Posters
The following posters of Science covers are available:

9 February 1979, Locomotive in China;
27 July 1979, Lightning over St. Louis;
29 July 1983, Cheetah and cub;
2 December 1983, Snowshoe hare;
23 December 1983, Cathedral window/DNA molecule;
26 September 1986, Neurons in motor cortex;
28 November 1986, Byrd Glacier, Antarctica
Combination of space covers in scroll format: 1 June 1979, 23 November 1979, 10 April 1981.

Price is $5.50 each (prepaid)
Write to AAAS Department POST, 1333 H Street, NW, Washington, D.C. 20005.

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1988 AAAS/Westinghouse Award for Public Understanding of Science and Technology

Nominations Invited
- An annual Award for working scientists and engineers from all disciplines who make outstanding contributions to public understanding of science and technology but are not members of the media
- The Award will be presented during the AAAS Annual Meeting in San Francisco, 15-20 January 1989
- The Award carries a $2,500 prize
- Sponsors for the Award are the Westinghouse Electric Fund and American Association for the Advancement of Science

1987 Award Winner:
Philip Morrison
Massachusetts Institute of Technology

For additional information, contact Patricia S. Curlin, AAAS Committee on Public Understanding of Science and Technology, 1333 H Street, NW, Washington, DC 20005 or call 202/326-6600.

Deadline for nominations is 1 October 1988

Work Experience and Psychological Development Through the Life Span

Edited by Jeylan T. Mortimer, University of Minnesota, and Kathryn M. Borman, University of Cincinnati

Only recently have researchers begun to explore the relationship between occupational conditions and psychological development during different phases of life. This book examines a wide range of related issues, including part-time work for adolescents; adjustment of young adults to new work roles; occupational self-direction among different age groups; job satisfaction, age, and gender; women's dual roles at home and at work; loss of "vitality" among midcareer and older workers; and self-concept and job-related disabilities.

$29.95; AAAS members $23.96 (include membership number from Science). 306 pp., 1987. AAAS Selected Symposium 107.

Order from: Westview Press, Dept. AAAS, 5500 Central Avenue, Boulder, CO 80301. (Add $2.50 postage and handling for the first copy, 75 cents for each additional copy; allow 4-6 weeks for delivery.)

Published by Westview Press for AAAS
They say that variety is the spice of life. But the variety of life insurance products in the marketplace today poses a bewildering prospect—even for the most educated customer. Which is why it’s refreshing to know that there’s still a kind of life insurance whose appeal lies in its simplicity.

Not only is AAAS Term Life the purest kind of life insurance available, it is also the least expensive. And now that Group Rates have been cut another 15% effective 4/1/88 (they were also cut 10% last October), AAAS Term Life is an even better bargain.

If you’re interested in applying for coverage from $15,000 up to $240,000, and wish to request generous protection for your family, too, the next step is simple.

Contact the Administrator, AAAS Group Insurance Program, 1255 23rd Street, N.W., Suite 300, Washington, D.C. 20037, or call toll-free (800) 424-9883 (in Washington, D.C. call 296-8030). They will be pleased to answer any questions you may have about this valuable member benefit.
Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year. The advertising is accepted only in writing; no abbreviations. Any advertiser is responsible for the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, marital status, or sexual preference. SCIENCE reserves the right, in its discretion, to decline to publish any advertisement.

LINE CLASSIFIED ADVERTISING DEADLINES:

Thursday, 10 a.m., 2 weeks prior to issue date (mail in issue date in cur- rent advertising). Prepayment required. This rate is available only to individuals seeking jobs.

LINE CLASSIFIED (POSITIONS OPEN, COURSES, FELLOWSHIPS, MARKETPLACE, and so forth).

$38.00 per line, $330 minimum per week (minimum charge covers one inch on a single column: one inch equals 10 lines of 52 characters and spaces per line). No charge for use of box number. No agency commis- sions or fees. At least 4 inches in size. No cash discount. Prepayment required for all foreign ads. Purchase orders must be accompanied by billing address required for all other advertising.

To ESTIMATE an ad cost:

Structure ad copy on a separate page, on lines of 52 characters and spaces. Include any desired heading. Each line of heading, and/or extra line spaces, and all partial lines (including centered reply information) are counted as full lines. Ad titles located within the text are printed in boldface caps and are only 32 charac- ters per line. In ESTIMATING the cost, multiply total lines x $38.00 = approximate ad cost. (This is an approximate cost only. Allow for variation between estimated lines and actual typeset size and the result- ing final cost. Allow for some degree of flexibility and/or adjustment.)

CANCELLATION POLICY:

NOTE: Ad cancellations made after Thursday, TWO weeks prior to issue date incur a 15% production charge. Final deadline for cancellations is 12 p.m. Tuesday, ONE week prior to issue date. Cancellations must be in writing.

Send copy for all Positions Wanted ads and Line Classification ads less than 1/6 page in size (30 lines) to:

SCIENCE Classified Advertising
1333 H Street, NW, Room 940
Telephone: 202-289-5555

Send copy for Fractional Display ads, 1/6 page and larger, and all Marketplace ads to:

Scherago Associates, Inc.
1816 Broome Street
New York, NY 10036
Telephone: 212-222-3570

Blind ad replies should be addressed as follows:

Box (give number)

SCIENCE
1333 H Street, NW
Washington, DC 20005

POSITIONS WANTED

Physiologist/Neuroscientist, Ph.D. with proven publi- cation record. Research relating to cerebral blood flow and energy metabolism, using microdialysis, methods and techniques. Seeking a research or research/teaching posi- tion in the southeast. Box 131, SCIENCE.

Translation from Japanese publications, patents, and technical reports. P.O.B. 211063, Columbus, OH 43221.


OPENPOSITIONS

ACADEMIC POSITION—RESEARCH ASSOC- IATE (i) To conduct advanced research on the molec- ular genetics of signal transduction, using knowledge of Drosophila. Research involves molecular cloning and charac- terization of biochemical pathways; (ii) To in- struct postdoctoral fellows; (iii) To participate in and sometimes lead research meetings; and (iv) To help draft grant proposals. Excellent knowledge of bio- chemistry or biology; 3 years of postdoctoral experience in the above research. Monday to Friday, 40 hours per week. Salary $60,000 per year. Send letter of interest to the Director, New Mexico Solar Energy Institute, Box 30001, Department 3 SOL, New Mexico State Uni- versity, Las Cruces, NM 88003-3001. Deadline for application is 9 September 1988. New Mexico State University is an Equal Employment Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR IN PLANT HOST-PATHOGEN INTERACTIONS REOPENED

A 12-month tenure-track position in plant pathology at the rank of assistant professor. Individual will be expected to establish a research program utilizing molecular approaches to the study of plant host-patho- gen interactions. Teaching will include developing a course on plant pathology in the undergraduate curric- ulum vitae, statement of research interests, transcripts of all academic courses, list of publications, reprints of representative publications, and three letters of recom- mendation to: Dr. Stephen E. Steiger, Chairperson, Department of Botany and Plant Pathology, Oregon State University, Corvallis Hall 282, Corvallis, OR 97331. Closing date: 30 November 1988. Posi- tion available 1 July 1989. Oregon State University is an Affirmative Action/Equal Opportunity Employer and complies with Section 503 of the Rehabilitation Act of 1973. OSU has a policy of being responsive to the needs of the disabled-student population.
POSITIONS OPEN

ASSISTANT BIOCHEMIST—Ph.D. in crystallography. One year of postdoctoral training. Postdoctoral training should include hands-on experience working on membrane-bound protein single crystals and x-ray data acquisition at synchrotrons. Will perform x-ray crystallography and bioinformatics including data acquisition, data analysis, structure analysis, and the work with x-ray area detectors and perform work at the high-resolution x-ray diffraction Salary: $3100 per month; 40 hours per week; 8:30 a.m. to 5:00 p.m. Send resume to: Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605. Attention: Joan Haight, Reference #8522-H. An employer paid ad.

ASSISTANT PHYSICIST—Ph.D. in physics. One year of postdoctoral training and 2 to 3 years experience as a researcher in physics. Research experience should include: ring-storing crystallography, electromagnetic theory, computing techniques, and mainframe computing. All of the above evidenced by publications and referred journals. Under minimum supervision, the following duties will be performed: (i) Design accelerator or storage ring lattices for various types of high energy accelerators. (ii) Analyze the beam behavior in a storage ring, and make recommendations regarding possible improvement of the beam. (iii) Calculate the coupling impedance of beam to its surroundings. (iv) Calculate the limits of a storage ring using the coupling impedances. (v) Develop the particle tracking code to simulate the performance of the storage ring. Salary: $2900 per month; 40 hours per week; 8:30 a.m. to 5:00 p.m. Send resume to: Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605. Attention: Joan Haight, Reference #8416-H. An employer paid ad.

ASSISTANT PROFESSOR (anticipated opening). A person with a mechanism-based chemistry background in physical organic chemistry, and/or oxidative biology is desired to act as the day-to-day director of the research group and to oversee the non-molecular aspects of the work. A background in the Biodynamics Institute at a new center for the study of nutrition and aging built with a $125-million gift to Louisiana State University (LSU). The research group totals from 15 to 25 personnel with ranks up to graduate students and postdoctoral fellows. The position is paid from State funds, not grant funds; it is not initially, but it could become, a tenure-track position. Minimum supervision, the Biodynamics Institute and either the Chemistry or the Biotechnology Departments of LSU. Interested persons should send curriculum vitae with at least three references written directly to: Dr. William A. Pryor, Biodynamics Institute, 711 Choppin, Louisiana State University, Baton Rouge, LA 70803. Deadline: Until a qualified candidate is found. LSU is an Equal Employment Opportunity Employer.

ASSOCIATE OR ASSOCIATE PROFESSOR OF PATHOLOGY position available at The George Washington University Medical Center, Washington, D.C. Full-time is desirable for individuals with training and expertise in experimental pathology (digestible areas are cancer, heart or AIDS) and capable of maintaining research program and support. Candidate should have at least two years of postdoctoral training. Send resume to: Dr. H. Sidransky, Chairman, Department of Pathology, The George Washington University Medical Center, NW, Washington, D.C. 20037. An Equal Employment Opportunity Employer.

ASSOCIATE DEAN FOR RESEARCH—University of South Florida (USF) College of Medicine seeks a M.D./Ph.D. in medical discipline with record of funded research, experience in administration, graduate/medical education, and independent research efforts. Must be eligible for appointment at professorial level. Telephone or written inquiries should be sent to: J. Judisch, M.D., USF College of Medicine, 12909 South Road, Tampa, FL 33612. Applications must be postmarked no later than 15 January 1989. An Equal Employment Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR (Tenure-leading): The Epley Institute for Research in Cancer, a designated NCI F1 laboratory at the University of Nebraska Medical Center is seeking an individual to establish an independent research program applying modern organic and/or bioorganic approaches to basic problems related to cancer. The successful candidate will hold a joint appointment in an appropriate basic science department and will be expected to contribute to further the cancer research at the UNMC campus. The Epley Institute is a multi-disciplinary institution with 21 faculty whose research interests include analytical and organic chemistry, biochemistry, molecular biology, radiation, and repair, virology, oncogenes, molecular biology, cell differentiation, gene regulation, genetics, biochemical genetics, and bioorganic chemistry. Interested persons should have a Ph.D. in chemistry, and several years of postdoctoral training. Send complete résumé, statement of future research plans, and three letters of reference to: Professor Edward Bresnick, Epley Institute, UNMC, Omaha, NE 68105. Please refer to position #6-6100. Affirmative Action/Equal Opportunity Employer.

ASSISTANT/ASSOCIATE PROFESSOR DEPARTMENT OF PHYSIOLOGY Applications are invited for a tenure-track position in the Department of Physiology of the Ohio State University College of Medicine. Individuals with a promising or established investigative program using a cellular/molecular approach to excitability, contractility, or membrane transport are sought. Salary: $2600 per month; 40 hours per week; 8:30 a.m. to 5:00 p.m. Send resume to: Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, Illinois, 60605. Attention: Joan Haight, Reference #8416-H. An employer paid ad.

