and administrative experience or demonstrated potential for leadership. Nominations and applications, including curriculum vitae and the names and addresses of three references, should be received by 15 June 1985. Send material to:

Dr. J. G. Vandenbergh
Department of Zoology
North Carolina State University
Raleigh, N.C. 27695-7617

MEDICINAL CHEMISTRY AND PHARMACOGNOSY FACULTY POSITION—Assistant professor level, tenure-track appointment; available 1 September 1985. Applicants should have strong commitment to the development of a vigorous research program in natural products chemistry, pharmacognosy, biochemistry, or related discipline with biochemical expertise and postdoctoral experience desirable. Duties will include teaching undergraduate and graduate students; conducting independent research; and serving on committees. Application deadline: 1 May 1985. Applicant should submit detailed curriculum vitae, list of publications, graduate transcript, summary of future research interests, and have three letters of recommendation transmitted to: Duane D. Miller, Chairman, Division of Medicinal Chemistry and Pharmacognosy, College of Pharmacy, The Ohio State University, 500 West 12 Avenue, Columbus, Ohio 43210. *Equal Opportunity/Affirmative Action Employer.*

MOLECULAR BIOLOGIST. The Department of Microbiology, University of Connecticut Health Center, invites applications for a tenure-track faculty position at the assistant, associate, or full professor level effective 1 July 1986. Preferred areas of research interest include membrane/organelle biogenesis, receptor function, and related areas of membrane molecular biology. Candidates must have a Ph.D. or M.D. degree and at least 2 years of postdoctoral experience, and must demonstrate clear potential for development of a production independent research program of high quality. It is also expected that the successful candidate will be an effective teacher in medical school and graduate courses. Applicants must submit curriculum vitae and bibliography, a statement of research accomplishments and future research plans, reprints of most significant work if available, and three or more letters of recommendation. Send to: Dr. M. J. Osborn, Department of Microbiology, L-2034, University of Connecticut Health Center, Farmington, Conn. 06032. Deadline for applications: 1 August 1985.

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ORGANIC CHEMIST

The Salk Institute is seeking a creative, motivated, and research-oriented individual to work with a team interested in peptide biology. Requires solid performance in synthesis and analysis of natural products and a Ph.D. in organic chemistry.

Please send curriculum vitae and three letters of reference to:

Search Committee
The Clayton Foundation
Laboratories for
Peptide Biology
THE SALK INSTITUTE
P.O. Box 85800, Department 16
San Diego, Calif. 92138
Equal Opportunity Employer

POSTDOCTORAL FELLOW POSITION at the University of Arizona on the Cancer Biology Training Grant. Two to 3 years of support at NIH stipend level will be provided. Candidates must be U.S. citizens. The Cancer Biology Training Program offers a broad range of research opportunities in advanced approaches to cancer biology. The training program is designed to be comprehensive and includes faculty from eight different departments in the Colleges of Medicine, Pharmacy, and Arts and Sciences. For further information or specific faculty sponsorship, contact: E. W. Gerner, Ph.D., Professor of Radiology Radiation Oncology Division, University of Arizona Health Sciences Center, Tucson, Arizona 85724.

POSITIONS OPEN

PHYSICIST—The National Bureau of Standards has an opening for a condensed matter experimental physicist with experience in the design, construction, and use of very high resolution neutron backscattering spectrometers. This position will be in the Reactor Radiation Division program to develop a Cold Neutron Research Facility. Applicants should also have documented hands-on experience in the area of neutron guide tubes and associated instrumentation. The successful candidate will also be required to maintain an independent research program in the study of condensed matter by neutron inelastic scattering, preferably in the area of hydrogen in metals, and should have an established record of scientific publication in this area. Ph.D. in physics or related area is preferred. This is a permanent position at the GS-13 level, with a starting salary of \$37,599 per year.

Interested applicants should send a written résumé or a Personal Qualifications Statement, SF-171, to:

U.S. Department of Commerce
National Bureau of Standards
Personnel Division
Administration Building, Room A123
Gaithersburg, Md. 20899
Attention: Vickie Southers (SC 3032)

The National Bureau of Standards is an Equal Opportunity/Affirmative Action Employer. U.S. citizenship is required.

PHYSIOLOGIST—Multiyear, renewable contract position available for Ph.D., D.O., or M.D. to perform **PHYSIOLOGY RESEARCH**, seek outside support and teach part of medical physiology course to medical students. New modern laboratories are available for qualified person with track record and publications. Salary, length of renewable contract, and academic rank commensurate with qualifications. Interested candidates should send curriculum vitae and all supportive evidence (current grant support and grant track record and teaching experience) to: Search Committee, Dr. Arnold L. Nagler, Associate Dean, Preclinical Medical Education, New York College of Osteopathic Medicine, Old Westbury, New York 11568.

PLANT PHYSIOLOGICAL ECOLOGY—POSTDOCTORAL POSITION (1 year minimum); field and laboratory research on photosynthetic characteristics and stomatal response or competitive balance. Knowledge of plant gas exchange, solar spectral irradiance assessment, microclimate, computer skills, and modeling desirable. Send résumé and names of three references to: Martyn M. Caldwell, Ecology Center, Utah State University, Logan, Utah 84322. Closing: 6 May 1985 or until suitable applicant found.

POSTDOCTORAL POSITION available to study Ca^{2+} channel ligand interactions and regulation in smooth and cardiac muscle. Recent Ph.D. and background in radioligand binding techniques desirable. Send résumé and names of three references to: David J. Triggle, Department of Biochemical Pharmacology, School of Pharmacy, State University of New York, Buffalo, N.Y. 14260. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS (Ph.D., M.D. or D.D.S.) available 1 July 1985 in molecular genetics, human cytogenetics, and clinical genetics. Send résumé and letter of reference to: Dr. M. E. Hodes, Department of Medical Genetics, Indiana University School of Medicine, 702 Barnhill Drive, RR 129, Indianapolis, Ind. 46223.

POSTDOCTORAL RESEARCH ASSOCIATE to participate in a joint research program between the laboratories of Carlos Gitler at the Department of Membrane Research, Weizmann Institute, Israel, and Leslie Loew at the University of Connecticut Health Center. The research aims to define the cytotoxic action of *Entamoeba histolytica* and applicants should have a background in membrane biochemistry or biophysics. Residence will be split between Israel and the United States (approximately 9 and 3 months, respectively, per year) and travel expenses will be provided. A salary of \$19,000 to \$21,000 per year will be offered depending on experience. The position is open immediately and an application deadline of 30 April 1985 has been set. Send curriculum vitae and at least two letters of reference to: Dr. Leslie M. Loew, Department of Physiology, University of Connecticut Health Center, Farmington, Conn. 06032.

