tion" and "unsaturation," no discussion is offered of factors affecting the preference of a metallic species for "saturation" or "unsat-

The remainder of the book focuses on selected topics related to synthesis, structure, and reactivity; these chapters are up to date, but some of the discussion may be difficult to follow because of the order in which topics are treated. For example, the chapter on fundamental processes in reactions of organotransition metal complexes would have been better placed before the more comprehensive chapter on the synthesis of such complexes. The chapter on experimental techniques in organometallic chemistry is a useful addition and would also have been better located earlier in the book. Two chapters on the applications of transition metal complexes in catalysis and organic synthesis demonstrate the utility of organotransition metal chemistry in a variety of contexts. Here the strong background provided in earlier chapters helps the reader to understand the fundamental steps inherent in the processes described. The final chapter introduces new subjects for research, such as organometallics in bioinorganic chemistry and metal clusters as models for heterogeneous catalysts. Discussion of these topics provides an upbeat note on which to end.

Organotransition Metal Chemistry will be of use to practitioners of organometallic chemistry. It will also be of interest to students, especially those with an "organic" perspective, who wish to broaden their understanding of this growing field.

JEFFREY SCHWARTZ Department of Chemistry, Princeton University, Princeton, NJ 08544

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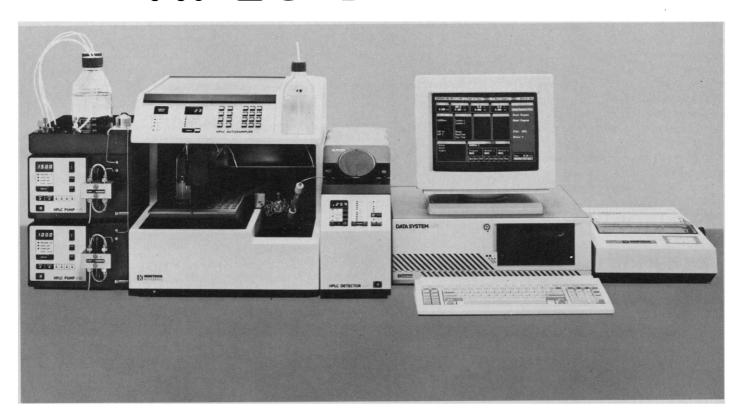
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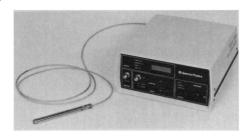
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Literature

Dynamic Solutions is a quarterly newsletter about laboratory microcomputing that emphasizes chromatographic applications. Dynamic Solutions Division, Millipore. Circle 528.

Sorvall Ultracentrifuges describes a line of ultracentrifuges as well as rotors and tubes. Du Pont. Circle 639.

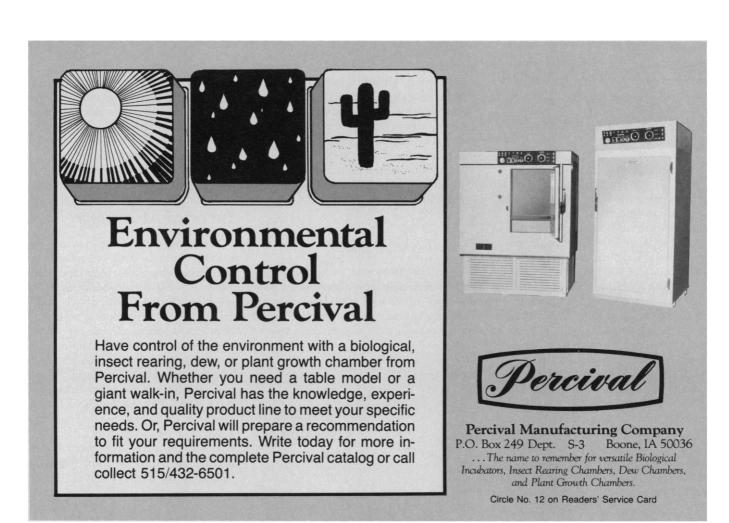
Biology/Science Materials is a 1200-page catalog of instruments and supplies for biology, chemistry, earth science, mathematics, physics, and space science. Carolina Biological Supply. Circle 640.

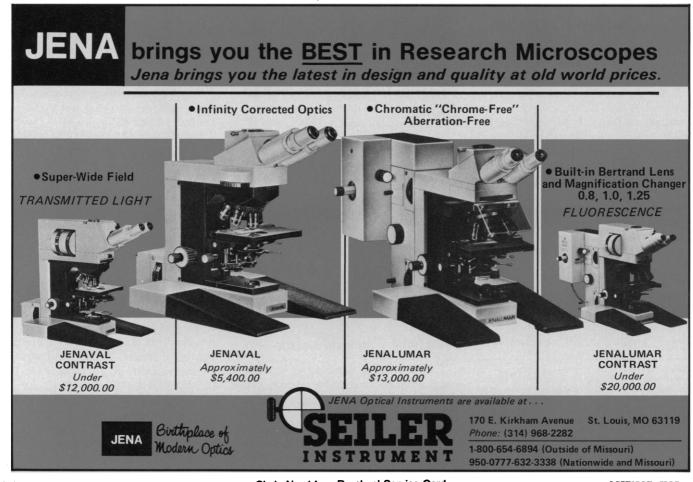
IR-PLAN Product-Application Guide discusses a high-performance infrared microscope. Spectra-Tech. Circle 641.

O₂ Consumption, CO₂ Production features systems for measuring oxygen consumption and carbon dioxide production in animals. Columbus Instruments. Circle 644.

Data Converters is a catalog of analog-todigital converters, digital-to-analog converters, sample-hold and track-hold amplifiers, synchro-resolver-to-digital converters, and digital-to-synchro-resolver converters. DDC ILC Data Device. Circle 645.

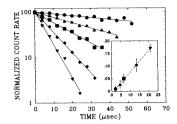
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HUNTINGDON ANALYTICAL SERVICES, INC., Middleport, NY (western New York State) is a new facility providing analytical services to the pharmaceutical, agrichemical, and environmental industries. Several positions are open. PHARMACEUTICAL GROUP LEADER—Ph.D. in analytical chemistry or pharmacokinetics with broad experience in analysis of drugs in biofluids by HPLC and/or GC. Pharmacokinetics modeling and transmission ic modeling and supervisory experience desirable. AGRICHEMICAL GROUP LEADER—Minimum: B.S. degree with experience in extraction and quantitation of pesticides and herbicides. Supervisory experience. ENVIRONMENTAL LAB MANAGER—Establish and manage a new state-of-the-art commercial environ-mental analytical lab. Management experience in envi-ronmental testing required. TECHNICAL SALES— Sell analytical services to industrial and government clients. Market research. Salary commensurate with experience. Ground floor opportunities. All positions require good writing and communication skills. Company-paid medical, dental, life and disability insurance. Send résumé and salary requirements to: Personnel Manager, Huntingdon Analytical Services, Inc., P.O. Box 250, Middleport, NY 14105.

ASSISTANT PROFESSOR, Department of Anatomy, to teach neuroanatomy and participate in the teaching of gross anatomy. The successful candidate will be expected to develop a research program which is competitive for to develop a research program which is competitive for funding, in the functional anatomy and biomechanics of the lower limb, in the cellular biology of neurological and vascular changes of diabetes, or in another field germane to podiatric medicine. The position will be available 1 July 1987. Send application, curriculum vitae, and the names and addresses of three references to: Dr. Bruce Elliot Hirsch, Department of Anatomy, Pennsylvania College of Podiatric Medicine, 8th at Race Street, Philadelphia, PA 19107. Equal Opportunity Employer.

ASSISTANT PROFESSOR AND ASSISTANT NEMATOLOGIST: Available 1 July 1987, an 11month tenure-track position as assistant professor and month tenure-track position as assistant professor and assistant nematologist. Research, teaching, and student advising responsibilities in the areas of host-parasite relations with plant-parasitic nematodes at the cellular, tissue, and whole plant level, including the understanding of the role of nematodes in disease complexes and the development of management strategies for plant-parasitic nematodes in crop systems. A Ph.D. and experience in host-parasite relations, plant pathology, entomology, and nematology, are required, with a record of research productivity. Application deadline: 1 June 1987. Send curriculum vitae, statement of research and teaching interests relative to applying expertise in nematology, official undergraduate and graduate transcripts, reprints of relevant publications and submitted manuscripts, names and addresses of at least three references to: Howard Ferris, Search Committee Chairman, Division of Nematology, University of California, Davis, CA 95616. The University of California is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSORS ORAL BIOLOGY

Applications are invited for two assistant professor positions in the areas of molecular biology, bacteriology and/or immunology. Candidates are expected to carry out independent research programs relevant to Oral Biology. Limited participation in pre- and postdoctoral teaching is expected. Submit résumé and three letters of reference by 1 April 1987 to: Frank Oppenheim, Chairman, Department of Oral Biology, Boston University Medical Center, Boston, MA 02118. An Equal Opportunity Employer M/F.

ASSISTANT PROFESSOR, PHYSIOLOGIST. Ap-Professor, PHYSIOLOGIST. Applicants are invited to apply for the position of Assistant Professor of Physiology (Ph.D.) at Southeastern College of Osteopathic Medicine. The applicant should have experience in medical school teaching. Please send curriculum vitae, a summary of research interests and the names of three references by 1 April 1987, to: H. Jay Lyons, Ph.D., Professor and Chairman, Department of Physiology, Southeastern College of Osteopathic Medicine, 1750 NE 168th Street, North Miami, FL 33162.

POSITIONS OPEN

ASSISTANT PROFESSOR UNIVERSITY OF MINNESOTA MEDICAL SCHOOL DEPARTMENTS OF LABORATORY MEDICINE AND PATHOLOGY/PEDIATRICS/ INSTITUTE FOR HUMAN GENETICS

A tenure-track faculty position is available for candidates who hold an M.D. degree with subspecialty training in Pediatrics and Neonatal Medicine. Candidates must have at least 1 year of postdoctoral experience in laboratory aspects of developmental and molecular immunology to include molecular genetics. The individual must have experience in molecular genetic techniques including Southern and Northern blotting and DNA cloning. Demonstration of research productivity is neces-

sary.

This individual will be involved in teaching medical students, postgraduate residents, and postdoctoral fellows in development and molecular immunology. The individual will be expected to develop an independent laboratory research program in an area of interest to him/her. There will be commitments to patient care and teaching in Neonatal Medicine.

Applicants should send curriculum vitae and names of three individuals who can provide letters of reference to:

Tucker LeBien, Ph.D. Box 609 University of Minnesota Hospital Center Department of Laboratory Medicine and Pathology 420 Delaware Street SE Minneapolis, MN 55455

Deadline for receipt of applications is 15 April 1987. The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

ASSISTANT PROFESSOR. Ten-month appointment for one academic year only (sabbatical replacement). Starts 1 September 1987. Teach courses in molecular biology, microbial and viral genetics, and radiation biology; participate in teaching freshman biology. Send curriculum vitae and names of three references to: Tom Frederick, Head, Department of Biology, Rochester Institute of Technology, One Lomb Memorial Drive, Rochester, NY 14623. Equal Opportunity/Affirmative

ASSISTANT PROFESSOR OF RADIOLOGICAL SCIENCES UNIVERSITY OF CALIFORNIA-IRVINE

The Department of Radiological Sciences of the University of California-Irvine expects to make an appointment at the assistant professor level beginning January 1988. Applicants should have a Ph.D. in physics and a strong background in Nuclear Magnetic Resonance (NMR) imaging with a working knowledge of NMR flow imaging. Interested applicants should submit the names of three references and curriculum vitae to: Professor O. Nalcioglu, Department of Radiological Sciences, University of California, Irvine, CA 92717

by 1 April 1987.

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

ASSISTANT/ASSOCIATE PROFESSOR OF TOXICOLOGY (HEPATOLOGIST)

Applications are solicited for a position at the level of assistant or associate professor (tenure-track position) in the Environmental Health Sciences Center of the Uni-versity of Rochester School of Medicine and Dentistry. Applicants must have a Ph.D. degree, postdoctoral experience, and a strong commitment to design and conduct studies on the metabolism and transport of endogenous thiol compounds, and on toxic metals that interact with these compounds. Candidates should have extensive experience in liver perfusion techniques, measurements biliary secretion, and isolation of liver membrane vesicles involved in transport of thiol compounds. Furthermore, a general background in physiology and toxicology is desirable. Applicants should send their curriculum vitae, reprints, and a description of their research interest by 15 April 1987 to: Thomas W. Clarkson, Ph.D., Search Committee, Box BPHYS, University of Rochester School of Medicine and Dentistry, Rochester, NY 14642. Equal Opportunity Employer M/F.

POSITIONS OPEN

Scripps Institute of Oceanography has an opening for an ASSISTANT RESEARCH SCIENTIST to participate in marine acoustic research using swath-mapping sonars. Candidates should have a Ph.D. in oceanograsonars. Candidates should have a Ph.D. in oceanography, physics or geophysics, experience in seagoing research demonstrated by a publication record and an eagerness to continue ship-based field programs using existing sonars and developments thereof. Salary range: \$35,800 to \$38,900. Appointment duration 2 years starting summer 1987 with possibility of indefinite extension. Send curriculum vitae and names of references to: K. M. Watson, Director, Marine Physical Laboratory, Scripps Institution of Oceanography, University of California, San Diego (UCSD), San Diego, CA 92152. Closing date 27 March 1987.

UCSD is an Equal Opportunity Affirmative Action Employer.

ASSISTANT RESEARCH SCIENTIST. POST-DOCTORAL POSITION available early 1987, for candidate with doctorate in molecular biology, virology, or cell genetics to work on research project involving the cloning and characterization of genes regulating cell cycle progression in animal cells; regulation of polyoma virus gene expression in transformed cells; and the study of a novel human oncogene derived from Kaposi's sarcoma DNA. Send curriculum vitae and names of three references to: Dr. Claudia Basilico. Department of Pathol. ences to: Dr. Claudio Basilico, Department of Pathology, NYU School of Medicine, 550 First Avenue, New York, NY 10016. An Affirmative ActionlEqual Opportunity Employer M/F.

ASSISTANT/ASSOCIATE PROFESSOR PATHOGENIC MICROBIOLOGY

The Department of Bacteriology and Biochemistry invites scientists with research interest in infectious diseases and a Ph.D. in microbiology/immunology, or molecular biology to apply for a tenure-track faculty position at the rank of assistant or associate professor, starting on or before 1 September 1987. Applicants should have post-doctoral experience and demonstrated research capability. The successful candidate is expected to develop an active research program with application to animal disease (approximately 75% time) and obtain support from ease (approximately 75% time) and obtain support from outside funding, as well as participate in a program of instruction in medical microbiology and graduate student training. Salary is competitive and negotiable. Review of applications will begin 1 May 1987 and continue until a suitable candidate is found. Send application, a statement of current and proposed research and teaching experience, curriculum vitae, transcripts, and names of three references to: Dr. George W. Teresa, Department of Bacteriology/Biochemistry, University of Idaho, Moscow, 1D 83843. Affirmative Action/Equal Opportunity Employer.

ASTRONOMER

The American Museum–Hayden Planetarium is seeking a highly qualified professional with in-depth knowledge of astronomy and space science for a tenure-track position. Responsibilities will include program development; presentation of live shows; teaching of astronomical and space science courses; fostering contacts between the Planetarium and the astronomical academic and research communities; serving as a spokes-person on astronomical matters to the media, and participation in planetarium administration.

Qualifications include a Ph.D. in astronomy or related field and experience in some combination of astronomy and space science along with one or more of the follow-ing: science education; planetarium operations/productions/exhibitions or program writing. Demonstrated ability to communicate space science subjects to a broad

age spectrum preferred.

Starting date for the position is spring 1987 or soon thereafter. Salary and rank will be determined by the candidate's qualifications. Salary requirement should be submitted along with curriculum vitae, samples of publications/writing/scripts or program tapes and the contact information for three individuals familiar with your work. Please submit to:

Mr. Lee Vilensky Personnel Department (S) American Museum of Natural History Central Park West at 79th Street New York, NY 10024 An Equal Opportunity Employer

Environmental Toxicologist

NORTHROP SERVICES, INC., under contract to the USEPA's Corvallis laboratory, is seeking applicants to lead a research group and develop long-term research strategy. Possible research includes examining links between toxic impacts to biota and existing engineering technologies for hazardous waste clean-up. Other responsibilities include evaluating bioavailability and toxicological mechanisms of major chemical fractions of waste sites and developing new or improved bioassays for hazardous wastes.

Qualifications: Ph.D. in toxicology and five years of experience or equivalent in developing research strategy, planning and conducting team research projects, data analysis, and report writing. Experience conducting several terrestrial and aquatic bioassays and knowledge of ecology. Strong record of publications and presentations and proven ability to direct the work of scientists and technicians in a positive manner. Demonstrated scientific creativity and the ability to link research with environmental concerns and policy.

Please cite number (4550-003-87) in all correspondence. Closing date March 31. Send letter of application, three sample reprints, and resume to:

NORTHROP

Susan Carey Northrop Services Inc. 200 SW 35th St. Corvallis, OR 97333

NSI is an AA/EEO Employer

Assistant/Associate Professors in Biology



Four tenure-track positions are available in an expanding Department of Biological Sciences. Modern well-equipped facilities and modern programs provide exceptional opportunities for teaching, research and consulting. Nine-month appointments start September 1987 at salaries commensurate with qualifications and experience.

BOTANY: Broadly trained plant scientist with expertise in tissue culture. Position requires teaching in general botany and in other undergraduate/graduate courses related to candidate's expertise. Advising undergraduate majors, directing Master's candidates and establishing an active research program is expected. Ph.D. required and post-doctorate experience desired.

BIOLOGY EDUCATION: To teach undergraduate and graduate courses in teaching methods and techniques for K-12 science programs and to assist in general biology education courses. A strong biology background with expertise in bioeducation is essential. Advising students in biology teaching, directing Master's students research in bio-education and working cooperatively with other science departments and the School of Education is expected. An Ed.D. or Ph.D. degree in bio-education is required and post-degree experience is desired.

FOOD/ENVIRONMENTAL MICROBIOLOGY: To participate in the general microbiology course and to teach food and environmental microbiology courses to undergraduates and graduates. Advising undergraduate majors, directing Master's candidates and establishing an active research program is expected. Ph.D. required and industrial or post-doctorate experience desired.

