

campaign to promote increased federal government research investment in interferon, which was spearheaded by Dr. Mathilde Krim of Memorial Sloan Kettering Institute, beginning in 1975. Krim, a veteran of the effort that led to the passage of the National Cancer Act of 1971, worked in alliance with Mary Lasker, Dr. Jordan Gutterman at the M. D. Anderson Hospital and Tumor Institute in Houston, and the American Cancer Society.

This essay actually contains two stories. The first focuses on the interferon crusade within the context of the National Cancer Institute (NCI) and National Institutes of Health cancer research program. The "crusade" resembles more the campaigns to promote research in cancer chemotherapy in the 1950's or in viral oncology in the 1960's, both of which took place within the NCI statutory and financial framework, than it does the 1970 and 1971 campaign, which generated a new law, created new institutions and programs, and involved a massive increase in funding. In the interferon crusade, the government behaved as a cautious banker, requiring scientific peer review of research proposals, exploring alternative production methods, and underwriting production of the substance, exchange of information, and research grants and contracts. According to Panem, interferon research was allocated between 2.0 and 3.5 percent of the research budget of the National Institute of Allergy and Infectious Diseases during the years from 1972 to 1981, and the corresponding percentages for NCI were 0.15 and 1.30 percent, hardly in the category of betting the company. Greater financial risk for research support was borne, it would seem, by the Albert and Mary Lasker Foundation, the American Cancer Society, and private industry. The government appears a model of prudence, and the spending curve seems quite reasonable given the intense political promotion of interferon research, in which enthusiasm for its promise outran the demonstrated scientific and clinical research results.

The second story of great moment is the relationship between academic and industrial research in the biological sciences as genetic engineering has reduced the time from discovery to application and blurred the distinction between university and industrial laboratory. Here the author provides less empirical detail on the relations between universities, private firms, and the government than she does for the first story. Nevertheless the interferon episode adds to our understanding of this larger problem.

A number of policy issues flow from this case. Paramount among Panem's concerns is the increasing constraint upon university research as industry increases its investment in academic research laboratories and genetic engineering. Also of interest are the problems of a limited public constituency for fundamental scientific research, prospective manpower shortages in academic biology similar to those currently affecting academic computer science and electrical engineering, and issues arising from rapid scientific change, namely obsolete reagents and regulatory and patent problems. A brief discussion of policy lessons concludes the book.

The Interferon Crusade is a good evening's read, although this reviewer wished at times for more of the details behind the reported events. The account is important, the material is well organized, the issue is thoughtfully presented, the style is direct, and—in paper—the price is right.

RICHARD A. RETTIG

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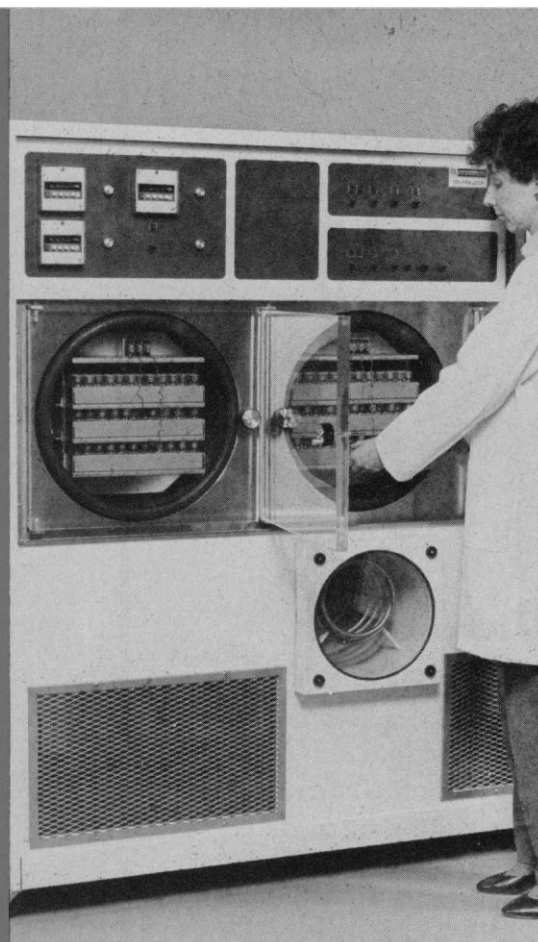
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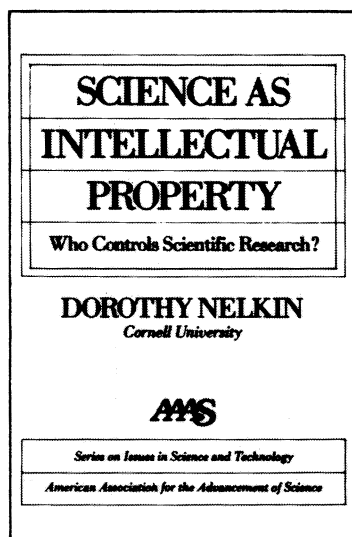
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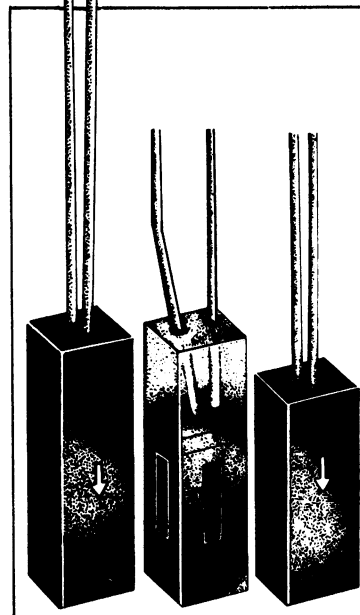
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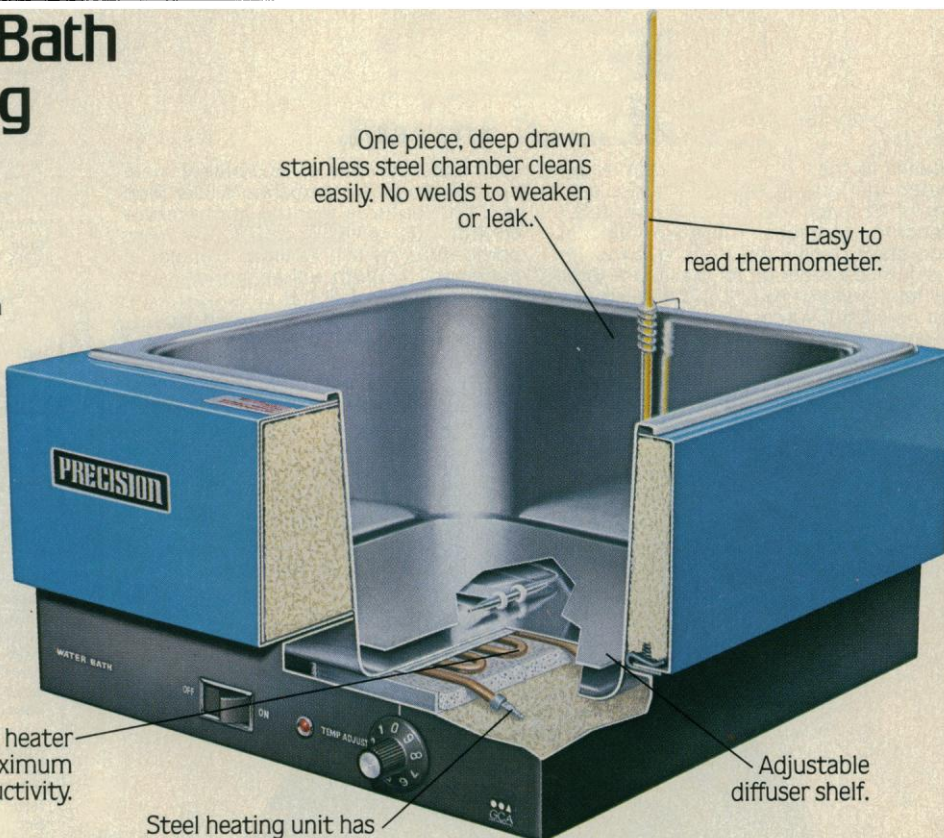
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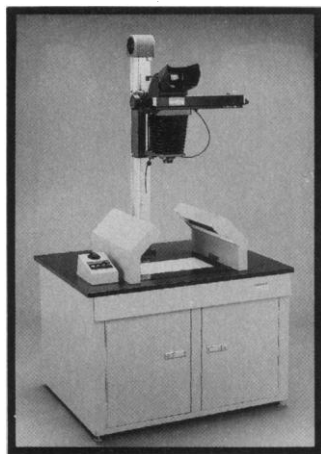
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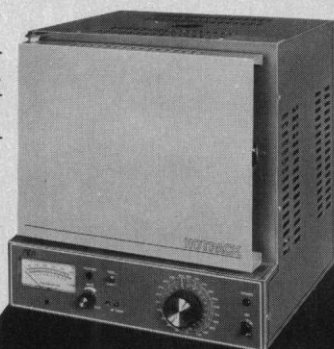
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Immunologist. Ph.D. 1970. Academic and industrial research experience in cellular and molecular immunology, immunopotentiality, lymphokines, lymphocyte-target cell killing, immunoassay development, hybridoma and monoclonal antibodies. Excellent publications and references. Seeking academic faculty position. Box 42, SCIENCE. X

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Molecular Pharmacologist, Ph.D. Internationally known in the fields of cancer chemotherapy and immunosuppressive drugs. More than 100 publications. Good organizer, speaker, and motivator. Seeks responsible position in industry directing basic and applied research. Box 51, SCIENCE. X

Pharmacology/Toxicology. Ph.D. 1979. Experience in cardiovascular/renal pharmacology/toxicology. Specific research interest in biochemical toxicity of reactive oxygen species. Box 52, SCIENCE. X

POSITIONS WANTED

Research Technician. B.S. biology, 1981. Six hours toward M.S.; 3 years of research hospital experience. Lymphokine production, purification and assay system, animal studies, tissue culture. B-cell hybridoma, photomicroscopy. Publication and excellent references. Seeking position in academia/industry. Will relocate. Box 36, SCIENCE. X

Toxicologist/Clinical Chemist: M.T., specialist in chemistry (ASCP), Ph.D., DABCC, Board-certified in toxicology and clinical chemistry. Extensive experience in laboratory service, research, development, and teaching. Seeks academic, laboratory, or research position. Box 53, SCIENCE. X

POSITIONS OPEN

AGRICULTURAL BIOTECHNOLOGY POSTDOCTORAL POSITION available immediately to isolate and clone an ACYL carrier protein gene from B napus (rape seed) for use in transformation experiments and to study regulation of expression in meristematic tissue and developing seed. Ph.D. required. Please send curriculum vitae, transcripts, and the names and addresses of two referees to: **Dr. David Kuhn, Department of Biochemistry, Purdue University, West Lafayette, Ind. 47907.** *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

The Pulmonary Division of Uniformed Services University of the Health Sciences (USUHS) is seeking applicants with a few years of experience in **ANALYTICAL CHEMISTRY** and a working knowledge of **BIOENGINEERING AND STATISTICS**. The incumbent should have a Ph.D. Duties include maintenance and functioning of the H/P gas chromatograph-mass spectrometer (FID and ECD) for V/Q analysis. Experience with data handling, statistical analysis, computer modeling and manuscript preparation. Salary based on applicant's qualifications. Interested candidates should submit curriculum vitae, bibliography, and names of three references to: **Directorate of Civilian Personnel, USUHS, 4301 Jones Bridge Road, Bethesda, Maryland 20814-4799.** Applications will not be returned. *USUHS is an Equal Opportunity/Affirmative Action Employer.*

Position available—**ASSISTANT PROFESSOR**, non-tenure track, to work on the molecular genetics of *Chlamydia trachomatis*.

Emphasis to be placed on cloning of selected gene products and development of mutant strains. Starting salary: \$20,000 to \$25,000, depending on qualifications. Must have Ph.D. or equivalent and postdoctoral experience in bacterial genetics. Please send curriculum vitae and names of three references to: **Robert B. Jones, M.D., Ph.D., Department of Medicine, EM 302, 545 Barnhill Drive, Indianapolis, Ind. 46223.**

ASSISTANT OR ASSOCIATE PROFESSOR, tenure-track, 9-month appointment. Begins 1 August 1985. Ph.D. in microbiology, postdoctoral and teaching experience, ability to teach courses in microbial ecology and general microbiology. Write for complete statement of required and desirable qualifications to: **Dr. L. R. Berger, Department of Microbiology, University of Hawaii, Honolulu, Hawaii 96822; telephone: 808-948-8603.** Closing date: 15 May 1985. *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE PROFESSOR IN CELLULAR NEUROBIOLOGY

Applications are invited for a tenure-track position available 1 September 1985. Candidates should have demonstrated ability to conduct independent research. Preference will be given to those working in the areas of synaptogenesis, cell cytoskeleton, plasma membrane, or developmental neurobiology. Experience in electron microscopy and immunocytochemistry desirable. Teaching experience in anatomical science courses also desirable. Rank and salary will be commensurate with qualifications. For fullest consideration, applicants should submit curriculum vitae, a brief statement of research interests, representative reprints, and names and addresses of three references by 15 May 1985 to: **Dr. G. D. Pappas, Department of Anatomy, University of Illinois College of Medicine, P.O. Box 6998, Chicago, Ill. 60680.** *The University of Illinois is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.*

POSITIONS OPEN

ANALYTICAL CHEMISTRY—Assistant professor. The Department of Chemistry of Seton Hall University anticipates one tenure-track position as of September 1985. Applications are invited from analytical chemists with demonstrated research excellence and a commitment to teaching at the graduate and undergraduate levels. The individual should complement the research areas of our faculty and participate in our B.S., M.S., and Ph.D. programs. Send a résumé, a brief description of future research plans, and the names of at least three references to: **Faculty Search Committee, Department of Chemistry, Seton Hall University, South Orange, N.J. 07079.** *Seton Hall is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minority group candidates.* This constitutes an extension of the earlier search for this position. Closing date for applications is 15 March 1985.