An Affirmative Action/Equal Opportunity Employer, M/W/H

POSITIONS OPEN

PLANT MOLECULAR BIOLOGIST Michigan State University

Applications are invited for the position of plant molecular biologist in the College of Agriculture and Natural Resources at Michigan State University. The appointment will be in the tenure-track and on a 12-month basis with primary responsibility in research and graduate-level teaching. Required qualifications include a Ph.D. and postdoctoral experience in genetics, plant breeding, molecular biology, or closely related disciplines; a strong background in the areas of gene organization, regulation and function in higher plants, and experience in techniques of plant molecular biology. Preference will be given to an individual interested in higher plant transformation and/or vector development. The appointee will be a member of the Plant Breeding and Genetics Program and of the existing plant molecular biology group on campus. The salary level and research funding through the Agricultural Experiment Station are intended to be attractive and negotiable. New laboratory facilities are under construction and will be available.

Applicants should send curriculum vitae, including a statement of research interest, and the names of three referees to: Dr. John Kelly, Chairperson, Search Committee for Plant Molecular Biologist, Department of Horticulture, 210 Horticulture Building, Michigan State University, East Lansing, Mich. 48824-1112. Applications will be accepted through 15 May or until a suitable application is received.

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

POSTDOCTORAL POSITIONS are available for research on the biochemistry and molecular biology of the components of **CONNECTIVE TISSUES**. A background in collagen, proteoglycan, or glycoprotein biochemistry with experience in cell or molecular biology is desirable. Applicants must have U.S. citizenship or permanent resident status. Send résumé to: N. A. Kefalides, M.D., Ph.D., Connective Tissue Research Institute, University of Pennsylvania, University City Science Center, 3624 Market Street, Philadelphia, Pa. 19104. *An Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION IN PHARMACOLOGY. Immediate opening on NIDA-funded grant to study the effects of drugs of abuse upon behavior and neurochemistry. Experience in HPLC-EC analysis of neurotransmitters required. Send curriculum vitae and names of three references by 30 April 1985 to: Dr. Martin Schechter, Professor and Chairman, Department of Pharmacology, c/o Office of the Provost, Northeastern Ohio Universities College of Medicine, Rootstown, Ohio 44272. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION to conduct research in membrane protein chemistry, specifically the isolation and characterization of membrane receptors at the protein amino acid and nucleic acid level and to maintain a computer facility in a molecular immunology laboratory. Ph.D. in chemistry or biochemistry required. Expertise in purification of proteins, radioimmunoassays, spectrophotometric and electrophoretic techniques required. Expertise in molecular biology, recombinant DNA techniques, and knowledge of computers required. Salary: \$17,000. Send résumés to: Division of Employment Security, Hurley Building, Boston, Massachusetts 02114, and refer to Job Reference Number 5404.

POSTDOCTORAL POSITION available to study chemotaxis and bactericidal activity of macrophages. Experiments use cytophotometry and computerized image analysis techniques. Experience in these areas of research or related fields of immunology or biophysics desirable. Submit curriculum vitae and three references to: Dr. Elliot Goldstein, Department of Medicine, University of California, Davis School of Medicine, Davis, California 95616. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSOCIATE: A postdoctoral position supported by an NIH training program available for studies on molecular genetics of hematopoietic cell transformation with emphasis on mechanisms of oncogene activation in chromosomal translocations. Applicants should be American citizens or residents and have experience in molecular genetics, including DNA cloning and gene transfer techniques. Address curriculum vitae and three letters of reference to: Dr. Riccardo Dalla-Favera, Department of Pathology, New York University School of Medicine, 550 First Avenue, New York, N.Y. 10016.

INDUSTRIAL MICROBIOLOGIST

Applications are invited for a tenure-track position at the Assistant or Associate Professor level. Candidates must have a Ph.D. degree with a specialization in microbiology or biochemical engineering and be proficient in industrial microbiology as indicated by prior work experience or postdoctoral study. Applications should have demonstrated potential for excellence in teaching and research. The successful candidate will be expected to teach undergraduate courses in microbiology and biotechnology; establish a funded research program; contribute to graduate teaching and advise undergraduate and graduate students; develop interdisciplinary programs with faculty in the Department of Agricultural and Chemical Engineering and with others interested in biotechnology; and provide service to the Department and University. Starting date is 20 August 1985. Send curriculum vitae, record of education, and three letters of recommendation before 1 May 1985 to:

Dr. James E. Ogg
Search Committee
Dept. of Microbiology
and Environmental Health
Colorado State University
Fort Collins, CO 80523

Recruitment may be extended without notice until a suitable candidate is selected. Colorado State University is an Equal Opportunity/Affirmative Action Employer.

NEW JERSEY CENTER FOR ADVANCED BIOTECHNOLOGY AND MEDICINE DIRECTOR

The University of Medicine and Dentistry of New Jersey and Rutgers University announce their search for a Director of their joint endeavor, the New Jersey Center for Advanced Biotechnology and Medicine (NJ-CABM). The NJ-CABM will be housed in a new core facility to be built on the shared campus of the Universities. This facility will serve some 20 scientists, their staffs and students, who will conduct basic research in the areas of molecular biology, cell biology and molecular pharmacology. In addition, NJ-CABM will encompass two nearby satellite facilities, which will be devoted to research in the production and separation of cells and cell products and clinical research in pharmacology and metabolism. The programs of the NJ-CABM will be fully integrated with those of the two sponsoring universities. NJ-CABM will also serve the industrial and statewide academic communities of New Jersey through collaborative and educational ventures and by interaction with the Governor's Commission on Science and Technology.

The Director will have broad latitude in and extensive responsibility for the design and conduct of these new programs. This is considered to be a major leadership position in the state's two largest public research-oriented universities. We seek an outstanding scientist with proven administrative skills and creativity to develop a center renowned for scientific excellence, as well as for service to the broad academic and corporate sectors of the State.

Replies should include a statement of interest, a resume and at least three references. They should be addressed to Norman H. Edelman, M.D., Associate Dean for Research, UMDNJ-Rutgers Medical School, P.O. Box 101, Piscataway, NJ 08854. The Universities are equal opportunity employers.

HEAD, INFORMATION SCIENCES DIVISION

The Office of Naval Research is seeking an outstanding individual to serve in this Civil Service position in the Senior Executive Service. Salary range is \$61,296 to \$72,300, depending on qualifications.

The Head, Information Sciences Division is responsible for providing leadership, coordination, and direction for ONR's \$7M contract research program in computer science and advanced automation. The position offers a unique opportunity for managing the synthesis of new results and exciting developments across the full range of

computer sciences research activity. The Office of Naval Research program in computer science and advanced automation is committed to advancing the scientific foundations of the field, and to extending its applications potential by establishing conceptual bases for the design of advanced prototype components and systems. Position responsibilities include the direction and integration of research activity addressing both of these interests.

Candidates should possess a Ph.D. or equivalent in computer science or a related discipline and significant research experience in

at least two of the following areas: computer software, artificial intelligence, machine architecture, graphics, man-machine interface, robotics, and manufacturing science. In addition to an active career in the conduct of research in the relevant areas, direct experience in the management and coordination of large scale research projects is highly desirable.

Interested persons should submit a resume or Standard Form SF-171, Personal Qualifications Statement (available at Federal Job Information Centers or from the address below), to:

OFFICE OF NAVAL RESEARCH

Applications will be accepted through 3 June 1985 and must be received by that date. Applicants are requested to complete the appropriate supplemental forms. For further information and supplemental forms, please call (202) 696-4705.