ENVIRONMENTAL SCIENCE: To teach undergraduate and graduate courses in Environmental Science. A strong background in biology with expertise in pollution monitoring, analysis and control is essential. Program development, advising of majors and developing a research program in Environmental Science are expected. Ph.D. in Environmental Science or a related discipline required and post-doctorate experience desired.

Mankato State University, with a current enrollment of 14,200 students, is the second largest university in Minnesota. The Greater Mankato area population of 42,000 is located 80 miles from the Minneapolis-St. Paul Metro area. Send three letters of reference, curriculum vitae, official undergraduate and graduate transcripts and a one-page statement of teaching and research interests to: Dr. John Frey, Chairperson, Department of Biology, Mankato State University, Mankato, MN 56001. Must have INS authorization to accept employment and demonstrated ability to communicate effectively with students and colleagues. Closing date for applications is April 17, 1987, or until filled. Mankato State is an equal opportunity educator and employer.

SCIENTISTS/ STAFF RESEARCH SCIENTISTS

SIBIA is an established biotechnology company involved in a wide spectrum of innovative research programs. SIBIA, with a staff comprised of leading scientific staff members, provides an exceptional scientific research environment in which to work, plus a modern laboratory located near the ocean on Coast Boulevard in La Jolla. A broad range of research programs encourage multi-disciplinary interaction.

Applications are requested for Scientists in:

MOLECULAR CELL BIOLOGY

- To develop yeast expression systems. Experience with secretion of heterologous proteins helpful, and up to 2 years of post-doctoral experience preferred.
- Interest in mechanism of protein secretion in lower elicaryotes. Background in molecular biology and cell biology plus 2-3 years of post-doctoral experience preferred.

BIOCHEMISTRY/IMMUNOLOGY/ ENDOCRINOLOGY

• To develop and execute <u>in vitro</u> and <u>in vivo</u> assays for various proteins and peptide hormones. Prefer 2-3 years of post-doctoral experience plus background in potency studies in small animals.

MICROBIAL PHYSIOLOGY / BIOCHEMICAL ENGINEERING

• Fermentation Scientist required to conduct independent research on strain improvement, medium optimization and process improvement. Requires at least 2 years of industrial fermentation experience.

MOLECULAR VIROLOGY

• To develop gene transfer systems. Experience with animal virus systems (especially retroviruses) and tissue culture techniques required. Prefer background in recombinant DNA techniques, also.

BIOCHEMIST/PROTEIN CHEMIST

 Background in enzymology and protein purification. Post-doctoral experience desirable, but not necessary.

We offer a comprehensive benefits package and competitive salaries. For confidential consideration, please submit your curriculum vitae, a statement of research of interests and the names of three professional references to SIBIA, Department 4060, 505 Coast Boulevard South, La Jolla, CA 92037. An Equal Opportunity Employer.



THE SALK INSTITUTE
BIOTECHNOLOGY/INDUSTRIAL
ASSOCIATES, INCORPORATED

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF) ASSISTANT/ASSOCIATE DIRECTOR OF THE BIOMOLECULAR RESOURCE CENTER, A BIOTECHNOLOGY FACILITY. We are recruiting for a coordinator of the Biomolecular Resource Center at UCSF. The Center provides services for the campus community in protein sequencing, peptide and DNA synthesis, and related technologies. The person will be responsible for operating instruments, directing the activities of four staff members, and technical and administrative operations of the facility. The person is expected to interact with investigators in use of the facility, develop new technologies, and supervise research projects in the facility. We are looking for a person with experience in one or more areas of the biotechnologies, and the ability to teach others. He or she should have a Ph.D. in biochemistry, organic chemistry or a related specialty. A knowledge of protein and nucleic chemistry is essential. The appointment will be made in the Professional Research Series at level compensurate with qualifications.

a level commensurate with qualifications.

To apply, submit curriculum vitae, with a statement of background/interests, and at least three persons for references to: Dr. D. V. Santi, BRC Search, Department of Biochemistry, University of California, San Francisco, CA 94143. The University of California, San Francisco is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

ASSOCIATE OR FULL PROFESSOR. Modern, forward-looking department of Medicinal Chemistry and Pharmacognosy seeks individual with vigorous, extramu-rally funded research program. Research interests should complement those of active seven member department, including drug design based on chemical and pharmacological properties of receptors, immunologic and genemanipulation approaches to the design of new therapeutics, and diagnostics and drug design based on products derived from natural medicinals. Interest in and aptitude for teaching graduate and undergraduate pharmacy students is essential. Send statement of research and teaching interests, curriculum vitae and names of three references by 1 May 1987 to: Dr. Richard A. Hudson, Chairman, Department of Medicinal Chemistry and Pharmacognosy, University of Toledo, College of Pharmacy, 2801 West Bancroft Street, Toledo, OH 43606. The University of Toledo is an Affirmative Action/Equal Opportunity Employer.

BIOLOGICAL ANTHROPOLOGIST

EMORY UNIVERSITY seeks an outstanding biological anthropologist for a tenure-track position at the assistant professor level. Our growing department maintains a commitment to the unified conception of anthropology and sets a high standard of excellence. Candidates may represent any subfield of biological anthropology, and must show both outstanding research potential and excellence in teaching. Interest in general anthropology, as evidenced by willingness to teach a four-field introductory anthropology course at least occasionally, is desirable. Ph.D. required. Deadline 15 October 1987. Send letter of application, including curriculum vitae with names and addresses of three references, to: E. O. Smith, Chair of Search Committee, Department of Anthropology, Emory University, Atlanta, GA 30322. Emory University is an Equal Opportunity/Affirmative Action Employer.

BIOLOGY: ECOLOGIST. One-year/possible tenure-track position. Teach undergraduate courses in entry-level biology and ecology and direct undergraduate research. Ph.D. preferred. Noncitizens must have permanent residency, work permit. Affirmative Action/Equal Opportunity Employer. Send curriculum vitae, transcripts, and three reference letters to: Dr. W. B. Julian, Dean's Office, Central College, Pella, IA 50219 by 31 March 1987.

BIOSTATISTICIAN. Tenure-track position at associate professor or professor level. To build and head biostatistical unit in dynamic, heavily funded, research-oriented medical school. Unit will serve entire college. Competitive salary. To start July 1987. Ph.D. required, medical school experience preferred. Curriculum vitae, reprints, three references by 31 March 1987, to: Marshall B. Jones, Chairman, Department of Behavioral Science, The Pennsylvania State University College of Medicine, Hershey, PA 17033. Affirmative Action Equal Opportunity Employment.

POSITIONS OPEN

BIOLOGY INSTRUCTOR

Responsibilities include teaching horticulture/agribusiness classes and assisting in program or facility projects. Individual may teach general education biology or a Natural Science core course. Flexible schedule with some evening and or Saturday classes. Requires: Master's degree in horticulture or botany with 2 years of horticulture experience. Practical experience and knowledge of South Florida growing conditions preferred. Salary: Based on academic rank established by education and experience. Liberal benefits.

Submit two copies of résumé, academic credentials, and three letters of reference to: **Personnel Services**, 11011 SW 104 Street, Miami, FL 33172. Application

must be received by 30 April 1987.

An Equal Access/Equal Opportunity Community College.

CELLULAR NEUROBIOLOGIST/DEVELOP-MENTAL BIOLOGIST. The Department of Biological Sciences, Stanford University, has several openings for tenure-track faculty positions in the areas of cellular neurobiology and developmental biology. Applicants at the assistant professor level are preferred, but the department will also consider appropriate candidates at a more senior level for one of these positions. Applicants should send curriculum vitae, a statement of research accomplishments and anticipated research directions, and the names of three appropriate references to: Chairperson, Neurobiology Search Committee, Department of Biological Sciences, Stanford, CA 94305–5020. Applications from women and minority candidates are especially welcome. Stanford University is an Equal Opportunity Employer.

CHAIRPERSON-BIOLOGY

Applications and nominations are invited for the position of CHAIRPERSON OF THE DEPARTMENT OF BIOLOGICAL SCIENCES, The Wichita State University. The University is located in a metropolitan area of nearly 400,000 people and enrolls more than 16,000 students. The department has eleven full-time faculty and offers the B.A., B.S., and M.S. degrees. Candidates should have the Ph.D., experience in university teaching, a strong record of scholarly achievement and without the property of proteonic and degree.

Candidates should have the Ph.D., experience in university teaching, a strong record of scholarly achievement, and evidence of potential for academic and administrative leadership. In addition to administering the department, the successful candidate will be expected to continue his/her research and scholarly activities and participate in the teaching program. Leadership will be expected in the recruitment of additional faculty, in promoting faculty research, in solicitation of external funding, and in strengthening the undergraduate and graduate programs. Rank and salary will be commensurate with qualifications. Position begins January 1988 or earlier if possible

seriler if possible.

Send letters of interest, curriculum vitae, and names of at least three references by 24 April 1987 to: Chairperson Search Committee, Department of Biological Sciences, The Wichita State University, Wichita, KS 67208. An Equal Opportunity/Affirmative Action Employer.

CHAIRPERSON DEPARTMENT OF BIOCHEMICAL AND BIOPHYSICAL SCIENCES

The University of Houston invites applications for the position of Chairperson of the Department of Biochemical and Biophysical Sciences. Applicants should have a Ph.D. in biochemistry, molecular biology or related discipline, a record of research accomplishment, significant external funding, academic administrative experience and a commitment to teaching at the undergraduate and graduate levels. The individual chosen will be expected to provide leadership for an anticipated expansion of the department while maintaining a vigorous research program. The University of Houston is a state-supported institution with an enrollment of about 30,000 students. The department offers the B.S., M.S., and Ph.D. degrees and has 10 faculty members, 35 graduate students, and 80 undergraduate majors. Applications should be sent by 1 May 1987 to: Dr. Joseph Eichberg, Chairperson, Departmental Chair Search Committee, Department of Biochemical and Biophysical Sciences, University of Houston, Houston, TX 77004. Telephone 713-749-2801.

An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

CLINICAL PSYCHOLOGIST—The University of Texas Health Science Center at Dallas (UTHSCD), Department of Psychiatry—Mental Health Clinical Research Center, invites applicants for Ph.D.'s with APA-approved internships for an academic position to begin summer/fall 1987. The NIMH-funded Center supports interdisciplinary collaboration in the study of psychological and biological aspects of affective and related disorders. Candidates must have completed Ph.D. and have demonstrated clinical research interests in affective, anxiety, or related disorders and experience in cognitive and/or behavioral therapy. Responsibilities will include: clinical evaluation, psychotherapy, and collaborative research on psychotherapy for affective and related disorders. Send curriculum vitae, reprints, and three letters of reference to: A. John Rush, M.D., Department of Psychiatry/Affective Disorders Unit, University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235.

UTHSCD is an Equal Opportunity Employer

In anticipation of an opening, The Cognitive Science Program and the Department of Psychology invite applications from COGNITIVE PSYCHOLOGISTS at all levels of experience to apply for a tenured or tenure-track position beginning September 1987 or 1988. The successful candidate will have an active and established research program of recognized excellence and be qualified to teach graduate and undergraduate courses in cognitive science. While the area of research specialization is open, there is a preference for an individual with interests in models of, for example, perception, memory, attention, or language.

attention, or language.

Applicants should send curriculum vitae, an outline of their research and teaching programs, copies of their publications, and the names and addresses of three referees to: Professor Thomas G. Bever, Department of Psychology, Meliora Hall, University of Rochester, Rochester, NY 14627, before 1 April 1987. They should also ask their referees to send letters directly to the same address. The University of Rochester is an Affirmative Action and Equal Opportunity Employer. We encourage applications from minority group members, from women, and from the handicapped.

FACULTY POSITION DEPARTMENT OF ANATOMY. The Department of Anatomy of the University of Kansas Medical Center has a tenure-track position available at the assistant professor level for the 1987 to 1988 academic year. Background required is a Ph.D. or M.D. degree and postdoctoral experience. The candidate should have an active, funded (NIH or NSF) research program in neurobiology. Teaching responsibilities are primarily in neurosciences. Salary and seed money are negotiable. Send curriculum vitae, several recent reprints/preprints, and three letters of reference by 1 May 1987 to:

Dr. Stanley R. Nelson, Chairman Department of Anatomy University of Kansas Medical Center 39 and Rainbow Boulevard Kansas City, KS 66103

The University of Kansas Medical Center is an Equal Opportunity/Affirmative Action Employer.

RESEARCH STATISTICIAN/DATA MANAGE-MENT COORDINATOR—The University of Texas Health Science Center at Dallas (UTHSCD), Department of Psychiatry—Mental Health Clinical Research Center invites applications for a faculty position beginning in summer 1987. The NIMH-funded Center supports interdisciplinary collaboration in the study of psychological and biological aspects of affective and related disorders. Candidates must have completed Ph.D., have at least 2 years of experience relevant to conducting/assisting investigators in selecting appropriate research designs and statistical analyses. Applicants must be proficient in relational database, multivariate statistics, use of statistical packages (SAS, SPSSX, BMDP) and MS-DOS/PC-DOS microcomputers. Working knowledge of programming language (FORTRAN, BASIC, and so forth) desirable. Send curriculum vitae, reprints, and three letters of reference to: A. John Rush, M.D., Department of Psychiatry/Affective Disorders Unit, University of Texas Health Science Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235. UTHSCD is an Equal Opportunity Employer.

Molecular Biology

Smith Kline & French Laboratories, a leader in pharmaceutical research, is seeking additional technical staff and postdoctoral fellows to expand its current research programs employing recombinant DNA technology and other genetic approaches to develop novel therapeutic agents.

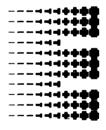
Excellent opportunities exist for innovative interdisciplinary research in our new and superbly equipped Research and Development Center in suburban Philadelphia near Valley Forge, Pennsylvania.

The Department of Molecular Genetics is seeking outstanding scientists with degrees in Microbiology, Biochemistry, Molecular Biology or equivalent and expertise in the following areas: gene cloning, gene regulation and expression in bacteria, yeast, or mammalian cells

We offer an excellent compensation, benefits and relocation package as well as opportunities for personal and professional growth. Publication of research results is encouraged and supported. For confidential review, please forwardyour C.V. and names of three references to: Robert F. Obst, R&D Senior Employment Consultant, SmithKline Beckman Corporation, 1564 Spring Garden Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/H/V.



TECHNICAL DIRECTOR



E C O V A

Ecova Corporation is an expanding, innovative firm dedicated to solving environmental problems. Specializing in on-site remediation of toxic and hazardous waste, we combine the most advanced biological, chemical and physical treatment technologies.

Rapid growth requires the addition of a qualified Technical Director who will serve a key management function coordinating research in support of field projects.

Qualified applicants will have

- Five 10 years' laboratory management.
- Ph.D. or equivalent experience in environmental microbiology.
- Proven experience in coordinating and managing numerous applied research projects.
- Significant administrative and supervisory skills.

Ecova offers competitive salaries, comprehensive benefits and the quality of life found only in the Pacific Northwest.

For consideration, please send curriculum vitae to: Vice President/Human Resources, Ecova Corporation, 15555 N.E. 33rd BioTech Road, Redmond, Washington 98052. EOE/AAP.

E C O V A
The Microbial Ecology Company

WORK ENVIRONMENT DEPARTMENT OPPORTUNITIES

Applications are invited for the following tenure track positions:

SENIOR FACULTY MEMBER

Expertise in political economy, as well as scientific training in occupational health, with experience in the study of the social and political dimensions of technological chance and hazard control are required.

EPIDEMIOLOGIST

Expertise in workplace hazard identification and quantification required. Experience in either physical-chemical and/or biomechanical studies is desirable.

ENGINEER

Expertise in the control of biomechanical hazards required. Research experience in the solution of ergonomic programs in industry is desirable.

The University of Lowell, located in the center of the high-technology corridor northwest of Boston, is one of three public universities in Massachusetts. With a current enrollment of over 15,000, it is one of the foremost professional universities in the Northeast.

The University has made a significant commitment to the development of industrial growth and innovation. An important aspect of productivity enhancement is the protection of worker health; consequently, the College of Engineering is forming an innovative interdisciplinary Work Environment Department in September 1987. This department will be unique in its attention to the control of workplace exposures. Active research and graduate academic programs in industrial hygiene and ergonomics are planned.

Interested candidates, please send application (letter of intent, professional and academic resume, and the names and addresses of three references) to: Dr. Aldo Crugnola, Dean, College of Engineering, University of Lowell, One University Avenue, Lowell, MA 01854 (Phone 617-452-5000 ext. 2322).

The University of Lowell is an Equal Opportunity/Affirmative Action, Title IX, 504 Employer.

I University of OWE

Postdoctoral Scientist

Molecular Pharmacologu

The Molecular Pharmacology Department at Smith Kline & French Laboratories, located in suburban Philadelphia, Pennsylvania, is seeking a postdoctoral scientist to participate in isolation and characterization of receptors involved phospholipid metabolism and characterization of pharmacological and/or biochemical agents in signal transduction.

We consider postdoctoral studies to be of major importance in an individual's career and encourage publication of findings in leading journals and full interaction with the scientific community. Our postdoctoral appointments are normally for two years duration.

The successful candidate is required to have:

- Ph.D. with 0-2 years of postdoctoral experience required.
- training in protein chemistry, receptor biology, biochemical pharmacology or equivalent molecular biological experience.
- experience and/or practical knowledge in phospholipid/Ca2+ metabolism and signal transduction mechanisms.

We offer excellent compensation and benefits and an attractive relocation policy. For confidential consideration, send your C.V. and the names of three references to Robert F. Obst, R&D Senior Employment Consultant, SmithKline Beckman Corporation, 1554 Spring Garden Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/H/V.



CURATOR OF MARINE INVERTEBRATES

The San Diego Natural History Museum is seeking Curator of Marine Invertebrates. Duties for this position include responsibility for a major collection (at present primarily mollusks and crustaceans), research and publication in systematics, and participation in exhibit and public programs. Applicants should have a Ph.D. and a demonstrated record of excellence in research. The successful candidate will interact with an invigorating cadre of systematists and evolutionary biologists from the Museum and local universities. Salary and benefits are competitive. To ensure full consideration submit curriculum vitae, a statement of research interests, and names of three references by 3 April 1987 to: G. K. Pregill, M.I. Search, Natural History Museum, P.O. Box 1390, San Diego, CA 92112. Affirmative Action/Equal Opportunity Employer.

