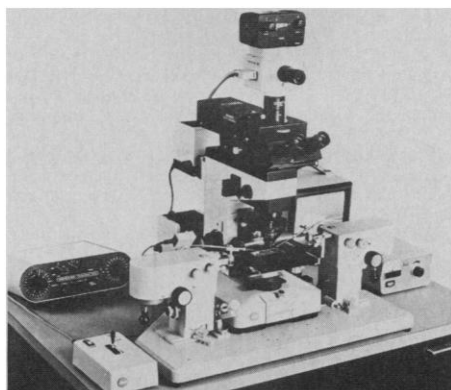


Inverted Microscope and Micromanipulator

Wild Leitz Inverted Microscopes and micromanipulators make unique workstations. All the controls on the microscopes for adjustment of focus, field diaphragm, and lamp intensity are conveniently located. The



micromanipulators have fine adjustment gear ratios varying from 1:16 to 1:800 that enable the researcher to achieve precise, fraction-of-a-millimeter movements within the microscope field of view. Wild Leitz USA. Circle 462.

Workstation for Cell Motility and Morphometry Study

The DynaCELL workstation is a multidimensional videomicroscopy system designed to assist cell biologists and medical researchers in the study of motility and shapes of live cells in culture. The unit contains new software for complete mathematical and quantitative analysis of cell motility. Two-dimensional Fourier analysis quantifies temporal changes in cell contour represented by cell ruffling, undulation, and

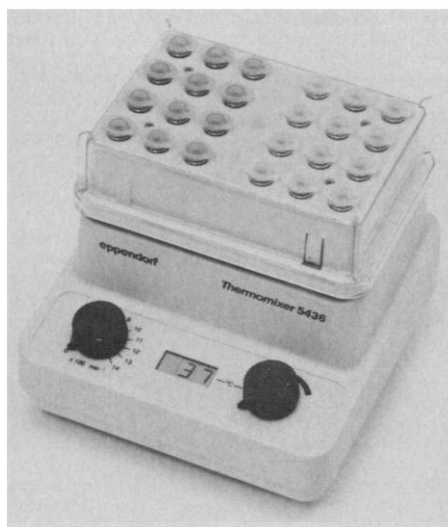
Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Readers' Service Card and placing it in a mailbox. Postage is free.



pseudopodal parameters. Cell locomotion can also be measured. Individual cell morphometry is analyzed by means of a variety of form factors. Comprehensive statistical analysis ability can provide researchers with cell distribution, extremes, and variability data. Full computer graphics include creation of histograms, cell walk pattern, and three-dimensional and two-dimensional plots of cell motility. Carl Zeiss. Circle 465.

Thermomixer Incubates and Mixes Samples

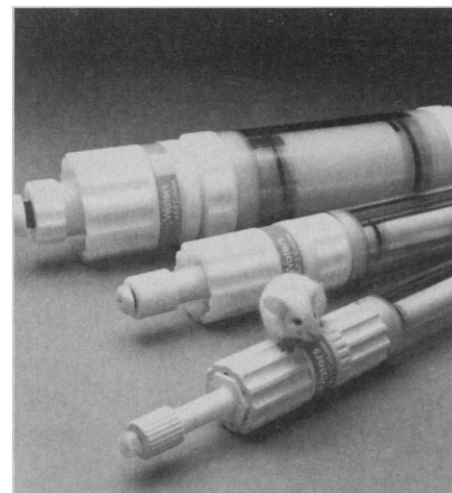
The Eppendorf Model 5436 Thermomixer can combine heating and shaking in one operation or can be used just as a heater or mixer. The model accommodates 24 ml by 1.5 ml tubes and controls incubation



temperature from 10° to 95°C. Mixing speed is continuously adjustable from 500 to 1400 rpm. Sample tubes are supported in a clear, stackable, autoclavable transfer rack for easy handling and organization. Brinkmann Instruments. Circle 453.

Columns for Monoclonal Antibody Purification

Protein-Pak HR (high-performance resin) ion-exchange columns are a new line of high-resolution, prepacked columns for the analytical and preparative separation of biomolecules. The columns permit direct purification of immunoglobulins from ascites or



cell culture supernatants. They provide high-resolution recovery of protein mass and biological activity and high protein-binding capacity. The columns are packed with a choice of 8- μ m, 15- μ m, or 40- μ m particle size anion- or cation-exchange 1000 Å resins for use at any stage of the protein purification process. Waters, Division of Millipore. Circle 468.