ASSISTANT/ASSOCIATE SCIENTIST GUTHRIE RESEARCH INSTITUTE Applications are invited for the position of assistant or associate scientist at the Guthrie Research Institute, the basic research component of the Guthrie Clinic/Medical Center located in Sayre, Pennsylvania. The Institute is directed toward the study of basic immunology, with an emphasis on cancer-related immunology. Existing research programs involve cellular and biochemical aspects of immunology, tumor necrosis modifiers, macrophage immunobiology, including the production of immunomodulatory and differentiation-active factors; the development of lymphoma/malignant surface antigens and cytokines. Start-up funds, start-up funds, available for a developing scientist, and abundant opportunites exist within the Medical Center for basic-clinical collaborations.

The Guthrie Research Institute is a free-standing, not-for-profit basic research institute attractively located in scenic northeastern Pennsylvania. Affordable housing is complemented by abundant nearby recreational and cultural facilities.

Interested candidates should submit their curriculum vitae, with three references and statement of interests to: Robert E. Hall, M.D., Ph.D., Scientific Director, Guthrie Research Institute, Guthrie Medical Center, Sayre, PA 18840.

POSITIONS OPEN

ASSISTANT PROFESSOR. The Department of Anatomy and Cellular Biology at Harvard Medical School is seeking an individual with a start date in summer or fall of 1989. Applicants should have an active research program in the general area of molecular biological techniques. They should be willing to teach in a new course for medical students called The Body, This 8-week (120-hour) course treats both macroscopic and gross anatomy briefly and is the only required teaching commitment. Send curriculum vitae, bibliography, and three or four references by 1 November 1988 to: Dr. Elizabeth D. Harris, Department of Anatomy and Cellular Biology, Harvard Medical School, 25 Shattuck Street, Boston, MA 02115. Harvard University is an Equal Opportunity/Affirmative Action Employer.

BIOCHEMIST

The Department of Malaria is seeking a Ph.D. level individual with expertise in biochemistry to continue a program to identify and characterize antigens specifically associated with the liver stage of the malarial parasite. Experience with monoclonal antibodies and protein purification is essential. Knowledge of molecular biology is required. The applicant will be expected to collaborate within the Department on the cloning and expression of such antigens. Position is available now for an initial 1 year period with renewal option. The Department offers a competitive salary commensurate with experience and full benefits. Please send curriculum vitae and two letters of recommendation to:

Dr. Michael R. Hollingsdale
Biomedical Research Institute
12111 Parklawn Drive
Bethesda, Maryland 20814
Affirmative Action/Equal Opportunity Employer.

CHAIR, DEPARTMENT OF PATHOLOGY

School of Veterinary Medicine, The University of Pennsylvania. The University of Pennsylvania Veterinary School is seeking a highly qualified individual to provide leadership for the Department of Pathobiology. This department includes twenty-one full-time faculty and encompassing research and service activities of the Laboratories of Avian Medicine, Microbiology, Parasitology, and Pathology in the School of Veterinary Medicine. Candidates should have experience in administration, a commitment to excellence in teaching, and a strong research program in molecular biology. A degree in veterinary medicine is desirable, but not essential.

Nominations and applications should be sent to: Dr. Alan M. Kelly, School of Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104-0551.

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

CHAIR OF STAFF

The Ann Arbor, Michigan, Veterans Administration Medical Center in conjunction with the University of Michigan is actively seeking physician applicants for the position of Chief of Staff. Essential credentials include a proven record as a clinician, academician, and researcher with administrative experience in an affiliated environment.

Professional background must be sufficient to qualify for senior academic appointment at the University of Michigan Medical School. Qualified applicants should send curriculum vitae to:

Dr. Roland G. Hines
Chairperson, Search Committee
University of Michigan Medical School
61205 Towsley Center
Ann Arbor, MI 48109-0201

The Ann Arbor, Michigan VA Medical Center is an Equal Employment Opportunity Employer.

CYTOGENETICIST: Division of Medical Genetics, Department of Preventive Medicine seeks M.D. or Ph.D. with research interests in Human Medical Genetics for tenure-track faculty position supervising research/clinical laboratory and teaching. Send curriculum vitae, references, and letter of application to: Bruce B. Downs Boulevard #37, Tampa, FL 33612. This 2-year position is initially available January 1989. Salary: $2600 per month; 40 hours per week; 8:30 a.m. to 5:00 p.m. An Equal Employment Opportunity/Affirmative Action Employer.

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POSITIONS OPEN

BIOTECHNOLOGY SCIENTIST

Ciba Corning Diagnostics, a leader in the development, manufacture and marketing of clinical diagnostics products, has an immediate opening for an individual to help develop a new electrophotographic product line. Position requires a Bachelors degree and 2 to 5 years of hands-on experience with nucleic acid separation and analysis in a molecular biology setting. Located in the beautiful San Francisco Bay area, we offer an excellent salary and benefits package. Send resume to: Personnel, Ciba Corning Diagnostics Corporation, 490 S. Annanic Road, Palo Alto, CA 94306. Equal Opportunity Employer.

DIRECTOR, BOSTON UNIVERSITY CANCER CENTER. Applications and nominations are invited for senior scientist or faculty director to direct major medical center program. Director will have senior faculty rank and report directly to Dean. Candidates must hold M.D. or Ph.D.; must have established reputation in clinical oncology or basic research.

Send nominations and curriculum vitae to: Norman G. Levinsky, M.D., Boston University Medical Center, 88 East Newton Street, Boston, MA 02118. Boston University is an Equal Opportunity/Affirmative Action Employer.

DIRECTOR, DIVISION OF VECTOR-BORNE VIRAL DISEASES. The Centers for Disease Control is seeking a Director for the Division of Vector-Borne Viral Diseases of the Center for Infectious Diseases located in Ft. Collins, Colorado, with a field station in San Juan, Puerto Rico. The Director is responsible for arthropod-borne viral and bacterial disease detection, prevention, and control. Directs World Health Organization Collaborating Centers for Arbovirus and Plague Reference and Research. The programs are international in scope and provide opportunities for leadership in medical epidemiology, surveillance, laboratory research, and epidemic investigations. The Director serves as a principal resource for the Public Health Service for all public health aspects of vector-borne viral and bacterial diseases including Lyme disease, yellow fever plague, and dengue. Provides consultation on the clinical and laboratory diagnosis of vector-borne diseases to local, State and international health authorities. Qualifications preferred include a doctorate level degree (M.D., Ph.D., or equivalent), broad knowledge of the total Federal program related to prevention and control of vector-borne diseases, and the ability to provide administrative and scientific leadership for a multidisciplinary program, employing 75 professional, technical, and administrative personnel. Salary ranges up to $73,400 per annum, (M.D. may be entitled to an extra $8,000 to $20,000 allowance) depending on qualifications and personal system. Further information about the position can be obtained from: Dr. John Feeley, Chairman, VBVD Division Director Search Committee, Center for Infectious Diseases, Building 1, Room 5026, Centers for Disease Control, Atlanta, GA 30333. Interested candidates may send in confidence their curriculum vitae and names of three professional references by 30 October 1988 to: Lynn A. Agin, Personnel Management Office, 1-1066, Centers for Disease Control, 1600 Clifton Road, NE, Atlanta, GA 30333. CDC is an Equal Opportunity Employer and provides a smoke-free work environment.

The Centers for Disease Control, Center for Environmental Health and Injury Control, Atlanta, Georgia, is recruiting an EPIDEMIOLOGIST to conduct analyses of cancer risk related to military service in Vietnam. Assistant/Associate epidemiologist in monitoring ongoing field (data collection) activities. Applicants must have a Ph.D. in epidemiology; or a degree in medicine (M.D. or equivalent), a masters degree in epidemiology; or, a degree in medicine (M.D. or equivalent) with advanced training in epidemiology. Three to 5 years of experience in analytic epidemiology is desirable. Salary range from $39,950 to $42,135, depending on qualifications and experience.

Interested persons should send curriculum vitae to: Mr. J. J. C. Garner, Building 1, Room 1066, Centers for Disease Control, 1600 Clifton Road, NE, Atlanta, GA 30333 within 30 days of this publication. CDC is an Equal Employment Employer, and provides a smoke-free work environment.

Postdoctoral Research Staff Member

Lawrence Livermore National Laboratory, a premier research and development facility, is seeking a Postdoctoral Research Staff Member in the area of human mutagenesis. The individual will participate in an exciting multi-disciplinary effort measuring germlin mutations in humans.

This position requires a recent PhD or equivalent in molecular biology, cell biology, biophysics, biochemistry or related fields. Candidate should have experience in gene expression or mutagenesis. Experience with cell-separation methods, flow cytometry, image analyses, antibodies, or molecular techniques for DNA/RNA analyses desirable.

We offer a highly competitive salary and benefits package. Questions may be directed to: Dr. Andrew J. Wyropek, (415) 422-6296, or send curriculum vitae to: Earl G. Morell, Personnel Operations Division, Lawrence Livermore National Laboratory, P.O. Box 806, L-725, Dept. KSCBJ802B, Livermore, CA 94550. U.S. citizenship required. An equal opportunity employer.

University of California Lawrence Livermore National Laboratory

Associate Senior Investigator, Cell Biology

A health care company that markets prescription and proprietary products for human and animal health care has an opening for an Associate Senior Investigator, Cell Biology, in its Department of Cell Biology, for its research and development facility in King of Prussia, Pennsylvania.

The principle duties of the position include: (i) planning and designing experiments for the purpose of isolating, characterizing and maintaining new cell lines, especially colon epithelial cells; (ii) developing biochemical techniques for the quantification of cell proliferation through digital image analysis; (iii) purifying biological mediators especially epithelial growth factors using both small and large-scale chromatographic techniques including high performance liquid chromatography and gel electrophoresis; (iv) establishing systems to mimic human disease states in animals, especially metastatic colon cancer; (v) supervising the performance by laboratory personnel of various tasks in connection with planned experiments and performing non-routine, specialized procedures in such experiments; (vi) investigating, adopting, developing and implementing new scientific methods and techniques to improve and enhance ongoing experiments; (vii) coordinating, evaluating and drawing conclusions from experimental data, and (viii) recommending curtailment or expansion of current projects and initiation of new projects.

The minimum requirements for the position are a Ph.D. degree in Biochemistry and four (4) years experience in (i) single cell cloning of epithelial cells, (ii) isolating and characterizing colon epithelial cells in tissue culture; (iii) designing and creating animal models of metastatic colon cancer and (iv) purification of epithelial growth factors using liquid chromatography and digital image analysis.

Salary of $50,000 with liberal employee benefits. Qualified applicants should submit resume or curriculum vitae to Philadelphia Job Bank, 444 North 3rd Street, Philadelphia, PA 19123 and refer to Order Number 4192979. An Equal Opportunity Employer, M/F/H/V.
Tenure Track Staff Positions at the Biological Response Modifiers Program, NCI

The Clinical Research Branch, Biological Response Modifiers Program, Division of Cancer Treatment, the National Cancer Institute, National Institutes of Health, Public Health Service, is accepting applications for two staff positions. Positions are available to physicians who are either Board eligible or Board certified in medical oncology.

The incumbent will be responsible for primary patient care and the design and conduct of clinical trials utilizing biological response modifiers. Emphasis is also placed on continuity of patient care, principles of patient management, and correlation of clinical response with changes in immunologic parameters.

Staff Fellows are eligible for benefits including health insurance, life insurance options, vacation, and sick leave. In addition, travel expenses for the Fellow to his duty station are available.

For further information and application procedures, please contact:

Ronald G. Steis, M.D.
Medical Pavilion
Frederick Memorial Hospital
335 Park Avenue
Frederick, Maryland 21701
(301) 698-5929

An NIH Associate Training Program
NIH is an Equal Opportunity Employer

Postdoctoral Fellow Openings

The Monsanto Company Biological Sciences Department located in suburban St. Louis, is seeking to fill the following postdoctoral positions.