ASSISTANT/ASSOCIATE PROFESSOR—The Biology Department at New Mexico Institute of Mining and Technology announces an opening for a microbiologist beginning fall 1985. The position is a tenure-track position at the assistant or associate professor level. The successful applicant will be expected to teach undergraduate courses in microbiology and general biology, graduate courses in microbiology, and develop an active research program. Preference will be given to candidates with postdoctoral experience and with expertise in environmental or chemolithotropic microbiology and an interest in immunology. Closing date: 15 March 1985. Send curriculum vitae, official transcripts, names of three references, and a one-page description of research and teaching interests to: **Dr. Al Smoake, Chairman, Biology Department, New Mexico Tech, Socorro, N.M. 87801.** *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF ANATOMY. A non-profit educational and research institution has an immediate need for an assistant professor of anatomy to be responsible for: (i) teaching in the cell biology, histology, and organ biology components of the anatomy course for first-year medical students; (ii) lecturing to and laboratory supervision of Ph.D. students in techniques and philosophy of the candidate's area of research; and (iii) establishing and directing an externally funded independent biophysical research program on the molecular structure of the contractile filaments of muscle, as well as collaborating with other muscle researchers at the institution and elsewhere regarding ongoing muscle research programs. Minimum requirements include a Ph.D. in biophysics or cell biology and at least 4 years of postdoctoral research experience on the molecular structure of contractile filaments of smooth and striated muscles, including original and significant publications in the field. Candidate must also have demonstrated expertise with: (i) transmission electron microscopy; (ii) fixation, embedding, and ultrathin sectioning; (iii) negative staining; (iv) low-angle shadowing; (v) low-dose electron microscopy; (vi) image analysis and 3-D reconstruction; (vii) antibody purification and labeling of specimens for electron microscopy; and (viii) x-ray diffraction. Demonstrated experience in teaching of biology is also required. Annual salary is \$35,000 for a 5-day, 40-hour week. Qualified applicants, apply by résumé only to: **Massachusetts Department of Employment Security, C. F. Hurley Building, Boston, Mass. 02114.** Case Number 5265. *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE PROFESSOR OF INTERNAL MEDICINE—The University of California, Davis (UCD), School of Medicine, is recruiting for a full-time faculty position at the assistant/associate professor level in the Division of Clinical Nutrition, Department of Internal Medicine. Candidates must be Board-certified in internal medicine and eligible for licensure in California, as well as have a background in clinical nutrition. Duties include inpatient consultations and outpatient care at UCD Medical Center, Sacramento, and the UCD campus; teaching medical students, house officers, and fellows; and development of independent basic or clinical research projects. Applicants should submit curriculum vitae and names of three referees to: **Charles H. Halsted, M.D., Professor of Internal Medicine, and Chief, Division of Clinical Nutrition, University of California, School of Medicine TB-156, Davis, California 95616.** Closing date for applications is 30 April 1985.

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

POSITIONS OPEN

ASSISTANT PROFESSOR OF ANATOMY

Applications are invited for appointment at the assistant professor level in a nontenure-track position, beginning 1 July 1985, in the Department of Anatomy, Medical College of Virginia (MCV). Teaching will be in dental gross anatomy. Preference will be given to candidates who have teaching and postdoctoral experience and an active research program. Current areas of research in the department include neurobiology, immunobiology, and reproductive/developmental biology. Interested applicants should submit curriculum vitae and three letters of reference by 15 March to: **Dr. William P. Jollie, Professor and Chairman, Department of Anatomy, Medical College of Virginia, Box 709, MCV Station, Richmond, Va. 23298.**

MCV/VCU is an Equal Opportunity/Affirmative Action Employer.

The Department of Pathology, Medical College of Georgia, Augusta, Georgia, invites applications for a faculty position at the rank of **ASSISTANT OR ASSOCIATE PROFESSOR.** The candidate should have a Ph.D. degree with demonstrated leadership in research and teaching. The position will have the responsibility of directing a hospital laboratory performing service in immunochemistry and immunomorphology, establishing independent research programs, and participation in graduate and undergraduate teaching. Experience in flow cytometry is desirable. Applicants should submit curriculum vitae and references to: **Dr. R. N. Rao, Chief, Section of Anatomic Pathology, Medical College of Georgia, Augusta, Georgia 30912.** *Equal Opportunity/Affirmative Action Employer.*

ASSISTANT/ASSOCIATE PROFESSOR Pharmacology

The Department of Pharmacology and Therapeutics at the Louisiana State University Medical Center-Shreveport (LSUMC-S) has available an assistant/associate professor position. Applicants should have a M.D. or Ph.D. degree and a strong commitment to teaching and research. Specialization in neuro- or cardiovascular pharmacology desired; however, orientation towards other areas of pharmacology is acceptable. The successful candidate is expected to develop an independent research program and participate in teaching activities (medical and graduate students). Applicants should send their curriculum vitae, reprints or preprints of completed research, and arrange submission of three letters of recommendation to: **Dr. Charles D. Wood, Ph.D., Chairman, Faculty Search Committee, Department of Pharmacology and Therapeutics, LSUMC-S, P.O. Box 33932, Shreveport, La. 71130.** *The University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF PHARMACOLOGY AND TOXICOLOGY

The Laboratories of Pharmacology and Toxicology of the School of Veterinary Medicine, University of Pennsylvania, invite applications for a tenure-track appointment as an assistant professor of pharmacology and toxicology. Candidates should have both a V.M.D./D.V.M. degree and a Ph.D. in pharmacology, toxicology, or associated field, have had postdoctoral research experience and have a demonstrated ability to conduct independent research. The appointee is expected to attract independent research support and to establish a strong, creative basic and clinical research program. In addition, the appointee is expected to participate in departmental teaching activities in systemic pharmacology and toxicology, both lecture and laboratory, as well as in some clinically related courses. Candidates should submit curriculum vitae, a description of research plans, and the names of at least three references to: **Dr. Richard O. Davies, Animal Biology—211E VET/H1, University of Pennsylvania, Philadelphia, Pa. 19104.** The closing date is 31 March 1985. *The University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR—PHYSIOLOGY: Tenure-track position to begin August 1985. A strong background in physiology is essential; background in molecular biology is desirable. Ph.D. required; teaching experience desirable. Candidates should send curriculum vitae, transcripts, and three professional references by 23 March 1985 to: **Dr. Michael Goodrich, Chairman, Department of Zoology, Eastern Illinois University, Charleston, Ill. 61920.** *Affirmative Action/Equal Opportunity Employer. Applications from women and minorities are encouraged.*

POSITIONS OPEN

VISITING ASSISTANT OR ASSOCIATE PROFESSOR IN MAMMALIAN PHYSIOLOGY. One-year temporary position to teach undergraduate biology courses, including introductory anatomy and physiology and upper-level physiology. Starting date: 15 August 1985. Send résumé and names of three references to: **Dr. Jerry D. Wilson, Chairman, Department of Science and Mathematics, Lander College, Greenwood, South Carolina 29646.** Lander College, a 4-year, state-supported institution, is an Affirmative Action/Equal Opportunity Employer.

VISITING ASSISTANT PROFESSOR: Subject to availability to funding, for research on endocrine, physiological, and anatomical relationships in steroid hormone regulation of brain function and behavior. Experience in neuroanatomical techniques desirable. Research training of graduate and undergraduate students involved. Salary: \$17,000 to \$18,000 with benefits. Available 1 September 1985. Send curriculum vitae and three letters of reference by 15 March 1985 to: **Jeffrey D. Blaustein, Division of Neuroscience and Behavior, Psychology Department, University of Massachusetts, Amherst, Mass. 01003.** An Affirmative Action/Equal Opportunity Employer.

ASSISTANT RESEARCH BIOLOGIST (Department of Medicine). Ph.D. in the biological sciences required. Experience also required in the field of blood coagulation research in the following areas: kinetic analysis of the enzymatic reactions of blood coagulation; research blood coagulation assays by clotting, amidolytic, and activation peptide released techniques; radiolabelling of purified coagulation proteins with iodine and tritium; purification from human plasma of the vitamin K-dependent clotting factors including factor VII. Apply by 15 March to: **Dr. Samuel I. Rapaport, Department of Medicine, Division of Hematology/Oncology, H-811-K, School of Medicine, University of California, San Diego, La Jolla, California 92093.** The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT RESEARCH SCIENTIST/ POSTDOCTORAL FELLOW

Cell Biology/Cellular Clocks and Oscillators

Beckman Research Institute of the City of Hope. A permanent but non-tenure-track position is available for an individual with a background in molecular genetics or fluorescence physical chemistry and an interest in cellular dynamics and cell cycle clocks.

Interested candidates should send curriculum vitae, a statement of research objectives, and their two most significant reprints to:

Robert R. Klevecz, Ph.D., Director
Cell Biology Department
Beckman Research Institute of the City of Hope
1450 East Duarte Road
Duarte, California 91010

ASSISTANT SCIENTIST LIPID BIOCHEMISTRY

Refer to Job Order Number: CA-8501

The W. ALTON JONES CELL SCIENCE CENTER is seeking to fill a position at the assistant scientist level for June 1985. Studies will involve tumor promotion in rodents and the lipid role in cellular differentiation and transformation. **Qualifications include:** Ph.D. in biology with previous experience in cell biology and biochemistry. Person must have knowledge in lipid biochemistry and be familiar with techniques in lipid methodology. Also, have hands-on experience with kinetics, HPLC, GLC, and thin-layer chromatography and experience with rodents. Communication and writing skills are essential. Complete curriculum vitae, including a brief statement of research interest and complete addresses for three references, should be sent to: **Lorraine L. Tyler, Personnel Manager, Personnel Department, W. ALTON JONES CELL SCIENCE CENTER, 10 Old Barn Road, Lake Placid, New York 12946.**

An Affirmative Action/Equal Opportunity Employer

BEHAVIORAL NEUROSCIENCE, 2-year position, August 1985. Duties include graduate and undergraduate teaching and supervision of graduate research. Facilities and equipment available for major areas of research in psychobiology. Ph.D. required. Position subject to budgetary approval. Send curriculum vitae, three recommendations, and outline of research and teaching interests by 15 March to: **R. M. White, Chair, Psychology Department, Miami University, Oxford, Ohio 45056.** Miami University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT RESEARCH SCIENTIST available 1 July 1985 in mammalian spinal cord electrophysiology and neural recovery of function. Projects principally involve extracellular and intracellular techniques but also include HRP, histochemical, and behavioral methodologies to investigate the mechanisms involved in synaptic transmission, segmental motor control, and recovery of function after spinal cord and peripheral nerve injury. Individuals should have a Ph.D. or M.D. with research accomplishments in cellular neurophysiology, the ability to perform both independent and collaborative research of high quality, and the capacity for teaching at the graduate level. Salary to be based on qualifications and experience. Send curriculum vitae, summary of research interests, and letters of recommendation by 8 March 1985 to: **Dr. G. W. Sypert, Department of Neurological Surgery, Box J-265, University of Florida Health Center, Gainesville, Fla. 32610.**

An Equal Opportunity/Affirmative Action Employer

BASIC RESEARCH RELATED TO ATHEROSCLEROSIS

A postdoctoral position is available at The Hormel Institute, University of Minnesota, through a training grant awarded by the U.S. Public Health Service National Heart, Lung, and Blood Institute. The program is intended to provide research training in areas of lipid biochemistry, membrane biophysics, and cell biology related to cardiovascular disease. Participating faculty members are: Drs. W. J. Baumann, H. L. Brockman, M. P. Cleary, R. T. Holman, D. R. Pfeiffer, O. S. Privett, H. Schlenk, and H. H. O. Schmid. Applicants select a faculty sponsor specialized in their area of research interest. Collaboration with other faculty members is encouraged.

Appointments are annually renewable. Applicants must be U.S. citizens, noncitizen nationals, or permanent U.S. residents with a Ph.D., M.D., or equivalent degree. Applications should include curriculum vitae, list of publications, and the names of three references. Submission deadline: 1 April 1985. For further information or to apply, write to: **Dr. R. T. Holman, Professor and Director, The Hormel Institute, University of Minnesota, Austin, Minn. 55912.** Telephone: 507-433-8804. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages women and minority applicants.

CHAIRPERSON DEPARTMENT OF PATHOLOGY

Applications are invited for the position of professor and chairperson. Department of Pathology, University of South Carolina (USC) School of Medicine, Columbia, South Carolina. Candidates should have an M.D., Ph.D., or both, a commitment to excellence in medical education, and an established research program with a history of extramural funding. Administrative experience is desired. Applications, including curriculum vitae with research funding, a statement of career goals, and names of three references, should be sent by 31 March 1985 to: **Dr. D. O. Allen, Chairman, Pathology Search Committee, Department of Pharmacology, USC School of Medicine, Columbia, S.C. 29208.** An Equal Opportunity/Affirmative Action Employer.

The U.S. Environmental Protection Agency is seeking résumés for possible openings for

CHEMICAL/MECHANICAL ENGINEERS EPIDEMIOLOGISTS/PUBLIC HEALTH ANALYSTS

These positions would be part of a newly expanded multidisciplinary research program examining the potential effects of stratospheric changes. Requirements for the engineering position should have an advanced degree, four or more years of experience, and be familiar with the manufacturing and use of chlorofluorocarbons and related substances. Requirements for the epidemiologist/public health analyst position should also have an advanced degree, four or more years of experience, and be familiar with the biological and human health effects from increases in ultraviolet radiation. Salary will be commensurate with experience. Send résumé or SF 171 to:

John S. Hoffman
Program Director (PM-221)
Office of Air and Radiation
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460

An Equal Opportunity Employer

POSITIONS OPEN

BIOCHEMICAL AND GENETIC TOXICOLOGY

For research program in carcinogenesis and molecular biology. Clinical and laboratory dimensions. Ph.D. level with relevant experience. Excellent working conditions. Available immediately. Send curriculum vitae and salary requirements to:

Preventive Medicine Institute/Strang Clinic
55 East 34th Street
New York, N.Y. 10016
Attention: Dr. Daniel G. Miller

BIOCHEMICAL TOXICOLOGIST. Assistant professor of environmental toxicology and assistant biochemical toxicologist in the Agricultural Experiment Station available on or before 1 July 1985. Eleven-month, tenure-track appointment; 25 percent teaching/75 percent research. Requirements include Ph.D. in biochemistry, pharmacology, toxicology, or related discipline with strong biochemical training, and research experience in biochemical toxicology involving plants and/or animals. Responsibilities include research on mechanisms of toxic action as related to agricultural and environmental concerns, teaching the equivalent of two formal courses/year, and advising and supervision of undergraduate and graduate students. By 15 April 1985, send résumé, transcripts (official transcripts if the Ph.D. was in the past 5 years), list of publications, and names and addresses of three references to: **Chairman, Search Committee, Department of Environmental Toxicology, University of California, Davis, Calif. 95616.**

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

CHEMISTRY LABORATORY DIRECTOR

A 15-year-old biomedical research firm has an immediate position available for an individual interested in managing and directing a diverse group of chemists working in pesticide residue analysis for EPA registration, metabolic and pharmacokinetic studies, toxicological study support and new product development.

To be considered, applicant must have a Ph.D. in chemistry, at least 6 years of experience in contract research including familiarity with modern chromatographic methods, supervising experience, and excellent written and oral communications skills. Salary commensurate with education and experience. Liberal benefits, profit-sharing plan.

Send résumé to:

Dr. Thomas E. Shellenberger
Vice President, Research and Development
TEGERIS LABORATORIES, INC.
5050 Beech Road
Temple Hills, Md. 10748

COLLEGE TEACHER OF COMPUTER SCIENCE AND MATHEMATICS. Tenure-track appointment in computer science and mathematics available September 1985. Requirements: Ph.D. preferred; master's degree in computer science or mathematics required; ability to teach upper-division courses in computer science and mathematics; willingness to work with students on CST computer equipment (DEC PDP/11 and IBM PC's). Send résumé to: **Dr. Susan Smith Batell, Dean of Academic Affairs, College of Saint Teresa, Winona, Minnesota 55987.** Minorities and women encouraged to apply. An Equal Opportunity/Affirmative Action Employer.