Civilian Personnel Division, Code 791SC
ATTN: Announcement #85-17 (S)
800 North Quincy Street
Arlington, VA 22217-5000

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Circle No. 131 on Readers' Service Card

THE UNIVERSITY OF WYOMING VICE PRESIDENT FOR RESEARCH AND GRADUATE STUDIES

The University of Wyoming invites applications for the position of Vice President for Research and Graduate Studies.

The University of Wyoming is an expanding university that encompasses a broad range of academic programs leading to bachelor's, master's, and doctoral degrees offered through eight colleges, the Graduate School, and a School of Extended Studies and Public Service.

The vice president for research and graduate studies reports to the president and participates with the president, vice president for academic affairs, and the vice president for finances in policy development and general management of the university.

The vice president for research has responsibility for administration of large interdisciplinary research institutes and programs, support and administration of the University's research and grants programs, the Graduate School of the University, the University's Computer Center, continued development of industrial support for the University's research endeavors, liaison with the Western Research Institute, and compliance with regulatory procedures relating to research.

Qualifications for the position include an earned doctorate, a record of outstanding achievement in research, demonstrated proficiency in graduate and undergraduate education, demonstrated academic leadership and administrative ability.

Nominations and applications will be received until 15 June 1985. Submit application letter, curriculum vitae, and the names and addresses of three references to:

Dr. Sam D. Hakes
Vice Presidential Search Committee
Box 3295 University Station
University of Wyoming
Laramie, Wyoming 82071

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately in research group studying the molecular genetics of human colon cancer. Experience in molecular biology, cell biology, and/or genetics is required. Highly competitive salary. Send curriculum vitae, career objectives, and names and addresses of three references to: **Bruce M. Boman, M.D., Ph.D., Section of Gastrointestinal Oncology, University of Texas M. D. Anderson Hospital, 6723 Bertner, Box 68, Houston, Texas 77030. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately for the study of **MECHANISMS OF CHEMICALLY INDUCED LUNG INJURY**. Recent Ph.D. with training in one of the following areas: Prostanoid pharmacology, oxygen radical biology, platelet or phagocytic cell function, or microvascular injury. Send résumé and names of three references to:

Dr. Robert A. Roth
Department of Pharmacology and Toxicology
Michigan State University (MSU)
East Lansing, Michigan 48824

MSU is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION in Department of Molecular and Cell Biology available immediately for research on the cloning of thymidylate synthetase and DNA repair genes of the lower eukaryote *Dictyostelium discoideum* by (i) functional complementation of analogous defects in the yeast *Saccharomyces cerevisiae*, (ii) homologies to cloned similar genes of other organisms, (iii) immunological screening using antibodies to purified enzymes, and (iv) synthetic polynucleotide hybridization probes. Cloned genes will be used to characterize the regulation of DNA repair during differentiation and development. Studies will also involve construction and use of vectors for the transformation of *D. discoideum*. Up to \$21,000 per year, in a large, well-equipped department with extensive expertise in recombinant DNA technology. Applicants should have strong background in molecular biology and biochemistry, with experience in molecular cloning. Send curriculum vitae, short statement of research experience and interests, and the names of three references to: **Dr. Reginald Deering, 201 Althouse Laboratory, The Pennsylvania State University, University Park, Pa. 16802. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION to study hormonal influences on human behavior. Background in behavioral endocrinology, child development, neuropsychology, or psychological testing desirable. Send curriculum vitae and names of three references to: **Dr. M. Hines, Department of Anatomy, UCLA School of Medicine, University of California, Los Angeles, California 90024, or Dr. S. Berenbaum, Department of Psychology, University of Health Sciences/Chicago Medical School, 3333 Green Bay Road, North Chicago, Illinois 60064.**

POSITION: PROFESSOR AND HEAD, Department of Preventive Medicine and Environmental Health. **Responsibilities to be fulfilled:** Direct the education, research, and service programs of a Preventive Medicine Department in the College of Medicine, encompassing Divisions of Biostatistics, Epidemiology, and Occupational and Environmental Health. **Qualifications desired:** M.D. or Ph.D. degree, demonstrated scholar and leader in an area appropriate to the broad discipline of preventive medicine. **Salary:** Appropriate for qualifications and responsibilities. Excellent fringe benefits. **Employer:** *The University of Iowa, Iowa City, Iowa 52242, is an Equal Opportunity/Affirmative Action Employer.* **Applications:** Interested persons are invited to direct inquiries and submit curriculum vitae to: **Gail A. McGuinness, M.D., Associate Professor, Department of Pediatrics, University of Iowa Hospitals and Clinics, Iowa City, Iowa 52242.**

RESEARCH FELLOW—Candidates with Ph.D. in biological or physical science, or D.D.S. with training in orthodontics, pedodontics. Opportunity for research in craniofacial growth and neurobiology, speech, force systems in orthodontic appliances, bone and connective tissue response to stress. Two years, starting 1 July 1985. Stipends start at \$15,996, dependent on date of Ph.D. Funds for tuition, travel, and supplies.

Send curriculum vitae, three reference letters, and career objectives to: **Dr. Sam Weinstein, Department of Orthodontics, University of Connecticut Health Center, Farmington, Conn. 06032, by 30 April 1985.**

An Affirmative Action/Equal Opportunity Employer, M/W/H

POSITIONS OPEN

POSTDOCTORAL POSITION

This position is available as of May 1985 to study ion gradients and ion fluxes in *Spirochaeta aurantia*. Ion fluxes have been implicated in chemosensory responses of this bacterial species. This area of research should provide interesting information concerning ion transport in bacteria and it should test hypotheses concerning mechanisms of chemotaxis in *S. aurantia*. A background in bacterial physiology, biochemistry, or neuropharmacology is desirable. Send curriculum vitae and names of three references to: **Dr. E. Peter Greenberg, Department of Microbiology, Stocking Hall, Cornell University, Ithaca, N.Y. 14853.**

POSTDOCTORAL POSITION available to study variation and evolution of ribosomal and chloroplast DNA in the Pinaceae. Experience in recombinant DNA techniques is desirable. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Barbara Schaal, Department of Biology, Washington University, St. Louis, Mo. 63130. Telephone: 314-889-6822.**

Affirmative Action/Equal Opportunity Employer

POSTDOCTORAL POSITION. Physical biochemist with background in enzyme kinetics, spectrophotometry, and chromatography of protein systems to study hemeprotein-catalyzed lipid peroxidation. Available 1 June 1985; salary: \$18,000. Send résumé and two letters of recommendation to: **Dr. M. Z. Hoffman, Chemistry Department, Boston University, Boston, Mass. 02215. An Equal Opportunity/Affirmative Action Employer.**

CENTER FOR MOLECULAR GENETICS AND BIOTECHNOLOGY THE WAKSMAN INSTITUTE OF MICROBIOLOGY RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

POSTDOCTORAL POSITIONS in plant molecular biology are available in our group at the Waksman Institute. We are moving into a rapidly expanding research facility with a new laboratory complex that is part of a major land-grant university centrally located in the New York-Princeton-Philadelphia corridor. Institute programs of research and instruction operate in collaboration with allied interests in academic departments of the University, an adjacent medical school, and a nearby College of Agriculture and Environmental Sciences.