Molecular Biology
This position involves the identification of gene products specifically regulated by somatotropin. To qualify, you must have a Ph.D. and a strong background in molecular biology, biochemistry or cell biology.

Molecular Biology/Neurobiology
This position involves recombinant DNA techniques to dissect the signal transduction mechanism mediated by nerve growth factor and its receptor. To qualify, you must have a Ph.D. and experience in molecular biology and biochemistry. Familiarity with neuroscience and tissue culture techniques would be desirable.

Biochemistry
This position involves the design of experiments utilizing molecular techniques, including site-directed mutagenesis, to address the role of carbohydrate/protein interactions in governing immunogenicity and to study the role of these interactions in determining carbohydrate structure. To qualify, you must have a Ph.D. and expertise in molecular cloning and site-directed mutagenesis as demonstrated by publications in reputable scientific journals. Tissue culture skills are desirable.

Molecular Genetics
This position will pursue biochemical and molecular genetics studies of lymphoid malignancies and autoimmunity. Research projects will involve techniques of cell culture, gene isolation, nucleic acid analysis, and immunohistochemistry. To qualify, you must have Ph.D. with background in Molecular Genetics.

Molecular Biology
Candidates will be considered for research in four areas: prokaryotic regulatory elements, prokaryotic protein secretion, protein engineering and gene expression in Gram-Negative bacteria other than E. coli. The position requires a Ph.D. in Genetics, Molecular Biology or Biochemistry.

These are excellent opportunities to apply your skills to new discoveries and challenges. Please send curriculum vitae and names of three references to: Monsanto Company, 700 Chesterfield Village Parkway, Department B858-PD, St. Louis, MO 63196. Equal Opportunity Employer M/F/H/V.

University of Illinois at Urbana-Champaign

DEAN

COLLEGE OF LIBERAL ARTS AND SCIENCES

Notice of Position Available

The University of Illinois at Urbana-Champaign invites nominations and applications for the position of Dean of the College of Liberal Arts and Sciences.

The Dean is the chief executive officer of the College and is responsible to the Vice Chancellor for Academic Affairs and to the Chancellor for its administration. As the agent of the College faculty, the Dean implements College educational policy. The College comprises 2 schools, 29 departments, 15 programs, centers and specialized units, and 2 museums. The College’s 716 faculty members instruct 12,500 undergraduate students and 2,300 graduate students.

Qualifications include demonstrated scholarly achievement, administrative, budgetary, and fund-raising skills, demonstrated commitment to affirmative action, academic leadership, and commitment to the role of interdisciplinary studies and to the values of liberal education.


To assure full consideration, nominations and applications should be submitted by October 15, 1989 to:

Professor Jeremiah D. Sullivan, Chair
Search Committee for the Dean of the
College of Liberal Arts and Sciences
University of Illinois at Urbana-Champaign
Swalland Administration Building
601 East John Street
Champaign, Illinois 61820

Attention: Dr. Jane W. Loeb (217/333-4523)

THE UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN IS AN AFFIRMATIVE ACTION-EQUAL OPPORTUNITY EMPLOYER.

Meet organisations who are seeking scientific staff

Employment Exchange

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Take advantage of this unique employment opportunity. Plan now to attend British Laboratory Week. For advance, confidential screening and forwarding of your CV, send a copy to:

Edward C. Keller, Recruitment Director
c/o Scherago Associates, Inc., Science Magazine
15 Smithfield Meadows
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Devon EX6 7LU England

The Science Museum of Research

SCIENCE
KUWAIT INSTITUTE FOR SCIENTIFIC RESEARCH

Kuwait Institute for Scientific Research (KISR) is a nonprofit organization with a staff of more than one thousand employees engaged in applied research in the fields of environmental and earth sciences; food resources; engineering; petroleum, petrochemicals and materials and techno-economics. KISR has the following vacancies:

BIOENGINEER

· **Major Duties:**
  — Conducts scale up and optimization studies for various industrial fermentation systems at pilot plant level.
  — Develops process control and models for biological systems utilizing computerized fermenters.
  — Initiates and develops contract research proposals related to scale up studies of biomass production, biosurfactant production and biological wastewater treatment systems.

· **Qualifications:**
  Applicants should have a Ph.D. in Biochemical Engineering with minimum 5–7 years of experience in pilot scale continuous fermentation systems.

MOLECULAR GENETICIST

· **Major Duties:**
  — Develops basic recombinant DNA technology.
  — Develops specific DNA probes for detection of infectious and genetic diseases.
  — Conducts DNA uptakes by plant cells for crop (specially date palm) improvement.

· **Qualifications:**
  Applicants should have a Ph.D. degree in Molecular Genetics or related field with at least 3 years of postdoctoral research experience in recombinant DNA technology.

GROUNDWATER HYDROLOGIST

· **Major Duties:**
  — Conducts research in groundwater hydrology in arid environments. Particular emphasis is on artificial groundwater recharge, drainage, assessment of groundwater reserves and groundwater contamination.
  — Trains staff in groundwater hydrology.

· **Qualifications:**
  Applicants should have a Ph.D. or M.Sc. degree in geology or civil engineering and a minimum of 10 years of related experience.

GEOMORPHOLOGIST

· **Major Duties:**
  — Assesses desert geomorphological features related to desertification and sand encroachment in the desert areas.
  — Designs and implements field studies for the identification and characterization of the various types of desert surface sediments.
  — Calculates rate of sediment transport.

· **Qualifications:**
  Applicants should have B.Sci. or M.Sc. in applied geomorphology or surface geology with at least 5 years of practical experience in the desert research in general and sand movement in particular. Applicants should also have experience in the application of control measures for mobile sand.

CIVIL ENGINEER (COASTAL ENGINEER)

· **Major Duties:**
  — Carries out research in the areas of coastal hydrodynamics and coastal sediment.
  — Participates in physical model studies.
  — Applies numerical modelling to water engineering in general.

· **Qualifications:**
  Applicants should have a B.Sci. and M.Sc. degree in civil engineering and 3 years of relevant experience in the area of water engineering in general and coastal engineering in particular.

KISR offers attractive tax free salaries commensurate with qualifications and experience and generous benefits that include gratuity, free furnished air-conditioned accommodation; school tuition fees for children; contribution to a savings plan; six weeks annual paid vacation, air tickets, free medical care and life insurance.

Interested applicants are requested to send their Curriculum Vitae with supporting information not later than one month from the date of this publication, to:

Director General
Kuwait Institute for Scientific Research
P.O. Box 24885 Safat
13109 Safat—KUWAIT.
From professor ered. Processes of precipitation, Study January 1989 in hydrologic cycle. and runoff as well as other phases.

UNITED STATES DEVELOPMENT BIOSIS, the world's largest publisher of database producer of bibliographic information in the life sciences, is seeking a senior executive (V.P. level) to head its division for Data Processing and Systems Development. Division is responsible for the company's technical support function, including technical development, implementation, projects research and administration, and computer operations. The successful candidate will hold an advanced degree(s) in computer or information science, will have had at least 5 years of experience in the information industry including research and development, and administration.

BIOSIS is a not-for-profit, non-degree granting educational institution, in its 61st year. It is an Equal Opportunity Employer. Salary is competitive and commensurate with qualifications. Fully paid insurance benefits and a generous pension plan are included.

Candidates should submit their résumé with salary requirement to:

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2100 Arch Street
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Attention: Box D—Personnel Department
Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION IN MOLECULAR BIOLOGY

The Department of Pathology of Tulane University School of Medicine in New Orleans invites applications for a faculty position at the assistant professor level to strengthen its program in molecular biology. Successful candidates, Ph.D. or M.D. will conduct molecular studies of hepatitis B virus or hepatocellular carcinoma, develop or expand independent research program and participate in teaching. Facilities in the newly renovated molecular pathology unit are excellent. Start-up funds and technical help will be provided. Submit curriculum vitae, representative reprints, and names of three references to: Michael A. Gerber, M.D., Professor and Chairman, Department of Pathology, Tulane University School of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112. Salary and rank will be commensurate with qualifications and experience. Tulane University is an Equal Opportunity Employer/Affirmative Action Employer.

HYDROLOGIST
UNIVERSITY OF COLORADO AT BOULDER DEPARTMENT OF GEOLOGICAL SCIENCES AND COOPERATIVE INSTITUTE FOR RESEARCH IN ENVIRONMENTAL SCIENCES

Tenure-track position, rank open, Department of Geological Sciences/Cooperative Institute for Research in Environmental Sciences (CRES) beginning after 1 January 1989 to pursue research within the Center for the Study of Earth from Space (CSES) in the field of hydrology in the context of the global water cycle.Preference will be given to candidates at the assistant professor level, but candidates at all levels will be considered.

The applicant should have a research background in hydrology, with experience and knowledge in the processes of precipitation, evaporation, evapotranspiration, and runoff as well as other factors that control the hydrologic cycle. The applicant should have current or potential interest in the development of new techniques, including remote sensing, to regional or global scale questions with emphasis on problems associated with global change, and must have an ability to attract research funding. Teaching responsibilities will be in the Department of Geological Sciences and will include an undergraduate course in geohydrology.

Submit a letter of application, résumé, statement of research and teaching interests, and four letters sent by reference to: 30 November 1988 to: Chair, Hydrology Search Committee, Geological Sciences, Campus Box 250, University of Colorado, Boulder, CO 80309-0250.

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.

Research Associates
Diagnostic/Therapeutic Biopharmaceutical Products

CYTOGEN is dedicated to basic research and product development in oncology and cardiovascular disease. Our goal is to determine the full medical potential of unique monoclonal antibody linking technologies and drug delivery systems. We have an opportunity for two MS level Research Associates who will be involved in the research and development of analytical methods for bioprocess intermediates, antibody conjugates and formulated products.

Bioanalytical Chemist

The qualified professional will be knowledgeable in protein characterization and analysis by chromatographic and spectroscopic methods. Background in NMR (2D techniques), fluorescence, UV-VIS or circular dichroism spectroscopy is desired. Experience in protein HPLC, SDS-PAGE and SDS would be a significant asset.

Radiochemist/Radiopharmacist

Individual will be responsible for optimizing the chelation of various radioisotopes to monoclonal antibodies. Method development experience in ITLC and HPLC preferred.

The above positions require well-developed oral and written communication skills along with 1-2 years experience.

At CYTOGEN, you'll receive a competitive salary and benefits package. We will be relocating to Ewing, New Jersey in the fall. For confidential consideration, please submit resume with salary history and requirements to: Recruiting Supervisor, Cytogen Corp., 600 College Road East, Princeton, New Jersey 08540. An equal opportunity employer m/f.

Molecular Therapeutics Inc.

Innovative Technology Targeted to Medical Needs
FACULTY POSITIONS IN MICROBIOLOGY

The Department of Biology at Texas A&M University is augmenting its research effort in Microbiology and invites applications for four tenure-track faculty positions. Candidates should be using bacterial, viral or lower eukaryotic systems to study fundamental biological problems at the genetic, cellular or molecular level. Essential qualifications include a strong record of research accomplishment, the ability to develop a vigorous, independent research program, and a commitment to the training of undergraduate and graduate students. The Department has excellent research facilities and will provide competitive salaries and startup funds. Please send curriculum vitae, a statement of research interests, and the names, addresses and phone numbers of at least three references by October 1, 1988, to:

Dr. B. G. Foster
Department of Biology
Texas A&M University
College Station, TX 77843

Texas A&M University is an Affirmative Action/Equal Opportunity Employer. Minority candidates are especially encouraged to apply.

SENIOR IMMUNOLOGIST

Wyeth-Ayerst Laboratories is a world leader in research and development in the pharmaceutical industry. We currently have a unique opportunity for an Immunologist (PhD) with experience in viral systems to join a multi-disciplinary team engaged in the development of recombinant human viral vaccines at its Biotechnology and Microbiology Division in Radnor, PA.