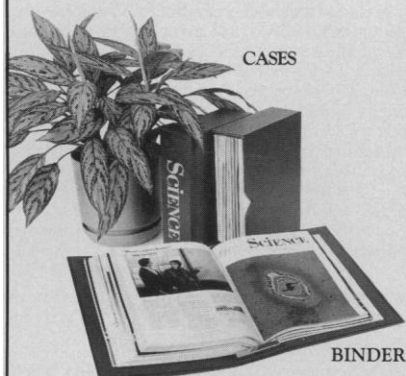
Literature

MonoCarb Product List is a catalog containing a wide range of monoclonal antibodies recognizing carbohydrate epitopes for research in serology, oncology, and infectious diseases. Accurate Chemical and Scientific Corporation. Circle 485.

A six-page paper discusses the immunofluorescence applications of the AXIOPHOT Photomicroscope, which features microprocessor-controlled camera functions, including three different operating modes, integral and center-weighted metering, and automatic exposure setting. Carl Zeiss. Circle 487.

X-Ray Microanalysis Moves to the 21st Century is a 12-page brochure that describes the VOYAGER x-ray microanalysis system. The VOYAGER includes powerful image analysis capabilities as well as the ability to perform elemental analysis and elemental mapping of samples. Tracor Northern. Circle 489.

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Scherago Associates, Inc.
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Telephone: 212-730-1050
FAX: 212-382-3725

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Applicants should read Positions Open ads carefully in order to submit all required material when responding, and should especially check for any stated deadline for receipt of applications. **SCIENCE** encourages applicants for positions to investigate employment laws, non-discrimination policies, visa requirements, and cultural differences in the country advertising for employees.

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SCIENCE Classified Advertising
1333 H Street, NW, Room 940
Washington, DC 20005

POSITIONS OPEN

ASSISTANT PROFESSOR DEPARTMENT OF BIOCHEMISTRY AND BIOPHYSICS THE UNIVERSITY OF CALIFORNIA SAN FRANCISCO

The Department of Biochemistry and Biophysics of the University of California, San Francisco, has opened a tenure-track teaching/research position at the assistant professor level. Criteria for appointment include: (i) exceptional research skills, evidenced by wide recognition for quality, creativity (originality), and significance, with continued progressive application of these skills; (ii) strong teaching skills, evidenced by successful command of the subject, presentation skills, and skills in motivating graduate and postdoctoral students; and (iii) interest in participating in departmental and campus activities. Applicants should be specialists in molecular aspects of cell, developmental, structural, or molecular biology and/or genetics. Submit current curriculum vitae and evidence of meeting above criteria, including letters of reference, by 15 August 1990 to: **Search Committee, c/o Peter Walter, Department of Biochemistry and Biophysics, University of California, San Francisco, CA 94143-0448.** An Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR OF PHYSIOLOGY AND BIOPHYSICS (Ph.D. and/or M.D.). Research areas: membrane biophysics including receptor mechanisms. Physiologist able to teach areas other than research interest; e.g., gastrointestinal to medical, nursing, and graduate students. Minimum of 2 years of postdoctoral teaching required and ability to develop extramurally supported research. Application deadline: 26 July 1990. Send curriculum vitae, research plans, and list of five references to: **C. H. Baker, Ph.D., Department of Physiology and Biophysics, Box 8, College of Medicine, University of South Florida, Tampa, FL 33612.** Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR OF PHYSIOLOGY

The University of Tennessee, Memphis, Department of Physiology and Biophysics, has three tenure-track positions at the rank of assistant professor or associate professor. Candidates should have a Ph.D. or M.D. degree, a good track record in publications, and postdoctoral research experience with a background in cellular and/or molecular biology. The abilities to establish an independent research program in the areas of cardiovascular, gastrointestinal, developmental, endocrine, or epithelial physiology and to engage in teaching activities of the department are expected. Applicants send curriculum vitae, copies of three representative publications, and the names of three references to: **Dr. Leonard R. Johnson, The Thomas A. Gerwin Professor and Chairman, Department of Physiology and Biophysics, 894 Union Avenue, Memphis, TN 38163.** An Equal Opportunity/Title IX/Section 504/Affirmative Action Employer. Minorities and women are encouraged to apply.