We are interested in exploring the functions and roles of controlling elements in the regulation of gene expression in maize. We are interacting with geneticists, cytogeneticists, tissue culture geneticists, biochemists, and molecular biologists. Students or postdocs who are interested in the interface of plant genetics and molecular biology using maize as a model system should apply to:

Dr. Joachim Messing
The Waksman Institute of Microbiology
Busch Campus, Rutgers University
P.O. Box 759
Piscataway, New Jersey 08854-0759

Please include in your application a statement of research interest, curriculum vitae, and the names of three references. Applications will be accepted until positions are filled.

Rutgers University is an Equal Opportunity/Affirmative Action Employer.

RESEARCH SCIENTIST—Ph.D. Veterinary medicine/biomedical science (specialty in microbiology). Bacteriological research in intestinal microecology and diseases (quantitative and qualitative analysis of anaerobic bacteria), genetic and biochemical characterization of anaerobes to study their DNA homology, chemical composition by enzymatic and cellular fatty acid analyses, development of DNA probes for the detection of anaerobes. In addition the person will be in charge of running radioactive isotopes laboratory, study of taxonomy of anaerobes using numerical taxonomy and computer programs, study the antibiotic susceptibility of clinical isolates of anaerobes for chemotherapeutic purposes, study of the pathogenic mechanisms of anaerobes using animal models. Must have strong background in biochemistry (masters' degree or equivalent), trained in DNA homology (hybridization) from a reputed laboratory, certification from a federal organization to run a radioactive isotopes usage laboratory. Forty hours per week; \$22,500 per year. Job site: Los Angeles area educational institution. Send this ad and your résumé to: **Job Number 4439, P.O. Box 865, Sacramento, Calif. 95804, not later than 26 April 1985.**

TOXICOLOGIST

Southern Research Institute, an established contract-research organization with a staff of 700, has an opportunity for a qualified professional with managerial potential to assume a challenging, responsible role in experimental toxicology programs.

Position requires a Ph.D. in toxicology or pharmacology. Prefer background in teratology, reproductive toxicology, and chemistry. Candidate must be skilled in verbal and written communication, leadership, and interpersonal relationships. Capabilities in proposal and report preparation also are necessary.

Duties involve using in vivo toxicological models for evaluation of a variety of compounds for industry and government. Position offers opportunity for career growth as both a scientist and manager.

Southern Research Institute offers a stimulating working environment, generous benefits, up-to-date research facilities, and an extensive technical library.

Birmingham offers abundant educational, cultural and recreational opportunities, a progressive civic environment, attractive residential areas, a mild climate, and lower-than-average taxes and cost of living.

Send resume and salary requirements to:



Ms. D. D. Johnson
SOUTHERN RESEARCH INSTITUTE
P.O. Box 55305
Birmingham, Alabama 35255-5305

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26-31 May 1985

Los Angeles

For further information, see the 8 March or
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or call (202) 842-9530.

THE INTERNATIONAL LABORATORY FOR RESEARCH ON ANIMAL DISEASES (ILRAD), Nairobi, Kenya, is an internationally funded, major institution with the mandate of developing improved methods of control for important diseases of livestock. At present the diseases under study are trypanosomiasis and theileriosis. The multidisciplinary research programme includes biochemistry, molecular biology, immunology, cell biology, pathology, parasitology, electron microscopy, and entomology with appropriate supporting units. Applications for the following positions are invited:

IMMUNOLOGIST—REFERENCE: SC/L4/85/1

An experienced immunologist to join the Laboratory's basic research programme on the immune system of ruminants. The successful candidate will be expected to lead a research group in the application of current immunological knowledge to the analysis of the ruminant immune system and relate such research to the induction and control of specific immune responses to parasite antigens, with particular emphasis on antigens of trypanosomal and theilerial parasites. Candidates should have at least 5 years of postdoctoral experience in relevant areas of immunology research, proven leadership ability, and an interest in host-parasite interactions. Prior experience of research in ruminant immunology or parasitic disease would be advantageous but is not essential.

IMMUNO-PARASITOLOGIST—REFERENCE: SC/L6/85/1

A scientist to conduct comparative investigations of mechanisms of acquired and innate resistance to African pathogenic trypanosomes in susceptible and naturally resistant domestic livestock and wildlife. Candidates will have a first degree in biology, medicine, or veterinary medicine, a doctorate in immunology, and a minimum of 3 years of postdoctoral experience, preferably in the area of parasite immunity. The successful candidate will be expected to develop a research programme to identify host immunological and pathological mechanisms which relate to resistance or susceptibility to trypanosomiasis. Experience of research in domestic ruminants would be an advantage.

IMMUNOGENETICIST—REFERENCE: SC/L6/85/2

A scientist to study the bovine major histocompatibility complex in cattle. The successful candidate will be expected to expand the repertoire of reagents available to define products of the genes of the bovine major histocompatibility complex and to participate in studies on the functional role of such products in the induction and control of cellular immune responses in cattle, especially as related to resistance or susceptibility to disease. Candidates will have a first degree in biology, medicine, or veterinary medicine, a doctorate in the immunogenetics of livestock or man, and a minimum of 3 years of postdoctoral experience in the same areas.

IMMUNOLOGIST—REFERENCE PD/L6/85/3

A postdoctoral fellow to join an ongoing research programme on the definition of cellular immune responses of cattle to antigens of trypanosomal and theilerial parasites at the level of the regional lymph nodes. Candidates will have a first degree in biology, medicine, or veterinary medicine, a doctorate in immunology or immunopathology, and proven ability in the cannulation of lymphatic vessels in domestic ruminants.

RESEARCH ASSOCIATE (IMMUNOGENETICS)—REFERENCE: RA/L6/85/3

An experienced research associate to join a research group studying the bovine major histocompatibility gene complex. The successful candidate will be responsible for the operation of a bovine MHC antigen typing facility including the production and testing of alloantisera and monoclonal antibodies against bovine MHC antigens. Candidates will have a B.Sc. degree or its equivalent and at least 4 years of experience in tissue-typing man or domestic animals. A postgraduate qualification in immunogenetics would be advantageous.

RESEARCH ASSOCIATE (ACAROLOGY)—REFERENCE: RA/TU/85/1

A research associate to supervise the rearing and maintenance of laboratory tick colonies, to provide suitably infected ticks for research on theileriosis and other tick-borne diseases, and to participate in research on infection rates in ticks, tick behaviour on the host, and in vitro protozoan development. Responsible for training technical and field staff. Candidates will have a science degree or equivalent qualification and at least 5 years of experience in acarology and protozoology. Experience in the handling of domestic livestock is essential.