This Senior Executive Service position with the National Weather Service (NWS) serves as **DEPUTY DIRECTOR, NATIONAL METEOROLOGICAL CENTER (NMC).** Duties include direction and administration of NMC day-to-day activities; assuring that NMC's many products are maintained and improved for the needs of the general public, aviation community, and NWS field stations; ensuring the efficient management of human and financial resources including maintaining commitment to Equal Employment Opportunity goals; ensuring the collaborative and responsive provision and/or exchange of NMC data, products, services, and other support to federal agencies, foreign governments, the World Meteorological Organization, and other international organizations, and other international and professional/academic organizations. The salary range is \$61,296 to \$68,700 per annum. Interested candidates may apply to: **Vacancy Announcement NOAA/NWS 84-116(WL), NCASC, NWS Personnel Branch, 8060 13th Street, Silver Spring, Md. 20910.** Attention: Willie Littlejohn. Telephone: 301-427-7924.

CENTER FOR MOLECULAR MEDICINE AND IMMUNOLOGY

Several senior and junior level research positions are available at the CENTER FOR MOLECULAR MEDICINE AND IMMUNOLOGY, affiliated with the University of Medicine and Dentistry of New Jersey at Newark, and consisting of the following INSTITUTES:

INSTITUTE FOR MOLECULAR GENETICS

Directorship open, as well as senior and junior scientist positions. Experienced and grant-successful individuals with interest in oncogenes and related problems desired.

INSTITUTE FOR IMMUNOBIOLOGY

Directorship open, as well as senior and junior scientist positions. Experienced and grant-successful individuals with interest in tumor immunity and biology desired.

INSTITUTE FOR MOLECULAR IMMUNOLOGY

Senior and junior scientist positions open. Experienced and grant-successful individuals with interest in tumor antigen immunochemistry, tumor imaging, and tumor therapy research desired.

POSTDOCTORAL POSITIONS available within the Molecular Immunology Institute for individuals with experience in one or more of the following areas: immunochemistry, glycoprotein chemistry, radiochemistry, and protein-labeling techniques.

INSTITUTE FOR NUCLEAR MEDICINE

Senior and junior scientist positions available for individuals with experience in radiochemistry and protein chemistry.

Salary commensurate with experience and credentials. Eligibility for adjunct faculty appointment. Send resume and names of references to:

David M. Goldenberg, Sc.D., M.D., President
CENTER FOR MOLECULAR MEDICINE AND IMMUNOLOGY
University of Medicine and Dentistry of New Jersey
100 Bergen Street
Newark, N.J. 07103

Equal Opportunity Employer

Head of Molecular Biology Department

BIOGEN

Biogen, a rapidly growing biotechnology company with laboratories in the U.S. and Switzerland, has the following position available in our Cambridge facility.

A vacancy exists for the Head of Molecular Biology to direct a staff of 27 people. The position involves significant administrative obligations, as well as scientific responsibilities for planning and evaluating research strategies from conception through production. The position reports to the President, Biogen Research Corp., and administers the molecular biology phases of projects in other departments, as well as the budgeting, personnel, and scientific issues within the Molecular Biology group itself.

The successful candidate must have a strong background in either eukaryotic or prokaryotic molecular biology using recombinant DNA technology, and experience in directing a research group, either in an industrial, university or basic research institute setting.

Biogen offers an excellent compensation and benefits package. Please send your CV and the names of 3 references to: Ms. Nanci Pye, Manager of Human Resources, Dept. MB-5, Biogen Research Corp., 14 Cambridge Center, Cambridge MA 02142. An equal opportunity employer.

ADVANCING THE LASER AGE Bio-Medical Engineer

THE OPPORTUNITY

Assume full responsibility for development of laser phototherapy system procedures including photosensitizer, laser excitation, and hyperthermia dosimetry. Also, be involved in the design and implementation of animal and clinical experiments responsive to the requirements of the FDA to achieve approval of the cancer therapy.

THE PROFESSIONAL

Should have a MS or PhD in Bioengineering, Molecular Biology, or Biochemistry along with exposure to some of the following: cell respiration, antineoplasics, interleukins, hemoglobin synthesis and metabolism, drug toxicology, pharmacology, microbiology, radiometry, laser medical applications. Must have experience in designing, analyzing, and reporting scientific experiments.

THE COMPANY

At LaserSonics, we continue our pioneer approach to the design of medical & scientific laser systems. Our new products promise to be some of the most meaningful laser advances of the decade. It's an exciting phase of growth, and an excellent opportunity for professional advancement. You'll also appreciate LaserSonics outstanding salary and benefits program.

Qualified individuals are urged to send a resume with salary history to: Cooper LaserSonics, Inc., Dept. KBS17, 3420 Central Expressway, Santa Clara, CA 95051. An equal opportunity employer m/f/h/v.

LaserSonics
Cooper LaserSonics, Inc.

PROTEIN BIOCHEMISTS

The Upjohn Company's Biotechnology Research Program has several positions for Research associates having BS/MS degrees in Biochemistry or related areas with experience in various aspects of protein purification, characterization and chemical analysis. Candidates will be sought having familiarity with immuno-chemistry, basic enzymology, and a strong background in organic chemistry. Research will concern the purification and physico-chemical characterization of unique proteins as part of a growing team of researchers investigating the basic properties and therapeutic applications of such proteins.

Kalamazoo is a medium-sized southwestern Michigan community with immediate access to a mix of excellent cultural, educational, and recreational pursuits, including numerous lakes and a four-season climate. Upjohn offers an excellent salary, commensurate with experience and outstanding benefits program.

For confidential consideration, please call from outside Michigan, TOLL FREE, 1-800/253-8600, extension 3-6767; or call from Michigan, COLLECT, 616/323-6767 to request an application. Please refer to ad number 17371-B when calling.

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POSITIONS OPEN

The Department of Biology at San Diego State University (SDSU) has two tenure-track openings at the **assistant or associate professor** level. Ph.D. and postdoctoral training are required. Applicants must be capable of establishing active and innovative research programs. The successful candidates will have the opportunity to join an interactive group of biologists committed to excellence in research and instruction. Teaching responsibilities include participation in undergraduate and graduate (master's and Ph.D.) programs. Both positions are available in September 1985.

CELLULAR IMMUNOLOGIST: Strong background in molecular biology/microbiology. Applicants using hybridoma or recombinant DNA technology in their research are preferred.

ENDOCRINOLOGIST: Research interest in cellular and molecular aspects of membrane-related mechanisms, for example, receptors on cardiac cell surfaces, hormone-receptor or neurotransmitter-receptor biochemistry, role of lipoproteins in atheroma formation, receptor-mediated endocytosis, or brain peptide receptors.

Applicants should send curriculum vitae, names of four references, three representative publications, and a statement of research goals by 15 March 1985 to: **Chair, Immunologist (or Endocrinologist) Search Committee, Department of Biology, San Diego State University, San Diego, Calif. 92182. SDSU is an Affirmative Action/Equal Opportunity Employer and does not discriminate against handicapped persons.**

CHAIRMAN. The Department of Microbiology of Southern Illinois University is seeking a chairman with a distinguished record of research and scholarship. The successful applicant will be expected to maintain a vigorous, funded research program in an area of microbiology or immunology. Individuals with strong records of accomplishment in all areas are encouraged to apply, but special consideration will be given to molecular biologists, particularly to those in the areas of gene expression and manipulation. The department is committed to a continuing program of excellence in both research and teaching. Qualifications include an earned doctorate, a record of continuing extramural support, and sufficient academic/research experience to support a tenured appointment at the level of **PROFESSOR**. Previous administrative experience is desirable. Individuals should submit curriculum vitae, a statement of research interests, and the names of five references to: **Dr. Michael Madigan, Search Committee, Department of Microbiology, Southern Illinois University, Carbondale, Illinois 62901.** Application deadline is 30 April 1985. *Southern Illinois University is an Equal Opportunity/Affirmative Action Employer.*

CLINICAL PHARMACOLOGIST. Assistant or associate professor position is available in the Section on Clinical Pharmacology. The appropriately qualified person will have a joint appointment in the Department of Pharmacology and in the primary clinical specialty. Board-certification in the appropriate clinical department and postdoctoral training in basic and/or clinical pharmacology is required. Faculty in the Section on Clinical Pharmacology are engaged in the research, teaching, and patient-care activities on an individual or multidisciplinary basis for the Medical Center. A major commitment to research is required. Contact: **John T. Wilson, M.D., Chief, Section on Clinical Pharmacology, Department of Pharmacology and Therapeutics, Louisiana State University Medical Center, Shreveport, Louisiana 71130. Telephone: 318-674-5076. Equal Opportunity Employer.**

Brown University, Providence, R.I., is seeking applications for **DIRECTOR OF ANIMAL CARE**. The individual will be responsible for the clinical and administrative management of the Animal Care Facility and staff and will serve as veterinarian to the Animal Research Committee and to University personnel using laboratory animals in teaching and research. Candidates must hold the D.V.M. or equivalent degree from an accredited school of veterinary medicine and be certified or eligible for certification by ACLAM or have equivalent qualifications. The position offers the opportunity for a concurrent appointment in an academic department, if desired, depending on the qualifications and experience of the applicant. The position is available 1 July 1985 and applications will be accepted until 20 March 1985. Applicants should submit curriculum vitae and three letters of reference to: **Dr. Elizabeth Leduc, Brown University, Box G, Providence, R.I. 02912. Brown University is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

DEVELOPMENTAL PSYCHOBIOLOGIST. The U.S. Environmental Protection Agency is seeking candidates for consideration against a potential opening in the area of developmental psychobiology/developmental neurobehavioral toxicology. This position will be located in the Behavioral Toxicology Branch, Neurotoxicology Division, Health Effects Research Laboratory. It is a federal Civil Service (term) position not to exceed 4 years, although subsequent career opportunities are a distinct possibility. Salary range: \$30,549 to \$47,226, depending upon experience.

The successful candidate will be expected to: (i) develop a program of research to evaluate in laboratory animals the consequences of perinatal exposure to environmental chemicals on the development of learning and memory, and (ii) closely collaborate with other scientists similarly evaluating morphological, neurochemical, and neurophysiological processes.

The candidate: (i) should possess a Ph.D. in developmental psychobiology or an allied discipline or possess equivalent experience and/or (ii) have postdoctoral research experience as evidenced by publications in peer-reviewed journals.

Forward curriculum vitae and names of three persons we can contact for references to: **Dr. R. C. MacPhail, Chief, Behavioral Toxicology Branch, c/o Personnel Management Division (MD-29), Research Triangle Park, North Carolina 27711, by 18 March 1985.**

DIRECTOR VA PROGRAM OF MULTI-CENTER MEDICAL RESEARCH

The Veterans Administration (VA) invites applications of qualified candidates for the position of **Chief, Cooperative Studies Program** within Medical Research Service, Department of Medicine and Surgery. Responsibilities include: (i) the scientific and administrative supervision of a broad and comprehensive nationwide program of multi-center clinical trials of the relative effectiveness of alternative medical interventions and other multi-center studies relevant to care of Veteran patients; (ii) the identification of research needs and the development, planning, and implementation of high-quality research in the area of controlled clinical trials; and (iii) the management of four established statistical and data-processing coordinating centers and a central research pharmacy. The program currently supports 25 active studies conducted in more than 70 VA medical centers with a FY 1985 budget of \$14 million. Experience in biomedical research, multi-center clinical trials, and administration is essential. Applicants must be U.S. citizens and physicians licensed to practice medicine. An additional degree in biostatistics is also desirable. This is a title 38-excepted service position with a salary range of \$61,296 to \$77,640 (currently limited to \$68,700) and is eligible for bonus pay up to \$22,500. Submit curriculum vitae to: **Chairman, Search Committee, Richard J. Greene, M.D., Ph.D., Medical Research Service (151), Veterans Administration, 810 Vermont Avenue, NW, Washington, D.C. 20420, or telephone: 202-389-5041. The Veterans Administration is an Equal Opportunity/Affirmative Action Employer.**

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To plan, organize, and direct all functions of a major research facility. Lead the establishment of a major docket of cutting-edge technology in materials processing (metals and ceramics). Functional and administrative supervision is exercised over five professional supervisory and clerical support staff and through subordinate supervisory staff over 10 to 20 professional, clerical/technical. Direction is received from the Vice President for Research and Corporate Relations.

A doctoral degree in a related field or an equivalent amount of education and experience from which comparable knowledge and abilities can be acquired is necessary. Five years of experience in research, proposals, business, and supervision is necessary, as well as a knowledge of research and contract management.

Send résumé to:

**Dr. Raymond F. Decker
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POSITIONS OPEN

DIRECTOR, MARINE STUDIES PROGRAM UNIVERSITY OF SAN DIEGO

The University of San Diego, a Catholic university with 3200 undergraduate students, is beginning a new marine studies program in cooperation with Hubbs-Sea World Research Institute. The University is soliciting applications for the position of director of the Marine Studies Program, effective 1 September 1985. It is seeking a broadly trained, experienced marine scientist with an emphasis in marine biology, for this full-time, tenure-track administrative and teaching position. Applicants should qualify for initial appointment at the rank of either associate professor or full professor. Administrative duties will consist of the direction of the Marine Studies Program; teaching duties will consist of offering both introductory marine science courses and some junior/senior level specialized courses in the field. Rank and salary commensurate with qualifications and experience. Curriculum vitae together with a brief statement of administrative experience, teaching philosophy, and research activities, and the names of four references should be mailed to: **Dr. C. Joseph Pusateri, Dean of the College of Arts and Sciences, University of San Diego, San Diego, Calif. 92110.** Application deadline is 31 March 1985. *The University of San Diego is an Equal Opportunity/Affirmative Action Employer.*

ENVIRONMENTAL EPIDEMIOLOGIST/ TOXICOLOGIST

Excellent management opportunity in environmental health for M.D. or Ph.D. with degree in toxicology or epidemiology. Requires 3 to 5 years of experience conducting epidemiology studies of environmental health hazards and their potential impact on human health. Will serve as project director of interdisciplinary teams composed of research scientists, epidemiologists, and other technical specialists assembled to study specific problems. Salary range: \$45,000 to \$52,000 (super-range available for physicians with an appropriate medical specialty or Board eligibility). If interested, send a résumé to: **Raymond W. Thron, Ph.D., Minnesota Department of Health, 717 Delaware Street, SE, Box 9441, Minneapolis, Minnesota 55440, or telephone: 612-623-5320.**

UNIVERSITY OF CALIFORNIA Cooperative Extension

Extension Entomologist—Riverside Campus

Identify economical solutions to pest problems on ornamentals. Graduate education in entomology or closely related. Refer to our ad in the 1 February 1985 issue or contact: **Cooperative Extension Personnel, University of California, Berkeley, Calif. 94720.** Correct closing date: 29 April 1985. Refer to Number A-84-188.