The ideal candidate will have 2-3 years post-doctoral experience which should include expertise in tissue culture, virus propagation, and viral serology. Experience in hybridoma techniques is desirable.

We offer a highly competitive salary, extensive benefits and a state-of-the-art environment in a convenient suburban location. Qualified candidates are invited to submit CV or resume with salary requirements in confidence to: WYETH-AYERST LABORATORIES, INC., Recruitment Manager, Position #298, P.O. Box 8299, Philadelphia, PA 19101. Equal Opportunity Employer, M/F/H/V responses encouraged.

Research Scientist

COBE Laboratories, Inc., is a leading worldwide medical specialties company that designs, develops, manufactures and markets products for use in cardiovascular surgery, critical care monitoring, apheresis, blood banking and hemodialysis.

Our corporate Research and Development department is seeking a Research Scientist who will be a team member with broad involvement on a project directed toward treating blood or plasma extracorporeally, off-line, with goals of depleting or modifying blood components. This person will conduct research and have product development responsibilities.

The successful candidate will possess a Ph.D. in basic sciences and have multi-disciplinary experience. We prefer, but do not require, a Synthetic Organic Chemistry or Biochemistry background along with a fundamental understanding of Biology.

COBE offers an exciting opportunity for career growth and a fine compensation and benefits package. Please submit resume to:

COBE LABORATORIES, INC.
Dept. 1109-1160/RS
1185 Oak Street
Lakewood, CO 80215

Equal Opportunity Employer M/F/H/V

RESEARCH SCIENTIST

PHARMACOLOGY AND IMMUNOLOGY

Allegheny Singer Research Institute has immediate positions available for 2 qualified Scientists to work as members of a multi-institutional team to develop a new concept in cancer chemotherapy utilizing new analogues antineoplastic drugs and a catalytic antibody technology. Both positions require a Ph.D., post-doctoral experience preferred.

PHARMACOLOGIST—Research experience in pharmacology and pharmacokinetics of the methotrexate or nucleoside antineoplastic analogues is required. Preference will be given to candidates with additional experience in organic chemistry and/or metabolism of research compounds and enzymatic analysis.

IMMUNOLOGIST—Position requires a strong background in hybridoma technology and/or immunotherapeutic approaches in a clinical or experimental setting.

Allegheny Singer Research Institute is affiliated with a large tertiary care hospital and a medical school. Excellent benefits and a salary range from $25,000 to $32,500, depending on relevant experience. Please forward resume in confidence to: Dr. Josef F. Novak, Orthopedic Research Laboratory, ALLEGHENY SINGER RESEARCH INSTITUTE, 320 E. North Avenue, Pittsburgh, PA 15212. An Equal Opportunity Employer.
MOLLEcular BIOLOGISTS: The State University of New York College of Environmental Science and Forestry seeks applications for two tenure-track positions as part of a major college-wide thrust in biotechnology in forestry. The successful candidates must have research interests in such areas as plant growth and development, plant-microbe or plant-plant interactions, bioconversion of lignocellulose, or molecular chemical ecology. One position requires the associate professor level, and the other the assistant professor level, and must have demonstrated expertise in higher plant recombinant-DNA techniques. The area of expertise for the second position, which will be filled at the assistant professor level, may be with fungi, invertebrates, or microorganisms. Candidates will be expected to develop strong research programs, and teach courses in molecular biology and recombinant techniques. Minimal qualifications include a Ph.D. in molecular biology or Ph.D. in a related field. Applicants should submit a curriculum vitae and statements of research experience and future career goals. Three professional letters of reference are required. Application deadline is 15 October 1988. Send to: Dr. Frederick A. Valentine, Faculty of Environmental and Forest Biology, SUNY-ESF, Syracuse, NY 13210. Telephone: 315-470-6790.

SUNY-ESF is an Affirmative Action/Equal Opportunity Employer.

MOLEcular ENDOcrINOLOGISTS

Instructor, Research track, to conduct research on the genetic basis of growth disorders. Ph.D. degree and familiarity with the techniques of Southern blotting, polymerase chain reaction of DNA sequences and DNA sequencing required. Send applications with curriculum vitae to: Dr. John S. Parks, Director, Division of Pediatric Endocrinology, Emory University School of Medicine, 2040 Ridgewood Ctr Drive NW, Atlanta, GA 30322-2277. Deadline: 27 September 1988. Equal Opportunity Employer/M/F.

PHYSIOLOGIST OR PHARMACOLOGIST:

Tenure-track position available with responsibility for teaching cardicarcinology physiology and pathogenesis and general physiology and/or pharmacology and coordinating clinical practices in cardiology. Minimum qualifications include Ph.D. in physiology or pharmacology or related field, some postdoctoral training, and must be committed to independent research program. Applicants should submit curriculum vitae and the names and addresses of three references to: William Wojcikiewicz, Chair, Department of Respiratory Care, University of South Alabama—Springhill, Mobile, AL 36688. Equal Employment Opportunity/Affirmative Action Employer. Application deadline is 15 September 1988 or until filled.

POSTDOCTORAL ASSOCIATE IN BIOLOGY

Biological Sciences, University of Arizona, Tucson, AZ 85721.

PhD degree required in molecular biology or related fields. Experience in molecular cloning of DNA and RNA is required. Send curriculum vitae and names of three references to: Dr. M. C. Flaherty, Department of Biological Sciences, University of Arizona, Tucson, AZ 85721.

POSTDOCTORAL FELLOW

A position exists for a postdoctoral fellow interested in studying the roles of interleukins, TNF and TGF in resistance to bacterial and malignant diseases. Applicants should have a Ph.D. in molecular biology and experience with molecular biology. Experience with mammalian cell culture is helpful. Send curriculum vitae and names of three references to: Dr. Edward A. Havell, Traude Institute, Inc., P.O. Box 59, Saranac Lake, NY 12983.

POSTDOCTORAL POSITION available for collaborative studies of growth factor synthesis and function. Position requires a Ph.D. degree in molecular biology or related field. Experience with mammalian cell culture and experience in cell biology and/or molecular biology. Appointments are for 1-year periods up to 3 years. Send curriculum vitae and names and telephone numbers of three references to: Personnel Director (547), Southwest Foundation for Biomedical Research, P.O. Box 241, San Antonio, TX 78284. Equal Opportunity Employer M/F.
BS/MS SCIENTIST
Molecular Biology Research

For more than a century, scientists at ELI LLY AND COMPANY have developed innovative, high quality pharmaceutical products. In 1988, Lilly is investing over $500 million in research-and-development programs. More than 3,000 scientists at the company's Lilly Research Laboratories and Biochemical Development Divisions are pursuing creative research programs that involve many important health care needs.

To further build its research capabilities, Lilly is seeking a self-motivated, innovative scientist for the Molecular Biology Research Division. The ideal candidate will have the following qualifications:

- Bachelor's or Master's degree in molecular biology, genetics, or a related discipline.
- Experience in bacterial genetics and/or molecular biology.
- Excellent organizational and communication skills.

Eli Lilly and Company is committed to scientific excellence. Lilly provides a stimulating professional atmosphere with many opportunities for collaborative, multidisciplinary research. The company offers attractive compensation packages.

For prompt consideration, please forward your curriculum vitae to:

Robert L. Nist
Science Recruitment (ASS)
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, Indiana 46285

Molecular Biology—Neurobiology

POSTDOCTORAL POSITION (Ph.D.): We are seeking a highly motivated Ph.D. level individual to participate in the molecular biological efforts of our Alzheimer's Disease program. This project interfaces the efforts of laboratories throughout our biotechnology program with those in our CNS Diseases Research Unit. Some aspects of this work include genetic analyses, cDNA/gene cloning, expression of recombinants in a variety of cellular and transgenic systems, studies of post-translational modifications and metabolism of expressed proteins, in situ hybridization and immunohistochemical analyses. Interactions with experts in all these areas are available, providing strong opportunities for career growth and expansion of skills. The duration of this position will be two years. Research publications and presentations at meetings will be enthusiastically encouraged. (position no. 5564-GA)

RESEARCH ASSOCIATE (BS/MS): We are offering an exciting career opportunity for an independent individual committed to excellence in basic research to join our Alzheimer’s Disease program. A description of the work in which you will be involved appears in the accompanying ad for the Postdoctoral position. Applicants must be BS or MS level graduates and should have two or more years of recent, full-time laboratory experience with some combination of molecular biological techniques, protein analyses by Western blotting and immunoprecipitations, mammalian cell culture and transfections. We are committed to your scientific development and your participation and recognition in scientific publications. Attendance and presentations at scientific meetings will be encouraged. This is a position with long-term career potential and growth opportunity in a rapidly moving, competitive and important field of research. (position no. 5565-GA)

We are located in a mid-sized community in southwestern Michigan, midway between Chicago and Detroit. The region is surrounded by rolling hills, numerous lakes and woodlands and provides immediate access to abundant cultural and recreational pursuits, ranging from concerts and live theatre to a full range of summer and winter sports. Educational opportunities are available at several local universities and community colleges. Upjohn offers an excellent package of salary and benefits in a community with a reasonable cost of living. If you are interested in a challenging position and you have the necessary experience, please send your CV/resume to: M. William Rex, The Upjohn Company, Corporate Employment, Kalamazoo, MI 49001. Please refer to the desired position number in your correspondence. An Equal Opportunity Employer M/F.
POSTDOCTORAL NEUROPHARMACOLOGY RESEARCH FELLOW. Position available immediately in Los Angeles. Work involves studies of CNS receptors and synaptic function in rodents. Experience with enzyme assays and receptor binding required; experience with protein chemistry, molecular biology, or behavior helpful. Send curriculum vitae, names and telephone numbers of three references to: Dr. S. Robert Suokas, Neurology, Children's Hospital of Los Angeles, P.O. Box 54700, Los Angeles, CA 90054. Minority applications encouraged.

POSTDOCTORAL POSITION for research on problems of Drosophila molecular genetics: effects and control of retroviral elements, transcription termination, gene dosage compensation, homologous transformation. Excellent references required. Please send names and addresses of three references and curriculum vitae to: Dr. Matthew Meselson, Department of Biochemistry and Molecular Biology, Harvard University, 7 Divinity Avenue, Cambridge, MA 02138. Equal Opportunity Employer.

POSTDOCTORAL POSITION available to study regulation and mechanism of action of choline acetyltransferase and its relationship to Alzheimer's disease. A recent Ph.D. in biochemistry, biology, or related fields preferred. Send curriculum vitae and names of references to: Dr. Louis Herz, Biochemistry Department, Southwestern Graduate School, 5323 Harry Hines Boulevard, Dallas, TX, 75235. An Equal Opportunity University.

POSTDOCTORAL POSITION, University of Montana, in collaboration with ChromatoChem, Inc., to develop affinity HPLC reagents. Position combines expertise in bio- and organic chemistry with immunology and biopolymer crosslinking chemistry to produce research/industrial products. Salary $18,500+ depending on qualifications. Send curriculum vitae with names of references to: Dr. John A. Frangos, Department of Chemical Engineering, The Pennsylvania State University, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to apply.

POSTDOCTORAL POSITION. Available immediately. Biochemistry and molecular biology of bacterial homeo proteins and respiratory coupled transport. Genetic engineering techniques. Send curriculum vitae and references to: Dr. Dale Webster, Department of Biology, Illinois Institute of Technology, Chicago, IL 60616.

POSTDOCTORAL POSITION available immediately to join ongoing project examining the molecular biology, cell biology, pathogenesis of the eukaryotic AIDS pathogen, Pneumocystis carinii. Successful applicant will have experience in molecular genetics, cell culture or microbial pathogenesis. Position is NIH funded for minimum of 2 years. Send curriculum vitae, three letters, and a statement of research interests to: Dr. Gregory Buck, Box 678 MCV Station, Virginia Commonwealth University, Richmond, VA 23298.