RESEARCH ASSOCIATE (BIostatISTICS/COMPUTERS)—REFERENCE: RA/Ad/85/1

A research associate to provide statistical/computing services to the research and administrative units. The successful candidate will be responsible for the provision and installation of comprehensive scientific software for microcomputer systems, advising on experimental design and methods of data analysis relating to laboratory and field studies, and the development of statistical methodology and modelling applicable to animal diseases, in particular trypanosomiasis and theileriosis. Candidates will have a degree in mathematics and statistics. Postgraduate qualifications in relevant areas of biostatistics and computing will be advantageous. Candidates should have a strong interest in the application of statistical methods to the bioscience and experience of modelling and data base management on modern microcomputer systems.

These are **INTERNATIONAL STAFF POSITIONS** and the salaries will be paid in U.S. dollars. Initial salary level will be determined by qualification and experience. Moving, housing, commutation, and education allowances are paid and there are medical and retirement benefits. Applications should include current curriculum vitae and the names and addresses of three referees. Applications, citing the position reference number, should be sent by 30 April 1985 to:

Chief Personnel Officer, ILRAD
P.O. Box 30709
Nairobi, KENYA

POSITIONS OPEN

POSTDOCTORAL POSITION MEMBRANE BIOCHEMIST/CELL BIOLOGIST

Research associate to study mechanism of ATP-dependent shape change and vanadate-sensitive MgATPase of the human red cell membrane. Contact: Dr. Grant Fairbanks, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, Mass. 01545. An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL—BIOCHEMISTRY PHARMACOLOGY—Available immediately to study factors influencing the biosynthesis of opioid peptides in tissues. Experience with tracer and HPLC methods essential. Salary: \$19,000 per annum. Send curriculum vitae and references to: Dr. Charles E. Inturrisi, Department of Pharmacology, CORNELL UNIVERSITY MEDICAL COLLEGE, 1300 York Avenue, New York, N.Y. 10021. Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL FELLOW. Position open for postdoctoral fellow with background in immunology or biochemistry. Work involves purification of microbial components via immobilized monoclonal antibodies [see *Toxicon* 22, 733 (1984); *Methods Enzymol.* 104, 381 (1984)]. Salary: \$18,000. For an interview send résumé to: Dr. Joseph W. Burnett, University of Maryland Hospital, Division of Dermatology, 22 South Greene Street, Baltimore, Md. 21201. Position available immediately.

POSTDOCTORAL POSITION available July 1985 to study hormonal regulation of the adipocyte glucose transport protein and/or type I collagen. Applicant should have a Ph.D. in biochemistry or a related field. Send curriculum vitae and names of at least two references to: Dr. Lawrence Raisz, Department of Medicine, University of Connecticut Health Center, Farmington, Conn. 06032.

POSITIONS OPEN

POSTDOCTORAL—PLANT GROWTH. Position to study the mechanism of plant cell enlargement, focusing on light-growth responses, the role of turgor pressure in cell growth, or the viscoelastic properties of cell walls. Methods include stress relaxation, pressure probe, and ion-specific electrodes. Send curriculum vitae, brief description of research interests, and names and telephone numbers of references to: Dr. Daniel Cosgrove, Department of Biology, 202 Buckhout, University Park, Pa. 16802. An Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE POSITIONS available after 1 July 1985 at the Oregon Regional Primate Research Center to study: (i) the cellular mechanisms regulating the primate corpus luteum during the menstrual cycle and early pregnancy, and (ii) the role of hormones and paracrine factors in the growth and differentiation of ovarian cancers. Current approaches include in vivo protocols combined with in vitro studies on the gonadotropin receptor-adenylate cyclase system and membrane fluidity in luteal or cancer cell preparations. Studies with acute incubations and cultures of ovarian cells are planned. Applicants should have a Ph.D. in reproductive physiology, cell biology, biochemistry, or related area. Experience in endocrine techniques, membrane biochemistry, and/or cell culture preferred. Send curriculum vitae with names of three references to: Dr. R. Stouffer, Department of Physiology, University of Arizona Health Sciences Center, Tucson, Ariz. 85724. After 1 June 1985 Dr. Stouffer's address will be: The Oregon Regional Primate Research Center, 505 Northwest 185 Avenue, Beaverton, Ore. 97006. An Affirmative Action/Equal Opportunity Employer.

RESEARCH DIRECTOR. Ph.D. with background in cellular immunology and/or collagen metabolism. To initiate and direct a research program of immunologic events at the onset of type I diabetes, and/or increased collagen cross-linkage in diabetes. Will have academic appointment at University of California at Irvine; \$32,000 for first year. Send curriculum vitae and three references to: Dr. Bruce Buckingham, 1109 West La Veta Avenue, Orange, Calif. 92668. An Affirmative Action/Equal Opportunity Employer.

RESEARCH PHYSIOLOGIST

The Naval Aerospace Medical Research Laboratory, Pensacola, Florida, has a temporary and permanent GS-1 position opening in the Vision Sciences Division. The division is responsible for developing and conducting research; development, testing, and evaluation programs concerned with visual requirements in naval aviation; and visual capabilities of naval aviation personnel. The incumbent will join a team of vision scientists studying visual performance requirements related to the naval aviation environment. Tasks may include physiological testing, data analysis, and instrumentation development. A Ph.D. in physiology, biology, or psychobiology is desirable. The announcements for these positions will be open for the period 15 April through 3 May. To apply for the temporary position contact: The Recruiting and Examining Office, Consolidated Civilian Personnel Office, Naval Air Station, Pensacola, Fla. 32508-500, and to apply for the permanent position, contact: The Office of Personnel Management, Raleigh Area Office, 310 Bern Avenue, Raleigh, N.C. 27611. The U.S. Navy is an Affirmative Action/Equal Opportunity Employer.

PANLABS INTERNATIONAL, INC. STAFF SCIENTIST (Ph.D.) FOR FUNGAL MOLECULAR BIOLOGY RESEARCH

Panlabs International, Inc., is an internationally known service organization having nearly 200 clients in 15 countries. We are looking for a staff scientist to expand the research program in our Seattle Research Division to develop recombinant DNA technology in filamentous fungi. Applications are invited from postdoctoral molecular biologists having experience in any of the following areas: vector development, gene isolation and characterization, and heterologous gene expression. Previous experience with filamentous fungi is not essential.