DIRECTOR WYOMING WATER RESEARCH CENTER

The Wyoming Water Research Center, a state and federally funded division of the University of Wyoming with responsibilities for research, service, teaching, and extension in water resources, is seeking a Director who will be responsible for planning, implementing, and coordinating the University's water research programs. The position offers an excellent opportunity for an individual who can add a national and international perspective to an established and successful state-regional water research program, while living in a region with outstanding quality-of-life benefits. The University is situated in an intermontane basin in southeastern Wyoming. Fishing, hunting, recreational skiing, backpacking and mountain climbing are available within a 30-minute drive.

Qualifications include Ph.D. or equivalent combination of degree and experience, several years of experience in water resources research and research administration, a record of effective interaction with government agencies, an outstanding publication record, and excellent communication skills. The position is tenurable with joint faculty appointment in an appropriate academic department. Faculty rank and salary commensurate with experience. Send letter of application, résumé, and three letters of recommendation by 15 May 1987 to: Dr. Colin Kaltenbach, Search Chairman, Wyoming Water Research Center, P.O. Box 3067 University Station, Laramie, WY 82071.

The University of Wyoming is an Equal Opportunity/ Affirmative Action Institution

EVOLUTIONARY BIOLOGIST. Louisiana State University (LSU) Museum of Natural Science invites applications for an anticipated tenure-track position for curator/professor (assistant level) to begin 17 August 1987. Ph.D. and curatorial experience required. Research interest in amphibians preferred. Duties include museum-oriented research in evolutionary biology, curation in one of the Museum's collections, teaching one course per year, and graduate training. Submit statement of research and teaching interests, curriculum vitae, and three letters of recommendation by 13 April 1987 to:
Dr. D. A. Rossman, Museum of Natural Science,
LSU, Baton Rouge, LA 70803. An Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION AVAILABLE IN MOLECULAR CELL BIOLOGY

The Division of Life Sciences, The University of **Texas at San Antonio**, invites applications for a tenure-track position at either a junior or senior level in molecular cell biology with interest and experience in recombinant DNA research related to the nervous system. Candidates must show demonstrated research productivity and substantial ability and interest in teaching. Responsibilities will include teaching, research, and supervision of undergraduate and graduate student research. A Ph.D. is required and postdoctoral experience desired. Submit curriculum vitae, names of at least three professional references, and representative publications to: **Director**, Division of Life Sciences, The University of Texas at San Antonio, San Antonio, TX 78285–0662. Applications will be reviewed starting 1 April 1987 and the review will continue until the position is filled. The University of Texas at San Antonio is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

DEAN, College of Humanities and Social Sciences, University of California (UC) Riverside; \$12 million budget and 150 faculty. Apply by 15 April 1987 to: The Chancellor, University of California, Riverside, CA

FACULTY POSITION IN BIOCHEMISTRY

The University of Arizona seeks applicants for a tenure-The University of Arizona seeks applicants for a tenure-track assistant professorship. Outstanding candidates who qualify for a higher level appointment also will be considered. Candidates should have a Ph.D., an estab-lished record of productivity, and at least 2 years of postdoctoral experience. Preference will be given to applicants conducting heart research related to metabo-lism, regulation of cell function, or molecular biology of heart proteins. The successful candidate will be expected to develop a strong research program, and be committed to excellence in teaching. Review of applications begins 1 April 1987 and continues until position is filled. Candidates should submit curriculum vitae and a statement of research plans, and have three letters of recommendation sent to: Marc E. Tischler, Department of Biochemistry, University of Arizona, Tucson, AZ 85724. An Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION IN ICHTHYOLOGY MISSISSIPPI STATE UNIVERSITY

Applications are invited for a 9-month tenure-track appointment at the assistant professor level in the department of biological sciences. The successful applicant will be expected to direct M.S. and Ph.D. students and to develop a strong, extramurally funded research program in the area of fish ecology and behavior. To complement existing programs, preference will be given to applicants whose research will involve studies of the effects of pollution and habitat modification on freshwater fish populations. Duties will include teaching undergraduate and graduate courses and curating the departmental fish collection. Ph.D. required. Postdoctoral experience desirable. The appointment is to begin in August, 1987. Applicants should submit a current résumé, graduate transcripts, statement of research goals, copies of publications, and four references to: Dr. Wyman Dorough, Professor and Head, Department of Biological Sciences ricessor and Head, Department of Biological Sciences, Mississippi State University, P.O. Drawer GY, Mississippi State, MS 39762. All material should be received by 15 April 1987. Mississippi State University is an Affirmative Action/Equal Opportunity Employer.

FISHERY BIOLOGIST: The State University of New York's (SUNY) College of Environmental Science and Forestry (ESF) and the College at Oswego invite applications to fill a fishery biologist vacancy. The successful candidate will hold a joint, tenure-track position at ESF and Oswego and will be responsible for developing a Great Lakes fishery research program working with scientists from both campuses in cooperation with the Great Lakes Research Consortium and New York Sea Grant. Active participation in the graduate program in his/her area of specialization will be expected. Salary and rank commensurate with qualifications and experience. Minimal qualification is a Ph.D. or equivalent in fishery biology or related fields. Preference will be given to individuals with substantive professional experience and knowledge of current research. ence and knowledge of current research, fishery management issues, and funding sources or legislation germane to the Great Lakes fishery resource. Expertise in fish population dynamics or fish community ecology in freshwater systems is desirable. To apply please submit a letter of application, curriculum vitae, and have three letters of recommendation sent by 1 May 1987 to: Dr. Robert G. Werner, Chair, Search Committee, 257 Illick Hall, SUNY ESF, Syracuse, NY 13210.

An Equal Opportunity/Affirmative Action Employer

IMMUNOPARASITOLOGY POSTDOCTORAL POSITION immediately available to apply monoclonal and antiidiotypic antibody techniques to study host and antidiotypic antibody techniques to study host immune responses and antigens of *Trypanosoma cruzi*. Applicants should have a strong background in immunology and/or protein chemistry. Send curriculum vitae and three letters of reference by 15 April 1987 to: Dr. Donald G. Dusanic, Department of Life Sciences, Indiana State University, Terre Haute, IN 47809. *Indiana State University is an Equal Opportunity/Affirmative Action Employee* tive Action Employer.

POSITIONS OPEN

GRADUATE RESEARCH ASSISTANTSHIP— Biochemistry Interactions of complement proteins. Must have an interest in physical biochemistry. Available May 1987. Closing date 3 April 1987 or until suitable applicant found. Send résumé, letter of application, and names, addresses, and phone numbers of three references to: Dr. J. K. Zimmerman, Department of Biological Sciences, Clemson University, Clemson, SC 29634— 1903. Clemson University is an Equal Opportunity/Affirmative Action Employer.

HEAD, DEPARTMENT OF MICROBIOLOGY. Applications are invited for the position of Head of the Department of Microbiology, College of Veterinary Medicine, Auburn University. The head directs the veterinary professional and graduate teaching programs, and coordinates research efforts, clinical laboratory serious and the first professional and product the first professional and pr vices and public service activities of the faculty. The person is responsible for faculty recruitment and evaluation of personnel and, in conjunction with the Dean, the allocation and use of funds and available resources. Requirements include D.V.M. or V.M.D. and Ph.D., or Ph.D. in an appropriate discipline, demonstrated teaching proficiency and expertise in research, a commitment to excellence in instructional programs, and evidence of administrative capabilities. Preference will be given to candidates with experience in a veterinary teaching facility. Applicants should send curriculum vitae and names of three references to: Dr. Charles D. Knecht, Chairman of Search Committee, Department of Small Animal Surgery and Medicine, Auburn University, Auburn, AL 36849. Auburn University is an Equal Employment Opportunity Employer. Minorities and women are encouraged to apply.

IMMUNOGENETICIST/IMMUNOLOGIST

The Department of Pathology at the Wayne State University School of Medicine is searching for an immunogeneticist or immunologist with either an M.D. or Ph.D. degree, and a strong background in molecular biology to work in an established section of a histocompatibility/hematopathology laboratory. Assistant or assocate professor level position with major emphasis on research. Collaboration with transplantation physicians and members of departments of molecular biology and immunology is encouraged. Rank and pay commensurate with experience. Interested applicants should send curriculum vitae, personal statement, and three letters of reference to: Joseph Wiener, M.D., Chairman, Department of Pathology, Wayne State University School of Medicine, 540 East Canfield, Detroit, MI 48201

An Equal Opportunity/Affirmative Action Employer.

IMMUNOLOGIST

The Department of Biology of The University of Akron has a tenure-track ASSISTANT PROFESSOR osition open for September 1987. Applicants must have a Ph.D. in immunology or microbiology and postdoctoral experience is desirable. Responsibilities include teachal experience is desirable. Responsibilities include teaching immunology to undergraduate and graduate students, having an active research program, and participation in teaching an introductory microbiology course. Send curriculum vitae, present and proposed research interests, and three letters of reference to: Dr. Dale Jackson, Chairman, Department of Biology, The University of Akron, Akron, OH 44325 by 3 April 1987. The University of Akron is an Equal Education and Employment Institution

INVERTEBRATE ZOOLOGIST

The Department of Biology, Illinois Wesleyan University, invites applications for a tenure-track position at the ASSISTANT PROFESSOR level. Applicants should have the Ph.D. degree. The successful candidate must be qualified to teach courses in invertebrate zoology (including marine biology), and be able to participate in team-taught general biology courses for majors and human biology for nonmajors. In addition, the candidate will be expected to conduct research and to guide undergraduate student research projects. Primary consideration will be given to teaching excellence. Women and minorities are particularly encouraged to apply. Send curriculum vitae and three letters of reference to: **Dr. Bruce B.** Criley, Department of Biology, Illinois Wesleyan University, Bloomington, IL 61702. Illinois Wesleyan is an Equal Opportunity Employer.

INSTRUCTOR
University of Minnesota Medical School
Department of Laboratory Medicine
and Pathology

An INSTRUCTOR nontenure-track faculty position is available for candidates who hold a Ph.D. in pathobiology or biochemistry, with minimum of 1 year of post-doctoral experience in immunology and biochemistry of basement membrane. Performance of detailed biochemical and molecular genetic studies on components of basement membranes. These will include antigens to which autoimmune responses occur and moieties that are missing in familial renal disease. Candidates should be familiar with protein chemistry and molecular biology techniques. In addition, the candidate will be responsible for teaching courses concerned with the structure of extracellular membranes, and will also advise undergraduate and graduate students as well as postdoctoral felows.

Applicants should send curriculum vitae and names of three individuals who can provide letters of reference to:

Leo Furcht, M.D.

Department of Laboratory Medicine and Pathology
Box 609 UMHC
University of Minnesota

University of Minnesota
Minneapolis, MN 55455
Deadline for receipt of applications is 15 April 1987.
The University of Minnesota is an Equal Opportunity
Educator and specifically invites and encourages applications
from women and minorities.

JOINT GRADUATE PROGRAM IN TOXICOLOGY OF RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY AND UMDNJ—ROBERT WOOD JOHNSON MEDICAL SCHOOL. We are conducting a national search for exceptional scholars who wish to earn a Ph.D. in toxicology. We offer a fellowship sponsored by the Amoco Corporation in the amount of \$10,000 plus tuition for highly qualified students with strong GPA and GRE scores. Our internationally recognized faculty will provide an opportunity to conduct research in cellular/molecular toxicology, immunotoxicology, hepatotoxicology, carcinogenesis, inhalation/respiratory toxicology, neurotoxicology, environmental and aquatic toxicology, and metabolism of environmental chemicals. We strive to couple the results of basic toxicology research with health risk assessment. For application package please contact: Dr. Robert Snyder, Director, Joint Graduate Program in Toxicology, Rutgers University, College of Pharmacy, Piscataway, NJ 08855–0789. Telephone: 201-932-3720.

MICROBIAL GENETICIST/ MOLECULAR BIOLOGIST

The Department of Microbiology of Boston University School of Medicine is seeking a new faculty member at the assistant/associate professor level. The successful candidate will be expected to teach microbial genetics to graduate and medical students, to carry out an independent research program, and to attract grant support. Applicants should submit their curriculum vitae, a statement of research interest, and the names of three references by 15 April 1987 to: Dr. Eva R. Kashket, Search Committee, Department of Microbiology, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118. Equal Opportunity/Affirmative Action Employer.

MICROBIOLOGIST WANTED

The Caribbean Regional Drug Testing Laboratory in Kingston, Jamaica, invites applications to fill the post of MICROBIOLOGIST.

Duties: Testing and evaluating the microbiological quality of pharmaceutical products, including the developing and application of techniques for the assaying of antimicrobials.

Qualifications: M.Sc. or Ph.D. degree in microbiology. Experience in analysis and quality control of pharmaceutical products preferred. Applicants should submit curriculum vitae with names

Applicants should submit curriculum vitae with names and addresses of three references to: The Director, Caribbean Regional Drug Testing Laboratory, c/o Government Chemist's Department, Hope, Kingston 6, Jamaica, W.I.

The closing date for the receipt of applications is 27 March 1987. Late applications will be reviewed.

LEWIS LEHR/3M ENDOWED CHAIR IN HUMAN GENETICS

School of Biological Sciences UNIVERSITY OF NEBRASKA-LINCOLN

The 3M Company Foundation established the Endowed Chair in Human Genetics in honor of Lewis Lehr upon his retirement as the company's chief executive officer.

We are seeking a scholar with an established and nationally recognized research program related to molecular genetic analyses of human heredity. Research can include utilization of animal models.

The individual will participate in continued development of the School's strong research programs in modern biology including cell and molecular biology.

The School's modern research facilities include a laboratory of cell analysis with a fluorescence-activated cell sorter, a gene synthesis laboratory with an oligonucleotide synthesizer, and a DNA sequencing facility.

Applicants should have Ph.D. and an established research program qualifying them for a tenured position. Send nominations or applications (current vita, names and addresses of three references, and a brief description of research) by May 1, to

Royce E. Ballinger, Director School of Biological Sciences 348 Manter Hall University of Nebraska-Lincoln Lincoln, Nebraska 68588-0118

Affirmative Action/Equal Opportunity Employer

POSTDOCTORAL FELLOW

Neurobiology

The Wellcome Research Laboratories located in Research Triangle Park, North Carolina, has a Postdoctoral Fellow position available in the Department of Medicinal Biochemistry. The grant for this position will be administered through the Department of Pharmacology at **Duke University**.

The position involves multidisciplinary approaches to study the mechanism of neurotransmitter/hormone synthesis and secretion. The candidate will be mostly concerned with the coordinated regulation of neuropeptide synthesis and processing and stimulussecretion coupling using the adrenomedulary chromaffin cells in culture as a model system. Experience in biochemistry and protein chemistry is preferred.

To apply, forward curriculum vitae to:

Dr. Emanuel Diliberto Medicinal Biochemistry Department

BURROUGHS WELLCOME CO.

An Equal Opportunity Employer M/F



3030 Cornwallis Road Research Triangle Park NC 27709

Wellcome

CARDIOVASCULAR PHARMACOLOGIST

Continued expansion of our basic Research Institute in Cincinnati, Ohio has resulted in two immediate openings in the pharmacological sciences area for PhD level individuals, preferably with post doctoral experience to identify and investigate new approaches and novel agents for the treatment of cardiovascular diseases involving ischemia or vasospasm.

One position involves research into the role of oxygen-derived free radicals in the process of ischemic damage and requires an individual with expertise in the techniques to study the source and generation of these highly reactive chemical entities thought to contribute to myocardial damage.

The second position involves research into the interactions of the formed elements of blood and the vasculature to produce vasospasm and requires an individual with expertise in the techniques to study the formation, release and pharmacological actions of vasoactive mediators.

We offer excellent compensation, comprehensive benefits and relocation assistance. Please send your curriculum vitae and names of three references in confidence to:

Merrell Dow

Personnel Services Manager (Refer to Job Code RCD)

MERRELL DOW RESEARCH INSTITUTE

2110 East Galbraith Road Cincinnati, OH 45215

Cincinnati, OH 45215 U.S. Citizenship or Permanent Visa Required

Equal Opportunity Employer M/F/H/V

The Department of Veterinary Pharmacology and Toxicology in the School of Veterinary Medicine at the University of California at Davis invites applications from qualified individuals for two tenure-track positions, one in Pharmacology and the other in Toxicology at the assistant professor level.

Qualifications: Scientist in the field of Pharmacology/ Toxicology with a proven record of achievement in research relevant to Veterinary Pharmacologic/Toxicologic problems; demonstrated competence for teaching and an interest in conducting research in an aspect of Veterinary Pharmacology/Toxicology; an advanced degree (PhD) in the field of Pharmacology/Toxicology with postdoctoral experience; a DVM is desirable. Research areas of interest to the department include clinical pharmacology, pharmacokinetics, toxicokinetics, neuropharmacology/neurotoxicology, immunopharmacology/immunotoxicology, cardiovascular and reproductive pharmacology/toxicology.

Teaching: Professional—Teach and develop courses and a sound academic program, basic and applied, in Pharmacology/Toxicology for professional students. Graduate— Opportunity to develop courses and instruct graduate academic and clinical students in formal courses and in graduate seminars in Veterinary Pharmacology/Toxicology. Direction of graduate students in independent study and in pursuit of graduate degrees. Willing to participate in developing a graduate training program in Veterinary Pharmacology/Toxicology in the School of Veterinary Medicine and with the Graduate Group in Pharmacology and

Research: The development of a creative and productive research program is an indispensable requirement of both positions. The successful candidates for the positions will be required to participate in the development and strengthening of a research program in Veterinary Pharmacology/Toxicology in collaboration with Pharmacology/ Toxicology programs on the Campus. Send curriculum vitae, a list of publications and names of three referees to: Chairperson, Search Committee, Department of Veterinary Pharmacology and Toxicology, School of Veterinary Medicine, University of California, Davis, CA 95616. The closing date for receipt of applications is April 30, 1987.

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

Medical

I.V.F. **TECHNICIAN**

Our center for reproductive medicine is seeking an In-Vitro Fertilization Technician with a BS Degree in Biological Sciences. Master's Degree is preferred. The successful candidate should also have tissue culture experience.

We offer highly competitive wages, in addition our comprehensive benefit package includes Medical, Dental, Vision, Life Insurance and Pension Savings Plan for eligible employees.