POSTDOCTORAL POSITION: Join research team studying tissue culture of outer tree. Will lead investigation of nutrient metabolism correlations with morphogenic responses in specific in vitro and in situ test systems, using autoradiography, radioactive probes, HPLC and other biochemical techniques. Experience in biochemical assay and interpretation of fluxes in general metabolic pools desired. Salary is $20,000 or higher, depending on qualifications, plus benefits. Send curriculum vitae and names of three references by 15 September 1988 to: Dr. Ralph Mott, Department of Botany, Box 7612, North Carolina State University, Raleigh, NC 27708-7612.

RESEARCH SCIENTIST

DRUG DELIVERY

Committed To Scientific Excellence

The Sterling Research Group, the worldwide pharmaceutical research and development organization of Sterling Drug, announces an opening for a Research Scientist in the Drug Delivery Department at its Great Valley, PA facility, near Philadelphia.

The Drug Delivery Department is conducting research directed towards understanding and modulating the factors that influence oral availability of drugs. We have an immediate need for a highly-qualified individual to join the in vivo modeling group.

The successful candidate will: Design and conduct experiments to determine the mechanisms responsible for the transport, digestion and metabolism of peptides and other drugs in the GI tract; develop, validate and implement new analytical methods for the determination of the drugs and their metabolites in complex biological matrices, using modern analytical techniques; and design and conduct experiments to evaluate systems for site-specific drug delivery and their application to oral delivery of peptides.

Candidates should possess a B.S. degree with a minimum of 3-5 years of experience or an M.S. degree with 1-3 years of experience in analytical or pharmaceutical chemistry, or the equivalent. Experience in drug metabolism and disposition, and in the use of radiolabeled materials is desirable. Experience in conducting in vivo studies as well as strong communication skills are essential.

We offer competitive salaries and a full range of benefits, together with outstanding opportunities for personal growth. For confidential consideration, interested candidates should send their resume with salary history/requirements and the names of three references to: Employee Relations Department PDDD

STERLING RESEARCH GROUP
9 Great Valley Parkway
Great Valley, PA 19385
Equal Opportunity Employer, M/F/H/V

CORNELL UNIVERSITY
DIRECTOR,
CENTER FOR THEORY AND SIMULATION
IN SCIENCE AND ENGINEERING

Cornell University seeks qualified individuals for the above position, which will be filled not later than July 1, 1989.

The Theory Center

- Sponsors interdisciplinary research and graduate instruction in computational science and engineering.
- Provides infrastructure for interdisciplinary collaborations on computational issues.
- Contains the CNSF (Cornell National Supercomputer Facility), one of the five NSF-sponsored supercomputer centers which is IBM-based, with current focus on coarse-grained parallelism and user-friendly interface. Its present configuration is especially suitable to those with memory intensive applications.
- Contains the ACF (Advanced Computational Facility) for experimentation on prototype highly parallel machines.

The Director

Must be an outstanding scientist of international stature and have broad research and administrative experience in computational science.

Will be appointed professor in an appropriate Cornell department and expected to maintain his or her research program in computational science.

The Theory Center provides a national focus on the interface of science and engineering research with computational science. The Director is expected to have the personal qualities required to act as a national spokesperson for computational science.

For consideration please send your resume and a letter highlighting your qualifications to: Joseph Ballantyne, Vice President for Research and Advanced Studies, CORNELL UNIVERSITY, 512 Day Hall, Ithaca, NY 14853-2801. Respond on or before September 30, 1988.
SECOND ANNUAL NORTH AMERICAN CYSTIC FIBROSIS CONFERENCE

September 28–October 1, 1988
Orlando, Florida

A multidisciplinary conference for researchers, physicians, and allied health care professionals on the latest advances in CF research and care.

Presented by the Cystic Fibrosis Foundation

**PLENARY SESSIONS**

The Search for the Basic Defect
Michael Welsh, M.D.
University of Iowa

Immunological Approaches to Lung Disease
Melvin Berger, M.D., Ph.D.
Case Western Reserve University

Pathophysiology: Bridge from the Lab to the Bedside
Thomas Boat, M.D.
University of North Carolina at Chapel Hill

**SYMPOSIA**

Cardiopulmonary Management
R. Tepper—Infant Pulmonary Function Testing,

Psychosocial Issues
M. Bluebond-Langner—Brothers and Sisters, Illness and Death, R. Stern—Use of Unprescribed Psychoactive Drugs,
K. Bartholomew—Education Interventions.

The Search for the Gene
F. Collins—Strategies for Identifying the Gene,
R. Williamson—Chromosome Mediated Gene Transfer,
L. Tulli—Search for the CF Gene.

Heart/Lung Transplantation in CF Patients

Clinical Genetics
A. Beaudet—Prenatal Diagnosis, F. Gilbert—Carrier Testing, M. Kaback—Psychosocial Issues.

Controversies in CF Care

Identifying and Characterizing Ion Channels
Q. Al-Awqati—The Chloride Channel, D. Benos—The Sodium Channel, I. Levitan—Ion Channel Regulation by Phosphorylation.

Biology of Pseudomonas and Host Mechanisms
C. Cox—Iron Deposition, J. Ogie—Molecular Epidemiology,
M. Vasil—Phospholipase C of Pseudomonas.

Nutrition Assessment

Adult Care

Infection in CF

Regulatory Mechanisms

CONTRIBUTED PAPERS AND CONFERENCE PUBLICATION

More than 175 abstracts will be presented in poster form. Proceedings will be published as a supplement to Pediatric Pulmonology. The conference will also include 23 workshops, as well as roundtables in 49 separate subject areas.

CME credits and CEU’s for the conference are pending.

REGISTRATION FEE: $125 (U.S.)
PRE-REGISTRATION DEADLINE: August 30, 1988
For more information, contact the

Cystic Fibrosis Foundation
6931 Arlington Road
Bethesda, MD 20814
(301) 951-4422
**POSTDOCTORAL POSITION Open**

**National University Hospital Singapore**

**Excellence: Our Mission, A Commitment**

Share our mission in providing personalized quality patient care with state-of-the-art medical technology. National University Hospital is a 700-bedded multi-specialty teaching hospital that offers you a career—not a job—a commitment to achieve excellence in patient care, medical education and research.

We invite applications for the position of:

**POSTDOCTORAL FELLOW**

Haematology Division
Dept of Laboratory Medicine

The position provides an opportunity for a person possessing training in cytogenetics, genetics and/or DNA studies to be involved in the further development of a genetic service for the hospital.

Applicants should have:

- PhD in a field related to genetics and experience in cytogenetics
- Experience in DNA analysis will be an advantage

Terms and Conditions of Service:

- Two-year contract
- Salary will commensurate with qualification and experience

Please write in giving details of your academic qualifications and results, work experience, testimonials, telephone number to:

Director of Personnel

**National UNIVERSITY HOSPITAL (S) PTE LTD**

5 Lower Kent Ridge Road, Singapore 0511

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**EniChem Americas Inc.**

has a postdoctoral position available in its Plant Molecular Biology Group at their Research Center near Princeton, N.J. EniChem Americas Inc is the American affiliate of EniChem—the chemical arm of ENI (Ente Nazionale Idrocarburi).

This vacancy presents a unique opportunity to join a group of highly motivated scientists developing programs on crop improvement through biotechnology. We are particularly interested in candidates with expertise in molecular biology to work in the area of gene expression in plants and/or plant transformation.

Successful candidates will enjoy the benefits of joining a new research team in a well-equipped, custom designed facility supported by a major European corporation.

Please send Curriculum vitae, statement of research interests and names of three references to:

**Personnel Coordinator**

**Dr. A. Pierce**

Group Leader Molecular Genetics

**EniChem Americas Inc.**

2000 Princeton Park Corporate Center

Monmouth Junction, N.J. 08852

Equal opportunity employer m/f
POSITION AVAILABLE
IMMUNOLOGIST

The International Laboratory for Research on Animal Diseases (ILRAD), an internationally funded, major institution with the mandate of developing improved methods to control two important diseases of livestock, trypanosomiasis and thalassemia. The multidisciplinary research program includes biochemistry, molecular biology, immunology, cell biology, pathology, parasitology, electron microscopy and entomology with appropriate supporting units. Applications are invited for the position of:

IMMUNOLOGIST — POSITION REF: PD/88/6

A post-doctoral position is available in a research group studying the immunology of trypanosomiasis in resistant and susceptible breeds of cattle. The successful candidate will investigate the role of macrophages in the resistance of trypanotolerant livestock to trypanosome infections. Applicants will have a first degree in biology or veterinary science and a doctorate in immunology relating to the induction and control of immune responses. Experience in the immunology of infectious diseases and the role of phagocytic cells in induction of protective immune responses will be advantageous.

This is an International Staff position and salary will be paid in US dollars. Initial salary will be determined by qualifications and experience. Applicants are expected to contribute to the training program. Housing, commuting and education allowances are paid and there are medical and retirement benefits. Applicants should include current curriculum vitae and names and addresses of three referees. Applications, citing the position reference number, should be sent by September 30th, 1988 to:

The Chief Personnel Officer
ILRAD
P.O. Box 30709
NAIROBI
Kenya

Cell Culture Development

Schering-Plough, a $2.7 billion pharmaceutical industry leader, is making today’s most vital and remarkable advancements in cell culture development. We currently seek two PhDs to lend their vision to our dynamic research team and serve as catalysts for tomorrow’s breakthroughs.

Manager, Microbiological and Cell Culture Development

You will direct and motivate this highly-visible team of scientists, including several PhDs. Your leadership qualities will ensure the progress of several important programs leading to improved processes and strains for the production of various microbial and cell culture based products.

To qualify, your background should include a PhD in a microbiological discipline, preferably with expertise in molecular biology, microbial physiology and cellular physiology. You should also have at least two years’ postdoctoral experience and five years’ research experience in an industrial setting. Thorough knowledge of microbial and cellular biochemistry and genetics, and microbial cloning and gene expression techniques essential.

Group Leader, Microbiological and Cell Culture Development

Reporting to the Manager, you will head a separate group of scientists responsible for research leading to the optimization of the expression of foreign genes in procaryotic and eucaryotic cell hosts. Your ability to create and implement independent projects in collaboration with scientists both inside and outside the company will be critical to ongoing studies. In addition, you will assist in the design, execution and analysis of research to support projects currently under development.

Requirements include a PhD in physiology, cell biology, microbiology or molecular biology. You must also have at least two years’ post-doctoral training, and 2-5 years of research experience in an industrial setting. Additional rDNA and cell biology experience preferred.

At Schering-Plough, you’ll receive all the support and recognition you need to pursue your best ideas. In addition to outstanding resources and an exciting research environment, we offer an attractive salary and benefits package. For immediate, confidential consideration, forward your resume and salary history to: Mr. M. Urdanick, Schering-Plough Corporation, 1011 Morris Avenue, Union, NJ 07083. We are an equal opportunity employer.

University of Illinois at Urbana-Champaign
DEAN
COLLEGE OF AGRICULTURE
Notice of Position Available

The University of Illinois at Urbana-Champaign invites nominations and applications for Dean of the College of Agriculture.

The Dean is the chief executive officer of the College, responsible to the Vice Chancellor for Academic Affairs and to the Chancellor for its administration, and is the agent of the College faculty for the execution of College policy. The College functions through its four principal administrative units, each under an associate dean and director: Cooperative Extension Service, Agricultural Experiment Station, Resident Instruction, and International Agriculture. The programs of these units are conducted within nine departments and a School of Human Resources and Family Studies, comprising the several disciplines of agriculture and home economics. The College has about 1,000 professorial and professional staff members.