Please send curriculum vitae, including names of three references, to:

Dr. David B. Finkelstein
Director of Fungal Research
Panlabs International, Inc.
9725 Third Avenue, NE, Suite 302
Seattle, Wash. 98115

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SYMPOSIUM

FRESHWATER WETLANDS AND WILDLIFE

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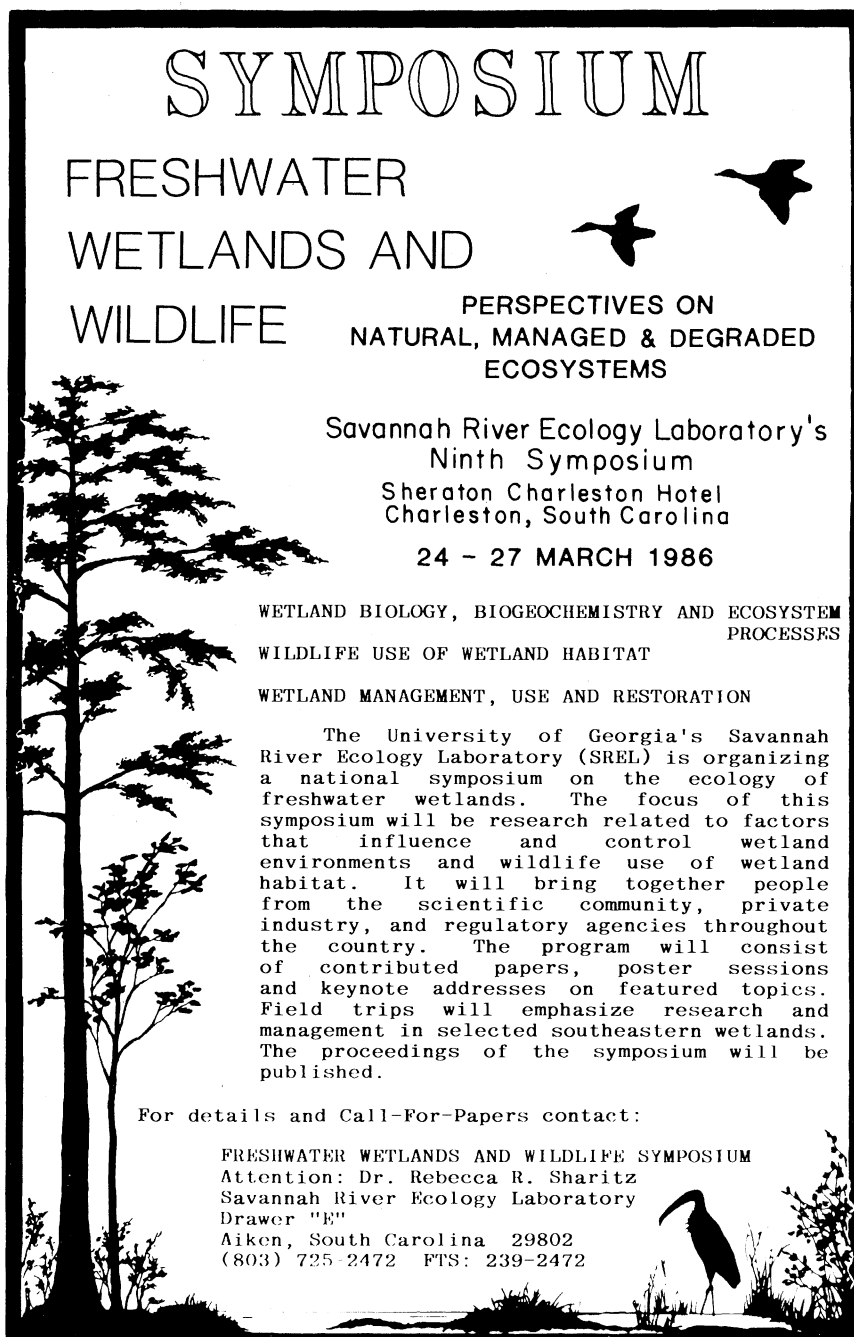
Savannah River Ecology Laboratory's
Ninth Symposium
Sheraton Charleston Hotel
Charleston, South Carolina
24 - 27 MARCH 1986

WETLAND BIOLOGY, BIOGEOCHEMISTRY AND ECOSYSTEM PROCESSES
WILDLIFE USE OF WETLAND HABITAT
WETLAND MANAGEMENT, USE AND RESTORATION

The University of Georgia's Savannah River Ecology Laboratory (SREL) is organizing a national symposium on the ecology of freshwater wetlands. The focus of this symposium will be research related to factors that influence and control wetland environments and wildlife use of wetland habitat. It will bring together people from the scientific community, private industry, and regulatory agencies throughout the country. The program will consist of contributed papers, poster sessions and keynote addresses on featured topics. Field trips will emphasize research and management in selected southeastern wetlands. The proceedings of the symposium will be published.

For details and Call-For-Papers contact:

FRESHWATER WETLANDS AND WILDLIFE SYMPOSIUM
Attention: Dr. Rebecca R. Sharitz
Savannah River Ecology Laboratory
Drawer "E"
Aiken, South Carolina 29802
(803) 725-2472 FTS: 239-2472



Circle No. 155 on Readers' Service Card

MOLECULAR BIOLOGIST THE SALK INSTITUTE

The Clayton Foundation Laboratories for Peptide Biology

The Salk Institute is recruiting an Assistant Professor in the area of molecular neuroendocrinology. This person will be expected to develop an independent research program and will have the opportunity to collaborate within a group investigating the structures, regulation and physiologic roles of peptide hormones and their receptors. Applicants should have post-doctoral research training and expertise in recombinant DNA technology.

Please send curriculum vitae, summary of previous and proposed research and names of three references to:

Molecular Biologist Search Committee
The Clayton Foundation Laboratories
for Peptide Biology

THE SALK INSTITUTE
P.O. Box 85800, San Diego, CA 92138

Equal Opportunity Employer M/F/H/V

MICROBIOLOGISTS

Battelle Columbus Laboratories, a world leader in contract Research and Development, is expanding research efforts in biotechnology, specifically anaerobic degradation. The research emphasis of our Anaerobic Microbiology Group is in the physiology and genetics of anaerobic dehalogenation.

Positions are available for individuals at both the research scientist and post-doctoral levels in anaerobic microbiology. Successful candidates should have a PhD in Microbiology or have recently completed a post-doctoral fellowship where experience with anaerobic bacteria has been demonstrated.

Battelle offers competitive salaries and comprehensive benefits. Qualified candidates should send their resumes to: **Richard Shaw, Dept. Y-1, Battelle Columbus Laboratories, 505 King Avenue, Columbus, Ohio 43201.**



An Equal Opportunity/Affirmative Action Employer M/F

DIRECTOR OF GENETIC TOXICOLOGY PHARMACEUTICAL RESEARCH Ann Arbor, Michigan

The Parke-Davis Research Division of Warner-Lambert, a world leader in pharmaceutical development, is recruiting for a key scientific management position in the Pathology and Experimental Toxicology Department, due to the expansion of our new Toxicology facilities.

This position requires an individual with a background in genetics and an outstanding record of achievement. The Director of Genetic Toxicology Section will be involved in the *in vitro* testing for the efficient detection of mutagens in bacterial and mammalian cell systems with new pharmaceutical compounds. *In vivo* and *in vitro* cytogenetics and other ancillary methods, are also applied. This senior staff member will interact with other areas of functional activity and perform as Study Director for a variety of toxicity studies; and should possess

demonstrated ability to act independently; a Ph.D. degree in Genetics or Cell Biology or related disciplines, is essential.

Our research facilities, adjoining the University of Michigan campus in Ann Arbor, Michigan, are among the finest and best equipped in the world and are devoted exclusively to the discovery and development of new drugs.