For moré information, please contact Dr. David Hill or Nora Ryan at Century City Hospital (213) 201-6619 or send resume or cover letter to:



A National Medical Enterprises Health Care Center

Vacancy Announcement

ASSOCIATE VICE PRESIDENT FOR RESEARCH UNIVERSITY OF IDAHO

The University of Idaho invites nominations and applications for the position of Associate Vice President for Research. The Associate Vice President for Research reports to the Vice President for Academic Affairs and Research and is primarily responsible for promoting excellence in research and scholarly activity, enhancing the research environment, providing leadership in broadening and strengthening research and scholarly activity, establishing an administrative structure appropriate for coordinating and supporting research, formulating and administering policy governing research, and representing the university in research-related matters. The Associate Vice President for Research will work closely with the academic deans to coordinate research in the colleges, and with the designated Board of Deans for the various research institutes and

The University of Idaho is a publicly supported comprehensive landgrant institution with principal responsibility for performing research and for granting PhD degrees in Idaho. Regional programs in medical and veterinary medical education in which the state participates are also part of University of Idaho responsibilities. The UI has programs at 50 sites state-wide. Its land exceeds 8,000 acres. Its nine colleges and Graduate School make the University of Idaho the only comprehensive institution of higher learning in the

Applicants or nominees must have an earned doctorate, a distinguished teaching and scholarship record appropriate for appointment as full professor, excellent communication skills, demonstrated ability in obtaining competitive outside funding for research, and administrative experience

The salary is commensurate with qualifications and experience. The position is available July 1987. Search and selection procedures will be closed when a sufficient number of qualified applicants has been identified, but not earlier than April 10, 1987. Each applicant should submit a letter of application, a current resume, and the names, addresses, and telephone numbers of three current professional references. References will be treated confidentially and contacted only after preliminary screening is completed. All correspondence should be addressed to: Ms. Patricia Houle, Secretary of the Associate Vice President for Research Search Committee, College of Engineering, University of Idaho, Moscow, Idaho 83843. The University of Idaho is an AA/EOE.

DIRECTOR, MICROBIOLOGY AND INFECTIOUS DISEASES PROGRAM

The National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health, is currently recruiting for the Senior Executive Service position of Director, Microbiology and Infectious Diseases Program (MIDP), at a salary range between \$63,135 and \$70,000 PA. (If filled by a Medical Officer, selected candidate may be eligible for a Physician's Comparability Allowance up to \$10,000, in addition to base salary). The Director, MIDP, is one of four extramural program directors in the Institute with responsibility for conducting a nationwide and international research effort, through extramural sources, on the clinical and epidemiological aspects of infectious diseases. Eligible candidates must meet the qualifications requirements for Medical Officer, GS-602; or Health Scientist Administrator, GS-601 (a Ph.D. in the biomedical sciences, or an appropriate combination of comparable technical and professional knowledge). Candidates must have knowledge of the clinical and epidemiological aspects of infectious diseases, and with laboratory, clinical and epidemiological research, and be conversant with the mechanisms used to accomplish research through extramural sources. Candidates must also have demonstrated competences to assume leadership responsibilities, and skills as a manager.

Interested candidates should submit Application for Federal Employment, SF-171 (available at all Federal Job Information Centers and Federal Personnel Offices), C.V. and bibliography to the address below. Resumes alone are not acceptable applications for the Senior Executive Service.

> Mrs. Janie R. Lacy Personnel Officer, NIAID **National Institutes of Health** 9000 Rockville Pike Building 31, Room 7A33 Bethesda, Maryland 20892

The names of nominees may be phoned in to Dr. John Gallin on (301) 496-3006. U.S. citizenship required.

An Equal Opportunity Employer



Stratagene is an innovator in research products for molecular biology. The company is now expanding its focus and plans to utilize its proprietary technologies in areas related to gen prognosis and gene expression in transgenic animals. Postitions are available at several levels.

Postdoctoral Positions

Applicants should have a doctorate degree in Molecular Biology or Biochemistry and significant laboratory experience with a broad range of technologies, including nucleic acid hybridization, gene cloning and subcloning, DNA sequencing. Candidates should demonstrate their productivity and ability to function independently within the laboratory setting. Good writing and interpersonal skills are required. Staff Scientists are expected to continue publishing and to move to the forefront of their area of flosus.

Research Associate

Applicants should have a B.S. or M.S. in Molecular Biology or Biochemistry and 2 to 3 years of relevant laboratory experience. Experience with DNA sequencing, nucleic acid hybridization, gene cloning and subcloning, is expected. Candidates should have the ability to function independently within the laboratory setting. Good interpersonal skills are required.

Stratagene provides a unique working environment. The company is growing rapidly and encourages group involvement in major decisions and policy. A generous stock option plan is available, in addition to standard fringe benefits. Stratagene is located within an important center for biotechnology. It is three miles from the University of California and several other major research institutes. Recreational opportunities are plentiful, being just minutes from the beach. Salanes are excellent.

Stratagene encourages scientists with an entrepreneurial spirit. Creativity and productivity are acknowledged and rewarded. The opportunity for advancement within the company is exceptional.

Please send resumes and three references to

Ms. Candra Carter Stratagene Cloning Systems 3770 Tansy Street San Diego, CA 92121

NATIONAL INSTITUTE ON AGING NATIONAL INSTITUTES OF HEALTH Public Health Service

The Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health, invites applications for a Staff Fellowship position to study molecular biological aspects of aging brain and human neuropathological disorders. The successful candidate will be expected to carry out research that will complement some of the following areas of investigation: (1) characterization of the molecular changes in the aging rat brain and in the postmortem human brain in relation to Alzheimer's disease; (2) examination of proto-oncogene and growth factor expression in the CNS and in specific neuronal populations; (3) examination of altered gene expression in a trisomic mouse model of Down's syndrome

Applications are invited from individuals having a Ph.D., M.D., or combined degrees plus experience in either of the following: molecular approaches to gene expression, in situ hybridization or neuroanatomy. Salary range is \$17,000 to \$47,788 per annum commensurate with qualifications. Interested candidates should submit their Curriculum Vitae to Stanley I. Rapoport, M.D., Chief, Laboratory of Neurosciences, National Institute on Aging, Building 10, Room 6C 103, 9000 Rockville Pike, National Institutes of Health, Bethesda, Maryland 20892.

An Equal Opportunity Employer



Sungene Technologies Corporation

PLANT BIOCHEMIST

Sungene Technologies Corporation, an established plant biotechnology company in the San Francisco Bay Area, has immediate openings for scientists to conduct research in oilseed or starch biochemistry. This work would involve enzymological and molecular biological approaches, as well as collaboration with cell biology and plant breeding scientists.

Candidates must have a Ph.D. in plant biochemistry or related field. Opportunities exist to work in both basic and applied research areas.

Sungene offers excellent salary, benefits, and stock options plans. Please send resume with reference names to:

John Kelley, Personnel Manager SUNGENE TECHNOLOGIES CORPORATION 3330 Hillview Avenue Palo Alto, CA 94304

NATIONAL SCIENCE FOUNDATION (NSF)

NSF is accepting Intergovernmental Personnel Act Mobility Program (IPA) nominations from colleges/universities, or state and local governments for an assignment as Program Associate, Division of International Programs, Industrial Countries Section, U.S.-Japan, -Australia, -New Zealand Cooperative Science Programs, and the Program of Cooperation with Japan in Photosynthesis and Photoconversion. The assignment will be for one or two years. Applicants should have a Ph.D. in a scientific or engineering discipline supported by NSF, with experience in teaching, research, and/or science and education related administration. Some knowledge of the Japanese language and familiarity with the culture and scientific infrastructure of Japan would be advantageous. Assignments will include program development, work with the permanent staff on proposal and grant management, and interactions with NSF's counterpart organizations in the three Pacific industrial countries, as well as with scientific visitors, foreign embassies, and U.S. Government agencies. The individual selected will remain an employee of his or her institution, which may be reimbursed by NSF for salary and other costs. Nominations should be sent to the National Science Foundation, Room 208, 1800 G St., NW, Washington, DC 20550. Attn: Catherine Handle. For technical information concerning the assignment call Charles W. Wallace, Division of International Programs, 202/357-9558. NSF is an Equal Opportunity Employer.

Postdoctoral Scientist Medicinal Chemistry Department

The Medicinal Chemistry Department of Smith Kline and French Laboratories, located in a new state of the art research facility near Valley Forge, PA, is seeking a postdoctoral scientist to participate in the detection, isolation and purification of natural products; interact with biologists involved in evaluating the activity of the lead compounds; collaborate with physical chemists in determining the structure of novel natural products; and chemically modify lead compounds either as part of their structural elucidation or for S/A studies.

Candidates are required to have:

- A Ph.D. in Organic Chemistry.
- Practical knowledge of modern isolation and separation techniques and the ability to interpret spectral data.
- Excellent oral and written communication skills.

Preference will be given to candidates with experience in natural products chemistry.

Our postdoctoral positions are normally of two years duration. Publication of research findings in leading journals and full interaction with the scientific community are strongly encouraged.

We offer an excellent salary, benefits and relocation package. Please forward your c.v. to George P. Kissell, Jr., Manager, Personnel Relations, SK&F Laboratories, 1596 Spring Garden Street, Philadelphia, PA 19101. We are an equal opportunity employer, M/F/H/V.



DIRECTOR, IMMUNOLOGY, ALLERGIC AND IMMUNOLOGIC DISEASES PROGRAM

The National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health, is currently recruiting for the Senior Executive Service position of Director, Immunology, Allergic and Immunologic Diseases Program (IAIDP), at a salary range between \$63,135 and \$70,000 PA. (If filled by a Medical Officer, selected candidate may be eligible for a Physician's Comparability Allowance up to \$10,000, in addition to base salary). The Director, IAIDP, is one of four extramural program directors in the Institute with responsibility for conducting a nationwide research effort, through extramural sources, in allergic and immunologic dysfunctions. Eligible candidates must meet the qualifications requirements for Medical Officer, GS-602; or Health Scientist Administrator, GS-601 (a Ph.D. in the biomedical sciences, or an appropriate combination of comparable technical and professional knowledge). Candidates must have knowledge of the scientific and administrative aspects of basic biomedical research programs funded through grants and/or contracts. Candidates must also have demonstrated competences to assume leadership responsibilities, and skills as a manager.

Interested candidates should submit Application for Federal Employment, SF-171 (available at all Federal Job Information Centers and Federal Personnel Offices), C.V. and bibliography to the address below. Resumes alone are not acceptable applications for the Senior Executive Service.

Mrs. Janie R. Lacy Personnel Officer, NIAID National Institutes of Health 9000 Rockville Pike Building 31, Room 7A33 Bethesda, Maryland 20892

The names of nominees may be phoned in to Mrs. Lacy on (301) 496-9686. U.S. citizenship required.

An Equal Opportunity Employer

MEDICAL BACTERIOLOGY. The Ohio College of Podiatric Medicine invites applications for a faculty position in medical bacteriology. This is a full-time, career position at the assistant or associate professor rank. Applicants must demonstrate the abilities to teach in a medical school setting and to develop an independent research program. Candidates must have a Ph.D., D.P.M., and/or M.D. degree, or the equivalent. Submit letter of interest, curriculum vitae, and three references to:

Cecelia A. Wylie
Ohio College of Podiatric Medicine
10515 Carnegie Avenue
Cleveland, OH 44106
Application due date 24 April 1987.
Equal Opportunity Employer

MICROBIOLOGIST RESEARCH COORDINATOR DIVISION OF INFECTIOUS DISEASES

Outstanding opportunity for postdoctoral candidate or experienced Ph.D. from an accredited university. Ideal candidate will have laboratory skills and experience in molecular biology including assay techniques of body fluids (for antimicrobial agents) and familiarity with HPLC. Salary is commensurate with educational background and experience. Excellent benefits package. Submit curriculum vitae and names of three references to: L. Tarallo, Personnel Department, The Mount Sinai Medical Center, 19 East 98th Street, New York, NY 10029. An Equal Opportunity Employer.

The Department of Biology of Villanova University is redefining its search to seek interested candidates to fill a tenure-track position at the assistant professor level for fall 1987. MOLECULAR BIOLOGIST: with preference to be given to individuals with interests in virologor immunology. The successful candidate is also expected to participate in appropriate undergraduate courses.

or immunology. The successful candidate is also expected to participate in appropriate undergraduate courses. A Ph.D. and postdoctoral experience are required. Candidates are expected to develop a research program with potential for extramural support, participate actively in departmental affairs, and exhibit a personal concern for students. Applicants should send transcripts of undergraduate and graduate work, a curriculum vitae, a brief statement of research a teaching goals, and the names and addresses of three referees. Candidates should also arrange for letters of reference to be sent by the application deadline. To ensure consideration of your application it should be received by 31 March 1987. Submit all materials by this date to: Dr. Joseph Orkwiszewski, Chair, Department of Biology, Villanova University, Villanova, PA 19085. Villanova University is an Affirmative Action/Equal Educational Opportunity Institution. Women and minorities are especially encouraged to apply.

MOLECULAR BIOLOGIST VIROLOGIST

Postdoctoral position available to participate in cDNA cloning and expression of viral genes, epitope mapping, and related topics. Send curriculum vitae plus names of three references to: Alfred M. Prince, M.D., The Lindsley F. Kimball Institute of the New York Blood Center, 310 East 67 Street, New York, NY 10021. An Equal Opportunity Employer.

MOLECULAR NEUROENDOCRINOLOGIST

The Program in Basic Neuroendocrinology of the Western Psychiatric Institute and Clinic, Department of Psychiatry, University of Pittsburgh School of Medicine, seeks a candidate at the ASSISTANT PROFESSOR level to develop a program of research in molecular neuroendocrinology. The successful candidate should be a recent Ph.D. in biochemistry or a related field with a minimum of 2 years of postdoctoral experience, a demonstrated record of scientific accomplishment, and must be trained in contemporary recombinant DNA techniques. The successful applicant will develop his/her own research program, collaborate with other faculty members on work relating to the control of neuropeptide biosynthesis, and participate in teaching activities. Salary, space, and start-up funds are negotiable, and commensurate with experience. Send curriculum vitae and three letters of recommendation to: Professor J. D. Fernstrom, Chairman, Molecular Neuroendocrinology Search Committee, Room E1230, Western Psychiatric Institute and Clinic, 3811 O'Hara Street, Pittsburgh, PA 15213. An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

MICROBIOLOGIST/VIROLOGIST

The West Virginia School of Osteopathic Medicine invites applications for a tenure-track position at the assistant or associate professor level. Qualified applicants must have a Ph.D. in virology or microbiology with virology specialty. Candidates with teaching experience are preferred. Research opportunities are available and encouraged. Teaching responsibilities include teamtaught general microbiology plus general and medical virology to medical students.

Applicants should submit a letter describing teaching and research experience and interests, curriculum vitae, and three current letters of reference to: Chairperson, Microbiology Search Committee, c/o Human Resources Office, West Virginia School of Osteopathic Medicine (WVSOM), 400 North Lee Street, Lewisburg, WV 24901. Applications must be postmarked no later than 31 March 1987.

WVSOM is an Affirmation Act. 1987.

WVSOM is an Affirmative Action/Equal Opportunity Employer.

MOLECULAR GENETICIST/NEUROSCIENTIST. The Departments of Psychiatry and Neurology of Columbia University seek an individual to pursue independent research in molecular genetics and work with clinicians and epidemiologists in developing methods of pedigree ascertainment and linkage analysis; Qualifications: M.D. or Ph.D. in genetics or biochemistry; extensive postdoctoral training experience in recombinant DNA technology and chromosomal localization, preferably in connection with hereditary neuropsychiatric diseases, and the application of molecular genetics to the study of such diseases; teaching experience; proven ability to obtain external funding. Qualified candidate will receive an appointment at the assistant professor level. Send curriculum vitae, copies of main publications, and names/addresses of three references to: John Rainer, M.D., Columbia University, Department of Psychiatry, 722 West 168 Street, Box 58, New York, NY 10032. Affirmative Action/Equal Opportunity Employer.

UNIVERSITY OF CHICAGO MOLECULAR VIROLOGIST

The Department of Molecular Genetics and Cell Biology, the University of Chicago, invites applications for a tenure-track position, preferably at the assistant professor level. Of particular interest are candidates with demonstrated ability to develop an outstanding program of research and training in the molecular biology of herpesviruses, although other fields of virology will be considered. The department and university offer opportunities for productive interactions with cell biologists and other virologists, including members of a program devoted to herpesviruses. Applicants should send their curriculum vitae, a brief outline of research and teaching interests and goals, and the names and addresses of three references to: Virology Search Committee, Department of Molecular Genetics and Cell Biology, The University of Chicago, 920 East 58th Street, Chicago, IL 60637.

In keeping with its long-standing traditions and policies, the University of Chicago considers applicants on the basis of individual merit and without regard to race, color, religion, sex, national or ethnic origin, handicap, or other factors irrelevant to fruitful participation in the programs of the University.

POSTDOCTORAL ASSOCIATE position available immediately for the study of sarcoplasmic reticulum Ca²⁺-ATPase structure by electron microscopy and 3-D image reconstruction methods. Applicants should have some experience in electron microscopy, crystallography or 3-D image reconstruction methods. Send curriculum vitae and three references to: Dr. Kenneth Taylor, Anatomy Department, Box 3011, Duke University Medical Center, Durham, NC 27710. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to examine Factor VIII/von Willebrand factor structure/function in basic science and clinical studies. Experience is desirable in protein chemistry techniques, monoclonal antibody production, endothelial cell and platelet characterization. Send résumé to: Dr. Mark Weinstein, Boston University School of Medicine, Boston City Hospital, Thorndike 508, 818 Harrison Avenue, Boston, MA 02118.

POSITIONS OPEN

NMR IMAGING PHYSICIST

The Department of Radiology of The Johns Hopkins University School of Medicine is seeking candidates to fill a tenure-track faculty position in NMR imaging. This position will emphasize clinical and research applications of NMR imaging and spectroscopy. Title, salary, and responsibilities of the candidate will be commensurate with his or her qualifications and experience. Available instrumentation includes 1.5-T, 4.7-T, and 8.5-T systems, and vigorous pursuit of research and instrumentation development will be encouraged. Excellent opportunities exist for collaboration with physicians, biomedical scientists, and spectroscopists. Interested individuals should send a description of their research interests, curriculum vitae, and three letters of recommendation to: Martin W. Donner, M.D., Professor and Chairman, Department of Radiology and Radiological Science, The Johns Hopkins Hospital, Baltimore, MD 21205.