Qualifications sought include an earned doctoral degree; academic experience in agriculture, home economics, or a related field; scholarly achievement; administrative experience; demonstrated commitment to affirmative action; and ability to lead the College in its academic responsibility as part of a nationally and internationally recognized land-grant University. The Dean provides leadership in the College’s service to a major agricultural and industrial state, works closely with Campus and University Administration, and interacts with leaders at local, state, and national levels. Candidates should appreciate the broadening boundaries of agriculture. The Dean is expected to be a constructive advocate for the College and its faculty.

Salary open. Date of appointment is negotiable.

To assure full consideration, nominations and applications (including vita and three letters of reference) should be postmarked by November 1, 1988, and sent to:

Dr. Robert L. Mentall, Chair
Search Committee for the Dean
of the College of Agriculture
University of Illinois at Urbana-Champaign
Swainlund Administration Building
601 East John Street
Champaign, Illinois 61820

Attention: Roger E. Martin
(217)333-4523

THE UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
IS AN AFFIRMATIVE ACTION-EQUAL OPPORTUNITY EMPLOYER.
**RESEARCH ASSOCIATE MOLECULAR BIOLOGY**

Amgen, an industry leader in advanced biotechnology, develops products for a wide variety of applications. Recent progress has created an opportunity for a Research Associate in our Specialty Chemicals Group.

Qualified applicants should have a BS or MS in Molecular Biology, Biochemistry or a related discipline and 1-2 years’ experience in Prokaryotic Molecular Biology or Molecular Genetics. Experience in microbial physiology and biochemistry is desirable. Some background in analytical instrumentation would be helpful.

Amgen offers a stimulating and challenging research environment as well as an attractive location one hour northwest of Los Angeles. Amgen also offers an excellent compensation and benefits package. Qualified applicants should send a resume and a list of 3 references, in confidence, to:

Recruitment, Dept. #331
AMGEN
1900 Oak Terrace Lane
Thousand Oaks
CA 91320

Equal Opportunity Employer

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**UNIVERSITY OF OXFORD**

**UNIVERSITY LECTURERSHIP IN SYSTEMS NEUROSCIENCE**

In association with St. Hilda’s or Keble College

Applications are invited for the above post tenable from 1 October 1989. Candidates should have carried out research in some aspect of systems neuroscience. Stipend according to age on the scale £9,865 to £20,615. The successful candidate may be offered a tutorial fellowship at St. Hilda’s College, the statutes of which provide that all fellows shall be women, or if a man be appointed, a senior research fellowship and tutorialship at Keble College. Further details may be obtained from Professor Colin Blakemore, University Laboratory of Physiology, Parks Road, Oxford, ENGLAND OX1 3PT, to whom applications (nine typed copies, or one from overseas applicants) with a full curriculum vitae and summary of research interests should be sent by 30 September 1988, together with the names of three referees who have agreed to send their opinions without further request by the same date.

The University is an equal opportunities employer.

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**IN VIVO BIOCHEMIST / PHARMACOLOGIST**

Merck Sharp & Dohme Research Laboratories, world renowned for conducting excellent basic research and discovering new therapeutic pharmaceutical drug compounds, is currently seeking an in vivo biochemist/pharmacologist for our Research Imaging Department.

Responsibilities for this position will involve in vivo and in vitro experiments designed to obtain quantitative information on the biodistribution of gamma and positron emitting radionuclides and analysis of this data to obtain information on such parameters as receptor concentration, receptor occupany, transport across the blood; brain; barrier, etc. In addition, duties will include directing the modeling/quantification aspects of internal and external projects using SPECT/PER and autoradiography.

A Ph.D. in Biochemistry, Pharmacology or the equivalent, and five years experience in radionuclide design and evaluation, in vitro and in vivo receptor binding studies, autoradiography, and SPECT/PER imaging, is required. Please send resume to:

Michele D. Peterson (W42-2)
Merck Sharp & Dohme Research Laboratories
West Point, PA 19486

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**UNIVERSITY OF OXFORD**

**UNIVERSITY LECTURERSHIP IN SYSTEMS NEUROSCIENCE**

In association with St. Hilda’s or Keble College

Applications are invited for the above post tenable from 1 October 1989. Candidates should have carried out research in some aspect of systems neuroscience. Stipend according to age on the scale £9,865 to £20,615. The successful candidate may be offered a tutorial fellowship at St. Hilda’s College, the statutes of which provide that all fellows shall be women, or if a man be appointed, a senior research fellowship and tutorialship at Keble College. Further details may be obtained from Professor Colin Blakemore, University Laboratory of Physiology, Parks Road, Oxford, ENGLAND OX1 3PT, to whom applications (nine typed copies, or one from overseas applicants) with a full curriculum vitae and summary of research interests should be sent by 30 September 1988, together with the names of three referees who have agreed to send their opinions without further request by the same date.

The University is an equal opportunities employer.

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**IN VIVO BIOCHEMIST / PHARMACOLOGIST**

Merck Sharp & Dohme Research Laboratories, world renowned for conducting excellent basic research and discovering new therapeutic pharmaceutical drug compounds, is currently seeking an in vivo biochemist/pharmacologist for our Research Imaging Department.

Responsibilities for this position will involve in vivo and in vitro experiments designed to obtain quantitative information on the biodistribution of gamma and positron emitting radionuclides and analysis of this data to obtain information on such parameters as receptor concentration, receptor occupany, transport across the blood; brain; barrier, etc. In addition, duties will include directing the modeling/quantification aspects of internal and external projects using SPECT/PER and autoradiography.

A Ph.D. in Biochemistry, Pharmacology or the equivalent, and five years experience in radionuclide design and evaluation, in vitro and in vivo receptor binding studies, autoradiography, and SPECT/PER imaging, is required. Please send resume to:

Michele D. Peterson (W42-2)
Merck Sharp & Dohme Research Laboratories
West Point, PA 19486

EEO/AA/H/V/EMPLOYER

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**Make New Discoveries at Monsanto**

The Monsanto Biological Sciences Department, located in suburban St. Louis, is committed to quality research leading to new biotechnology related products for agriculture, animal nutrition and human health care. We have openings in the following areas for outstanding research scientists.

**Protein Biochemistry**

This position will involve the discovery and development of novel product candidates in human health care and animal nutrition. To qualify, you must be experienced in recombinant protein purification, characterization and interpretation of structure/function relationships. You must also have several years of postdoctoral experience, supervisory skills and an established publication record.

**Molecular Biologist**

The position involves collaboration with an established group devoted to bacterial gene expression and protein design. To qualify, you must have a Ph.D. in Genetics, Molecular Biology or Biochemistry or equivalent with relevant postdoctoral or industrial experience. Previous work in protein secretion and/or protein design is preferred.

**Organic/Bio-organic Chemist**

This position encompasses elements of organic, physical organic and Bio-organic chemistry. You will work with other chemists and biologists to translate biological activities derived from molecular/cell biology into structural information that can be used to design drug candidates. Initial work will focus on the design of peptide-mimetic molecules based on an enzyme activity. To qualify, you must have a Ph.D. with postdoctoral experience and knowledge of biology and biochemistry.

Please send curriculum vitae and names of three references to: Monsanto Company, 700 Chesterfield Village Parkway, Department BB55-PF, St. Louis, MO 63198. Equal Opportunity Employer M/F/H/V.

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**Monsanto**
RESEARCH SCIENTISTS
Central Nervous System Research

For more than a century, scientists at ELI LILLY AND COMPANY have developed innovative, high quality pharmaceutical products. In 1988, Lilly is investing over $500 million in research-and-development programs. More than 3,000 scientists at the company’s Lilly Research Laboratories and Biochemical Development Divisions are pursuing creative research programs that involve many important health care needs.

To further build its research capabilities, Lilly is seeking self-motivated scientists to plan, organize, and manage programs directed toward understanding the biochemical basis of CNS disease and the development of novel therapeutic agents.

CNS Electrophysiologist
- Doctoral-level electrophysiologist who can advance our understanding of the basic mechanisms by which neurotransmitters, neuropeptides, and drug candidates exert their effects at the cellular, tissue and whole animal level.
- Should be proficient in single-unit recording, iontophoresis, and patch clamp techniques. Postdoctoral experience is preferable.
- The investigator’s program should enhance our fundamental approach to the study of the disease process as well as provide insight into the mechanisms by which therapeutic agents produce their effects.

CNS Molecular Pharmacologist
- Doctoral-level scientist, with a background in biochemistry or pharmacology, and experience in receptor theory and radioligand binding to receptors.
- An understanding of cellular and tissue organization and neuroanatomy is essential.
- Experience in autoradiographic techniques and second-messenger coupling systems is desirable. Postdoctoral experience is preferable.

In addition, these scientists must have the leadership capabilities needed—technical, communication, interpersonal, and organizational skills—to build a research program. Entry level and salary will be based upon each candidate’s experience.

Eli Lilly and Company is committed to scientific excellence. Lilly provides a stimulating professional atmosphere with many opportunities for collaborative, multidisciplinary research. The company offers an attractive total compensation program.

For prompt consideration, please forward your curriculum vitae to:
John W. Crooks, Manager
Ph.D. Recruitment (CNS)
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, Indiana 46285

Equal Opportunity Employer
POSTDOCTORAL POSITION IN PEPTIDE CHEMISTRY now available. Will design and do synthesis, purification and characterization of synthetic peptides for immunological studies related to HIV vaccine development. Work will be coordinated by Dr. Patrick Kanda. Requires experience in peptide or protein purification and an M.D. or Ph.D. in immunology or related area. Annual salary ranges from $20,500 to $23,920, dependent upon experience. Please mail curriculum vitae with names and telephone numbers of three references to: Personnel Director (868), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, Texas 78284. Equal Opportunity Employer M/F.

POSTDOCTORAL RESEARCH ASSOCIATE OR SENIOR POSTDOCTORAL RESEARCH ASSOCIATE. To carry out research in the general area of free radical chemistry/biology as it relates to human nutrition. Specific areas of interest include lipid peroxidation and antioxidants, oxidative stress induced by environmental toxins, and the detection of free radicals/free radical damage in vivo. A strong background in mechanistic biochemistry or chemistry is required. Experience with handling of small animals (e.g., preparation of mitochondria or hepatocytes) or with cell cultures is highly desirable. This position will be in the Pennington Biomedical Research Center, a major new facility in the Louisiana State University system with the mission of improving human health through basic research in the nutrition fields. Please send curriculum vitae and at least three references to: Dr. Daniel F. Church or Dr. William A. Fryer, Pennington Biomedical Research Center, 6400 Perkins Road, Baton Rouge, LA 70808. LSU is an Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE OR SENIOR POSTDOCTORAL RESEARCH ASSOCIATE. To study organogenesis in the developing lens. This position is for an individual with Ph.D. or equivalent experience in organ culture. The candidate should have expertise in cell culture and cell biology and be familiar with modern techniques in molecular biology. This position is available immediately. Please send curriculum vitae and address of three references to: Dr. Thomas J. Kaiser, Department of Pathology, Louisiana State University Medical Center, 1540 Perdido St., New Orleans, LA 70112. LSU is an Affirmative Action Employer.

POSTDOCTORAL RESEARCH FELLOW
Position available immediately in one of the following areas: degradation of pesticides, volatilization/solubility of the aromatics gasoline in water and soil, and control of gasoline from leaking underground storage tanks. The Harold Spencer Schwenk Postdoctoral Fellowship is a joint project of the Connecticut Department of Health Services and the Institute of Water Resources of the University of Connecticut. Initial funding is for 1 year. The candidate will have access to facilities, equipment, and assistance from both agencies. Please send resume and names and addresses of three references by 1 October 1988 to: Director, Institute of Water Resources, U-18, The Agricultural Found. St. M. Harbor, ME 04609. Telephone: 207-288-3371. UCONN is an Equal Opportunity/Affirmative Action Employer. (Search #9A).

RESEARCH ASSOCIATE
The Lighthouse Vision Research Laboratory seeks an individual with some experience in one or more of the facets of visual space and visual psychophysics. Applicants should have a strong background in computer graphics and be knowledgeable in \texttt{C} and Unix. Understanding of, and experience in, image processing and visual optics and human vision are also helpful. The successful candidate will probably, but not necessarily, have a Ph.D. in computer science or a related discipline. Send curriculum vitae and names and addresses of (or letters from) three references to: Aries Ariel, Vision Research, 111 East 89th Street, New York, NY 10022.