ASSISTANT/ASSOCIATE PROFESSOR. Obstetrics/Gynecology (HS-F-0023-90-05-S). The Department of Obstetrics and Gynecology at the State University of New York at Stony Brook (SUNY) is recruiting for a tenure-track faculty member with expertise in molecular biology. A Ph.D. in science and a strong background in molecular biology is required. The candidate will actively participate in basic research, applied clinical research, and teaching and must be able to mount an independent research program. Interested candidates should send their curriculum vitae and names of three references with HS# to: **Dr. Robert Barbieri, Professor and Chairman, Department of Obstetrics/Gynecology, Health Science Center, SUNY Stony Brook, Stony Brook, NY 11794-8091.** Academic rank and salary are commensurate with qualifications. *SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer.*

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POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY

Previous vacancy has been redefined. Applicants with teaching and research abilities in either microbiology or genetics are invited for a tenure-track position in the Department of Biology. Teaching responsibilities include general microbiology or genetics and other courses depending on candidate's expertise. Opportunity for participation in the development of a master's degree is anticipated. Doctorate required. Applicant should enjoy working closely with a student population representing a socially and ethnically diverse environment. The position is available as early as January 1991 and will remain open until filled. To insure full consideration, completed applications should be received by 1 September 1990. Applicants should send curriculum vitae, a statement of teaching philosophy, and names, addresses, and telephone numbers of five references to: **Dr. F. Duane Blume, Chair, Department of Biology, California State University, Bakersfield (CSUB), 9001 Stockdale Highway, Bakersfield, CA 93311-1099.** CSUB is firmly committed to achieving the goals of Equal Opportunity and Affirmative Action. Women and minorities are urged to apply.

MOLECULAR BIOLOGIST/PHYSIOLOGIST ASSISTANT PROFESSOR

The Department of Physiology at Jefferson Medical College, Philadelphia, Pennsylvania, has a full-time, 12-month faculty position for a molecular biologist/physiologist at the assistant professor level starting 1 October 1990. Excellent space and working conditions are available. Candidates should have a Ph.D. or M.D. degree and 2 to 3 years of relevant postdoctoral experience. Investigators in an area of molecular biology relevant to physiology are preferred. Evidence of independent research and ability to develop grant applications is important. Applicants should send their curriculum vitae, including a statement of their research interests and experience, and arrange to have three letters of recommendation sent to: **Dr. Allan M. Lefer, Chairman, Department of Physiology, Jefferson Medical College, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107-6799.** An Equal Opportunity/Affirmative Action Employer.

ENVIRONMENTAL CHEMIST

The Department of Agricultural Chemistry at Oregon State University (OSU) invites applications for a tenure-track **ASSISTANT PROFESSOR** position available 1 January 1991. Applicants must have a Ph.D. in chemistry, biochemistry, or closely related field and research experience in the distribution, movement, or transformation of chemicals in the environment. The successful candidate would be expected to develop an externally funded research program, mentor graduate students, and contribute to departmental teaching and extension efforts. Qualified individuals should forward curriculum vitae, a statement of research interests, and a list of at least three references to: **Environmental Chemist Search Committee, Department of Agricultural Chemistry, Oregon State University, Corvallis, OR 97331.** Application deadline is 1 August 1990.

OSU is an Equal Opportunity/Affirmative Action Employer and complies with Section 504 of the Rehabilitation Act of 1973. OSU has a policy of being responsive to the needs of dual-career couples.

ASSOCIATE PROFESSOR MATERNAL FETAL MEDICINE

The University of Alabama at Birmingham (UAB), Department of Obstetrics and Gynecology, is seeking to fill a faculty position. Candidate must be Board-eligible or Board-certified in obstetrics and gynecology. Individual will serve county health department obstetric clinics and serve as a consultant to nurse midwifery program. Teaching responsibilities will include medical students rotating through Ob/Gyn service and Ob/Gyn residents.

Additional duties will consist of a part-time administrative position as assistant dean dealing with student educational matters and will involve directing the Ob/Gyn medical student clerkship office.