FACULTY POSITION

Tenure-track faculty position at the assistant professor level starting 3 September 1985. Position requires a Ph.D. with experience in molecular genetics and medical microbiology. Teaching, research, and grant-writing experience desirable. Candidate is expected to develop a course in biotechnology and to establish a research program in area of specialty and to assist in teaching medical and general bacteriology. Salary competitive. Submit curriculum vitae, official transcripts, and three letters of reference by 2 April 1985 to:

**M. A. Rouf, Ph.D., Chairman
Department of Biology and Microbiology
University of Wisconsin-Oshkosh
Oshkosh, Wis. 54901**

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FACULTY POSITIONS CELL AND MOLECULAR NEUROSCIENCE Department of Physiology and Biophysics The University of Iowa College of Medicine

We invite applications from individuals with a strong record of innovative research in the areas of molecular, cellular, or genetic neuroscience. We are particularly interested in individuals using current strategies of cell and molecular biology to study the development, regulation, and function of neurotransmitters and neuropeptides. Please send curriculum vitae, description of research plans, and the names of three references to: **Dr. Peter A. Getting, Department of Physiology and Biophysics, The University of Iowa, Iowa City, Iowa 52242.**

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St. Luke's Roosevelt Hospital Center



Respiratory Physiologist

University affiliated medical center in New York City seeks Respiratory Physiologist, with primary interest in research of fluid exchange in the lung. Selected individual should qualify for Assistant Professor tenure track appointment at a major university. We offer an excellent salary and fringe benefits package. Please send resume with salary history and requirements to: **Lorraine Hansen, Administrator, Research Activities and Medical Services, St. Luke's-Roosevelt Hospital Center, Amsterdam Ave & 114th Street, New York, New York 10025.** An Equal Opportunity Employer.

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President



**association of american
medical colleges**

Washington, D.C.

The Executive Council and the Presidential Search Committee invite nominations and applications for the position of President and Chief Executive Officer of the Association.

The Association has as its purpose the advancement of medical education and the Nation's health. In pursuing this purpose, the Association works with many national and international organizations, institutions, and individuals interested in strengthening the quality of medical education at all levels, the search for biomedical knowledge, and the application of these tools to providing effective health care.

The Association represents all accredited United States Medical Colleges and their students through the Council of Deans and the Organization of Student Representatives (OSR), more than 400 teaching hospitals through the Council of Teaching Hospitals; and approximately 80 academic societies in the Council of Academic Societies. The Councils and the OSR have representation in the Assembly, the highest legislative body of the Association, and on the Executive Council, which conducts the Affairs of the Association between the yearly meetings of the Assembly. The Association has national groups relating to specific functions within academic medicine. These groups, which have formal non-voting status in the Association, are: Group on Business Affairs, Group on Medical Education, Group on Institutional Planning, Group on Public Affairs, and the Group on Student Affairs.

The affairs of the AAMC encompass relationships with multiple organizations and constituencies external to the Association that impact medical education and the Nation's health.

Preferred candidates shall, at a minimum, have attained the M.D. degree, and have a distinguished record of scholarly and administrative accomplishment within the framework of academic medicine. The ability to assess the environment, advise on and develop policies, and to develop coalitions and derive consensus both within and external to the Association is an essential characteristic. Candidates must have respect for all segments of the membership, and be capable of maintaining equity for all in the Association. Demonstrated capacity in financial management is a desirable characteristic.

Compensation will be commensurate with the scope of the Association and the responsibilities of the position. Managerial authority will be concordant with responsibilities of a President and Chief Executive Officer. The President is responsible to the Executive Council for the performance of the Association.

Nominations and applications together with the names and addresses of five references will be considered in confidence and should be sent to:

Richard Janeway, M.D.
Chairman, AAMC Presidential Search
Vice President for Health Affairs and Dean
The Bowman Gray School of Medicine
of Wake Forest University
300 South Hawthorne Road
Winston-Salem, North Carolina 27103

The Association of American Medical Colleges is an Affirmative Action, Equal Opportunity Employer. Deadline for receipt of applications or nominations is April 15, 1985.

SENIOR SCIENTIST IMMUNOLOGY

Unigene Laboratories, Inc., a multidisciplinary biotechnology research corporation, is seeking a Ph.D.-level scientist with a strong immunochemistry background, as demonstrated by relevant publications.

The successful candidate will possess extensive experience in antibody/antigen purification and non-radiometric immunoassay formulation and development. Familiarity with the principles and procedures of hybridoma technology is preferred.

Unigene is a sharply-focused, financially secure institution utilizing Molecular Biology, Immunology, Protein Chemistry and Organic Chemistry to conduct state-of-the-art research in the field of human health care. Our ultra-modern research facility is located in Fairfield, New Jersey. The company offers an excellent salary and comprehensive benefits package, including equity participation, along with the opportunity to work in a stimulating research environment which fosters continuing professional development.

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Integrated Ionics Inc. is a new start up venture located in Princeton, New Jersey, developing technology in the area of multispecies chemical microensors. The Company has the following openings available:

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This is a senior management position with responsibility for planning and implementing the marketing programs of the Company, including joint development projects with major corporations. The qualified individual will have a strong technical background, an MBA, commercial development or marketing experience, and preferably knowledge of ion selective electrode/sensor markets and applications.

Director, Industrial Product Development/ Director, Medical Product Development

These are senior research and development management positions with full responsibility for the development programs in industrial and medical applications, respectively. Qualified candidates will have an advanced technical degree and significant experience in developing industrial or medical instrumentation. A background in ion selective electrode or optical sensor technology would be important.

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This is a senior research position with responsibility for the project team developing sensors and monitoring systems for fermentation and bioreactors. The qualified individual will have a PhD in Biochemical Engineering, a strong understanding of the control requirements of bioreactors, and industrial experience in the design and development of instrumentation.

Research Scientists

A number of PhD and MS level sensor development positions are available. Qualified candidates with experience in analytical, physical or clinical chemistry, electrochemistry, membrane science, biochemistry, or chemical engineering, and strong interest in sensor technology should apply.

All interested individuals should send their resume to: **Kathrine Monastero, Personnel Manager, Integrated Ionics Inc., 300 Wall Street, Princeton, NJ 08540.** An equal opportunity employer m/f.



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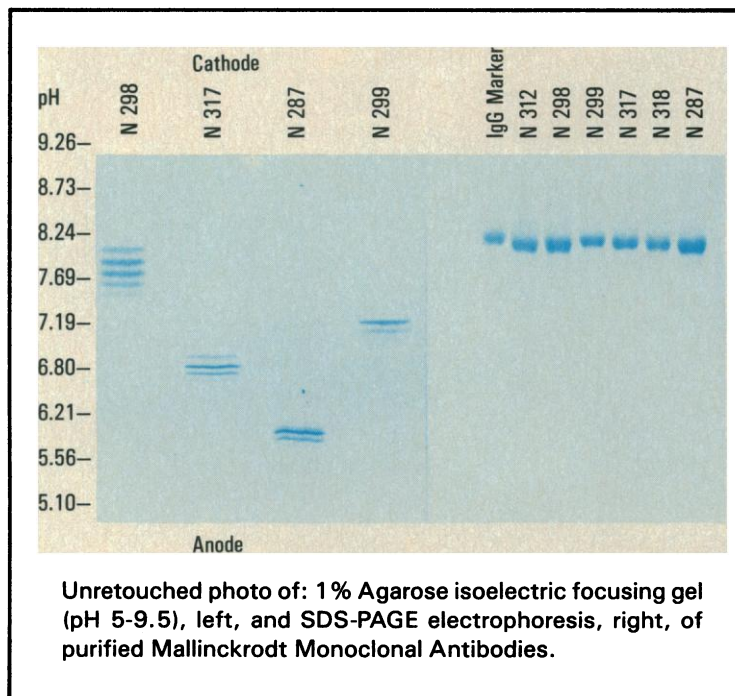
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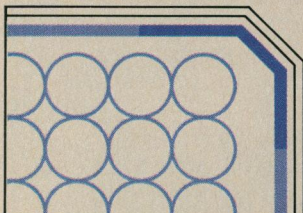
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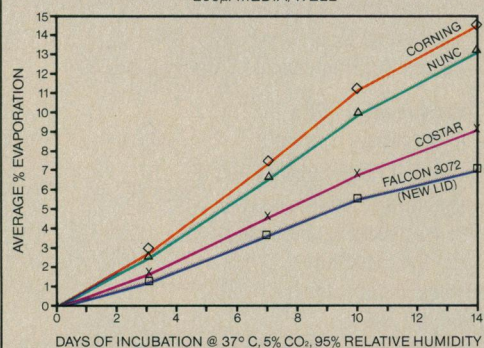


Labyrinth Air Passage System

results, you discover discrepancies between wells of the plate.

This may have happened because either (1) media evaporation in the outer wells differed significantly from that in the inner wells, or (2) the overall plate evaporation was excessive. This evaporation concentrated the media constituents, which in turn caused an increase in their osmolarities. Maybe, out of frustration, you even stopped using

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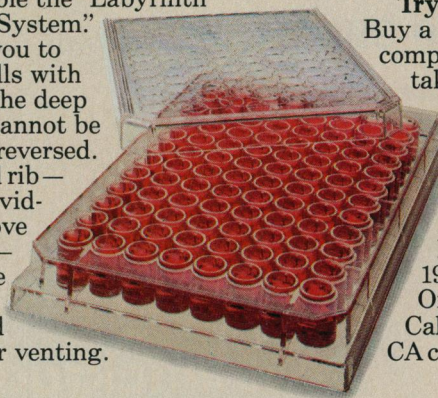
The wells are identified and cross-indexed with an alpha-numerical grid system to help you locate each well quickly and easily. Also, the plate and lid are compatible with automatic dispensing instruments. The plates are tissue culture-treated to improve cell growth characteristics, and radiation-sterilized. They are available individually wrapped or five plates per bag.

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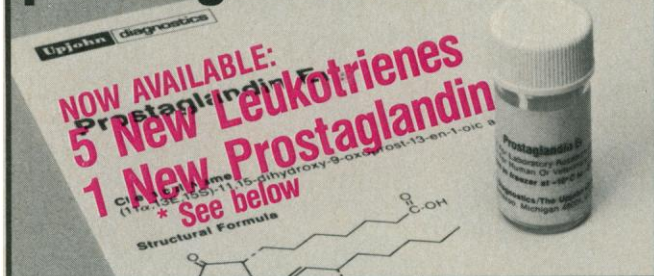
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POSITIONS OPEN

THE UNIVERSITY OF CHICAGO DIVISION OF THE BIOLOGICAL SCIENCES

The Department of Pharmacological and Physiological Sciences is considering **FACULTY APPOINTMENTS** from qualified candidates with research interests in the area of **CELL PHYSIOLOGY**. The successful applicant will probably use electrophysiological or cell biological techniques to study cellular function at a fundamental level, with special interest in membrane channels and transport systems in cellular regulatory processes. Overlapping interests in pharmacology and neurobiology are desirable. Applicants should provide a brief statement of research interests and plans, curriculum vitae and bibliography, and the names of three individuals who are willing to write letters of recommendation to:

Cell Physiology Search Committee
Department of Pharmacological and
Physiological Sciences
The University of Chicago
947 East 58 Street
Chicago, Illinois 60637

THE UNIVERSITY OF CHICAGO DIVISION OF THE BIOLOGICAL SCIENCES

The Department of Pharmacological and Physiological Sciences is considering **FACULTY APPOINTMENTS** from qualified candidates with research interests in the area of **NEUROBIOLOGY**. *From the time of its original charter, the principle of the University of Chicago has been to appoint scholars without regard to race, color, religion, sex, or national origin.* Applicants should provide a brief statement of research interests and plans, curriculum vitae and bibliography, and the names of three individuals who are willing to write letters of recommendation to:

Neurobiology Search Committee
Department of Pharmacological and
Physiological Sciences
The University of Chicago
947 East 58 Street
Chicago, Illinois 60637

FACULTY POSITION—The Department of Physiological Optics is seeking a vision scientist for a faculty position at the assistant or associate professor level. The successful candidate will be expected to teach professional level and graduate level courses in areas related to eye movements. Candidates should have a Ph.D. in a related discipline, postdoctoral experience, and a strong record of accomplishment in research. Application should be made before 10 May 1985. Send curriculum vitae to: **Dr. Graeme Wilson, Department of Physiological Optics, School of Optometry, The University of Alabama at Birmingham, Birmingham, Alabama 35294.** *An Affirmative Action/Equal Opportunity Employer*

The Department of Neurology at the University of Michigan is seeking applications for tenure-track, university-based **FACULTY POSITIONS** at the instructor to assistant professor level. Applicants should be Board-qualified or eligible in neurology. Curriculum vitae and three letters of recommendation should be sent to: **Kenneth L. Casey, M.D., Chairman, Neurology Recruitment Committee, Neurology Service, Veterans Administration Medical Center, 2215 Fuller Road, Ann Arbor, Michigan 48105.** *The University of Michigan is an Equal Opportunity/Affirmative Action Employer.*

FISH ECOLOGIST

The Savannah River Ecology Laboratory of the University of Georgia is now accepting applications for a full-time research position. Candidate must be a U.S. citizen with postdoctoral experience beyond the Ph.D. and have a strong open literature publication record. Program stresses interest in developing a long-term, field-oriented, research program on the ecology of freshwater fish, emphasizing population or community characteristics and habitat relations. Experience in related fields such as statistics, toxicology, aquatic habitat analysis, and/or genetics is strongly recommended. Rank and salary are negotiable. Applicants should send a letter of application, a brief description of future research interests, curriculum vitae, reprints, and the names, addresses, and telephone numbers of four references to: **Dr. William D. McCort, Chairman, Fish Ecologist Search Committee, Savannah River Ecology Laboratory, Drawer E, Aiken, South Carolina 29801.** Applications will be accepted until 5 April 1985. *The University of Georgia is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

UNIVERSITY OF CALIFORNIA, IRVINE DEPARTMENT OF MATHEMATICS IRVINE, CALIFORNIA 92717

TWO FACULTY POSITIONS at the level of assistant professor in applied mathematics, available beginning academic year 1985-1986. A Ph.D. degree, publications, and evidence of active interest in quality teaching are required. Examples of preferred research areas: partial differential equations, nonlinear phenomena, applied functional analysis, and numerical analysis. Send applications, curriculum vitae, and the names of three or more references to: **Professor Martin Schechter, Department of Mathematics, University of California, Irvine, Calif. 92717.** *An Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITIONS IN MOLECULAR BIOLOGY AND BIOCHEMISTRY. The Department of Biological Chemistry has developed strong research groups in the fields of DNA structure and dynamics, RNA synthesis and gene regulation, cellular growth factors, and membrane dynamics and function. We now wish to reinforce our commitment to excellence in these areas by offering tenure-track faculty appointments at the assistant or associate professor level, depending upon experience. Challenging and productive collaborative opportunities exist, both within the department and throughout the College of Medicine. Candidates are expected to develop strong, extramurally funded research programs. Applications are solicited from qualified individuals from all research areas of molecular biology and biochemistry related to the above fields. Applicants should provide detailed outlines of future research plans, as well as curriculum vitae, and should arrange to have letters sent from three references. Apply to: **Harry Rudney, Ph.D., Director, Department of Biological Chemistry, University of Cincinnati, College of Medicine, 231 Bethesda Avenue, Cincinnati, Ohio 45267-0522.** *An Affirmative Action/Equal Opportunity Employer.*

Head, Division of Science

Search committee seeks a division head for the Division of Science at Northeast Missouri State University, Kirksville. Northeast recently gained national recognition in being the co-recipient of the G. Theodore Mitau Award for Innovation and Change in Higher Education. Recognition has also come at the state level in the recommendation by the Commission of Higher Education that Northeast become the premier liberal arts and science university in Missouri.