PROFESSOR AND HEAD DEPARTMENT OF LABORATORY MEDICINE UNIVERSITY OF MINNESOTA MEDICAL SCHOOL MINNEAPOLIS, MINNESOTA
The University of Minnesota Medical School is seeking outstanding candidates for the position of Professor and Head of the Department of Laboratory Medicine and Pathology. The successful candidate will have a medical degree, an outstanding record of federally funded research in modern aspects of pathology and/or laboratory medicine, extensive experience in academic teaching and demonstrated leadership abilities. The candidate should have administrative experience necessary to direct a large, multifaceted, department, including a pathobiology graduate, postdoctoral training and undergraduate education programs. The University of Minnesota Medical School has placed a high priority on this position and will maintain this Department as one of the top departments in this discipline. Applicants and candidates should be received no later than 1 October 1988, (including names and addresses of three referees) should be sent to: Dr. Alfred F. Michael, Chair, Search Committee for Head of Laboratory Medicine and Pathology University of Minnesota Medical School 516 Delaware Street SE Minneapolis, MN 55455

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

PROTEIN CHEMIST
The Department of Biological Sciences at Stanford University Medical Center, an equal opportunity/affirmative action employer, seeks an individual with Ph.D. or equivalent experience in protein chemistry to establish and operate a molecular biology service laboratory with primary responsibility for peptide sequencing and synthesis and a secondary responsibility in peptide analysis and sequencing. The person will be responsible for operation of the facility, supervision of technical assistants, periodic evaluation of equipment, and providing instruction to faculty and students. Applicants should have a Ph.D. in molecular biology or biochemistry, experience in peptide chemistry and protein characterization. The position is available immediately. Please send curriculum vitae and the names of three references to: Department of Biological Sciences, Stanford University, Stanford, CA 94305-5020. Stanford University is an Equal Opportunity Employer and encourages applications from women and minorities.

RESEARCH ASSISTANT GENE TARGETING
The Jackson Laboratory, a center for research in mammalian genetics located in Bar Harbor, Maine, has an immediate opening for a research assistant to conduct gene targeting experiments in cultured mouse stem cells. This position offers an opportunity for active and original participation in a basic research program aimed at understanding the role of specific oncogenes in development, as well as providing mouse models of inherited human disorders for biomedical research. Duties will include establishment and maintenance of embryonic stem cell cultures, gene transfer experiments, nucleic acid extraction, blot analysis and plasmid manipulations. Applicants should have a Ph.D. or equivalent experience in molecular biology. Send curriculum vitae and names and addresses of three references to: Harold Wheeler, Employment Manager, The Jackson Laboratory, 230 West Street, Bar Harbor, ME 04609. Telephone: 207-288-3371. Affirmative Action/Equal Opportunity Employer M/F.

ASSOCIATE IN RESEARCH DEPARTMENT OF SURGERY
Division of Thoracic Surgery at the Brigham and Women's Hospital has an opening for a research associate to study electrophysiology in smooth muscle. Applicants must have an M.D. or Ph.D. with research experience with in-vivo experimentation and chronic animal preparations and basic electrophysiologic techniques. Experience with techniques of blood flow measurement welcome. Capabilities should reflect the need for excellent field and capacity for interdisciplinary research and growth. Please send resume, letter of interest and names of references to: Dr. David J. Sugarbaker, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115.

RESEARCH OPPORTUNITIES IN BIOTECHNOLOGY
Department of Biotechnology Research at Pioneer Hi-Bred International, Inc., is seeking applications for our biotechnology program of crop improvement. Pioneer offers competitive salaries, excellent facilities and a highly cooperative research environment. Successful candidates will be expected to interact extensively with ongoing programs in transformation, regeneration and gene isolation programs.

MOLECULAR BIOLOGIST/ENTOMOLOGIST. The Center for Insect Science at New Mexico State University, located in Las Cruces, is seeking a scientist to use molecular biology and plant genetic engineering to insect problems in crops. This will entail the evaluation of existing insect resistant genes and identification of novel approaches to insect control. A Ph.D. in molecular biology or related field is required. Familiarity with entomology is desirable.

POSTDOCTORAL GENE EXPRESSION
This is a 2-year appointment to study gene expression in plants including regulation of transcription and translation as it relates to recombinant DNA construction. A Ph.D. in life sciences or equivalent is required and experience in enzymology and RNA purification and detection preferred.

RESEARCH ASSOCIATE POSITIONS. The successful applicant will assist in various aspects of projects involved in the application of transformation systems. Experience in tasks such as electroporation, protein characterization, enzyme assays, and cell culture techniques are desirable. The applicant should have at least a minimum of 4-year degree or equivalent in medical sciences. Additional research experience is preferred.

Pioneer Hi-Bred International is an Equal Opportunity/ Affirmative Action Employer. Send resume and indicate for which job you are applying with at least three references to: Lisa Wilson
Pioneer Hi-Bred International, Inc. 7300 North Hi-Bred Drive, Box 38 Johnston, IA 50131
When it comes to innovation in product and health care services, Abbott Laboratories provides what the marketplace demands. For over 100 years, we’ve grown with aggressive and well-funded research in diverse medical areas. Our Pharmaceutical Division is one such area where discoveries are constantly being made. We now invite qualified professionals to help discover novel pharmaceuticals for the treatment of inflammatory and allergic diseases.

**Ph.D. BIOCHEMIST**
The selected candidate will be involved in working with the staff to develop new methods and in vitro assays in the area of lipid mediator research. Ph.D. in Biochemistry with 0-3 years post-doctoral experience required, along with true interest in pharmaceutical development. Some experience in lipid biochemistry or receptor pharmacology is a plus.

**BIOLOGICAL RESEARCH ASSISTANT**
As part of our team of researchers, you’ll need a BS/MS in biology, chemistry or related discipline, with a minimum of 2 or more years of relevant laboratory experience. Previous experience conducting in vivo animal studies is essential.

Located in an attractive suburban setting 30 miles north of Chicago, we offer exceptional compensation and generous benefits. For consideration, please send resume with salary history to: Patricia Handy, Corporate Placement, Dept. SCI 8/19, Abbott Laboratories, Abbott Park, IL 60064. Abbott is an affirmative action employer.

ABBOTT LABORATORIES

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**PRESIDENT**
This is an exceptional opportunity to be President of The New York Blood Center, a leading, non-profit organization which collects and supplies blood to hospitals in the New York/New Jersey metropolitan area. The Blood Center also operates its own plasma fractionation facility and, through its research arm, The Lindley F. Kimball Research Institute, conducts important research in transfusion medicine. The Blood Center has an annual budget of $120 million, of which 10 percent is dedicated to research. The overall staff is approximately 1,200.

The individual we are seeking will preferably be an M.D. with a specialty in blood or a blood-related discipline (e.g., epidemiology, public health); a Ph.D. will, under special circumstances, be considered. The individual will probably be Chairman of a major department or division (or Dean) at a top university or related academic institution, or the Head of a blood/bank center that is strong scientifically.

The President should be a mature individual who is a planner and a builder, not a steady state manager. The successful candidate should not only have medical/scientific and managerial capabilities, but the vision and instinctive leadership traits to take the Blood Center into the 21st Century.

The position offers an outstanding salary and benefits package, commensurate with experience and achievements.

We invite your reply in strict confidence. Inquiries should be addressed to Ms. Doris Chase, Staff Officer, The New York Blood Center, 310 East 67th Street, New York, New York 10021, or contact: Stephen H. Israel at (212) 687-1834.

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**NEURO-IMMUNO SCIENTIST**
Top-quality management. Consistent corporate expansion. Continuous innovations for the dynamic health care industry. We’re Abbott Laboratories, a $4.4 billion dollar world leader providing strong career growth potential within a quality environment. Now you can join our successful company as a Researcher who will be extensively involved in the discovery of therapeutic agents to treat human neurological diseases.

The selected candidate will have a strong neurobiological and immunological background with experience in continuous tissue culture, anatomy and primary culture of central nervous systems, and cytokines or other related growth factors. An MS or a BS with a minimum of 2 years of related experience is essential.

We provide a highly professional environment and an excellent salary and benefits package. For consideration, please send your resume with salary history to: Patricia Handy, Corporate Placement, Dept. SCI 8/19, Abbott Laboratories, Abbott Park, IL 60064. Abbott is an affirmative action employer.

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POSITIONS OPEN

RESEARCH ASSISTANT/ASSOCIATE position in the Gastroenterology Division, Department of Medicine, Beth Israel Hospital and Harvard Medical School. Opportunity for biochemical pharmacologist to perform research in the area of gastrointestinal smooth muscle contraction inhibition and the role of neuropeptides. The candidate should have a Ph.D. in biochemistry and must have an M.S. or Ph.D. degree. The level of appointment will be commensurate with the candidate's experience. Send curriculum vitae to: Dr. Satish Rattan, Gastroenterology Division, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215. We are an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSOCIATE IN IMMUNOLOGY

Position for a Ph.D./M.D. is available to study the cellular and molecular mechanisms of immune regulation, with emphasis on receptor (idiotype)-mediated regulation. The laboratory is a part of an Immunology Program Project established by the NIH to study the senescence of immune responses. Annual salary range $23,000 to $25,000.

Contact: Dr. Jan Cerny, Professor, Route 1-J, Department of Microbiology, The University of Texas Medical Branch, Galveston, TX 77550.

UTMB is an Equal Opportunity/M/F/V/I/Affirmative Action Employer. UTMB Hires Only Individuals Authorized to Work in the United States.

RESEARCH SCIENTIST
THE HOSPITAL FOR SICK CHILDREN
RESEARCH INSTITUTE
TORONTO, CANADA

A staff position is available in the area of cellular or molecular biology broadly relevant to Cystic Fibrosis. The position provides the opportunity to interact with members of an active established CF research group. However, the appointee will establish independent grant-funded research projects. New laboratory space and some start-up assistance are available. The primary criteria for appointment will be excellence in the applicant's field of research. The HCRI Research Institute is affiliated with the University of Toronto and appropriate academic cross-appointments will be considered. Please submit application and three letters of reference to: Dr. Jack Jordon, Director, Cystic Fibrosis Research Development Program, The Hospital for Sick Children, 555 University Avenue, Toronto, Canada M5G 1X8.

RESEARCH TECHNICIAN III

Responsibilities: Develop and calibrate computer model of effects of nitrogen deposition on the biogeochemistry of forests. Minimum qualifications: Bachelor's degree in related field (master's degree preferred) or associate's degree in related field and 2 years of related experience or high school graduation including college courses in physics, mathematics, or other technical field and at least 4 years of technical experience; knowledge of biological processes affecting nutrient cycling and interactions of biological and chemical processes in soil; modeling experience; ability to program in FORTRAN.

Salary: $17,880 to $27,680; normally not to exceed $20,010. This is a 2-year grant-funded position. Send résumé (non-citizens must include current visa status) by 2 September 1988 to: John D. Aber, Institute for the Study of Earth, Oceans and Space, University of New Hampshire, Durham, NH 03824. UNH is an Affirmative Action/Equal Employment Opportunity Employer.