NUTRITION. Two ASSISTANT PROFESSOR TENURE-TRACK POSITIONS in the Departments of Physiology and Medicine at Eastern Virginia Medical School for Ph.D.'s with research interests in obesity, body weight and food intake regulation, energy metabolism, or gut hormones. Applicants must have an outstanding publication record and demonstrate fundability. Labs to be located at the Veterans Administration (VÁ) Medical Center, Hampton, VA.

Send curriculum vitae and names of three references

Richard L. Atkinson, M.D. Associate Chief of Staff for Research (151) VA Medical Center Hampton, VA 23667

Eastern Virginia Medical School and the VA Medical Center are Affirmative Action/Equal Opportunity Employers.

The Centers for Disease Control (CDC) is seeking an accomplished Ph.D. VIRAL IMMUNOLOGIST to conduct basic and clinical research on the human immune response to human immunodeficiency virus (HIV). Experience in virus-specific proliferative and cytotoxic assays, immune cell phenotyping and separation, immunogenetics, cell culture, virus propagation, immunogenetics, cell culture, virus propagation, and virus detection assays is required. Position is in the Immunology Branch, Division of Host Factors, CDC, which consists of 12 professional and technical people conducting investigations in various aspects of the immunology of AIDS. In addition, there are more than 100 people at the CDC conducting AIDS investigations providing additional resources for interaction and collaboration. Salary: \$32,567 to \$38,727. Send inquiries to: Louise Griggs, Personnel Management Specialist, CDC, Building 1, Room 1042, Atlanta, GA 30333. CDC is an Equal Opportunity Employer and has a smoke-free work environment.

PHYSICS—Tenure-track position available 15 August 1987 at ASSISTANT PROFESSOR level. Applicants must have a Ph.D. in physics. Successful candidate must be committed to excellence in teaching undergraduate Physics courses and is expected to develop an active research program or participate in ongoing research which involves undergraduates. Current areas of research in the department are astrophysics, biophysics, radiological physics, nuclear physics, optical physics, and physics pedagogy. Some start-up funds for research are available. Send curriculum vitae (including lists of publications and external grants awarded) and a statement of research interests and arrange to have at least three letters of reference sent by 17 April 1987 to: Office of Academic Affairs, Physics and Astronomy Search, Western Kentucky University, Bowling Green, KY 42101. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL ASSOCIATE— OLIGONUCLEOTIDES

We are seeking an ORGANIC CHEMIST with experience in synthesis of oligonucleotides to join our group in scale-up of synthesis and in design of modifications of oligodeoxynucleotides for use as antisense antiviral agents. Submit résumé and names of three references to: Dr. Paul Zamecnik, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.

An Equal Opportunity/Affirmative Action Employer MIF/H.

GROUP LEADER

Merck Sharp & Dohme Research Laboratories is currently seeking a highly motivated individual with a Ph.D. in Molecular Biology and at least 2 years of post doctoral experience.

As a group leader, the successful candidate would head a team effort in applying molecular biological approaches to the study of signal transduction.

This position involves the cloning of genes for pharmacologically important receptors utilizing molecular genetics to explore structure-function relationships of receptors, G-proteins and enzymes involved in 2nd messenger generation.

Merck Sharp & Dohme Research Laboratories are located in Rahway, New Jersey approximately 20 miles south of New York City. Our salaries, benefits, and growth potential are excellent.

Interested candidates should submit their curriculum vitae, the names of 3 references and salary requirements in confidence to: Ms. Alaina L. Love, Merck Sharp & Dohme Research Laboratories, P.O. Box 2000, R80M-TL1, Rahway, New Jersey 07065.

EQUAL OPPORTUNITY EMPLOYER



Merck & Co., Inc.

TRANSPLANTATION IMMUNOLOGIST

The Cleveland Clinic Foundation invites applications for a full-time position involving a primary appointment in the Department of Immunology & Cancer and a joint clinical appointment. Interested applicants must have an M.D. and/or Ph.D. degree with considerable postdoctoral experience in basic transplantation immunology. Candidates must be established investigators with evidence of high quality independent research, and a consistent history of external funding support. Essential qualities of the successful applicant are the ability to develop a research program bridging basic laboratory investigation with relevant problems in transplantation science, and a willingness to interact with basic scientists as well as transplant clinicians. Please submit a letter of application, curriculum vitae, and research interests to:

Andrew C. Novick, M.D. Chairman, Department of Urology



THE CLEVELAND CLINIC FOUNDATION

A National Referral Center — An International Health Resource

The Cleveland Clinic Foundation is an Equal Opportunity/Affirmative Action Employer.

NATIONAL INSTITUTE ON AGING NATIONAL INSTITUTES OF HEALTH Public Health Service

The Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health, invites applications for a Staff Fellowship position to study electrical properties of neuronal cell membranes during development in tissue culture. Research will involve: (1) growing mammalian neurons in culture; (2) examining action potential and membrane properties with intracellular microelectrodes; (3) performing voltage and current clamping to identify and characterize individual membrane currents; (4) using patch clamp recording techniques to characterize kinetics of individual ionic channels and analyze channel number. Experiments will be done in relation to morphological and neurochemical analyses. The position is that of a Staff Fellow, Senior Staff Fellow or Medical Staff Fellow, with a salary of \$17,000 to \$47,788 per annum commensurate with qualifications. Appointments vary in duration from 1 to 7 years. The position is located in Bethesda. Maryland, and is available immediately.

Applications are invited from qualified individuals having a Ph.D., M.D., or both, and pertinent research experience. Interested candidates should submit their Curriculum Vitae to Stanley I. Rapoport, M.D., Chief, Laboratory of Neurosciences, National Institute on Aging, Building 10, Room 6C 103, 9000 Rockville Pike, National Institutes of Health, Bethesda, Maryland 20892.

An Equal Opportunity Employer



SECTION MANAGER REAGENTS QUALITY ASSURANCE

A leading developer and manufacturer of diagnostic products in the clinical laboratory market is currently seeking an energetic scientist who can take a leadership role in the Quality Assurance of reagents for one of the most rapidly growing automated immunoassay systems in the world.

The ideal candidate should possess a Ph.D. degree in Immunochemistry, Biochemistry or Chemistry, industrial experience with immunoassays (preferably in Quality Assurance) and managerial or supervisory experience.

We offer a highly advanced and stimulating environment in a very attractive southeast Florida location. For confidential consideration, please forward a curriculum vitae to: **Human Resource Dept.**, **P.O. Box 520672**, **Miami**, **FL 33152**. We are an equal opportunity employer m/f.

HOWMEDICA

Our innovations in orthopaedics have helped us to achieve a leadership position in this high technology medical industry. As a dynamic growth division of Pfizer, Inc., a Fortune 100 Company, we offer you an exciting and challenging opportunity to join us as

SR. RESEARCH SCIENTIST

You will be responsible for utilizing tissue culture techniques and animal models to evaluate safety and efficacy of new biomaterials and devices. You will also identify and, where necessary, develop methods for these evaluations. Additional responsibilities will include the identification of suitable institutions and the setting up/monitoring of programs, and participating in biological research programs. All work other than biomechanical and histological evaluations will be done at outside institutions; however, you will have ample opportunity for hands-on participation.

This position is ideal for a DVM with research experience, or for a PhD in a biological or biomaterials field with experience in animal models.

At Howmedica, we recognize and reward our employees—the heart of our business. You'll enjoy an excellent starting salary and outstanding company-paid benefits. Please send your resume, indicating salary history and requirements, in confidence, to:

Cheri Breslin Assistant Personnel Manager

Howmedica

Division of Pfizer Hospital Products Group, Inc.



359 Veterans Boulevard Rutherford, New Jersey 07070

An Equal Opportunity Employer

PATHOLOGY CHAIRPERSON—The Oregon Health Sciences University School of Medicine is seeking applicants for the position of Professor and Chairperson of a combined Department of Anatomical/ Clinical Pathology. This university-based program presently has over 25 faculty engaging in clinical pathology service, research, and the teaching of residents, medical service, research, and the teaching of residents, medical students, and medical technologists. The position requires strong academic and administrative skills and will be available 1 July 1987. Submit curriculum vitae and five references to: Earl A. Zimmerman, M.D., Chairman, Pathology Search Committee, c/o Office of Dean, School of Medicine, L102, Oregon Health Sciences University, Portland, OR 97201. An Affirmative Action and Equal Opportunity Employer.

PLANT ECOLOGIST-Two-year position teaching biology in a program distinguished by high numbers of students who go on to obtain Ph.D's and by serving many high-achieving, enthusiastic and socially concerned nonmajors. Courses include: population and community ecology, field botany; intro team-taught courses on genetics and evolution, and on biological diversity. Possible opportunities to lead programs in Florida, the American Southwest, Kenya, and the Galápagos. Continuation to the second year is contingent upon satisfactory evaluation of first-year performance. Earlham, a liberal arts college associated with the Religious Society of Friends (Quakers), is an Affirmative Action/Equal Opportunity Employer and particularly encourages applications from women and ethnic minorities. Applications will be considered beginning 1 April 1987. Apply: Jerry Woolpy, Earlham College, Richmond, IN 47374.

POSTDOCTORAL POSITION

Position available to work on a novel approach for generating murine monoclonal antibodies with desired effector functions for use in cancer immunotherapy and diagnosis. Applicants should possess a Ph.D. or M.D. in immunology/biochemistry; experience in hybridoma and molecular biology techniques is desirable but not re-quired. St. Jude Children's Research Hospital, currently undergoing a major phase of expansion, is a nonprofit research institute with over 100 faculty members involved in various basic and clinical studies. Annual salary begins at \$20,000 plus fringe benefits. Send curriculum vitae and names of three references to: **Dennis W**. Metzger, Ph.D., Department of Immunology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101.

POSTDOCTORAL POSITION IN VISUAL SCIENCE DEPARTMENT OF OPHTHALMOLOGY WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

A postdoctoral position is available immediately for an A postdoctoral position is available immediately for an individual interested in the application of psychophysical and neurophysiological (evoked potential) techniques to studies of the pathophysiology of visual loss in glaucoma, diabetes, Alzheimer's disease, and so forth. The position will involve extensive collaboration with both basic and clinical scientists. A strong background in visual science as well as some experience in computer software and hardware development is required. Annual salary \$18,000 to \$20,000 depending upon experience. Interested applicants should send curriculum vitae and the names of three references to: Gary L. Trick, Ph.D. Department of Ophthalmology, Box 8096, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, MO 63110.

POSTDOCTORAL OR RESEARCH ASSOCIATE position available immediately to study cellular mechanisms of aversive learning, nociceptive information processing, and neural responses to stress in the model system, Aplysia. Research can involve electrophysiological, behavioral, biochemical, or morphological techniques in intact, semi-intact, or cultured preparations. Send curriculum vitae and letters of reference to: **Dr. E.** T. Walters, Department of Physiology and Cell Biology, University of Texas Medical School, P.O. Box 20708, Houston, TX 77225. An Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSITIONS OPEN

POSTDOCTORAL POSITION available to study protein/amino acid, lipid, carbohydrate, and vitamin metabolism in burn patients with stable isotope tracers. A strong background in biochemistry or nutrition is desirable. Position is available immediately. Concurrent desirable. Position is available immediately. Concurrent appointment at Massachusetts General Hospital. Send résumé and three letters of reference to: David A. Wagner, Ph.D., Shriners Burns Institute, 51 Blossom Street, Boston, MA 02114. An Equal Opportunity

POSTDOCTORAL POSITION IN MOLECULAR NEUROBIOLOGY is available 1 July 1987 to study genes affecting learning and memory in Drosophila. Train ing will include molecular, biochemical and behavioral analyses. Some experience with *Drosophila* (molecular) genetics is preferred but is not essential. Send curriculum vitae and names of three references to: Dr. Tim Tully, Department of Biology, Brandeis University, Waltham, MA 02254. Brandeis University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION (M.D. or Ph.D.) available immediately to study the origin, structure and mechanism of production of autoantibodies by molecular genetic approaches (genetic polymorphisms, gene cloning and expression). A background in molecular biology or biochemistry is preferred. Send curriculum vitae and names of three references to: Kathleen J. Barrett, Ph.D., New England Medical Center, Department of Medicine Types Pressed Lettitut. Medicine, Tupper Research Institute—Box 245, 171 Harrison Avenue, Boston, MA 02111.

POSTDOCTORAL POSITION is available immediately for a person to join a group studying plasticity and growth in the auditory system of fishes. Applicants with experience in neurophysiology are sought. Candidates should send a curriculum vitae, selected reprints, and names of three references to: Dr. Arthur N. Popper, names of three references to: Dr. Artnur N. Popper, Department of Anatomy and Cell Biology, Georgetown University, 3900 Reservoir Road, NW, Washington, DC 20007. Georgetown University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION

Position available to study the regulation, expression, and domains of human cytomegalovirus gene products. Preference will be given to applicants with a strong background in molecular biology. Interested candidates should submit curriculum vitae and three letters of reference to: Dr. Lenore Pereira, Department of Stomatology, Microbiology and Immunology, University of California, San Francisco, HSW-604, San Francisco, CA 94143. The University of California is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Environmental scientist, physiologist, or anatomist needed to participate in studies of the distribution of inhaled particles on airway and alveolar surfaces. Background in aerosol science, histology, modeling and/or computer graphics would be beneficial. Please send curriculum vitae and the names of three references to: Dr. Frank Rosenthal, Environmental Health Sciences Program, Department of Pharmacology, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01605. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately for a Ph.D. in biochemistry or closely related field with experience in recombinant DNA techniques to participate in cloning and the study of expression of genes coding for RNA processing and splicing enzymes in mammalian brain. Both high affinity monoclonal and polyvalent antibodies now available to facilitate these studies. Minimum duration $1^{1}/_{2}$ to 2 years. Salary \$21,000. Send curriculum vitae and names of three references to: Dr. Terry Joe Sprinkle, VA Medical Center, Research Service (151), Neurochemistry Laboratories, Augusta, GA 30910. Equal Opportunity Employer/Affirmative Action Program

POSITIONS OPEN

POSTDOCTORAL POSITION now available to work with P.I. on the cloning and expression of a newly described growth factor. Significant experience with recombinant DNA techniques required. Send curriculum vitae and names and addresses of three references to:

Dr. Ann Richmond, Research Service VA Medical Center (Atlanta)/Emory University, 1670 Clairmont Road, Decatur, GA 30033.

Emory University is an Equal Opportunity/Affirmative Ac-

tion Employer.

POSTDOCTORAL POSITION to study renal concentration mechanism, using electron microprobe analysis and microfluorescence techniques. Ph.D. in physiology, biophysics, cell biology, biomedical engineering, pharmacology sought. *Equal Opportunity/Affirmative Action Employer*. Send curriculum vitae, statement of red Lechene, Harvard Medical School, 221 Longwood Avenue, Room 311, Boston, MA 02115.

POSTDOCTORAL POSITION available beginning immediately with new assured support for 3 years to study mechanisms of pulmonary injury (adult respiratory distress syndrome) and strategies for prevention. In vitro endothelial permeability studies along with rodent models will be used to evaluate antitumor necrosis factor and anti-C5a antibodies along with newer reagents. Send curriculum vitae and three letters to: Thomas A. Raffin, M.D., Division of Respiratory Medicine, Stanford University School of Medicine, Stanford, CA 94305. Telephone: 415-723-6381.

POSTDOCTORAL POSITION available immediately for recent graduate in one of two research areas: exploration of properties of transformed ovarian granu-losa cells, or monoclonal and antiidiotypic approaches to development of antibodies against eicosanoid receptors. Position is funded by NIH. Submit inquiries to: Tony A. Fitz, Ph.D., c/o Civilian Personnel, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814. Telephone: 202-295-3128.

POSTDOCTORAL POSITIONS AVAILABLE

Postdoctoral positions are available immediately to study rostoctoral positions are available infinediately to study cardiac membrane physiology and pharmacology. Applicants can choose among related projects led by six faculty. Up to 3 years of support will be provided by NIH Training Grant. Must be a U.S. citizen or permanent resident. To apply please send curriculum vitae and names of three references to:

Dr. Arnold M. Katz Department of Medicine
University of Connecticut Health Center

Farmington, CT 06032

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

POSTDOCTORAL POSITIONS are available immediately to study mechanisms regulating viroid replication and symptom induction in their plant hosts. One position involves production of transgenic plants containing selected viroid cDNAs. Both positions require experience with recombinant DNA techniques, and experience with plant transformation or gene isolation is desirable. Salary dependent upon qualifications (\$18,358 to \$27,172 per annum). Send curriculum vitae, statement of research interests, and names of three references to: **Drs. T. O.** Diener and R. A. Owens, USDA, Agricultural Research Service, Microbiology and Plant Pathology Laboratory, BARC-West, Beltsville, MD 20705.

USDA is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS available immediately with the National Heart, Lung, and Blood Insti-tute (NHLBI) to study the biochemistry and physiology of heat-shock proteins in yeast. The focus of the labora-tory is on the role of the 70-kD heat shock proteins in modulating the organization of protein complexes in yeast and the relationship of those heat shock proteins to a homologous ATPase involved in the dissolution of protein complexes during endocytosis in mammalian cells. Salary starts at \$20,000 per year. Send curriculum vitae and three letters of recommendation to: **Dr. Evan** Eisenberg, Section on Cellular Physiology, Laboratory of Cell Biology, NHLBI, National Institutes of Health, 9000 Rockville Pike, Building 3, Room B1-22, Bethesda, MD 20892. An Equal Opportunity Em-



The Graduate Hospital announces immediate openings in its expanding research program in the field of transplant immunology.

Qualifications include M.D. and/or Ph.D., 3-5 years research experience, and a demonstrated ability to publish in the field. Experience in obtaining extramural funding is a plus.

The Graduate Hospital is a tertiary care teaching hospital located in center city Philadelphia. Graduate is affiliated with the University of Pennsylvania.

Interested applicants should furnish letter of application and resume to:

Director of Personnel The Graduate Hospital One Graduate Plaza Philadelphia, PA 19146

DEPARTMENT HEAD

WORK ENVIRONMENT DEPARTMENT

Applications are invited for the position of Department Head. Prospective candidates should be senior scientists/engineers with a world-wide reputation in occupational health. Applicants should have experience in directing similar programs in a university environment, substantial research productivity, success in obtaining industrial and public funding, and significant experience in hazard identification and/or control.