Join the exciting Research and Development team at Warner-Lambert, and enjoy outstanding compensation and environment. Send your curriculum vitae and salary history/requirements in confidence to: **Ms. M. Wolin, Sr. Human Resources Representative, WARNER-LAMBERT/PARKE-DAVIS, PHARMACEUTICAL RESEARCH DIVISION, 2800 Plymouth Road, Ann Arbor, Michigan 48105.** An Equal Opportunity Employer M/F/H.

**WARNER
LAMBERT**

POSITIONS OPEN

NATIONAL SCIENCE FOUNDATION (NSF)

NSF is accepting Intergovernmental Personnel Act Mobility Program (IPA) nominations from colleges/universities, or state and local governments for an assignment as **PROGRAM ASSOCIATE**, Division of International Program: U.S.-Australia, U.S.-New Zealand, U.S.-Japan Cooperative Science Programs, and the Program of Cooperation with Japan in Photosynthesis and Photoconversion. The assignment will be for 1 or 2 years. Applicants should have a Ph.D. in a scientific or engineering discipline supported by NSF, with experience in teaching, research, and/or science and education related administration. Some knowledge of the Japanese language and familiarity with the culture and scientific infrastructure of Japan would be advantageous. Assignments will include program development, work with the permanent staff on proposal and grant management, and interaction with NSF's counterpart organizations in the three Pacific industrial countries, as well as with scientific visitors, foreign embassies, and U.S. government agencies.

The individual selected for the assignment will remain an employee of his/her institution, which will be reimbursed by NSF for a portion of his/her salary and other costs related to the assignment. Nominations should be forwarded by the applicant's institution (not by the individual applicant) to: **The National Science Foundation, Personnel Administration Branch, 1800 G Street, NW, Room 212, Washington, D.C. 20550**; attention: Catherine Handle. For further information, contact: **Dr. Eduardo Feller** (telephone: 202-357-9700) or **Charles Wallace** (telephone: 202-357-9558). Hearing impaired individuals should call 202-357-7492. NSF is an Equal Opportunity Employer.

RESEARCH ASSOCIATE, CHEMICAL ENGINEERING. Characterization of analysis of segmented copolymers; determine structure-properties relationships in thermorelationships in thermoplastic elastomers; small angle x-ray and rheo-optical investigation of polymeric materials; emphasis on development of segmented copolymers by correlating solid state morphology to the observed mechanical and thermal behavior. Performing synthesis of siloxane copolymers; an essential part of this work will stress determination of interfacial thickness of multiphase systems via SAXS. Requires expert in polymer science and engineering expertise in small angle x-ray and rheo-optical analysis; experience with mechanical and thermal characterization techniques utilized in the study of polymers; proficiency in siloxane urethane chemistry of synthesis development; skilled at SAXS instrumentation, computer programming and interfacing; and Ph.D. in chemical engineering; \$16,103 per year; 40 hours per week, hours 8 a.m. to 5 p.m. Location: Blacksburg, Virginia. Qualified applicants mail or carry résumés, with a copy of ad attached, to: **Virginia Employment Commission, Job Order Number VA4536186, Department 3008, P.O. Box 61, Roanoke, Va. 24002.**

The Department of Urology at the College of Physicians and Surgeons of Columbia University has a position available for a **SENIOR INVESTIGATOR** in male reproductive science. Applicant should be eligible for associate or full professor candidacy and be an experienced independent investigator, preferably in aspects of spermatogenesis. This position will be a joint faculty appointment in the Department of Urology and an appropriate basic science department. Send curriculum vitae to: **Department of Urology, Box 44, College of Physicians and Surgeons of Columbia University, 630 West 168 Street, New York, N.Y. 10032.** Columbia University is an Equal Opportunity/Affirmative Action Employer.

FLATHEAD LAKE BIOLOGICAL STATION UNIVERSITY OF MONTANA

SYSTEMS ANALYST: A postdoctoral position (Ph.D. required) to develop a simulation model for the purpose of studying effects of lake and stream regulation on nutrient dynamics and productivity of Flathead Lake. Responsibilities also include formatting and analysis of hydrologic and water quality data files. Modeling experience in limnology preferred.

This is considered a permanent, professional-staff position but is nontenurable. Interested persons are invited to submit a letter of application, curriculum vitae (listing three references), and reprints of selected journal papers to: **Dr. Jack A. Stanford, Director, University of Montana Biological Station, Bigfork, Montana 59911**, by 3 May 1985. An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

RESEARCH ASSISTANT PROFESSOR position available to conduct bioenergetics research on human subjects and animal models. Will work on technical developments on large bore NMR system for multinuclear NMR investigations of brain, heart, liver and muscle metabolism in vivo. Ph.D. in chemistry or biophysics required. Must be conversant with modern NMR techniques and have a strong NMR instrumentation background; several years of experience in metabolic NMR studies in vivo is essential. Please send curriculum vitae, bibliography, and three letters of reference to: **Dr. Franz Matschinsky, Chairman, Biochemistry/Biophysics, 302 Anatomy/Chemistry/G3, University of Pennsylvania, Philadelphia, Pa. 19104.** An Equal Opportunity/Affirmative Action Employer. Applications must be received by 30 April 1985.

RESEARCH ASSOCIATE position available in the area of renal physiology and renal hemodynamics. Doctorate, experience in renal micropuncture, and use of laboratory computers required. Salary commensurate with experience. Send curriculum vitae and names of three references by 15 June 1985 to: **Dr. Donald Marsh, Department of Physiology and Biophysics, University of Southern California School of Medicine, 2025 Zonal Avenue, Los Angeles, Calif. 90033.**

An Equal Opportunity/Affirmative Action Employer

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIPS UNIVERSITY OF VIRGINIA DIVISION OF EXPERIMENTAL PATHOLOGY

POSTDOCTORAL POSITIONS available for study in the following areas: tumor amylose gene expression; vitamin D-dependent calcium-binding protein regulation; renal adrenergic system and hypertension; antiviral chemotherapy; high-resolution GC/MS of prostaglandins; autoimmune diseases; cell biology, and neurochemistry of CNS embryonal tumor differentiation; aluminum toxicology; cell biology of intracellular protozoa; biophysical approaches to immunochematology and membrane immunobiology; membrane ultrastructure using the freeze-etch technique; and glycolipids as cell surface markers. Available immediately. For information, write to: **Dr. William W. Young, University of Virginia, Department of Pathology, Box 214, Charlottesville, Va. 22908.** An Equal Opportunity/Affirmative Action Employer.

VASCULAR BIOLOGY

An interdisciplinary postdoctoral training program is available 1 July 1985 to develop competent investigators for independent careers in vascular research. Research and training are in laboratories of established investigators in the Departments of Anatomy, Medicine, Pathology, Pharmacology, and Physiology/Biophysics. Research areas include vascular smooth muscle, microcirculation, neural and feedback control of vascular behavior, and vascular injury. Candidates with a recent Ph.D. or M.D. degree and a strong commitment to research should apply. Send curriculum vitae with three letters of recommendation to: **Dr. R. A. Rhoades, Professor and Chairman, Department of Physiology and Biophysics, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, Ind. 46223.** An Equal Opportunity/Affirmative Action Employer.