SENIOR RESEARCH ASSOCIATE, position available immediately. The successful candidate should have a Ph.D. and at least 2 years of postdoctoral experience in the molecular biology of membrane proteins of bacteria. Experience in cloning and sequencing, high G/C oligonucleotide, monoclonal antibody and membrane isolation techniques, and model membrane studies of porins are essential. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Equal opportunities will be given to male and female applicants. Please submit applications in writing with résumé and three letters of recommendation to: Dr. B. E. W. Hanson, Department of Microbiology, University of British Columbia, Canada or telephone 604-228-2682 for an interview. Deadline for submission of résumé is 15 October 1988. Salary is $23,000 per year, grant funded.


cell biologist/
biophysicist

The Life Sciences Division at the Los Alamos National Laboratory (LANL) invites applications for the position of Staff Member and Senior Investigator in the National Flow Cytometry Resource. The Resource is a national "user" facility internationally recognized as a center of excellence for the development and innovative application of flow cytometric technology. The individual will be responsible for identification and pursuit of activities at the forefront of cell biology, molecular biology and immunology; and for the conceptualization of new flow cytometric and data analysis capabilities. Combined with the technical aspects, the Senior Investigator will be responsible for administrative aspects of collaborative projects, coordination of projects with other groups in the Division, and proposals for new and continued funding.

The successful candidate must have a PhD or equivalent in one of the biological sciences or physics with a strong biology background. Experience required for the position is a strong interdisciplinary background, demonstrated in-depth knowledge of flow cytometry and related applications, a successful record of obtaining funding, and demonstrated ability to communicate well while leading a multidisciplinary research group.

The National Flow Cytometry Resource is jointly sponsored by the Division of Research Resources of NIH and the Office of Health and Environmental Research of DOE. Los Alamos National Laboratory provides excellent compensation and benefits. To apply, submit detailed resume to: Richard Garcia (MS P280), Personnel Services Division 80314-BK, Los Alamos National Laboratory, Los Alamos, NM 87545.

Affirmative Action/Equal Opportunity Employer
U.S. Citizenship Required

Los Alamos

Applications Specialist/Technical Associate

AMERSHAM CORPORATION, a leading supplier of technical products to the research community, has an immediate opening for an Applications Specialist/Technical Associate in our Technical Support Department.

The incumbent will support Amersham's Image Analysis Instrumentation (RAS) and associated research products with on-line assistance and development of applications.

The ideal candidate will have an M.S. Degree in the life sciences (Biology, Chemistry, Biochemistry) with computer P.C. literacy and several years laboratory experience. Good communication skills needed and Image Analysis experience preferred.

We are offering an excellent starting salary and an attractive benefits package including dental insurance and a 401K savings plan. For prompt consideration please send your resume with salary requirements to:

Employment Supv. (LG)
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2636 S. Clearbrook Drive
Arlington Heights, IL 60005-4692

Equal Opportunity Employer M/F

Amersham

SCIENCE, VOL. 241
SENIOR RESEARCH SCIENTIST

G.D. Searle is a multinational research based pharmaceutical company. We presently have in place a research programme with Oxford University centred on the isolation of enzymes associated with the characterisation of oligosaccharides and glycoconjugates.

We now wish to appoint a Senior Research specialist to participate in this programme. The successful candidate (male/female) will have had extensive experience in state-of-the-art techniques for protein isolation, purification and characterisation, and will join a group of scientists located at the Department of Biochemistry, Oxford. Individuals with prior experience in the purification of exo- and endoglycosidases or mammalian glycosyltransferases are especially encouraged to apply.

This position offers the individual an exciting opportunity to participate with members of the Oxford Glycobiology Unit, an internationally recognised centre for carbohydrate research, in a programme of research that encompasses a wide range of biochemical topics. Qualifications must include a Doctorate in Biochemistry (or related field). Applicants should ideally have added experience with microbiological and fermentation techniques and should preferably have British nationality.

A competitive salary will be paid and company benefits include pension fund, private medical Insurance, and 24 days annual leave. Relocation assistance will be provided, if necessary.

Please apply with detailed curriculum vitae to:

Mrs. Jackie Newman, Personnel Development Manager,
G.D. Searle and Co. Ltd.,
Lane End Road, Sands, High Wycombe, Bucks HP12 4HL.

Developmental Biologist

Our Discovery Research Group has an immediate opening for a developmental biologist to join a growing multidisciplinary group studying, with the purpose of regulating, epithelial-mesenchymal interactions in the development of hair and skin. The successful candidate should employ biochemical and molecular approaches to study development of mammalian skin and its appendages. A working knowledge of in-vitro models for studying epithelial-mesenchymal interactions and, where necessary, in-vivo models of tissue recombination would be useful. Candidates with experience in other relevant developing systems are also encouraged to apply. The successful candidate is expected to conceive and conduct independent research projects and collaborate within and outside the company. Publication of results and presentation at national and international meetings is encouraged. In addition, the candidate will direct and supervise research associates working on these projects. A PhD with a minimum of two years of relevant postdoctoral experience is required.

Upjohn offers advancement opportunities, a highly competitive salary commensurate with experience, comprehensive benefits and relocation assistance. Kalamazoo is located in Southwestern Michigan, midway between Chicago and Detroit, and offers varied cultural events, lakes and woodlands minutes away, abundant year-round sports and recreation. For prompt, confidential consideration, please send your CV/resume, a copy of transcripts and a list of publications to M. William Rex, The Upjohn Company, Corporate Employment, Kalamazoo, MI 49001. Please refer to advertisement number 21944-HA in your correspondence. Please respond by October 15. We are an Equal Opportunity Employer M/F.

Our Commitment to Scientific Excellence Continues...
POSITIONS OPEN

RESEARCH ASSOCIATE AND POSTDOCTORAL POSITIONS. Available to study the biosynthesis and gene structure of mucin glycoproteins in trachea epithelial cells. Studies will include carbohydrate characterization, enzyme and RNA isolation, preparation of antibacterial proteins and clones. Background in biochemistry, cell or molecular biology desirable. Salary commensurate with experience. Send résumé to: Dr. Joseph Mcdonisco, Department of Biochemistry, University of Georgia, Athens, GA 30602.

RESEARCH SUPERVISOR

Ricerca, Inc., is currently seeking qualified individuals to add to its technical staff. An immediate opening exists in our biological evaluations area for a supervisor. This position, which requires a Ph.D. degree in a discipline related to Agricultural Biociences, is responsible for directing all biological evaluations projects except those in the plant disease control and biocontrol areas. The successful candidate will have excellent oral and written communication skills and a broad background in the evaluation of agricultural chemicals. Ricerca, Inc. is a research and development company which provides broad-based technical services to its clients on a contract basis. Our facilities are located in Concord Township, an attractive Cleveland, Ohio suburb. We offer competitive salaries and an excellent Employee Benefits Program. Interested individuals should forward résumés to the Human Resources Department.

Ricerca, Inc.
P.O. Box 1000
Paineville, OH 44077
An Equal Opportunity Employer

SENSORY NEUROPHYSIOLOGIST: Tenure-track possibility for position available at assistant professor level. Serious commitment to collaborative work within the Microsurgical Research Center. Expertise required to characterize electrophysiologically the properties of central axons which have regenerated along peripheral nerve implants. Preference given to applicants experienced in spinal cord neurophysiology and tract tracing techniques. Please send curriculum vitae with three letters of recommendation to: Dr. Julia K. Teras, Microsurgical Research Center, Eastern Virginia Medical School, P.O. Box 1980, Norfolk, VA 23501.

STAFF SCIENTIST

BIOSTATISTICIAN

ALZA, a manufacturer of innovative drug delivery systems, currently requires a staff research scientist for its clinical research group. This position requires a doctoral degree in biostatistics. The successful candidate will be expected to design experiments and carry out the analysis of clinical research within the framework of our clinical research program. To this end, experience in both theoretical and applied statistics is essential. The ability to adapt new techniques in the statistical theory of clinical data analysis is also required. In order to perform the job responsibilities, the candidate must be experienced with advanced statistical computation in the mini computer and personal computer environments. Excellent communication skills, speaking, listening, reading and writing are required. The salary range for this position will be $46,000 to $59,000, depending on background and experience. Replies must be attended to with written references. Responses must be postmarked no later than 19 September 1988 to be considered. If offered employment, you must show you have the legal right to work in the U.S. For immediate consideration, please send your résumé to: ALZA Employment Department, #90, 950 Page Mill Road, P.O. Box 10950, Palo Alto, CA 94303-0802. We are an Equal Opportunity Employer.

ALZA

POSITIONS OPEN

SENIOR ASSOCIATE position available immediately at the ISLI Risk Science Institute for a Ph.D. with 0 to 3 years experience in the biological sciences and an interest in risk assessment. The Risk Science Institute is a public, non-profit research foundation whose primary mission is to promote and conduct education and research and to effect change and growth in the environmental health sciences. Scientific principles on which assessments are based. This is accomplished via collaborative relationships with universities, private foundations, government agencies and industry. Applicant will work with scientists from diverse disciplines and will be responsible for evaluating and analyzing technical data, drafting and editing technical manuals and coordinating and drafting technical groups. Send curriculum vitae to: Dr. Carol J. Heany, Executive Director, ISLI Risk Science Institute, 1126 Sixteenth Street, NW, Washington, D.C. 20036.

The Centers for Disease Control, Center for Environmental Health and Injury Control, Atlanta, Georgia, is recruiting a SENIOR EPIDEMIOLOGIST to conduct analysis of Cancer risk related to military service in Vietnam. Monitors ongoing field (data collection) activities. Applicants must have a Ph.D. in epidemiology; or a degree in medicine (M.D. or equivalent) with extensive demonstrated experience in analytic epidemiology. A minimum of 5 years of experience in design and analysis of case control and cohort studies. Experience in publications in peer-reviewed journals is desirable. Salary range from $39,500 to $46,679, depending on qualifications and experience.

Interested persons should send curriculum vitae to: Ms. Jenny F. Garber, Building 1, Room 1050, Centers for Disease Control, Atlanta, GA 30333 within 30 days of this publication. CDC is an Equal Employment Employer and provides a smoke-free environment.

VIROLOGIST—Moby Corporation, Animal Health Division, located in the Kansas City area, has position available for a research scientist—virology. Position requires knowledge ordinarily gained from an M.D. in microbiology, virology, cell biology, or biochemistry, plus at least 3 years of experience involving the planning, scheduling, and execution of biological research projects; analysis and reporting of technical data; and training/supervising technical support personnel. Requires previous experience handling and performing tests on laboratory and farm animals and knowledge of utilizing computers for data analysis as well as knowledge of statistics. Thorough knowledge of federal regulations relating to biologicals. Excellent company benefit package. Send resume including salary history to: Human Resources Department, Moby Animal Health, P.O. Box 390, Shawnee, KS 66201. Equal Opportunity Employer M/F.

SYMPOSIUM

HOW TO MAKE MICROCAPSULES—A HANDS-ON COURSE

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FELLOWSHIPS

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Electromagnetoelasticity of Piezoelectrics and Electrically Conductive Bodies
by V.Z. Parton and B.A. Kudryavtsev, Moscow Institute of Chemical Engineering
Translated from the Russian by E.G. Stepl'chenko

The principles underlying the mechanics of piezoelectric materials and the methods available for calculating piezoelements used in radio and computer technology, ultrasonics and defectoscopy are presented in this application-oriented book. To describe the properties of piezocrystals and piezoceramics, the authors use the phenomenological approach, illustrating the general relationship of the theory of deformable media interacting with electromagnetic fields. Included in the book is an examination of the incorporation of the piezoelectric effect into the theory of shells and plates and to the subsequent use of the theory in piezotransducer analysis. In addition, the authors discuss the basic principles governing the propagation of coupled electroelastic waves in piezoelectric media and use a rigorous mathematical formulation for solving a number of problems concerning the excitation of diffraction of surface waves in piezocrystals.

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Watch for: Specific Heat, Thermal Conductivity, and Electrical Resistivity of High Temperature Superconductors A special issue of the Journal Comments on Condensed Matter Physics
by Henry E. Fischer, Susan K. Watson and David G. Cahill

This is the first comprehensive review of three important properties of the new high-temperature superconductors: La2-xSr xCuO4 and YBa2Cu3O6+x. This monograph is particularly timely since these properties are being measured for the new high-temperature superconductors based on Ti, Ca, Ba and Bi. Further, the review provides a critical comparison of these properties with those of more conventional materials.


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