This is a full-year appointment carrying full professor rank and tenure. Successful candidate will have responsibility for recruiting additional faculty, organizing the department, developing M.S. and Ph.D. degree programs, and initiating research activities.

The University of Lowell, located in the center of the high-technology corridor northwest of Boston, is one of three public universities in Massachusetts. With a current enrollment of over 15,000, it is one of the foremost professional universities in the Northeast.

The University has made a significant commitment to the development of industrial growth and innovation. An important aspect of productivity enhancement is the protection of worker health; consequently, the College of Engineering Department is forming an innovative interdisciplinary Work Environment Department in September 1987. This department will be unique in its attention to the control of workplace exposures. Active research and graduate academic programs in industrial hygiene and ergonomics are planned.

Interested candidates, please send application (letter of intent, professional and academic resume, and the names and addresses of three references) to: Dr. Aldo Crugnola, Dean, College of Engineering, University of Lowell, One University Avenue, Lowell, MA 01854 (Phone: 617-452-5000, extension 2322).

The University of Lowell is an Equal Opportunity/Affirmative Action, Title IX, $504\ Employer$.



NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES NATIONAL INSTITUTES OF HEALTH PUBLIC HEALTH SERVICE

Applications are invited for the following vacancies:

Postdoctoral position, to study the cellular basis of action of gastrointestinal peptides using dispersed cell systems from various gastrointestinal tissues. Experience with receptors or stimulus-secretion coupling is desirable. Jerry D. Gardner, Building 10, Boom 07.03.

Postdoctoral position in biochemistry, to carry out directed mutagenesis of tryptophan synthase, to crystallize and characterize mutant proteins, and to work closely with x-ray crystallographers determining the enzyme structure. Applicants should have a Ph.D. and experience in recombinant DNA techniques and enzymology. Edith Wilson Miles, Bldg. 8, Room 2A09.

Postdoctoral position in biochemistry, to investigate the regulation of the enzymes responsible for the metabolism of xenobiotics. Applicants must have experience with recombinant DNA techniques. W. B. Jakoby, Bldg. 10, Room 9N109.

Postdoctoral position in blochemistry, to purify and characterize a membrane glycoprotein which is a substrate for tyrosine-specific phosphorylation by the tyrosine kinases associated with the receptors for insulin and EGF. Applicants must have background in biochemistry. S. I. Taylor, Building 10, Room 8N-250 (Telephone: 301-496-2596)

Postdoctoral position in biochemistry, to investigate the role of ascorbic acid as a cofactor in cultured cells and subcellular organelles using in situ enzyme kinetics, or to investigate ascorbic acid biosynthesis and its regulation. Applicants should have experience in biochemistry, enzymology, or recombinant DNA techniques. M. Levine, Building 8, Room 414 (Telephone 301-496-3304).

Postdoctoral position in biochemistry/molecular biology, to study defects in synthesis and secretion of lipase by cultured cells of mice born with Combined Lipase Deficiency (cf J. Biol. Chem. 260:2552, 1985). Experience in cell culture and protein biochemistry desirable. Robert O. Scow, Building 6, Room 113.

Technician, postdoctoral, or more advanced level position in biochemistry, to carry out purification and characterization of hormone-like peptides for microsequence analysis in collaboration with molecular biologists. Applicants must have background in state of the art chromatography and HPLC. *D. LeRoith, Building 10, Room 85-243 (Telephone: 301-496-4658).*

Postdoctoral position in biochemistry, to investigate the regulation of hormone receptors during cellular differentiation. Applicants should have experience in receptor biochemistry. *Michael C. Lin, Bldg. 6, Room B1-22.*

Postdoctoral position in immunochemistry, to investigate cell receptors for antibodies responsible for cytopenias induced by allo- and auto-immunization and drug sensitization. Applicants should have experience in protein and peptide chemistry, immune assays generally and general biochemistry. N. Raphael Shulman, Bldg. 10, Room 8C101

Postdoctoral position and technician, to join a team measuring changes in energy and structural rearrangements during voltage- and ligand-gating of ionic channels with patch clamp and phospholipid bilayers (cf Nature, 323:36-39 (1986)), and to relate these changes to directly measured forces between macromolecules. Applicants should have a background in electrophysiology, electrochemistry or macromolecular physical chemistry. Adrian Parsegian, Donald C. Rau, and Joshua Zimmerberg, Bldg. 10, Room 9N307 (Telephone: 301-496-1241).

Postdoctoral position in medicinal chemistry/biochemistry, to explore the synthesis and/or biochemistry of nucleosides, nucleotides and oligo/polynucleotides related to interferon, 2-5-A, antiviral/antitumor agents, AIDS, and shock/ischemia. Paul F. Torrence, Bldg. 8, Room B2A02 (Telephone: 301-496-2653).

Postdoctoral position in molecular biology, to study the DNA structure and regulation of the genes involves in polyamine biosynthesis in Escherichia coli and yeast. Celia White Tabor and Herbert Tabor, Building 8, Room 223 (Telephone: 301-496-2562).

Postdoctoral position in molecular biology, to study the mechanism of duplex DNA replication using bacteriophage T4 as a model system, or the transcriptional regulation of the T4 genome, especially T4 genes needed for DNA replication. Applicants should have a background in nucleic acid and protein biochemistry. Nancy G. Nossal, Bldg. 8, Room 2A-19 and Deborah M. Hinton, Bldg. 8, Room 2A-13 (Telephone: 301-496-2724)

Postdoctoral position in molecular biology, to apply recombinant DNA technology to define the molecular mechanisms of disease in patients with genetic forms of extreme insulin resistance, especially patients with mutations in the gene encoding the insulin receptor. S. I. Taylor, Building 10, Room 8N-250 (Telephone: 301-496-2596).

Postdoctoral position in molecular biology, to study the roles of genes, second messengers and DNA binding proteins in development of *Dictyostelium*. Applicants should have experience in molecular biology and biochemistry. *Alan Kimmel, Building 6, Room B1-12.*

Postdoctoral position in molecular genetics, to study the mechanism of nonheritable resistance to various antibiotics induced by salicylates in *Escherichia coli*. (See PNAS 82:8771, 1985). Experience in the areas of molecular genetics, transport or antibiotic resistance is desirable. *Judah L. Rosner, Building 2, Room 210*.

Qualified applicants should send a curriculum vitae, bibliography, short statement of research interests, and the names of three references to the appropriate person at the NIDDK, NIH, 9000 Rockville Pike, Bethesda, MD 20892. Appointments can be offered to both U.S. citizens and other qualified applicants.

The NIH is located in Maryland close to Washington, D.C. It has nearly 3000 scientists carrying out research in 12 institutes. The intramural program of the NIDDK has over 500 doctoral level scientists working on a broad range of basic and applied biomedical problems in 21 different groups.

An Equal Opportunity Employer

POSTDOCTORAL POSITION, Biochemical Processing. T-CELL CULTIVATION, BIOCHERICAL TO-project for ADOPTIVE IMMUNOTHERAPY OF CANCER. Collaboration involves Tufts, NEMC and MGH. High-density growth and activation systems for MGH. High-density growth and activation systems for LAK, TIL, and other antitumor T cells will be developed. Ph.D. in biochemical engineering or microbial physiology with experience in cell cultivation and bioreactor design required. Salary \$26,000 per year plus benefits. Send curriculum vitae and three references to: Dr. Randall W. Swartz, Biotechnology Engineering Center, Pearson Hall, Tufts University, Medford, MA 02155.

POSTDOCTORAL POSITION

Postdoctoral position available to study the role of rostdoctoral position available to study the role of virulence genes in *Agrobacterium*-mediated plant cell transformation. Applicants must have a recent Ph.D. degree in molecular biology, biochemistry- or a related field. Experience in molecular biology, protein purification, and expression is preferred. Please send curriculum vitae, summary of research interests/experiences, and three letters of reference by 30 April 1987 to: Dr. Anath Das, Department of Biochemistry, University of Minnesota, 1479 Gortner Avenue, St. Paul, MN 55108. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to study mechanism-based enzyme inhibitors. Experience in enzyme isolation and enzyme kinetics required; some knowledge of organic synthesis helpful, but not required. Send curriculum vitae and names of three references to: Dr. R. J. Parry, Department of Chemistry, Rice University, P.O. Box 1892, Houston, TX 77251. An Equal Opportunity/Affirmative Action Em-

POSTDOCTORAL POSITIONS. Two available; 1 The first concerns the enzymology of a novel metabolic pathway elaborated when macrophages are immunostimulated [see *PNAS* 82, 7738 (1985)]. This pathway of nitrite/nitrate synthesis involves unusual amino acid chemistry. Experience in protein purification, enzymology, and cell culture work preferred. Second position involves further characterization of a carcinogen-binding protein [see Biochemistry 25, 4322 (1986)]. Experience in protein purification/characterization and recombinant DNA methodology important. Familiarity with ligand binding and ELISA assays would be helpful. Send curriculum vitae and have three letters of reference sent to: Dr. Michael A. Marletta, 56-229, Massachusetts Institute of Technology, Cambridge, MA 02139.

A Nondiscriminatory, Affirmative Action Employer.

TWO POSTDOCTORAL POSITIONS IN NEU-ROBIOLOGY available to study the structure and function of the benzodiazepine-GABA receptor. The first project concerns the transmembrane topology and as-sembly of the receptor: techniques used include brain cell culture, monoclonal antibodies, radioligand binding, photoaffinity labeling, and protein chemistry. The second project concerns the mechanism of action of modulators of GABA action that act through the benzodiazepine receptor: experience or willingness to learn whole-cell voltage clamp, patch-clamp, and computer analysis. Salary \$20,000 to \$26,000. Send curriculum vitac to: Dr. David H. Farb, Department of Anatomy and Cell Biology, State University of New York (SUNY) Health Science Center at Brooklyn, Brooklyn, NY 11203.

POSTDOCTORAL POSITION TUMOR VIROLOGY

Available immediately, we have recently discovered RNA covalently bound to SV40 TAg and to the oncogene product p53. The RNAs, the bonding, and the possible significance to oncogenic transformation will be studied. U.S. citizenship or residency required, funding through NIH training grant. Send curriculum vitae and names of three references to:

Dr. Robert Carroll Dr. Robert Carroll
Department of Pathology
New York University Medical School
550 First Avenue
New York, NY 10016

POSITIONS OPEN

POSTDOCTORAL POSITION to work on research related to sequence-specific alkylation of DNA. Applicants must have strong chemistry background and DNA sequencing experience. Send résumé and names and telephone numbers of three references to: Dr. Barry Gold, Eppley Institute for Research, University of Nebraska Medical Center, Omaha, NE 68105.

POSTDOCTORAL POSITION (1 to 2 years) avail-POSTDOCTORAL POSTTION (1 to 2 years) available immediately to study the central nervous system correlates of body weight regulation in obesity using receptor binding and 2-deoxyglucose autoradiography, monoamine biochemistry, and neural transplantation techniques. Experience in neuropharmacology, -biochemistry or -physiology desired. Salary \$16,000 to \$18,000 depending upon experience. Send curriculum vitae to: Dr. Barry E. Levin, Neurology Service (127), VA Medical Center, East Orange, NJ 07019 Equal Opportunity Employer. Opportunity Employer

GRADUATE RESEARCH ASSISTANTSHIP CELLULAR IMMUNOLOGY

T-CELL ACTIVATION/CULTIVATION project for ADOPTIVE IMMUNOTHERAPY OF CAN-CER. Project involves activation/growth systems for human T cells with antitumor activity (LAK and TIL). Collaborators include clinical researchers at NEMC and MGH. A Ph.D. candidate is sought to work on activa-tion and functional assays. T-cell cultivation experience preferred. Send curriculum vitae and three references to: Dr. Allan Haberman, Biotechnology Engineering Center, Pearson Hall, Tufts University, Medford, MA 02155.

POSTDOCTORAL POSITION—MOLECU-LAR BIOLOGY. A 2-year position is available immedi-ately in the Department of Pharmacology to study the regulation of mRNA turnover. Research will utilize gene cloning and transfer into cultured cells to identify sequence and structural determinants of RNA stability. A strong background in biochemistry or cell biology is required. Send curriculum vitae and names of three references to: Dr. Daniel R. Schoenberg, c/o Civilian Personnel, Uniformed Services University, 4301 Jones Bridge Road, Bethesda, MD 20814–4799.

POSTDOCTORAL RESEARCH ASSOCIATE PROTEIN TOXINS

Two positions are available for persons interested in studying the structure-function relationships of protein toxins. Successful applicants will join a multidisciplinary team composed of persons from medicine, microbiology, pharmacology, physiology, and neurology. Fellows will have an opportunity to learn and apply a broad range of techniques ranging from protein chemistry to micropharmacology. Facilities include a gas phase sequenator, a peptide synthesizer, fluorescence microscopy and FACs electron microscopy, electrophysiological devices for patch clamp analysis, HPLC, FPLC, tissue culture and monoclonal antibody facilities, etc. Interested persons should authorit curriculum vites, etc. Interested persons should submit curriculum vitae, a list of publications, and names of references to: Dr. Lance L. Simpson, Jefferson Medical College, 1025 Walnut Street, Philadelphia, PA 19107. Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE, University of California, San Francisco, in active, interdisciplinary group studying human placental cytotrophoblast cells. Immunochemical approaches are being used to: (i) identify cell surface molecules responsible for the adhesive and invasive behavior of cytotrophoblasts during implantation; (ii) determine the feasibility of during implantation; (ii) determine the feasibility of detecting fetal cytotrophoblast cells in maternal blood as a means of obtaining fetal cells for the prenatal detection of genetic disorders. Prior experience in monoclonal antibody technology is required. Salary negotiable. Contact: Dr. Susan Fisher or Dr. Caroline Damsky 415-476-5297, Box 0512, HSW 604, University of California at San Francisco, San Francisco, CA 94143.

POSTDOCTORAL RESEARCH ASSOCIATE POSITION available immediately to study macrophage-tumor cell interactions at the level of receptor regulation. Experience in molecular biology and membrane biochemistry highly desirable. Submit curriculum vitae and two letters of recommendation to: Dr. Marvin Fishman, Department of Immunology, St. Jude Children's Research Hospital, P.O. Box 318, Memphis, TN 38101. Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE A position is available on or after 1 May 1987 to develop techniques for the genetic improvement of rapidly grow ing, high lipid-producing microalgae (diatoms and chlorophytes) from an established culture collections. Researcher will interact with subcontractors developing techniques involving protoplast fusion, algal vectors, and flow cytometric techniques of selection. A researcher with a classical genetic orientation (for example, mutagenesis sexual crossing, and so forth) will be preferred. One-year position with possible renewal; salary \$23,000 plus housing allowance. Send letter of interest, curriculum vitae, and arrange to have three letters of reference sent to: Dr. Bill Barclay, Solar Energy Research Institute, 1617 Cole Boulevard, Golden, CO 80401. Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE IN NEUROPHYSIOLOGY

Two positions are available for persons interested in studying the effects of protein toxins on neuronal excitability and transmitter relief. The successful applicants will do work on isolated neuromuscular preparations, primary cell cultures, or various cell lines grown in culture. Preference will be given to applicants who have had previous experience doing electrophysiological analhad previous experience doing electrophysiological analyses, including patch clamp analysis on one or more of these preparations. Fellows will have an opportunity to learn a broad range of techniques, ranging from protein chemistry to micropharmacology. Facilities include a gas phase sequenator, a peptide synthesizer, fluorescence microscopy and FACS, electron microscopy, HPLC, FPLC, tissue culture and monoclonal antibody facilities, electrophysiological devices for various types of tissue enalysis and so forth Interested persons should submit analysis, and so forth. Interested persons should submit curriculum vitae, list of publications, and names of references to: Dr. Lance L. Simpson, Jefferson Medical College, 1025 Walnut Street, Philadelphia, PA 19107. Equal Opportunity Employer.

PROFESSOR AND CHAIRPERSON DEPARTMENT OF MICROBIOLOGY AND MOLECULAR GENETICS

University of Medicine and Dentistry of New Jersey -New Jersey Medical School (NJMS) is seeking applications for the position of Professor and Chairperson of the Department of Microbiology and Molecular Genetics. Candidates must have outstanding academic credentials with demonstrated abilities in research, teaching, and administration. Send curriculum vitae with the names of three references to: Gerson Weiss, M.D., Chairman, Microbiology Search Committee, University of Medicine and Dentistry of New Jersey–NJMS Department of Obstetrics and Gynecology, 185 South Orange Avenue, MSB-E506, Newark, NJ 07103–2757. An Equal Opportunity/Affirmative Action Employer M/F/H/V.

PROTEIN CHEMIST

A senior-level position is available at the Yale University Protein Chemistry Facility for a BIOCHEMIST with at least 5 years of postdoctoral experience in protein isolation and structural characterization. The successful candidate will have extensive experience in protein and peptide HPLC, amino acid analysis, and gas phase protein/peptide sequencing. Preference will be given to those applicants who also have demonstrated expertise in one or more of the following areas: peptide synthesis, microbore HPLC, mass spectrometry, computer programming, or electronics repair. This position requires approximately an equal commitment towards helping to operate and manage the Protein Chemistry Facility as well as towards original research. In terms of the area of research, the candidate may either join our ongoing research program on protein-nucleic acid interactions or initiate his/her own independent project. In either case the candidate will be expected to take an active role in preparing grant applications and publications. The Yale Protein Chemistry Facility currently has six full-time staff members and last year accepted samples from over 100 different laboratories. Salary will be commensurate with experience. Send curriculum vitae, representative publications, a short statement of future research interests, and names of three references by 10 April 1987 to: Kenneth Williams, Ph.D., Department of Molecular Biophysics and Biochemistry, Yale University, 333 Cedar Street, P.O. Box 3333, New Haven, CT 06510.

DRUG METABOLISM

Our Metabolism and Pharmacokinetics Department is staffing a newly formed group in our Wallingford, CT Research Facility. This group will participate directly in drug discovery by providing early pharmacokinetic and metabolic information on Pre-IND drug candidates targeted for treatment of cancer, infectious diseases, cardiovascular diseases, and central nervous system disorders. In addition, part of this group will be responsible for identification of metabolites of NDA compounds. Openings exist at several levels with an expected July, 1987 starting date. The requirements for these positions are as follows:

RESEARCH SCIENTISTS

A Ph.D. in Biochemistry, Pharmaceutical Science or other drug metabolism related area with 3-5 years direct experience in performing in vivo and in vitro drug metabolism studies, using state-of-theart methodology, is required. Responsibilities include development of methods to quantitate drugs and their metabolites in biological fluids and tissues, and the design and implementation of studies to determine the pharmacokinetic and metabolic behavior of drug candidate molecules. Some of these positions will require experience in drug metabolite isolation and identification. Prior supervisory responsibility is desirable.