The Science Division is one of 13 academic divisions and serves approximately 600 majors with 35 full-time faculty members representing the following disciplines: biology, chemistry, physics and science education. An MS program is offered in biology plus an MA program in science education, with emphasis in a variety of science options.

Applicants must have an earned doctorate in a science field with an outstanding academic record and demonstrated scholarship. Candidates with documented skills in leadership, administration, curriculum development, research and grantsmanship are desired. Salary is negotiable based on qualifications and experience.

Please forward letter of application, curriculum vitae, academic transcripts (undergraduate and graduate) and three letters of reference to: **Dr. Gary Sells, Search Committee, Division of Science, Northeast Missouri State University, Kirksville, MO 63501.**

Application deadline is March 15, 1985, or until position is filled.

NMSU

NMSU is an equal opportunity employer.

MICROBIOLOGIST

CPC International has an opening for a microbiologist in the Research/Development Biotechnology Department.

The successful candidate will have a minimum of M.S. degree or equivalent (B.S. with 2 years of experience) in microbiology with a strong background in enzymology. Responsibilities will include microbial enrichment, isolation and characterization techniques, as well as protein isolation and characterization.

CPC International is an established food company with a major research center in suburban Chicago.

Applicants should send résumé in complete confidence to:

Manager, Personnel Services
Corn Products, a Unit of CPC International
P.O. Box 345
Summit-Argo, Illinois 60501
Equal Opportunity Employer, M/F

POSITIONS OPEN

Tenure-track faculty position, Veterinary Pathology, University of Georgia. Applicants should possess the D.V.M./Ph.D. or Ph.D. or equivalent training and have demonstrated interest in research on mechanism of disease. **IMMUNOPATHOLOGY/MOLECULAR BIOLOGY** training preferred. Primary responsibilities are development of strong, fundable research program and participation in graduate training. Rank and salary dependent on qualifications. Applications accepted until 15 March 1985. Send curriculum vitae and names of three references to: **Dr. Wayne Crowell, Department of Pathology, College of Veterinary Medicine, University of Georgia, Athens, Ga. 30602.**

An Affirmative Action/Equal Opportunity Employer

METEOROLOGIST

The Pennsylvania Department of Environmental Resources is recruiting to fill an **air pollution meteorologist** position in Harrisburg. This is a supervisory position located in the Bureau of Air Quality Control and specializes in mathematical simulations and dispersion modeling. It requires 3 years of professional meteorological experience and a bachelor's degree in meteorology. Salary is in the mid-\$20,000's plus full state benefits. For an application packet, telephone: **Jim Spontak at 717-783-2021.**

Affirmative Action/Equal Opportunity Employer

MOLECULAR BIOLOGIST

The University of Texas System Cancer Center (UTSCC)
Science Park-Research Division

Applications are invited for a faculty position (assistant or associate professor level) in a multidisciplinary research laboratory studying cellular and molecular mechanisms of carcinogenesis. Research programs at Science Park, located in Buescher State Park 40 miles west of Austin, include somatic cell genetics, DNA repair and mutagenesis, carcinogen metabolism and adduct formation, tumor promotion, mechanisms of lymphomagenesis, normal and tumor cell differentiation, biochemical genetics and growth factors. Candidates should have an independent research program that would interface with one or more of the above areas as well as a record of peer reviewed grants and research publications. Preference will be given to individuals who have extensive expertise and commitment in the area of molecular biology. The Science Park provides competitive salary and benefits, a stimulating research environment, postdoctoral and graduate students, and opportunities for interaction with faculty at nearby institutions including the University of Texas Health Science Center in Houston, University of Texas at Austin, and Texas A&M University. Interested applicants should send complete curriculum vitae, the names of three references, and a brief statement of research interests to: **Dr. Thomas J. Slaga, Director, UTSCC, Science Park-Research Division, P.O. Box 389, Smithville, Tex. 78957; telephone: 512-237-2403.** *An Equal Opportunity/Affirmative Action Employer.*

NEUROPHYSIOLOGIST: ASSISTANT PROFESSOR

The Department of Physiology at Jefferson Medical College, Philadelphia, Pennsylvania, seeks a full-time, 12-month faculty position for a neurophysiologist-neuroscientist at the assistant professor level starting 1 September 1985. Excellent space and working conditions are available. Candidates should have a Ph.D. or M.D. degree and 2 to 3 years of relevant postdoctoral experience. Investigators in the area of opiate receptors, neural control of cardiovascular or pulmonary function, autonomic neurophysiology, neurochemistry or some other area compatible with ischemia-shock research are preferred. Evidence of independent research and ability to develop grant applications is important. Applicants should send their curriculum vitae, including a statement of their research interests and experience, and arrange to have three letters of recommendation sent to: **Dr. Allan M. Lefter, Chairman, Department of Physiology, Jefferson Medical College, Thomas Jefferson University, 1020 Locust Street, Philadelphia, Pa. 19107.** *An Equal Opportunity/Affirmative Action Employer.*

NEUROSCIENTIST with Ph.D. and experience in single-unit recording and/or microiontophoresis required to collaborate in ongoing electrophysiological and neurochemical studies of respiration-related brainstem neurones. Position is available immediately. Send curriculum vitae and names of three references to: **Dr. J. L. Henry, Department of Physiology, McGill University, 3655 Drummond Street, Montreal, Quebec, Canada H3G 1Y6,** by 30 March 1985.

ASSOCIATE PROFESSOR/PROFESSOR AND DIRECTOR, GERIATRIC RESEARCH, EDUCATION AND CLINICAL CENTER—THE VETERANS ADMINISTRATION MEDICAL CENTER AND DEPARTMENT OF MEDICINE AT THE UNIVERSITY OF FLORIDA COLLEGE OF MEDICINE.

Applicants are requested for the position of director of the newly established Geriatric Research, Education and Clinical Center, in conjunction with the Veterans Administration Medical Center and the University of Florida College of Medicine. All individuals with an M.D. or Ph.D. degree with experience in research and geriatric medicine are encouraged to apply. This attractive academic position is a tenure-accruing appointment with the University of Florida College of Medicine with strong interdisciplinary relationships with many departments in the College of Medicine, other colleges at the University of Florida and the Veterans Administration Medical Center.

The applicants' experience should be in pharmacology with specific interest in therapeutics and geropharmacology. Experience and interest in internal medicine, neurology, family practice, community medicine, or psychiatry are acceptable.

The position will have overall responsibility for the geriatric patient care in the Geriatric Research Education and Clinical Center, as well as the responsibility for the research and multidisciplinary geriatric training programs. The research and education program and the clinical program will involve not only biomedical fields but also psychosocial as well as related professional fields. Salary is negotiable, commensurate with training and experience. The anticipated starting date is 1 July 1985.

Interested individuals should send their curriculum vitae by 15 March 1985 to:

J. Lee Dockery, M.D.
Associate Dean
Chairman, Search Committee
Box J-215, JHMH
University of Florida College of Medicine
Gainesville, Florida 32610

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

**HEAD—DEPARTMENT OF ASTRONOMY
UNIVERSITY OF ILLINOIS
AT URBANA—CHAMPAIGN**

The Department of Astronomy at the University of Illinois at Urbana-Champaign conducts an active program of research and education in various areas of astronomy and astrophysics. It has 17 graduate students and one postdoctoral research worker, in addition to 13 tenured or tenure-track faculty. The head of the department is its chief executive officer, with responsibility for administrative and budgetary decisions and for leading the faculty in the development of research and educational policy. The head reports to the Dean of the College of Liberal Arts and Sciences.

The Department of Astronomy enjoys close support with interested colleagues in the Departments of Physics and of Electrical and Computer Engineering. The anticipated arrival of a supercomputer (CRAY X-MP) in the newly established Center for Supercomputing Applications is expected to increase the scope and range of research projects in observational and theoretical astronomy.

The Search Committee seeks candidates with a distinguished research record in astronomy or astrophysics who will continue active research while serving as head of astronomy. Commitment is expected to all areas of research and education pursued in the department. The head will hold a tenured professorial rank in the Department of Astronomy. Salary is negotiable. Responsibilities are to begin on 21 August 1985, or some time later if circumstances should require it.

The closing date for the receipt of nominations, or applications to be accompanied by a current résumé and three letters of recommendation, is 15 April 1985. All applications received by this date will receive full consideration. Interviews may be conducted during the intervening period, but no appointment will be made until after this date.

Search Committee for the head of astronomy: D. G. Ravenhall, Chair (Physics), Richard M. Crutcher (Astronomy), James B. Kaler (Astronomy), Larry L. Smarr (Astronomy), and William D. Watson (Astronomy and Physics).

Applications should be sent to: **D. G. Ravenhall, 237b Loomis Laboratory, University of Illinois at Urbana-Champaign, 1110 West Green Street, Urbana, Ill. 61801; telephone: 217-333-3865.**

An Affirmative Action/Equal Opportunity Employer

The Office of International Cooperation and Development, U.S. Department of Agriculture, has established an automated skills inventory system (ASIST) to identify **candidates for technical agricultural assistance and international agricultural training assignments.** Projects administered by the agency are conducted in the United States and overseas and vary in duration from several days to a year. Due to time constraints, the agency is frequently unable to publish individual solicitations for response. The kinds of skills and experience frequently required include: accounting; agricultural commodities/brokerage; agricultural economics; agricultural engineering; agricultural extension; agricultural management; agricultural marketing; agricultural policy; agricultural science; agricultural statistics; agro-industries; animal breeding; audio-visual materials development and presentation; banking (regional and multinational); business administration; computer science; conservation; continuing education; counseling; economic planning; economic statistics; economics; (i) consumption economists to analyze food expenditure/consumption data and/or assist in training host country personnel in such techniques and (ii) project economists to design food consumption/nutrition components of evaluation studies for agricultural projects and to evaluate the consumption impact of agricultural projects; educational administration; energy; family planning; finance; financial accounting; food policy analysis; food science; food technology; foreign languages; forest industries; forestry; library science; management accounting; management systems/techniques; marine biology; marine fisheries; meteorology; natural resource management; nutrition; oceanography; organizational development; political science; process consulting; project analysis; project design/planning; project evaluation; project management; psychology; public administration; public finance; public health; radio/TV production; research and development policy; sociology; surveying/mapping; systems analysis/design; taxonomy; technology transfer; team building; technical assistance; technical writing (financial/economic); telecommunications; trade policy; training; and writing and editing. For a complete listing of required skills, a listing of anticipated projects, application forms and additional information, contact: **The ASIST Coordinator, U.S. Department of Agriculture, Office of International Cooperation and Development, Room 4119 Auditors Building, 201 14th Street, SW, Washington, D.C. 20250.**

The First Carolina Conference on
Molecular Neurobiology

The Curriculum in Neurobiology of the University of North Carolina at Chapel Hill joins the Program in Molecular Biology and Biotechnology to present the first Carolina Conference on Molecular Neurobiology.

This meeting will be held June 2 through 5 at the Quail Roost Conference Center, about 20 miles from the Chapel Hill campus. The chairs will be Irwin Levitan of Brandeis University (Ion Channels), Charles F. Stevens of Yale University (Acetylcholine Receptor), Edward Herbert of the University of Oregon (Neuropeptides), O. Humberto Viveros of Burroughs-Wellcome Research Laboratories (Catecholaminergic Enzymes), and John P. Perkins of Yale University (Molecular Mechanisms for Transmembrane Signaling). The total cost for room, board, and registration is \$300.00. Apply by sending a brief letter outlining your interest in attending this conference and include your complete address and telephone number to Diane Lawton, Program in Molecular Biology and Biotechnology, Fourth Floor Swing Building 217H, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514. Applications close April 1, 1985. The organizers of the conference are: Jean M. Lauder and P. Kay Lund, co-chairs; Raymond J. Dingleline; and Pierre Morell, Curriculum in Neurobiology Director—all of the University of North Carolina at Chapel Hill.

**VACANCY ANNOUNCEMENT
U.S. Environmental Protection Agency
An Equal Opportunity Employer
Washington, D.C. 20460**

Applications are invited for the position of **DIRECTOR, ACID DEPOSITION AND ATMOSPHERIC RESEARCH DIVISION**, Office of Research and Development, Washington, D.C., ES-1301. It is a permanent, full-time position; salary range of \$61,296 to \$72,300.

POSITION DUTIES: As division director, ADARD, responsible for developing (i) program strategies, (ii) major program objectives, (iii) required resource levels, (iv) reviews and evaluations of the ongoing research program activities, and (v) assessments of the outputs produced for the acid deposition and atmospheric research areas. Serves as principal scientific advisor to the Office Director and Assistant Administrator for ORD in the areas of acid deposition and atmospheric research. Directs and manages programs which encompass scientific, social and political elements of great complexity and which have a clear national priority and an international impact.

QUALIFICATIONS: Applicants must meet Federal Personnel X-118 Qualification Requirements in the general physical sciences and must possess substantial professional experience demonstrating the ability to perform in a senior executive position. The following mandatory factors are required to be minimally qualified for the position: (i) Demonstrated knowledge and experience in planning, developing, implementing, assessing and directing national research programs, policies, strategies, legislative initiatives, procedures and guidelines for complex, multi-level, multimission organizations. (ii) Demonstrated leadership in a research activity related to environmental problems. (iii) Experience in managing and directing a multidisciplinary organization composed of at least 12 or more scientific, professional and support personnel including knowledge of equal employment goals and objectives. (iv) Demonstrated experience in dealing with and negotiating with high level officials in the federal, state and local organizations, the national research community, and other private and public organizations in order to secure their cooperation and to interpret and defend the Agency's point of view.

HOW TO APPLY: A copy of your SF-171 must be sent to: **Office of Human Resources Management, Senior Executive Service (PM-224), Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460; Attention: Mrs. Edna Morse. APPLICATIONS MUST BE POST-MARKED BY 8 MARCH 1985.**

POSITIONS OPEN

MOLECULAR BIOLOGIST

The Oklahoma Medical Research Foundation is a growing research institute located on the campus of the University of Oklahoma Health Sciences Center. The research programs of the Foundation include both basic and clinical biomedical sciences in cardiovascular and cancer research. The Foundation has a postgraduate program in various fields through the affiliation with the Graduate College of the University of Oklahoma.