Interested persons please apply by 30 June 1990 to: **Brent Bodily, Executive Administrator, Department of Obstetrics and Gynecology, UAB Station, Birmingham, AL 35294.** An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MEDICAL/VETERINARY ENTOMOLOGIST

ASSISTANT PROFESSOR, tenure track. The Department of Entomology, University of Wisconsin-Madison, invites applicants who will pursue field and laboratory research on host/pathogen/pest relationships of insects of medical/veterinary importance. An innovative, interdisciplinary research program that contributes to the basic understanding of arthropod-borne diseases is expected. Development and teaching a course in medical/veterinary entomology is required. Submit a letter of application, curriculum vitae, transcripts, reprints, and three letters of reference by 1 August 1990 to: Ms. Carol Scheehle, 237 Russell Laboratories, 1630 Linden Drive, Madison, WI 53706. The University of Wisconsin-Madison provides Equal Opportunities for admission and employment.

SOIL PHYSICS AND SOIL/ATMOSPHERE INTERACTIONS. Department of Soil Science, University of Minnesota. **ASSISTANT PROFESSOR**, 12-month, tenure-track position available 1 October 1990. A Ph.D. in soil science or closely related field at the time of assuming position is required. Duties include teaching undergraduate and graduate courses, supervision of graduate and postdoctoral students, and developing an active research program in fundamentals of soil physics and the soil/atmosphere interactions with emphasis on mathematical modeling. Application, curriculum vitae, relevant transcripts, one-page statement of professional goals, names, addresses and telephone numbers of three references by 15 August 1990 to: Dr. S. C. Gupta, Department of Soil Science, 1991 Upper Buford Circle, University of Minnesota, St. Paul, MN 55108. The University of Minnesota is an Equal Opportunity Employer and Employer and specifically encourages applications from women and minorities.

COMPARATIVE ANIMAL ANATOMIST. Tenure-track **ASSISTANT PROFESSOR**. Spring of 1991. Ph.D. required. Duties include teaching comparative vertebrate anatomy, development of an advanced level course, participation in general biology program, and supervision of master's candidates. Research in comparative anatomy is expected. Application including curriculum vitae, a brief statement of teaching and research goals, graduate transcripts, and the names, addresses, and telephone numbers of three references should be sent by 30 September 1990 to: Dr. Darrell Moore, Chair of Search Committee, Department of Biological Sciences, East Tennessee State University, P.O. Box 23, 590A, Johnson City, TN 37614.

East Tennessee State University is an Affirmative Action/Equal Opportunity Employer.

The Department of Biochemistry at Eastern Virginia Medical School has a faculty position at the level of **ASSISTANT OR ASSOCIATE PROFESSOR**. This is a tenure-track position with a competitive 12-month salary and is an excellent opportunity for an independent research program and teaching. Successful applicants are expected to develop a strong research program in an area of modern biochemistry or molecular biology such as the mechanism of gene regulation, DNA-protein interactions, metabolic regulation, enzyme structure and mechanism, or hormone receptors and transmembrane signaling. Faculty members will be expected to attract independent research grants and to spend a major part of their effort in research.

Please send curriculum vitae, a statement of research interests and plans, and three letters of reference to: Dr. Karl A. Schellenberg, Chairman, Department of Biochemistry, Eastern Virginia Medical School, 700 Olney Road, Norfolk, VA 23501.

CELL PHYSIOLOGY/MOLECULAR BIOLOGY

ASSISTANT PROFESSOR/INSTRUCTOR in the Division of Nephrology, Department of Medicine, Johns Hopkins University School of Medicine. Ph.D. or M.D. to join laboratory studying regulation of function of renal transporters using techniques of cell and molecular biology. Experience in techniques of recombinant DNA most important. Send curriculum vitae, bibliography, and three letters of recommendation to: Director of Nephrology, 217 Hunterian, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205.

Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

LARGE-SCALE OCEAN BIOGEOCHEMISTRY

The biological oceanography and geochemistry/marine chemistry groups at the Scripps Institution of Oceanography, University of California (UC), San Diego, intend to appoint a **PROFESSOR(s)** at any level (tenure or tenure track) with a distinguished record or demonstrated potential in original research and in formal graduate teaching. Assistant-level candidates will be expected to show evidence of their potential through a publication record appropriate for their experience and letters of recommendation; associate and full professor level candidates must show evidence of a strong research record. Salary will be based on UC pay scale. Candidate(s) must hold the Ph.D. degree at the time of appointment.