ASSISTANT/ASSOCIATE SCIENTISTS

A B.S. or M.S. in Biochemistry, Chemistry, or a related science with 1-3 years of research experience is required. These scientists will perform experiments designed to determine the pharmacokinetic and metabolic properties of drug candidates. Experience in radioisotope methodology, HPLC, GC, TLC, and animal science techniques is essential.

For confidential consideration, forward your resume, including salary history in confidence to: Bristol-Myers Company, Pharmaceutical Research and Development Division, Department TZ-9CE, P.O. Box 5100, Wallingford, CT 06450. An Equal Opportunity Employer. (Principals Only Please)

Bristol-Myers

RESEARCH OPPORTUNITIES

Bionetics Research, Inc. (BRI), a leading biomedical research company located in suburban Washington, D.C., is expanding its biotechnology initiative in the development of human monoclonal antibodies as <u>in vivo</u> diagnostic and therapeutic reagents.

We are seeking experienced Scientists and Postdoctoral Fellows in the following specialties:

ORGANIC SYNTHESIS—construction of novel radiometal chelates.

PROTEIN BIOCHEMISTRY—conjugation of proteins or metal chelates to antibodies and the development of protein-ligand linkers.

RADIOCHEMISTRY—tumor detection and radiotherapy.

TUMOR BIOLOGY—<u>in vivo</u> and <u>in vitro</u> systems for evaluating therapeutic and diagnostic immunoconjugates.

Candidates with PhD degrees and/or experience in fields directly related to the above work will be given priority consideration.

BRI offers excellent opportunities for collaborative projects, career development, exposure to the scientific and medical community and basic and applied research activity. Also included is an attractive compensation package which includes company-paid premiums for employee insurance, 401(K) Savings Program with partial company match, and relocation benefits for qualified candidates.

Please send Curriculum Vitae, including salary requirements, in confidence, to:

Dr. Richard McCabe
Director, Cancer Diagnostics and Therapy
Bionetics Research, Inc.
1330 A Piccard Drive
Rockville, Maryland 20850
An equal opportunity employer.

BIONETICS RESEARCH, INC.



FOR OUR RESEARCH DEPARTMENT WE SEEK A NUTRITIONIST/BIOCHEMIST

who will be assigned the following tasks:

- Study of the dietary factors influencing the absorption and utilization of trace elements.
- Development of techniques using stable and radioactive isotopes for the study of the absorption and utilization of iron, zinc, copper and selenium in man and experimental animals.

QUALIFICATIONS REQUIRED:

- PhD with experience in trace elements nutrition.

Please send detailed curriculum vitae to:

Mrs. M. Germanier-Audrin, Personnel Services, Research Centre, NESTEC Ltd., CH-1800 VEVEY, Switzerland.

MANAGER SCIENTIFIC PUBLICATIONS

Head, Department of Scientific Publications of The Cleveland Clinic Foundation, Cleveland, Ohio. This individual functions as the Managing Editor, Cleveland Clinic Journal of Medicine (circulation 100,000), as well as supervising the staff editing of books and articles written by 400 CCF Physicians and Scientists for peer review journals. Preferred experience in all aspects of journal publishing, a background in science and English, and demonstrated management skills.

The Cleveland Clinic Foundation is a private, non-profit organization with a 1000-bed hospital, clinic, educational division and a research institute. The Foundation has made a large commitment to residency, medical students, allied health and nursing education as well as sponsoring many continuing education courses for health care practitioners.

The Cleveland Clinic Foundation offers a competitive salary and fringe benefit package. Send resume to:

Chairman, Division of Education Room TT 3-308

THE CLEVELAND CLINIC FOUNDATION

9500 Euclid Avenue • Cleveland, OH 44106

An Equal Opportunity Employer M/F/H/V

MOLECULAR IMMUNOLOGY DIRECTOR

CENTER FOR MOLECULAR MEDICINE AND IMMUNOLOGY

THE CENTER FOR MOLECULAR MEDICINE AND IMMUNOLOGY, a specialized cancer research and treatment center, is seeking a DIRECTOR for its Institute of Molecular Immunology. A national leader in the development and application of immunological approaches to cancer reatment is sought to direct the current and future program of this laboratory research unit, including the recruitment of scientific personnel. Special consideration will be given to those individuals with interest in monoclonal antibodies and immunochemistry. Excellent laboratory facilities are available to the successful candidate expected to develop a vigorous research program. Applicants must hold a Ph.D. or M.D. degree and have administrative experience as well as excellent credentials in research with a history of strong extramural funding.

The Center is located on the Newark campus of the University of Medicine and Dentistry of New Jersey (UMDNJ) and is closely affiliated with several of UMDNJ's research and educational programs. The Institute Director is eligible for a senior faculty appointment at the New Jersey Medical School of UMDNJ. In close proximity are excellent opportunities for educational, research, and cultural exchange among the many outstanding institutions within the greater New Jersey-New York metropolitan area. Ample housing exists in several adjacent communities and within short commuting distances of both the Center and New York City.

Applications, to include curriculum vitae, bibliography, a statement of career and research goals and the names of three references, should be sent to:

David M. Goldenberg, Sc.D., M.D.
President
Center for Molecular Medicine and Immunology
I Bruce Street, Newark, New Jersey 07103

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Join the leading pioneer in DNA probe technology!

San Diego

GEN-PROBE, INC. is the leading pioneer in the application of DNA probe technology to **in vitro** diagnostic testing. Our continued success and growth have resulted in opportunities for motivated, highly organized **Research & Development professionals** to join our team at our new, expanded facilities in the La Jolla community of San Diego.

The individuals we seek must have experience in one or more of the following:

- In Vitro Diagnostic Assay Development
- Chemical Modification of Nucleic Acids and Proteins
- Biochemical Assays on Solid Surfaces
- Nucleic Acid Hybridization

These senior-level positions require Ph.D.s, or equivalent experience in scientific discipline, as well as experience in an industrial R & D environment

In addition to an excellent benefit package and an attractive stock equity program, we offer you the opportunity to grow with a leader in the scientific industry. Interested candidates are invited to respond by mailing resumes to: Human Resources Department 105, GEN-PROBE, INC., 9880 Campus Point Drive, San Diego, CA 92121.



Postdoctoral Scientist

Molecular Pharmacologu

Smith Kline & French Laboratories, a leader in pharmaceutical research, is seeking a postdoctoral scientist to fill a challenging position in its Molecular Pharmacology Department located in suburban Philadelphia, Pennsylvania

This position will require an individual with a Ph.D. in Biochemistry, Pharmacology or Molecular Biology with a strong interest in applying his/herskills to the field of Molecular Pharmacology. Demonstrated ability to perform creatively and to publish research of high quality is required. We are seeking an individual with experience and interest in one or more of the following areas: arachidonic acid/biochemistry, mechanism of enzyme catalysis, regulation of subcellular localization of enzymes, and cellular mechanism of cystic fibrosis.

The successful candidate will be responsible for performing and publishing basic research aimed at elucidating mechanisms of enzymes involved in the bio-synthesis and metabolism of arachidonic acid.

We offer excellent compensation, benefits and an attractive relocation policy. For confidential consideration, send your C.V. and the names of three references to Robert F. Obst, R&D Senior Employment Consultant, SmithKline Beckman Corporation, 1578 Spring Garden Street, Philadelphia, PA 19101. We are an Equal Opportunity Employer, M/F/H/V.



DIRECTOR

National Optical Astronomy Observatories

Expressions of interest are solicited in the position of Director of the National Optical Astronomy Observatories (NOAO), managed by the Association of Universities for Research in Astronomy, Inc. (AURA). Headquartered in Tucson, Arizona, NOAO comprises the Cerro Tololo Inter-American Observatory in La Serena, Chile, the National Solar Observatory in Sunspot, New Mexico, and Tucson, Arizona, and the Kitt Peak National Observatory and the Advanced Development Program, both located in Tucson.

The Director has responsibility for assuring accomplishment of the mission of the observatories and for deciding and allocating resources among the observatories within the constraints of an approved program plan and budget. The Director has primary responsibility for formulating long-range objectives of the observatories in consultation with the astronomy community, and for advocating programs and projects to accomplish these objectives.

The Director reports through the AURA President to the AURA Board of Directors and maintains close communication with the funding agencies and with the university astronomical community.

The Director must have an earned doctorate in astronomy, or in a closely related physical science, and a thorough understanding of the nature and purpose of the major user-oriented world centers of astronomy. The successful candidate will be a recognized scientist as demonstrated by a record of significant publications and will have been effective in liaison with the national and international scientific communities. Experience in the management and supervision of major scientific research programs is required, and familiarity with development of state-of-the-art experimental techniques is highly desirable.

Nominations or expressions of interest for this position should be sent by April 15, 1987, to:

Dr. Robert W. Noyes, Chairman Search Committee AURA, Inc. Suite 820 2100 Pennsylvania Avenue, NW Washington, DC 20037

AURA IS AN EEO/AA EMPLOYER

Postdoctoral Biochemist/ Biologist

The Agricultural Research Division of American Cyanamid Company has a position available in the field of neurochemistry. The project will involve comparative pharmacology studies of the GABA receptor in insect and helminth tissue.

Applicants should preferably have a PhD in Biochemistry and an interest in biochemical techniques for the study of receptors.

American Cyanamid offers a competitive compensation and benefits package. For prompt and confidential consideration, forward your resume to the Employment Office.



American Cyanamid Company

Agricultural Research Division P.O. Box 400 Princeton, NJ 08540 An Equal Opportunity Employer M/F/H No Agencies Please

Senior Research Scientists

The LILLY RESEARCH LABORATORIES, a Division of Eli Lilly and Company, has two openings for Senior Scientists who will collaborate with established groups from several disciplines to study the structure of proteins and their interactions with other biologically active molecules.

Macromolecular Crystallographer

Applicants must have a doctoral degree, two or more years postdoctoral experience and the proven ability to determine protein crystal structures. In addition, a strong background in biochemistry and computer programming is essential. Familiarity with other biophysical techniques for studying proteins would be desirable.

The Lilly x-ray crystallography laboratory is exceptionally well equipped for macromolecular studies and includes a state-of-the-art automated protein crystallization system, diffractometers, a rotating anode x-ray

generator, an area detector, computers and graphics facilities.

Macromolecular NMR Spectroscopist

Applicants must have a doctoral degree, two or more years postdoctoral experience and the proven ability to apply modern NMR methods to questions such as enzyme/substrate interactions, protein folding processes and the characterization of receptor binding sites. A strong background in biochemistry and experience in protein structure elucidation is essential.

The Lilly molecular structure NMR group operates four super-conducting spectrometers, ranging from 250 to 500 MHz; the Senior Scientist will participate in the establishment of a new laboratory with an additional state-of-the-art spectrometer and other accessories dedicated to the structural and/or biophysical characterization of large molecules.

Qualified candidates for either position should send a curriculum vitae to:

John W. Crooks Manager, College Relations (SRS) Eli Lilly and Company Lilly Corporate Center Indianapolis, Indiana 46285

Equal Opportunity Employer



POSTDOCTORAL/RESEARCH ASSOCIATE

Molecular approaches to heart disease. Experience in biochemistry, molecular biology, or cell biology. Work involves protein purification, cell electrophoresis, blotmyones protein purification, cell electrophoresis, blotting, immunoassays, polyclonal and monoclonal antibodies. Salary negotiable. Send résumé to: Dr. Jose Marin, Department of Pediatrics, New Jersey Medical School, Newark, NJ 07103. Telephone: 201-268-8675. An Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL/RESEARCH ASSOCIATE position available I April 1987 to study coupling of guanylate cyclase, peptide receptors, and cyclic GMP-mediated events. A Ph.D. and familiarity with cell culture, monoclonal antibody production, protein purification, phosphatidylinositide turnover, or ion transport is required. Salary is dependent upon the qualifications of the individual. Please send curriculum vitae and names of University School of Medicine, Department of Medicine (111), PAVAMC, 3801 Miranda Avenue, Palo Alto, CA 94304.

RADIATION BIOLOGIST to collaborate with NMR spectroscopists and biochemists. Evaluation of the utility of NMR spectroscopy for assessing the state of tumor oxygenation and perfusion and as a basis for the prediction and detection of tumor response to x-irradiation, chemotherapy, and hyperthermia. Position and salary negotiable. Contact: Jerry D. Glickson, Ph.D., Department of Radiology, The Johns Hopkins University School of Medicine, 310 Traylor Building, Baltimore, MD 21205.

RESEARCH ADMINISTRATOR. The Children's Memorial Hospital seeks a qualified individual to assist in the development of policies and procedures for its newly formed research organization. This position will newly formed research organization. This position will be instrumental in formulating an effective program of grant fund research projects by coordinating pre- and post-award phases of grants administration. Also, it will serve as a resource to research staff in regard to administrative and personnel policies. The position will report to the institution's Chief of Staff and its President. A bachelor's degree is required plus 3 to 5 years of progressively more responsible experience in research administration or a closely related field. Salary commensurate with experience. Send résumé in confidence to: The Children's Memorial Hospital, 2300 Children's Plaza, Chicago, IL 60614. Attention: Director of Perza, Chicago, IL 60614. Attention: Director of Per-

RESEARCH ASSOCIATE position in molecular biology/virology available immediately in our biotechnology program. Opportunity to gain experience with cDNA sequencing, in vitro transcription, and expression of cloned genes. Candidates with Ph.D., D.V.M., or M.D. degrees are invited to send curriculum vitae and names of three references to: Dr. Henry O. Stone, Jr., Department of Microbiology and Immunology, School of Medicine, East Carolina University, Greenville, NC 27858. An Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATES CARDIOVASCULAR LABORATORY HARVARD SCHOOL OF PUBLIC HEALTH

We are seeking to fill two newly created positions with opportunity for advancement. One individual will study the role of neural factors in precipitating coronary artery spasm. The second will concentrate on electrophysiological mechanisms involved in cardiac arrhythmogenesis For both positions, the requirements include an M.D. or a Ph.D. with specialty training involving either intact systems or in vitro preparations. These are NIH-funded positions which will involve interaction with a multidisciplinary group investigating the problem of sudden cardiac death. The laboratory members include neuroscientists, physiologists, and cardiologists. Salaries are competitive, based on background and experience. Those interested in either position should send curriculum vitae and names of three references to: Dr. Richard L. Verrier, Director, Cardiovascular Laboratory, Harvard School of Public Health, 665 Huntington Averland nue, Boston, MA 02115. Harvard University is an Equal Opportunity Employer with an Affirmative Action Program.

POSITIONS OPEN

PROFESSORSHIP IN CHEMISTRY. The University of Missouri at Rolla invites application and nomination for a senior-level professorship in an established or developing area of research excellence. Applicants must possess an outstanding record of research. Preference will be given to candidates that complement or enhance current research strengths of this campus. Demonstrated professional leadership is required. Applications and nominations, including a résumé and at least three references, should be directed to: Dr. O. K. Manuel, Department of Chemistry, University of Missouri, Rolla, MO 65401 by 1 May 1987, or until the position is filled. The University of Missouri is an Equal Opportunity/Affirmative Action Employer.

TECHNICAL SPECIALIST, Department of Geolo-TECHNICAL SPECIALIST, Department of Geology, starting May or June 1987 to assist in operation of two electron microprobes. M.Sc. geology. Minimum salary \$23,369, excellent benefits. Résumé and references to: Louise Atkinson, Employment, Room 262, Stevenson-Lawson Building, University of Western Ontario, London, Ontario. N6A 5B8.

Georgia State University's Psychological Sciences Program anticipates a tenure-track position, in fall 1987 or 1988. The program includes physiological, developmental, social, cognitive, and comparative areas with collaborative research in health, language, criminal justice, and a new interdepartmental program in behavior Ph.D. in psychology, excellence in grant-funded basic research, and productive colleagueship are required. Rank/salary negotiable. Send statement of research interests, curriculum vitae, and three letters of reference by 17 April 1987 to: D. M. Rumbaugh, Chairman, Department of Psychology, Georgia State University, University Plaza, Atlanta, GA 30303. Affirmative Action/Equal Employment Opportunity, unit University System GA.

The Department of Biology and Health Sciences at the University of Detroit seeks applicants for a ninemonth, TENURE-TRACK POSITION in microbiology and immunology, appointment to become effective 15 August 1987.

Responsibilities include undergraduate and graduate teaching, as well as the development of an active research program. A Ph.D. is required. Rank and salary are

dependent upon qualifications.

Interested candidates should contact:

Pauline J. Wood, Ph.D. Chairman, Biology and Health Sciences University of Detroit 4001 West McNichols Detroit, MI 48221 Telephone: 313-927-1181

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

UNIVERSITY OF COLORADO DEPARTMENT OF ENVIRONMENTAL, POPULATION, ORGANISMIC BIOLOGY

TENURE-TRACK POSITION, RANK OPEN. Department of Environmental, Population, Organismic (EPO) Biology/Fellow Cooperative Institute for Research in Environmental Sciences (CIRES) beginning in September 1987 to pursue research within the Center for the Study of Earth from Space (CSES) in the area of Ecosystems Ecology or Forest Ecology incorporating remote sensing data.

Research background in ecology and plant science, interest in global questions, strong publication record, and ability to attract research funding

Candidate will participate in establishing an interdisci-plinary curriculum in remote sensing and will teach two courses per academic year in EPO Biology.

courses per academic year in EPO Biology.
Please submit a letter of application, statement of research teaching interests, and three letters of recommendation by 31 March 1987 to: Chair, Search Committee, EPO Biology, Campus Box 334, University of Colorado, Boulder, CO 80309-0334.

The University of Colorado at Boulder has a strong institutional commitment to the principle of diversity in all areas. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities and disabled individuals.