Applications are invited for a staff position open presently in the Protein Research Program, Oklahoma Medical Research Foundation. The position is not limited on academic ranking. Preference will be given to candidates with an established record of research excellence and productivity. We are particularly interested in scientists who are conducting research in the area of modern molecular biology, including recombinant DNA technology, related to the proteins. Applications will be accepted until suitable candidates are identified. Please submit curriculum vitae, a brief description of current and future research, and the names of three individuals who would be willing to provide letters of reference to: **Dr. Jordan Tang, Head, Protein Research Program, Oklahoma Medical Research Foundation, 825 Northeast 13 Street, Oklahoma City, Okla. 73104. Oklahoma Medical Research Foundation is an Equal Opportunity/Affirmative Action Employer.**

PHYSICAL ANTHROPOLOGIST for a teaching position as assistant professor (tenure track) pending budgetary approval. The opening is for fall 1985. Ph.D. required. Preference is for a paleoanthropologist or primatologist. Send curriculum vitae by 1 April 1985 to: **Chairman, Department of Anthropology (m/c 027), University of Illinois at Chicago, P.O. Box 4348, Chicago, Illinois 60680. The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.**

PHYSICIST/ENGINEER required with experience in optical measurement techniques for determining species concentrations. Education to the Ph.D. level is desirable and an ability to function as a principal investigator a necessity. Small, growing R&D company in southern New England is interested in developing medical diagnostic equipment. *Equal Opportunity Employer, M/F. Résumé to:*
Box 48, SCIENCE

Immediate opening for **PLANT RESEARCH TECHNICIAN** to assist in space-related research in plant physiology. B.S. degree in plant physiology or related sciences with minimum of 1 to 2 years of laboratory experience. Duties include participation in anatomical, biochemical, and biophysical research of plant growth and development. Submit résumé to: **J. R. Puleo, BIO-1, Kennedy Space Center, Fla. 32899, by 11 March 1985.**

POSTDOCTORAL POSITION available immediately to study transposable elements in mammalian genomes. This grant-funded position pays \$20,000 per year. The research program is part of an expanding effort at the Children's Hospital Research Foundation in the area of genome structure and function. Experience in recombinant DNA technology helpful. Send curriculum vitae and names of three references to: **Craig Duncan, Ph.D., Basic Science Research, Children's Hospital Research Foundation, Elland and Bethesda Avenues, Cincinnati, Ohio 45229.**

POSTDOCTORAL POSITION available 1 June 1985 to study the structure, function, and molecular evolution of proteins of the arginine biosynthetic pathway using recombinant DNA techniques. Training or some background in molecular biology or biochemistry preferred. Send curriculum vitae and names of references to:

Dr. Carol J. Lusty
Molecular Genetics Laboratory
Public Health Research Institute
of the City of New York, Inc.
455 First Avenue
New York, N.Y. 10016
An Equal Opportunity Employer

POSTDOCTORAL RESEARCH ASSOCIATE. Experience with isolation of cell membranes and subcellular organelles and expertise in isolation and characterization of tissue lipids at microlevels.

Box 33, SCIENCE

POSITIONS OPEN

POSTDOCTORAL OPPORTUNITY IN CYTOSKELETAL PROTEIN BIOLOGY available immediately to become integral part of innovative group examining the regulation of cell shape and movement, particularly by tropomyosin isoforms. Unique library of hybridoma antibodies already prepared. [see *Trends in Biochemical Sciences* 9, 361 (1984)]. Protein biochemistry experience necessary. Inquire: **Dr. M. Payne, Anatomy-B.S.B., New York Medical College, Valhalla, N.Y. 10595.**

POSTDOCTORAL POSITION available to study the role of carbohydrate-method postsynthetic modification of proteins in diabetes and aging. Applicants should have a recent Ph.D. in biochemistry or chemistry with background in protein chemistry. Send curriculum vitae and names of three references to: **Dr. Vincent M. Monnier, Institute of Pathology, Case Western Reserve University, Cleveland, Ohio 44106. An Equal Opportunity/Affirmative Action Employer.**

TWO POSTDOCTORAL POSITIONS available immediately, one to examine protein secretion and the signal recognition particle, the other to investigate proteins and cell surface receptors involved in the regulation of blood coagulation. Experience with proteins, nucleic acids, and/or fluorescence spectroscopy preferred. Send résumé, names of three references, and brief summary of research experience to: **Dr. Arthur E. Johnson, Department of Chemistry, University of Oklahoma, Norman, Okla. 73019.**

POSTDOCTORAL POSITION now open for recent Ph.D. to study the cytoskeleton (microtubules and filaments) in normal/diseased cell states (cell and molecular biology, biophysics). Experience is desirable in protein- and immuno-(+ monoclonal) chemistry, molecular biology, or light/electron microscopy. Send résumé and three letters of reference to: **Dr. Richard Linck, Department of Anatomy, University of Minnesota, 321 Church Street, Minneapolis, Minn. 55455.**

POSTDOCTORAL POSITION: Immediate opening for a recent Ph.D. with strong background in biochemistry and synthetic organic chemistry. Work involves isolation and characterization of cross-linked aromatic peptides and synthesis of model aromatic-amino acid adducts. Salary competitive. Send résumé and names of three references by 15 March 1985 to: **Dr. M. Sugumaran, Department of Biology, University of Massachusetts at Boston, Mass. 02125. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE

A position is available immediately to identify and study genes which are important in the early stages of chick limb development. A Ph.D. in biological science is necessary. Experience in recombinant DNA techniques and cell culture and an interest in developmental biology are desirable.

Send curriculum vitae and three letters of recommendation or names, addresses, and telephone numbers of three references to: **Dr. William B. Upholt, Department of Oral Biology, University of Connecticut Health Center, Farmington, Conn. 06032.**

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

POSTDOCTORAL RESEARCH ASSOCIATE. Major responsibility-characterization of enzymic lipid peroxidation system of skeletal muscle. Qualifications: Ph.D. in food science or biochemistry. Experience in membrane and protein chemistry preferred. Salary is commensurate with qualifications. Send curriculum vitae and three letters of recommendation to: **Dr. Herbert O. Hultin, University of Massachusetts Marine Station, P.O. Box 128, Lanesville, Gloucester, Mass. 01930. Deadline: 1 April 1985. An Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH POSITION

Background in microbiology and plant sciences appropriate. To pursue industry-supported project concerned with bacterial-plant interactions using bacterial macrofibers. Please direct curriculum vitae plus supporting materials by 8 March 1985 to:

Professor N. H. Mendelson
University of Arizona
425 Agricultural Science Building
Tucson, Ariz. 85721
Telephone: 602-621-7241

Affirmative Action/Equal Opportunity Employer

POSITIONS OPEN

POSTDOCTORAL POSITIONS to participate in ongoing studies of electron microscopy of parasitic diseases. A background in electron microscopy and immunology will be desirable. Please send curriculum vitae and two or three letters of reference to: **Dr. Masamichi Aikawa, Institute of Pathology, Case Western Reserve University, Cleveland, Ohio 44106. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately to study gene organization and expression in ocular tissues. Experience in nucleic acids and/or vision biochemistry desirable. Projects under investigation include cloning and characterization of lens protein genes. Send résumé and three letters of reference to: **Dr. Suraj P. Bhat, Vision Molecular Biology, Jules Stein Eye Institute, University of California, Los Angeles Medical Center, Los Angeles, Calif. 90024. Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION IN NEUROBIOLOGY available for an individual interested in the mechanism of action of benzodiazepines and beta-carbolines as modulators of GABA action in brain and spinal cord cell cultures. Techniques used include radioligand binding, photoaffinity labeling, protein chemistry, and computer analysis. Send curriculum vitae to: **Dr. David H. Farb, Box 5, Department of Anatomy and Cell Biology, The State University of New York, Downstate Medical Center, Brooklyn, N.Y. 11203. Telephone: 718-270-1308.**

POSTDOCTORAL RESEARCH ASSOCIATES

Positions for NCI postdoctoral training program in molecular and cellular mechanisms of carcinogenesis are available at The University of Texas Systems Cancer Center (UTSCC)—Science Park. Research programs focus on the following areas: somatic cell genetics, DNA repair and mutagenesis, carcinogen metabolism and adduct formation, tumor promotion, mechanisms of lymphomagenesis, normal and tumor cell differentiation, biochemical genetics, growth factors. Current approaches in whole animal and in vitro culture systems include: flow cytometry (BD FACS 440), HPLC, monoclonal antibody production, Southern blot analysis and DNA sequencing, isoenzyme analyses, and electron microscopy. Applicants must be U.S. citizens of permanent residents and have a Ph.D., M.D., or D.V.M. degree. For application forms, contact: **Dr. Thomas J. Slaga, Director, UTSCC, Science Park—Research Division, P.O. Box 389, Smithville, Texas 78957; telephone: 512-237-2403. An Equal Opportunity/Affirmative Action Employer.**

POSTGRADUATE LEVEL POSITION IN NEUROBIOLOGY

Immediate vacancy at the Veterans Administration West Side Medical Center, Chicago, Illinois, to study anatomical, biochemical, and behavioral aspects of neural tissues transplanted between animals. Background in cell biology with experience in electron microscopy desirable. Individuals at the Ph.D. level are encouraged to apply. Position is for a 2-year term with possibility of renewal for an additional 2 years. Salary: \$21,066 per annum, with federal benefits. For further details, contact: **Andrew Waters, Personnel Service, telephone: 312-666-6500, Extension 2482, Monday to Friday, 8 a.m. to 4:30 p.m.; or write to:**

VA WEST SIDE MEDICAL CENTER
Personnel Service (05)
[or Mark J. Perlow, M.D.
Neurology Service (127)]
820 South Damen Avenue
Chicago, Illinois 60612
Equal Opportunity Employer

RESEARCH ASSISTANT. Candidate will apply knowledge of the (i) production of monoclonal antibody hybridomas against tumor antigens or cells; (ii) tissue culture maintenance; (iii) perform experiments related to tumor or cancer research; (iv) development of new system to grow tumor cells in vitro; (v) screen monoclonal antibodies by immunological techniques; (vi) general laboratory work (for example, preparation of reagents, solution, media, sterilization, as well as quality control). Requires: master's degree in life science or immunology. Graduate work must include research in the production of monoclonal antibody hybridomas. Salary offer: \$19,000 per year; 40 hours per week; 8:30 a.m. to 4:30 p.m., Monday to Friday. Send résumé to: **Dr. Bendicht U. Pauli, Professor of Pathology and Director of Research, Pathology Department, Rush-Presbyterian-St. Luke's Medical Center, 1753 West Congress Parkway, Chicago, Illinois 60612.**

CHEMIST/BIOCHEMIST

We are a leading manufacturer of research chemicals with a challenging opportunity for a qualified Chemist/Biochemist to focus on Research and Development of New Product Applications. The background of the qualified candidate must include a PhD and 2-3 years post-doctoral or industrial experience in the chemical synthesis of oligonucleotides. Experience in automated DNA synthesis, DNA sequence analysis, HPLC, and analytical instrumentation is desirable. Successful candidates must possess strong verbal and written skills and working knowledge of current oligonucleotide research applications. Salary and benefits are commensurate with experience. Interested applicants should send resume, including salary history and expectations to:

SIGMA CHEMICAL COMPANY

Ronald Harris
P.O. Box 14508
St. Louis, MO 63178

Equal Opportunity Employer

PROGRAM MANAGER PHYSICAL SCIENTIST

The Air Force Office of Scientific Research, Air Force Systems Command, located at Bolling Air Force Base in Washington, DC, invites applications from qualified U.S. citizens to fill the position of Program Manager in signal processing sciences. The successful applicant plans and manages the United States Air Force program of basic research contracts and grants in the multi-disciplinary areas including theory and application of signal processing architectures and algorithms, electrical and electronic systems sciences, and network and communication theory. Additional knowledge of solid state electronics and superconductive signal processing will be considered. It is desired that the incumbent possesses a PhD in Electrical Engineering or Physics or equivalent experience. The position is career civil service GM-13 (\$37,599-\$48,876 per year) or GM-14 (\$44,430-\$57,759 per year) depending on qualifications. No prior Government service is required. Send Office of Personnel Management Standard Form 171, "Personal Qualifications Statement," and/or resume, and list of publications to:

Civilian Personnel Office
1776 ABW/DPCA-85-4
Attn: Mrs. Hittinger
Andrews AFB, MD 20331

Include Announcement #100-85 on your applications.

Applications must be received by March 29, 1985.

AN EQUAL OPPORTUNITY EMPLOYER.

Palmer College of Chiropractic

SEARCH CONTINUED

CHALLENGING OPPORTUNITY TO DIRECT EXPANDING PROGRAM IN RESEARCH AT PALMER COLLEGE OF CHIROPRACTIC



Palmer College of Chiropractic, the world's first and largest institution for chiropractic education, is seeking a Director of Research and Graduate Study who has exceptional ability to establish and develop a substantial new research program. The program should place the College in the forefront of research that is directly or indirectly relevant to chiropractic practice, including neurobiology, spinal biomechanics, reflex neurophysiology as well as relevant biomedical disciplines.

Responsibilities of the Director will include the development and implementation of plans for research growth, recruitment and direction of new research faculty and staff, development of a Ph.D. graduate study program with cooperating universities, overall management of the College budget for research and research training, supervision of current research and design and establishment of new laboratory facilities in existing space. The Director should also maintain support for personal research from extramural grants and assist faculty in obtaining such grants for their research.

Substantial intramural financing of the program is available for facility improvement, project initiation, grant sharing, and graduate fellowships. An administrative assistant or executive secretary, and laboratory research associate will be provided to assist the Director.

The Directorship is supported with a direct salary of approximately \$70,000. A generous fringe benefit package is also offered.

Applicants should currently be conducting research with substantial funding by a national agency such as NIH, and have a strong record of publication. (Experience and/or expertise with clinical research is preferred.)

An application should include a statement of personal qualifications for the position, curriculum vitae (including list of publications and research grants), reprints of representative publications and references. **Send applications, nominations or make inquiries to: Mr. Laurie Tassell, Chairman of Search Committee for Director of Research, Palmer College of Chiropractic, 1000 Brady Street, Davenport, Iowa 52803. 800-553-8058. Applications close April 12, 1985. Equal Opportunity Employer.**

Post Doctoral Scientist Pathology

As part of our expanding R&D activities in biotechnology at SmithKline & French Laboratories, the Department of Pathology is seeking an outstanding scientist to join a collaborative group investigating the effects of prolonged stimulation of the mononuclear phagocyte system (MPS). The successful candidate will possess a working knowledge of the MPS *in vivo* and *in vitro* and will be expected to conduct investigations leading to significant scientific publications. Collaboration with scientists working on related problems in other departments at SK&F and in the scientific community at large will be encouraged. The appointment is for one year, renewable for a second year on mutual agreement.