SELKURT FELLOWSHIP

Applications are invited for the **E. E. Selkurt Postdoctoral Fellowship** at the Department of Physiology and Biophysics, Indiana University School of Medicine. This Fellowship was established to honor the retirement of Dr. Ewald E. Selkurt, Distinguished Professor of Physiology and first chairman of the department, and past president of the American Physiological Society. The fellowship is designed to enable a promising investigator to develop research skills and potential and to probe fundamental problems with clinical relevance. We are seeking an individual with a Ph.D. and/or M.D. degree to work in **neurobiology**, specifically in the areas of axoplasmic transport (Sidney Ochs), neuroendocrinology (Nira Ben-Jonathan), or neural transplantation (Walter Low). Appointment will normally be for 2 years. Please send résumé, outline of the future plans, and names of three references to: **The Selkurt Postdoctoral Fellowship Committee, Department of Physiology and Biophysics, Indiana University School of Medicine, Indianapolis, Ind. 46223.** Deadline for receipt of applications is 31 May 1985.

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FELLOWSHIPS

GEORGE S. WISE POSTDOCTORAL FELLOWSHIPS. The George S. Wise Faculty of Life Sciences at Tel Aviv University offers postdoctoral fellowships commencing 1 October 1985 in basic and applied biology. The faculty is engaged in such research areas as anatomy, taxonomy and physiology of plants; anatomy, sociobiology and physiology of animals; marine biology; cellular and molecular biology and genetics; lipid and protein research; bioenergetics; neurobiology; immunology; virology; cancer biology; biotechnology and nature preservation. Application forms may be obtained from: **The Dean, The George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel.** Deadline for applications is 30 June 1985.

POSTDOCTORAL FELLOWSHIPS IN CARDIOPULMONARY BIOMEDICAL ENGINEERING

Multidisciplinary research training in basic quantitative physiological and engineering aspects of cardiopulmonary systems available 1 August 1985. Appropriate for fellows with Ph.D. degrees in engineering, physiology, or biophysics or a medical degree (M.D.). Send résumé and three letters of recommendation to: **Fred S. Grodins, M.D., Ph.D., Chairman, Department of Biomedical Engineering, University of Southern California, Los Angeles, California 90089-1451.** An Equal Opportunity/Affirmative Action Employer.

SIMON FRASER UNIVERSITY CHEMISTRY DEPARTMENT NSERC-UNIVERSITY RESEARCH FELLOWSHIP

Applications are invited for a NSERC University Research Fellowship in Biochemistry or Inorganic or Organic Chemistry, tenable 1 July 1986. Candidates must have demonstrated outstanding ability in research and will be expected to mount a vigorous, independent research programme. Fellows are appointed as limited-term assistant professors for 3 years, renewable for 2 years, and salaries are on the faculty scale. Only Canadian citizens or landed immigrants are eligible to apply.

Full curriculum vitae, a detailed research proposal, and the names of at least three referees should be submitted by 15 June to:

**Professor C. H. W. Jones, Chairman
Department of Chemistry
Simon Fraser University
Burnaby, British Columbia, Canada V5A 1S6**

MEETING

ARGENTINE SCIENCE—A MEETING to discuss programs to support scientific work in Argentina will take place during the meetings of the Federation of American Societies for Experimental Biology (FASEB) on Tuesday, 23 April 1985, at 5 p.m. in the Garden Grove Room 3 of the Anaheim Convention Center in Anaheim, California. All those interested are welcome to participate. Further information: **Argentine American Association for the Advancement of Science, Technology and Culture, 210 Fifth Avenue, Suite 1102, New York, N.Y. 10010**; telephone: 212-340-5436.

SYMPOSIUM

BIOGEOGRAPHY OF THE ISLAND REGION OF WESTERN LAKE ERIE, 28 to 30 May 1985, in Columbus, Ohio. This is the 9th Biosciences Colloquium of the College of Biological Sciences, The Ohio State University. For program and further details, contact: **Dr. Jerry F. Downhower, Department of Zoology, The Ohio State University, Columbus, Ohio 43210** (Telephone: 614-422-9642), or **Dr. Charles C. King, Ohio Biological Survey, 484 West 12 Avenue, Columbus, Ohio 43210** (Telephone: 614-422-9645).

PROGRAM

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain a Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Ph.D.—O.D. Program Director, Admissions Office, Room 18, The New England College of Optometry, 424 Beacon Street, Boston, Mass. 02115.**

RESEARCH SCIENTIST BIOCHEMISTRY

The Dermatology Research Group of the Bristol-Myers Pharmaceutical Research and Development Division has an opportunity for a Research Scientist to join a multi-disciplinary team of scientists aimed at discovering new drugs for the treatment of skin diseases. The position is in the Preclinical Biochemistry group and will require interaction with scientists in cell biology, pharmacology, and pharmaceutical development.

The successful candidate will have a Ph.D. in Biochemistry, Biochemical Pharmacology, or Biological Sciences and have an interest or experience in the biochemistry or physiology of the skin. Preference will be given to candidates with experience in enzymology or immunology and demonstrated ability in bioanalytical techniques. The ability to work in a goal-oriented environment is essential.

We offer a new and well-equipped Buffalo research facility with excellent opportunities for career growth. For confidential consideration, please submit resume to:

Manager, Human Resources

Bristol-Myers Company

Pharmaceutical R & D Division

100 Forest Avenue, Buffalo, N.Y. 14213

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Drug Delivery Research

The Pharmaceuticals Department of SK&F Laboratories is assembling a multi-disciplinary team of Ph.D. scientists to carry out research in the area of drug delivery. The search covered by this ad is limited to individuals whose expertise impacts on the discovery and fabrication of delivery systems offering advantage in the development of traditional therapeutic modalities as well as products arising from bio-engineering and other emerging technologies.

We are seeking outstanding individuals with Ph.D.'s in various chemical, biochemical and engineering disciplines for the following areas:

POLYMER PHYSICS/CHEMISTRY - Application of new polymer technologies to drug delivery, particularly the delivery of bioactive macromolecules. Emphasis on synthetic and bio-polymers, polymer characterization, and structure/property relationships as related to drug delivery.

DIFFUSION AND MASS TRANSFER - Study of drug release mechanisms leading to the development of new delivery systems. Emphasis on transport phenomenon in polymers and biological systems as well as elucidating factors affecting drug release.

PROTOTYPE DELIVERY SYSTEMS - Design and fabrication of prototype delivery systems. Emphasis on application of industrial pharmaceutical technologies and polymer engineering to delivery system fabrication.

Presently located in Philadelphia, the Department will be relocating to a new state-of-the-art Research and Development facility near Valley Forge, PA. We offer an excellent salary, benefits, and relocation package as well as the opportunity for personal and professional growth. Please forward your resume to George P. Kissell, Sr. Employment Consultant, Smith Kline & French Laboratories, 1560 Spring Garden St., Phila., PA 19101. We are an equal opportunity employer, M/F/H/V.

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