POSITIONS OPEN

The Evans Department of Clinical Research at Boston University Medical Center invites applications for SENIOR ACADEMIC POSITIONS in its Biomolecular Medicine programs. Three to five new units headed by these senior faculty will be created to expand our programs in molecular/cellular biology relevant to human disease. Specific research fields are less critical than interest in fundamental research in a clinical context. Research of current faculty in this program includes: therapeutic use of genetically altered bacterial toxins; synthesis of protease inhibitors; T-lymphocyte biology. Additional facilities for this program are under construction and substantial start-up funds are available. Faculty will have their primary appointment in the Department of Medicine, with joint appointments possible in basic science departments. Send applications (curriculum vitae, bibliography, brief outline of research interests and names of 3 to 5 references) to: Dr. Norman G. Levinsky, Boston University Medical Center (BUMC). 75 East Newton Street, Boston, MA 02118. BUMC is an Equal Opportunity Employer.

SCIENTIST

Scientist needed to conduct research in transdermal and oral drug delivery systems. Require Ph.D. in chemical engineering, 1 year of experience in polymer research, background in polymer properties, characterization and synthesis, and knowledge of drug diffusion concepts, knowledge of design of transdermal delivery systems, and the control of th ability to develop mathematical models of drug delivery systems. Salary \$2917.00 per month. Job Order No. 28203. Contact: Utah Job Service, 1234 South Main Street, Salt Lake City, UT 84111.

SCIENCE AND TECHNOLOGY POLICY

TENURE-TRACK POSITION in Science and Public Policy Program, with joint appointment in an appropriate department of engineering, the sciences, or business administration. Salary open; preferred rank is assistant or associate professor. Duties begin in August 1987. Job requirements include completed Ph.D. by starting date, commitment to team-oriented interdisciplents. research, substantive expertise in an academic field of engineering, science, or business administration, and an ability to secure funded research. Candidates with experience in applied policy analysis are preferred. Job responsibilities include policy research, teaching, and service. Send curriculum vitae and three letters of reference to: Mike Devine, Director, Science and Public Policy Program, 601 Elm Avenue, Room 431, University of Oklahoma, Norman, OK 73019. Deadline is 30 April 1987

An Equal Opportunity/Affirmative Action Employer.

The University of Nebraska Medical Center has THREE FACULTY POSITIONS available for Boardcertified/Board-eligible anesthesiologists. Academic rank and salary commensurate with education and experience. and salary commensurate with education and experience. Fellowship training and/or experience in research and teaching required. Interested applicants should reply with curriculum vitae and two letters of reference to: Michael L. Nahrwold, M.D., Professor and Chairman, Department of Anesthesiology, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, NE 68105. Equal Employment Opportunity/Affirmative Action Employer

University of New Brunswick/Department of Biology—Contingent upon final budgetary approval, the Biology Department seeks to fill THREE TENURE-TRACK POSITIONS: DEVELOPMENTAL BOTANY, PLANT ECOLOGY, and ENVIRONMENTAL PHYSIOLOGY/ZOOLOGY. Applicants must The successful candidates will be expected to develop vigorous research programs, interacting with existing researchers. In addition, they will participate in underresearchers. In addition, they will participate in undergraduate and graduate teaching. The main undergraduate teaching for the three positions would include introductory botany, general ecology, and upper year courses in their specific areas of expertise. Applicants should submit a letter of application, a statement of their research interests, and curriculum vitae with names of three potential referees to: Dr. R. T. Riding, Chairman, Department of Biology, University of New Brunswick, Bag Service No. 45111, Fredericton, New Brunswick B3B 6E1. Closing date is 1 May 1987 or as soon as appointments are filled. The positions begin 1 July 1987. In accordance with Canadian Immigration requirements this advertisement is directed to Canadian citizens and permanent residents. citizens and permanent residents.



DNA Product Support Nucleic Acid Product Management

Applied Biosystems, the leading producer of automated instrument/reagent systems for biotechnology research has an opening for two product support scientists and a product manager. All three positions require a B.S. in chemistry, biology or a related field, good oral and written communication skills and willingness to travel. One product support scientist will be based in Foster City, California and requires at least two years experience in dideoxy sequencing. The other will be based in Japan and requires good Japanese and English as well as experience in molecular biology. The product manager will be responsible for marketing our Nucleic Acid Extractor and requires two years experience in technical sales or marketing. In addition to growth opportunity, we offer a competitive compensation and benefit package. Send resume to . . .

Rochelle Ruane
850 Lincoln Center Dr., Foster City, CA 94404
An Equal Opportunity Employer

Metabolism/ Pharmacokinetics Supervisor

Stauffer Chemical Company, a subsidiary of Chesebrough-Pond's, Inc., has a challenging opportunity for an experienced scientist in the Metabolism Laboratories at its Environmental Health Center in Farmington, CT. You will supervise scientists working on metabolism/pharmacokinetic studies and work as part of a team of chemists and biochemists to separate and identify metabolites in biological systems.

To qualify, you should possess a Ph.D. or equivalent in biochemistry, chemistry, or a related field and 5-7 years of experience in conducting metabolism/pharmaco-kinetic studies in animals and in laboratory supervision. You should also be experienced in modern biochemical and analytical procedures including TLC, GLC, MPLC and radioisotope handling.

Stauffer offers on-going growth opportunities, excellent salary and an attractive package of company-paid benefits. The Stauffer Environmental Health Center is adjacent to The University of Connecticut Health Center, and is located in one of the state's most attractive, semi-rural towns. To apply, please send your resume, a brief description of your experience, and salary requirements, in complete confidence, to: Mrs. P. Frutchey, STAUFFER CHEMICAL COMPANY, 400 Farmington Avenue, Farmington, CT 06032. We are an Equal Opportunity Employer M/F.

Stauffer Chemical Company

BUBBIDIARY OF Chesebrough Pond's Inc.

RESEARCH ASSOCIATES

SIBIA is an established biotechnology company involved in a wide spectrum of innovative research programs. SIBIA, with a staff comprised of leading scientific staff members, provides an exceptional scientific research environment in which to work, plus a modern laboratory located near the ocean on Coast Boulevard in La Jolla. A broad range of research programs encourages multi-disciplinary interaction.

Applications are requested for Research Associates in:

MOLECULAR CELL BIOLOGY

BS/MS in molecular and cellular biology, microbiology or biochemistry. Experience with recombinant DNA techniques such as cloning, nucleic acid sequencing, and nucleic acid hybridization analysis is required. Research experience in the following areas is desirable:

- Animal virus systems, especially retroviruses
- Yeast systems
- Mammalian systems

TISSUE CULTURE AND CELL BIOLOGY

BS/MS in cell biology. Experience with cell and tissue culture techniques involving primary and established cell lines and virology is required.

PROTEIN CHEMISTRY

BS/MS in Biochemistry. Experience in analytical protein analysis, HPLC, and protein cleavage methods or protein and peptide purification. Also, experience in yeast biochemistry for additional opening.

CHEMISTRY

BS/MS in Chemistry. Experience in gel electrophoresis, gel chromotography (specifically HPLC) and synthetic organic chemistry. Oligonucleitide experience desirable.

We offer a comprehensive benefits package and competitive salaries. For confidential consideration, please submit your curriculum vitae, a statement of research interests and goals, and the names of three professional references to SIBIA, Department 4059, 505 Coast Boulevard South, La Jolla, CA 92037. Equal Opportunity Employer.



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TOXICOLOGIST

The Bay Area Air Quality Management District (BAAQMD) in San Francisco, CA, is seeking a full-time toxicologist with experience in risk assessment of environmental toxics, evaluation of environmental data, and preparation of reports on toxic air emission health impacts. Ph.D. and 3 years of experience desired; \$3663 per month to start. Send résumé to: BAAQMD, 939 Ellis Street, San Francisco, CA 94109. Equal Opportunity/Affirmative Action Employer.

VICE PRESIDENT FOR PROGRAMS

The Museum of Science and Industry, Chicago, seeks an effective museum professional. Responsibilities include overseeing the administration, planning and budgeting of the Education, Exhibit and Science (exhibit content and collections) departments and serving as Director of one of these departments. We are seeking a candidate possessing excellent organizational and communicative abilities. Expertise in a field of science or engineering and the ability to direct professionals is a must. Qualifications include extensive experience working in exhibit, educational, or research activities in a large Museum or similar organization. A Ph.D. in Science or Engineering is preferred. Send résumés with salary history to: Personnel Manager, Museum of Science and Industry, 57th and Lake Shore Drive, Chicago, IL

Equal Opportunity Employer

ASSISTANTSHIPS

GRADUATE TEACHING ASSISTANTSHIPS for students studying for Ph.D. and M.S. degrees in all areas of chemistry, including clinical chemistry. Stipends \$14,352 to \$15,152 including tuition and fees. Contact: Dr. T. W. Flechtner, Chemistry Department, Cleveland State University (CSU), Cleveland, OH 44115. CSU is an Equal Opportunity/Affirmative Action Employer.

COURSES

ELECTRON MICROSCOPY (TEM/SEM): Biological Applications. Designed for professional and laboratory personnel who desire practical hands-on training in basic techniques of TEM and SEM. Graduate credit and/or certificate awarded. Tuition: \$850. Date: 29 June through 17 July 1987. For further information and registration form contact: Dr. Dan Scheirer, Department of Biology, Northeastern University, Boston, MA 02115. Telephone: 617-437-2260.

PROGRAM

PROGRAM IN CELL AND MOLECULAR BIOLOGY

A tenure-track assistant professor faculty position is available immediately for a eukaryotic molecular or cell biologist with an independent research program. Ongoing research initiatives in the anatomy department are in neural, reproductive, muscle, and developmental biology. Teaching is in the medical curriculum but prior training or teaching experience in anatomical disciplines is not required. Please send curriculum vitae and names of three references to: Dr. Lloyd Guth, Search Committee, Department of Anatomy, University of Maryland School of Medicine, 655 West Baltimore Street, Baltimore, MD 21201. For additional information, telephone: Dr. Guth 301-328-3590. The University of Maryland at Baltimore is an Equal Opportunity/Affirmative Action Employer.

SYMPOSIUM

FOURTH ANNUAL NABRIT SYMPOSIUM IN THE BIOMEDICAL SCIENCES: Gene Structure, Replication, and Expression. Sponsored by Atlanta University and the National Institutes of Health, 9 to 11 April 1987, Atlanta, Georgia. Addresses, papers, posters concerned with gene structure, replication, expression, and analyses of gene products. For information: Professor W. Dashek, Nabrit Symposium Organizing Committee, Atlanta University, 223 Brawley Drive, SW, Atlanta, GA 30314; telephone 404-681-0251.

CONFERENCE

NEW TECHNOLOGIES: RESPONDING TO FUTURE RISKS 28 TO 29 MAY 1987 WORCESTER, MASSACHUSETTS

This CONFERENCE, sponsored by The New Technologies Safety and Health Institute, provides a forum for a multidisciplinary approach to environmental and occupational safety and health issues in new technologies. Science, health, government, labor and industry are represented in a program arranged to foster in-depth discussion and audience participation.

gies. Science, health, government, labor and industry are represented in a program arranged to foster in-depth discussion and audience participation.

Session topics include: TRENDS IN NEW TECHNOLOGIES; NEW APPROACHES TO NEW KINDS OF RISKS; BIOTECHNOLOGY, ADVANCED MATERIALS AND MICROELECTRONICS; LIABILITY AND INSURANCE; PUBLIC PERCEPTION; RISK COMMUNICATION; PUBLIC POLICY AND REGULATION.

Co-sponsors of the conference are the Center for Technology, Environment and Development (CENT-ED) at Clark University, the Occupational Health Program at the University of Massachusetts Medical School, and the Division of Interdisciplinary Affairs at Worcester Polytechnic Institute.

For information and registration forms, please contact: Barbara Guthrie, Worcester Consortium for Higher Education, 37 Fruit Street, Worcester, MA 01609. Telephone: 617-754-6829.

FELLOWSHIPS

POSTDOCTORAL FELLOWSHIP available immediately to study the role of chromatin structure in oncogene regulation in human leukemic cells. Two-year position with competitive salary. Candidate should have background in molecular and cell biology. Please send curriculum vitae and three references to: Dr. Robin H. Chou, Hahnemann University School of Medicine, Department of Anatomy, Mail Stop 408, Broad and Vine, Philadelphia, PA 19102. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIP. A vacancy exists for a postdoctoral fellow interested in studying the regulation of immunity to tumor transplantation antigens and tumor histocompatibility antigens. Applicants should have basic training in immunobiology. Starting salary will be \$18,500 plus liberal fringe benefits. Subsidized Institute housing is available.

The Trudeau Institute is a private, not-for-profit, basic medical research institution located on the shore of Saranac Lake and near Lake Placid, NY.

Send curriculum vitae and names of three references to:

Dr. Robert J. North, Director Trudeau Institute, Inc. P.O. Box 59 Saranac Lake, NY 12983

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

Fellowships are available for research on the molecular, cellular, genetic and developmental aspects of mammalian cells. The faculty include: M. J. Banda (angiogenesis, wound healing, and macrophage proteinases), J. E. Cleaver (DNA repair genes), W. F. Morgan (sister chromatid exchange), J. P. Murnane (DNA recombination), R. B. Painter (DNA replication and repair), R. Pedersen (early mammalian development), M. R. Wabl (molecular immunology), Z. Werb (macrophage, extracellular matrix remodeling in differentiation and development), and S. Wolff (radiation genetics, cytogenetics).

Stipends are funded through a National Research

Stipends are funded through a National Research Service training program in carcinogenesis and mutagenesis sponsored by NIEHS. Appointments can begin immediately. 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 1 May 1987 to: Dr. Z. Werb, Program Director, Laboratory of Radiobiology and Environmental Health, University of California, San Francisco, CA 94143–0750. An Equal Opportunity/Affirmative Action Employer.

FELLOWSHIPS

HARVARD SCHOOL OF PUBLIC HEALTH POSTDOCTORAL FELLOWSHIPS



Interdisciplinary Programs in Health (IPH) invites applications from promising graduates of advanced degree programs in the natural or social sciences interested in turning to research in environmental health and public policy. The program focuses on the scientific and analytical foundations for environmental decisions. In addition to individual research, recent group projects include monographs on the molecular and cellular basis of toxicity, and the susceptible individual and environmental regulation. Further studies will be adapted to interests of Fellows. Studies on the assessment of integrated exposure and dose, and on uncertainty in environmental decision making are under consideration.

exposite and dose, and of differentially in curvolinication decision making are under consideration.

Fellows will be appointed for a term of 1 year starting September 1987. Award may be renewed. Application deadline: 13 April 1987. Decisions announced in May.

For information, write to:

Professor Donald F. Hornig Director, IPH Harvard School of Public Health 665 Huntington Avenue Boston, MA 02115

POSTDOCTORAL FELLOWSHIPS IN PSYCHOBIOLOGY: Accepting applications for M.D. or Ph.D. postdoctoral training in NIMH-funded program. Training centers around independent research, with human subjects or animal models, of physiological and behavioral processes underlying a variety of clinical disorders. Recent interests of core faculty include: development of sleep-wake state; cardiovascular and respiratory regulation; ontogeny of feeding and associative learning; developmental toxicology; aggression; processes underlying pain and analgesia; the psychobiology of time and time perception. Stipends awarded by NIMH guidelines for 1 year with second year option. NIMH requires U.S. citizens. To apply: send three reference letters, curriculum vitae and letter describing your research interests to: Myron Hofer, M.D., Columbia University, Box 40, 722 West 168 Street, New York, NY 10032. Affirmative Action/Equal Opportunity Employer.

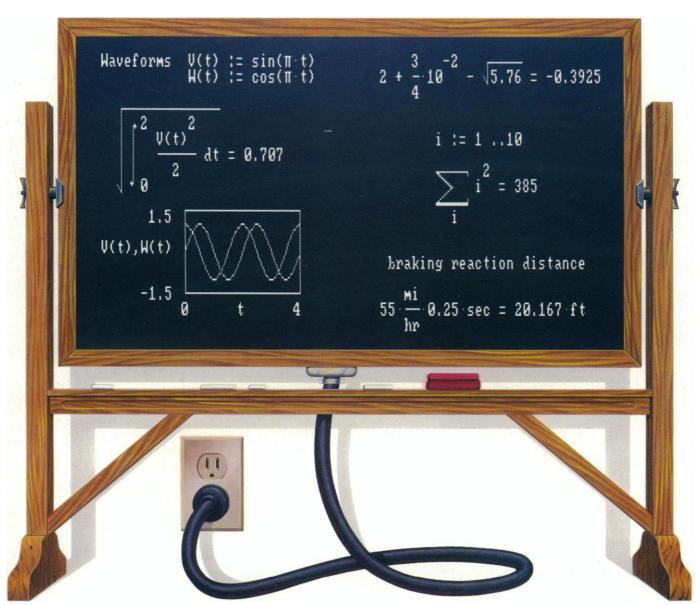
POSTDOCTORAL RESEARCH FELLOWSHIP to study the antigenic phenotype, molecular genetics, and function of human cytotoxic lymphocyte, with particular emphasis on the structure and function of T-cell antigen receptors, activation of CTL and NK cells, and mechanisms of cytotoxicity. Ph.D. in immunology or molecular biology required. Submit curriculum vitae to: Dr. Lewis Lanier, Becton Dickinson Immunocytometry Systems, 2375 Garcia Avenue, P.O. Box 7375, Mountain View, CA 94039. We are an Equal Opportunity Employer.

POSTDOCTORAL RESEARCH FELLOWSHIP A postdoctoral position is available immediately to study a steroid metabolizing enzyme in liver. The applicant should be a U.S. citizen or have immigrant status, hold a Ph.D. degree (or equivalent), and have background knowledge and experience in enzymology, protein isolation, molecular biology, and cell culture.

Please send curriculum vitae and the names and ad-

Please send curriculum vitae and the names and addresses of two academic references to: Dr. Leon Milewich, The University of Texas Health Science Center, Cecil H. and Ida Green Center for Reproductive Biology Sciences, 5323 Harry Hines Boulevard, Dallas, Texas 75235–9051. The University of Texas is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH FELLOWSHIPS IN MOLECULAR BIOLOGY AND GENETICS—Several postdoctoral fellowships are available to individuals with doctoral training in molecular biology. Studies include molecular/cell biology and molecular genetics of lysosomal glycoproteins; characterization of oncogenes and their gene products; and studies of protein folding and translocation. Appointments are made for 2 years. Please send résumés to: Division of Medical Genetics, Childrens Hospital of Los Angeles, 4650 Sunset Boulevard, Los Angeles, CA 90027, Attention: John A. Barranger, Ph.D., M.D.



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