The successful candidate will:

- determine if activation by chemically defined biologic response modifiers (BRM), passively targeted to the MPS with particulate drug carriers, can be maintained for prolonged periods.
- determine if prolonged stimulation of the MPS results in significant adverse effects or modifies the course of intercurrent disease.

Candidates are required to have:

- a Ph.D. in Immunology, Experimental Pathology or a related discipline.
- 0-3 years postdoctoral research experience.
- experience with *in vitro* macrophage methodology including tumoricidal or bactericidal assay systems and cell separation techniques.

Candidates with experience with BRMs and/or drug carriers in *in vivo* murine systems are strongly urged to apply.

For confidential consideration, send your resume and names of three references to: Mr. Walter B. Flagg, Senior Employment Consultant, **SmithKline Beckman Corporation**, 1550 Spring Garden Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/H/V.

SK&F
A SmithKline Beckman Company

POSITIONS OPEN

PRIMATE PATHOLOGIST

The Oregon Regional Primate Research Center has an opening for a veterinary pathologist with demonstrated research capabilities. ACVP Board-certification is preferred, but Board-eligible individuals will be considered. Experience with laboratory animals and a Ph.D. degree are desirable. The principal fields of research at the Center are reproductive biology, immunology, diabetes, retroviral infections, and neurobiology. Applicants with expertise in virology or neuropathology will be given particular consideration. The Portland area offers opportunities for collaborative research in the neurosciences. Joint academic activities are encouraged at the Oregon Health Sciences University and the College of Veterinary Medicine at Oregon State University. The service responsibilities include training of a resident, an autopsy service (150 cases per year), supervision of a program of tissue distribution, and consultation with other researchers on the Center staff. The clinical staff includes a veterinarian certified in laboratory medicine, a veterinary surgeon, and an M.D. pathologist. The level of appointment is contingent on the applicant's qualifications, with advanced levels requiring a strong record of publication and grant support. *The Center is an Equal Opportunity Employer.* Qualified applicants should submit curriculum vitae and four professional references to: Wilbur P. McNulty, M.D., Chair, Search Committee, Oregon Regional Primate Research Center, Division of Primate Medicine, 505 Northwest 185 Avenue, Beaverton, Ore. 97006. Telephone: 503-645-1141.

The Oregon Regional Primate Research Center is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSISTANT PROFESSOR

Ph.D. psychology to serve as associate director, Affective Disorders Unit; to teach and supervise psychiatrists, psychologists, residents, fellows, students, and staff in evaluation of affective disorders and maintain diagnostic reliability; generate federally fundable research; supervise data collection and analyses; work with interdisciplinary team for evaluation and treatment of diabetes mellitus, with focus on noncompliance to treatment. Require specialized training in PSG assessment in psychiatric patients; cognitive therapy; structured assessment and descriptive diagnosis using current criterion-based systems; neuropsychological assessment. Contact: A. John Rush, M.D., Department of Psychiatry, University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, Tex. 75235. *Equal Opportunity Employer.*

RESEARCH ASSISTANT PROFESSOR

The University of Miami School of Medicine seeks a Ph.D. scientist whose major training is in biochemistry or pharmacology. Prefer individual with solid background in the neurosciences. Experience in tissue culture desirable but not essential. Salary and faculty position is negotiable. Send curriculum vitae and supporting materials to:

Dr. Michael D. Norenberg
Department of Pathology D-33
University of Miami
School of Medicine
P.O. Box 016960
Miami, Florida 33101
Telephone: 305-549-7017

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RESEARCH ASSOCIATE. Execute and analyze fundamental experimental research in the field of solid-state nuclear magnetic resonance at variable temperatures on multiple-component, multiphase polymeric solids, 40 hours per week, \$17,000 per year. Ph.D. required. Knowledgeable in computer software, NMR instrumentation, and structure-property correlations of multiphase polymers. Mail or hand-carry résumé, with a copy of ad attached, to: The Virginia Employment Commission, Job Order Number VA4536024, Department 3008, P.O. Box 61, Roanoke, Virginia 24002.

The California Department of Food and Agriculture has several STAFF TOXICOLOGIST positions in Sacramento. Ph.D. in toxicology or related science followed by 3 years of recent related experience is required. The work is mostly a review of animal toxicology studies done to support pesticide-registration applications. Salary: \$3456 to \$4179 monthly. Submit résumé to: Department of Food and Agriculture, 1220 N Street, Room 126, Sacramento, Calif. 95814, by 8 March 1985. Interviews may be held at the Society of Toxicology meeting in San Diego, 18 to 22 March 1985.

POSITIONS OPEN

RESEARCH ASSOCIATE

Perform detailed studies and experiments on new polymeric materials for the development of new semiconductor technology for electrical and electronic industries. Candidate is expected to work on synthesis, spectroscopic characterization and electrical properties; conductivity, pyroelectric effect, thermoelectrets, dielectric constant and loss. Strong research background as evidenced by publications is required. Ph.D. in polymer science is required. Salary: \$17,000 per year. Send résumé to: Professor L. R. Dalton, Department of Chemistry, University of Southern California, Los Angeles, Calif. 90089-0482.

RESEARCH ASSOCIATE. Postdoctoral position as research associate at Harvard Medical School available immediately in the Mailman Research Center of McLean Hospital. Research deals with the neurobiology of protein and neuropeptide metabolism and the role of proteolysis in neuropsychiatric disorders and aging. Experience with immunocytochemistry-related immunochemical techniques is required. Familiarity with protein characterization and enzymology is also desirable but not essential. Minimum requirements: recent or pending Ph.D. with background in biochemistry, immunology, or cell biology. Address curriculum vitae and letters of reference to: Ralph A. Nixon, M.D., Ph.D., Ralph Lowell Laboratories, and send to: Nikki Alexander, Manager of Employment, McLean Hospital, 115 Mill Street, Belmont, Mass. 02178. McLean Hospital is a teaching affiliate of Harvard Medical School and Massachusetts General Hospital. *An Equal Opportunity Employer.*

RESEARCH ASSOCIATES IN NEUROBIOLOGY

Three grant-funded positions are available, each for 3 years, for research on modulation and learning mechanisms in identified insect neurons. Two positions require a doctorate and demonstrated ability to use multiple intracellular electrodes, preferably in insect ganglia. The other requires experience in light and electron microscopy and preferably also a serious interest in 3-D computer imaging from serial section. Salaries are negotiable and will be commensurate with experience and education. Closing date is 8 March 1985. Applications should be forwarded to: Professor Graham Hoyle, Institute of Neuroscience, University of Oregon, Eugene, Oregon 97403. *The University of Oregon is an Affirmative Action/Equal Opportunity Employer.*

NORTH CAROLINA STATE UNIVERSITY RESEARCH ASSOCIATE POSITION

Applications are invited for a research associate in our active Hybridoma-FACS facility. We seek an individual with a Ph.D. in immunology and postdoctoral training to conduct research in one of the following areas: electrofusion for species-specific hybridomas, T cell hybridization, in vitro immunization. Salary range: \$20,000 to \$23,000. Reply by 30 April 1985 with curriculum vitae and names and addresses of three references to: Dr. Edward De Buyscher, School of Veterinary Medicine, 4700 Hillsborough Street, Raleigh, N.C. 27606. *North Carolina State University does not discriminate on the basis of race, sex, or handicap, and is an Affirmative Action/Equal Opportunity Employer.*

RESEARCH GEOPHYSICIST: The Graduate School of Oceanography of The University of Rhode Island is seeking a research geophysicist specializing in theoretical seismology for a research position within the marine geophysics group. Applicants should have experience with multichannel seismic data processing, geophysical inverse theory, and the computation of synthetic seismograms in both laterally homogeneous and inhomogeneous media. Ph.D. in geophysics is required and a background in oceanography. Salary: \$28,300. Send résumé and names of three references to: Robert J. Gray, Manager, Rhode Island Job Service, Government Center, Tower Hill Road, Wakefield, R.I. 02879. *An Affirmative Action/Equal Opportunity Employer, M/F.*

RESEARCH SCIENTISTS: VISUAL EFFECTS OF INTENSE LIGHT EXPOSURES

(i) **PSYCHOPHYSICIST:** Study wavelength-dependent adaptation phenomena in humans. (ii) **NEUROPHYSIOLOGIST:** Correlate VEP with single-unit recordings from LGN and cortex. (iii) **BIOMATHEMATICAL MODELER:** Develop models of visual functions and deficits induced by intense flashes. **ALL POSITIONS:** Ph.D. (M.S. acceptable for iii) with strong background in vision. Résumés to: Technology Incorporated, Dr. J. A. Zuclich, 300 Breesport, San Antonio, Tex. 78216.

POSITIONS OPEN

RESEARCH POSITIONS—Ph.D. Level

Available immediately. Studies in areas of cholesterol biosynthesis, sphingolipid chemistry and metabolism, lipoprotein metabolism, and regulation of sterol synthesis by naturally occurring and synthetic inhibitors. Experience in analytical biochemistry, metabolism, cell culture studies, or bioorganic chemistry of concerned compounds desirable. Salary dependent on qualifications and experience. Send résumé and names of three references to: G. J. Schroepfer, Jr., Department of Biochemistry, Rice University, P.O. Box 1892, Houston, Texas 77251. *Rice University is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH SCIENTIST Biochemistry

RESEARCH BIOCHEMIST to develop and conduct research on skin. Candidates must have 3 years of postdoctoral experience in industry or academia. Experience in cutaneous protein/lipid biochemistry and/or immunochemistry is preferred. An established research record and excellent communication skills are essential.

The Gillette Company is a leading worldwide manufacturer of consumer products including personal care and shaving products and writing instruments. In addition to an exceptional opportunity for recognition and growth, we offer a comprehensive salary and benefits package and a challenging work environment. Interested candidates are requested to submit detailed curriculum vitae, including list of publications and patents, in strict confidence to:



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SUPERINTENDENT, SEAFOOD PROCESSING RESEARCH AND EXTENSION UNIT. The Department of Food Science and Technology at Virginia Polytechnic Institute and State University (VPI & SU) has a tenure-track, calendar-year faculty research and extension position as the superintendent of the Department Seafood Processing Research and Extension unit at Hampton, Virginia. Applicants must have a Ph.D. in food science or a related field and experience in seafood processing extension activities or the seafood industry is desired. Special consideration will be given to those with experience in obtaining grants and contracts. Salary is dependent upon qualifications and rank. Applications will be accepted up to 15 April 1985 or until a suitable candidate is located. Send résumé, transcripts (only if Ph.D. received after 1979), and three letters of reference to: Dr. Kent K. Stewart, Head, Department of Food Science and Technology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061. *VPI & SU is an Equal Opportunity/Affirmative Action Employer.*

SYNTHETIC ORGANIC AND BIOORGANIC CHEMISTS—POST Ph.D. POSITIONS

Available immediately. Studies of inhibitors of sterol synthesis. Organic synthesis, radioisotopic synthesis, small molecule x-ray crystallography, bioanalytical studies. Salary dependent on qualifications and experience. Send résumé and names of three references to: G. J. Schroepfer, Jr., Department of Biochemistry, Rice University, P.O. Box 1892, Houston, Texas 77251. *Rice University is an Equal Opportunity/Affirmative Action Employer.*

TEACHING POSITION—Plant Biologist. The Department of Biology, Emory University, invites applications for a teaching position at the assistant professor rank for a nontenure-track, 1-year term, renewable for up to 3 years. Responsibilities include teaching courses in introductory biology and courses at an advanced level, which may include: plant physiology, evolution, plant population biology. The successful candidate may become involved in supervising students in project laboratories and independent research and is expected to help in efforts to strengthen the undergraduate curriculum. Send curriculum vitae, a statement on your experience and interests in teaching, and three letters of recommendation to: Dr. William H. Murdy, Chairman, Department of Biology, Emory University, Atlanta, Ga. 30322. Closing date for receipt of applications is 15 March 1985. *Emory is an Equal Opportunity/Affirmative Action Employer.*

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Protein Chemist Enzymologist

The Medicinal Chemistry Department of Smith Kline and French Laboratories has an excellent career opportunity for a person experienced in protein purification, enzymology, and enzyme kinetics to work in a state-of-the-art research facility (under construction) near the Philadelphia suburb of Valley Forge. The selected individual will assist in the design of molecules destined to interrupt enzymatic processes; isolate, purify and characterize enzymes; analyze the interactions between molecules and potential biological targets; and effectively communicate results.

The successful candidate will possess:

- M.S. in Biochemistry or Bio-Organic Chemistry or equivalent (B.S. with 3 to 5 years experience).
- Minimum 2 years experience in protein/enzyme purification and characterization.
- Experience in the development of specific enzyme assay, preferably including the use of low-levels of radio-isotopes.
- Experience in modern analytical methods such as HPLC, protein electrophoresis and chromatography.
- Working knowledge of biological reaction mechanisms and enzyme kinetics is preferred.

We offer an excellent compensation, benefits, and relocation package as well as the opportunity for personal and professional growth. Please forward your resume to George P. Kissell Jr., Senior Employment Consultant, **Smith Kline and French Laboratories**, 1556 Spring Garden Street, Philadelphia, PA 19101.

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SCIENTIST

A position is currently available in our Cambridge laboratory for a Scientist with expertise and skills in the specialty area of:

PROTEIN PURIFICATION for PROCESS DEVELOPMENT

Qualified applicants should have experience in the areas of **Protein Chemistry and Large Scale Purification Operations**. Candidates are expected to develop processes for purifying proteins from genetically engineered microorganisms, starting in the laboratory, and following the method through to pilot plant scale. Industrial experience and/or knowledge of GMP is desirable.

This position is available at the Ph.D. level. Masters degree recipients who have considerable experience in these technical areas are also encouraged to apply.

Biogen is an international biotechnology company engaged in the development of commercial products through the use of advanced biological science, particularly recombinant DNA and advanced mutational techniques. We offer a challenging scientific career with the opportunity to interact with talented colleagues in a stimulating environment.

Biogen offers an excellent compensation and benefits package. For immediate consideration, please send your curriculum vitae and the names of three references to: Nanci Pye, Manager of Human Resources, Dept. PD-247, Biogen, 14 Cambridge Center, Cambridge, MA 02142.

All replies will be evaluated in confidence. Biogen is an equal opportunity employer.

BIOGEN

POSITIONS OPEN

SENIOR RESEARCH BIOCHEMIST

An opening in the Molecular Biochemistry Group offers a challenging career opportunity for a biochemist at the doctorate level. The ideal applicant will have at least 3 years of postdoctoral or industrial experience in the regulation of Ca^{2+} mobilization in cardiac and smooth muscle systems using biochemical and biophysical approaches. The candidate will be responsible as part of a therapeutic team for the detection and development of drugs that modulate Ca^{2+} homeostasis in the cardiovascular system and in cell secretion.

Excellent benefits, pleasant working environment, and competitive salary commensurate with experience and background complement this professionally demanding opportunity. A. H. Robins is headquartered in a southern metropolitan atmosphere within convenient driving distance to Washington, D.C., the seashore, and the mountains.

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Manager, Personnel R&D Division
A. H. Robins Company
1211 Sherwood Avenue
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Equal Opportunity Employer, M/F

STAFF TERATOLOGIST

The successful candidate will have a Ph.D. in toxicology or teratology, or have equivalent experience, and possess the ability to plan and direct the conduct of teratology and reproductive studies according to protocols to fulfill requirements for international regulatory agencies.

International Research and Development Corporation is an independent contract research laboratory specializing in animal safety evaluation (toxicology studies for the pharmaceutical, agricultural, chemical and consumer industries as well as governmental agencies). We are located near Kalamazoo, Michigan, midway between Detroit and Chicago, in an area affording a broad range of urban or rural lifestyles with excellent cultural and recreational opportunities. We offer a competitive compensation, benefits, and relocation package. Please send résumé to:

John Ragen
Director of Personnel
International Research and Development Corporation
500 North Main Street
Mattawan, Michigan 49071
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WILDLIFE ECOLOGIST

A full-time research position for a wildlife ecologist is available at the Savannah River Ecology Laboratory of the University of Georgia. Candidate must be a U.S. citizen, have postdoctoral experience beyond the Ph.D., a strong open literature publication record, and be interested in developing a long-term, field-oriented research program on the ecology of birds with emphasis on waterfowl to include their population characteristics, community relationships and/or management. Candidate should have formal training in wildlife ecology and strong capabilities in an allied field, such as statistics. Faculty rank and salary are negotiable. Applicants should send a letter of application, a brief description of future research interests, curriculum vitae, reprints, and the names, addresses, and telephone numbers of four references to: Dr. William D. McCort, Chairman, Wildlife Ecologist Search Committee, Savannah River Ecology Laboratory, Drawer E, Aiken, S.C. 29801. Applications will be accepted until 5 April 1985. The University of Georgia is an Equal Opportunity/Affirmative Action Employer.

WILDLIFE FACULTY POSITION

Assistant professorship (tenure track) beginning 1 September 1985. Responsibilities include: teaching and advising undergraduate and graduate students (60 percent) and research (40 percent). Ph.D. in wildlife or related field is required. Candidates must have an interest in applying their research specialization to wildlife-agricultural relationship. Send letter of intent, résumé, transcripts, and three letters of recommendation to: James S. Kitts, Department of Fisheries and Wildlife, University of Minnesota, 1980 Folwell Avenue, St. Paul, Minn. 55108, by 15 April 1985.

The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

ASSOCIATESHIPS

AGRICULTURAL RESEARCH ASSOCIATESHIPS

The Northern Regional Research Center, U.S. Department of Agriculture (USDA), Peoria, Illinois, has research associate positions available for scientists with training and interests in the following areas:

- 1) **Plant Biochemistry/Molecular Biology.** To study the developmental regulation of fatty acid biosynthesis in soybeans. Research will be at both the protein and nucleic acid level using antibodies and cDNA as probes. Send résumé to: Dr. John B. Ohlrogge.
- 2) **Plant Biochemistry/Molecular Biology.** To study the developmental regulation of oligosaccharide biosynthesis in soybeans. Send résumé to: Timothy L. Mounts.
- 3) **Biochemist/Enzymologist.** To study the isolation, immobilization, and reactions of enzymic materials for the production of useful chemicals from vegetable oils (emphasis soybean oil) for petroleum sparing materials, feedstock, or liquid fuels. Send résumé to: Timothy L. Mounts.

The positions are available for 1 year with probability of renewal for a second year. Salary is \$26,381 per year. Ph.D. or equivalent training is required.

This Center employs about 150 scientists engaged in diverse programs of basic and applied research and provides a stimulating professional environment. The Center also provides relocation expense assistance. U.S. citizenship is required. Send curriculum vitae to scientists indicated above: Northern Regional Research Center, USDA, 1815 North University Street, Peoria, Ill. 61604. The USDA is an Equal Opportunity/Affirmative Action Employer.

FELLOWSHIPS

MINORITY UNDERGRADUATE FELLOWSHIP IN NEUROSCIENCE: Two-year fellowship for minority undergraduate to study neuroscience at University of Alaska, Anchorage. Applicants must have completed 2 years of university work with GPA of 3.0+ and have a strong interest in biomedical research. Fellowship provides tuition plus stipend of \$7000 per year. Sponsored by NIH Minority Access to Research Careers and the State of Alaska. Interested persons please contact: Dr. Richard Kullberg, Biology Department, University of Alaska, Anchorage, 3211 Providence Drive, Anchorage, Alaska 99508. Telephone: 907-786-1239. An Equal Opportunity/Affirmative Action Employer and Educational Institution.

POSTDOCTORAL FELLOWSHIPS IN MOLECULAR GENETICS AND CELL BIOLOGY AT THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Fellowships (two or three) are available in a multidisciplinary research training program focusing on the molecular, cellular, genetic, and developmental aspects of cells responding to perturbations of their milieu. The faculty include M. J. Banda (angiogenesis, wound healing), J. Cleaver (DNA repair genes), R. B. Painter (DNA replication), R. Pedersen (early mammalian development), M. R. Wabl (molecular immunology), Z. Werb (phagocytes, extracellular matrix), and S. Wolff (cytogenetics).

Stipends are funded through a training program sponsored by NIH. Appointments to begin immediately or after July 1985. The requirements are U.S. citizenship or permanent residency and a Ph.D. degree or equivalent. Send résumé, graduate transcript, statement of research interests, and three letters of recommendation before 30 March 1985 to: Z. Werb, Program Director, Laboratory of Radiobiology and Environmental Health, LR-102, University of California, San Francisco, Calif. 94143. An Equal Opportunity/Affirmative Action Employer.

THE JOHN DOUGLAS FRENCH FOUNDATION FOR ALZHEIMER'S DISEASE IS PLEASED TO ANNOUNCE THE FORMATION OF A FELLOWSHIP. The French Foundation is looking for talented investigators, early in their training, who are interested in pursuing a career in Alzheimer's research. Ph.D. candidates, postdoctoral fellows, and M.D.'s will be considered for this award. The French Fellowship will last for 2 years, with a possible third-year renewal at \$30,000 per year. Interested candidates should write: Bruce L. Miller, M.D., The John Douglas French Foundation for Alzheimer's Disease, 11620 Wilshire Boulevard, Los Angeles, California 90049.

FELLOWSHIPS

FELLOWSHIPS IN IMMUNOLOGY AND ENDOCRINOLOGY

The University of Rochester Cancer Center invites applications for postdoctoral positions offering training in cellular immunology, hybridoma technology, immunological antitumor research and molecular immunology. Programs in endocrinology include hormonal effects on chromosomal replication, gene expression, cell surface receptors and cell-cell interactions. Associated programs include research in recombinant DNA technology, regulation of RNA and protein synthesis, and effects of anticancer agents and radiation on tumor models. Applicants are requested to send their curriculum vitae and three letters of reference to: Dr. Edgar Henshaw, Associate Director of the University of Rochester Cancer Center, Box 704, 601 Elmwood Avenue, Rochester, N.Y. 14642.

POSTDOCTORAL FELLOWSHIPS IN MOLECULAR GENETICS

The University of Rochester Cancer Center invites applications for 2-year fellowships to begin in 1985. Projects include studies investigating the role of oncogene products and hormones in the regulation of cell growth, chromosomal replication and the expression of specific genes. Experiments involve molecular cloning, (both cDNA and genomic) DNA sequence analysis, hybridization, blotting analyses, electron microscopy, generation of monoclonal antibodies and immuno-affinity purification methods. Send résumé and three letters of recommendation to: Edgar Henshaw, M.D., Associate Director of the University of Rochester Cancer Center, Box 704, 601 Elmwood Avenue, Rochester, N.Y. 14642.

FELLOWSHIPS IN TUMOR BIOLOGY

Applications are invited by the University of Rochester Cancer Center for candidates interested in postdoctoral training in the area of drug and radiation therapies on experimental rodent and human tumor models. Studies involve characterization of tumor cell subpopulations using flow cytometry, cell sorting and centrifugal elutriation. Effects of radiation, chemotherapeutic agents, sensitizers, protectors and hormones are being evaluated. In our medical physics program, NMR and computerized tomography are being utilized for tissue imaging. Curriculum vitae and three letters of reference should be sent to: Edgar Henshaw, M.D., Associate Director of the University of Rochester Cancer Center, Box 704, 601 Elmwood Avenue, Rochester, N.Y. 14642.

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The University of Calgary, Department of Biology invites applications from highly qualified researchers in areas of medically-related research, specifically gene expression in prokaryotes/lower eukaryotes, fermentation biotechnology and animal functional morphology. Selected applicants will be nominated for support as research scientists under the programs of the Alberta Heritage Foundation for Medical Research for up to five years. Remuneration will be based on salary scales at the University and will depend on the academic rank to which successful candidates are appointed; normally this is in the Assistant Professor range. Establishment Grants are available from the Foundation.

Appointees will be expected to devote at least 75% of their time to research although limited teaching duties and participation in Departmental affairs will be required.

All qualified individuals are encouraged to apply but preference will be given to Canadian citizens and permanent residents.

Interested applicants should forward their curriculum vitae before March 31, 1985 to:

The Chairman,
Scholarship and Fellowship Review Committee,
Department of Biology,
University of Calgary,
2500 University Drive N.W.,
Calgary, Alberta, Canada T2N 1N4

ELI LILLY AND COMPANY, an established leader in pharmaceutical and agricultural research is seeking applicants for the following positions in the Toxicology Division of Lilly Research Laboratories:

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Senior Scientists at the Ph.D. level with academic training and experience in teratology. Responsibilities of the position include leading a laboratory program in the conduct and reporting of studies to determine the teratogenic potential of pharmaceutical and agricultural products.

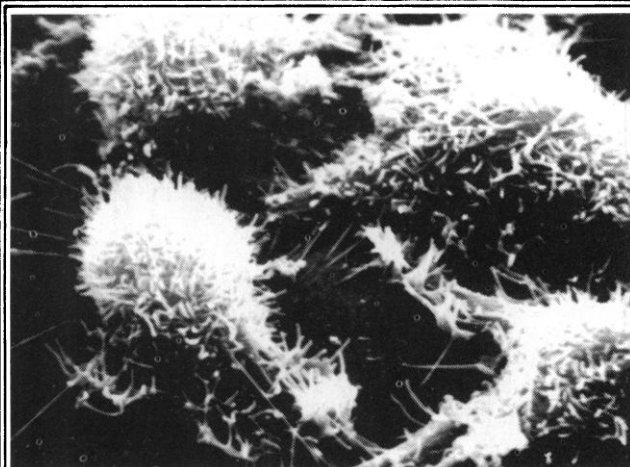
Associate Toxicologists at the B.S. or M.S. level with training or experience in the conduct of laboratory animal reproduction or teratology studies.

Persons with experience in the above disciplines and with an interest in our toxicology research programs should send a curriculum vitae to:



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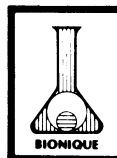
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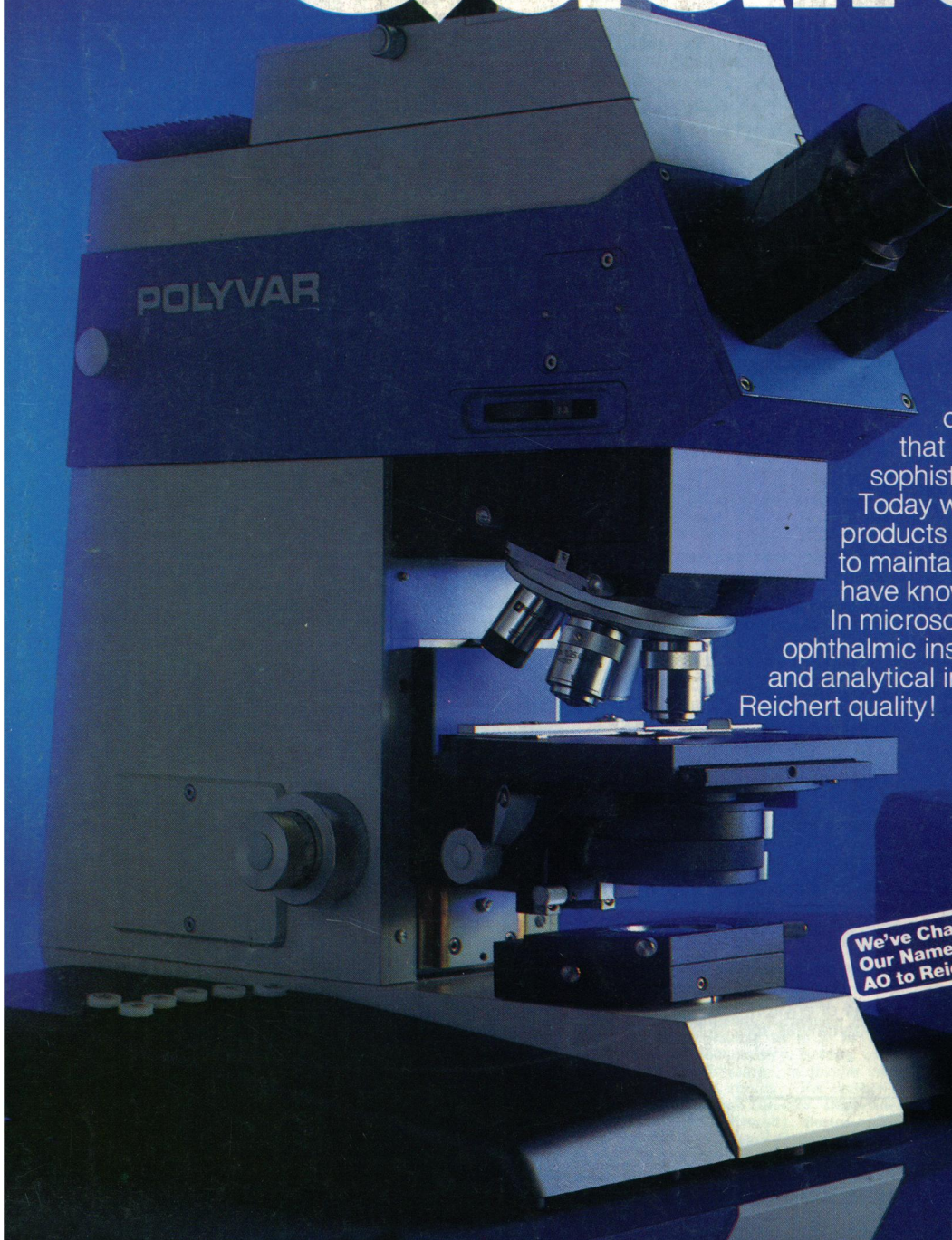
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