We intend to enhance the study of large-scale, interdisciplinary problems in the water column, such as the use of chemical (including isotopic) tracers to study biologically mediated processes, specifically primary production and the flux of organic carbon, by innovative methods relatively free of enclosure. The successful candidate(s) will have demonstrated capability to devise and/or choose appropriate methods, concern for analytical accuracy and statistical replication, and interpretation of data based on broad knowledge of oceanographic and biogeochemical processes. Experience in large, multi-investigator programs, and in sea-going, is desirable but not essential.

Please send a letter of application with curriculum vitae including a description of research interests, list of publications, résumé of teaching experience, and names of five references to: Chairman, Biogeochemistry Search, Graduate Department, A-008, Scripps Institution of Oceanography, University of California, San Diego, La Jolla, CA 92093. Closing date for applications is 1 September 1990. An Equal Opportunity/Affirmative Action Employer.



Chiron Corporation, a recognized world leader in the field of biotechnology, has an opening for a **YEAST BIOLOGIST**. A Ph.D. and 2 to 4 years of postdoctoral experience in the fields of yeast biology and/or yeast biochemistry are required. The successful candidate will be a highly motivated individual responsible for the development of novel heterologous protein expression systems and the elucidation of the mechanisms by which these systems operate. Chiron Corporation, located in the San Francisco Bay area, offers a competitive salary and benefits program. Please send a copy of your curriculum vitae and the names of three references (before 14 July 1990) to:

Yeast Biology Search
Chiron Corporation
4560 Horton Street
Emeryville, CA 94608

FACULTY POSITION, IMMUNOLOGY. The Department of Microbiology, University of Texas Health Science Center at San Antonio (UTHSCSA), has a tenure-track faculty position (**ASSISTANT TO FULL PROFESSOR**) for a person with interest and training in immunology. Areas of preference include molecular immunology, antigen presentation, T cell biology, and cytokine research. Candidates with a strong record of research achievement are encouraged to apply. Successful candidates are expected to develop/maintain innovative research programs and to participate in departmental teaching activities. This is an exceptional opportunity to join our expanding department committed to excellence in research and teaching and located in a desirable academic-geographic setting. Applicants should mail curriculum vitae, a statement of current and future research goals, and arrange to send three letters of reference by 31 October 1990 to: Dr. Joel B. Baseman, Professor and Chairman, Department of Microbiology, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-7758. UTHSCSA is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

CLINICAL CHEMISTRY FELLOWSHIPS MAYO CLINIC ROCHESTER, MINNESOTA

The Clinical Chemistry Section at Mayo Clinic is seeking applicants for 1- or 2-year fellowships in training programs directed toward qualified individuals (Ph.D. or M.D. required) pursuing careers in clinical chemistry. Individuals completing the program are eligible for certification by the American Board of Clinical Chemistry or for subspecialty certification by the American Board of Pathology. Applications on file by July (pathology) or October (postdoctoral) 1990 will be considered for appointment in July 1991. Contact: George M. Lawson, Ph.D., Division of Laboratory Medicine, Mayo Clinic, Rochester, MN 55905, for more information. An Equal Opportunity/Affirmative Action Employer.

PHYSICAL SCIENCES EDITOR

Cambridge University Press (American Branch) has an immediate opening for an acquisitions editor in the physical sciences, especially in the applied fields. Our publishing program of advanced level monographs, texts, and reference works covers a wide range of disciplines, including geophysics, geology, materials science, and engineering. We prefer candidates with some graduate training. Publishing experience is desirable. Salary will be commensurate with experience and professional qualifications. Please apply in writing and indicate your salary requirements. Write to: Editorial Director, Cambridge University Press, 40 West 20th Street, New York, NY 10011.

ENVIRONMENTAL CHEMIST

Exxon Biomedical Sciences, Inc., has an immediate opening for a qualified individual specializing in environmental chemistry. The successful candidate will have a Ph.D. in environmental chemistry or a related field, and 1 to 3 years of practical experience in analytical method and protocol development for analysis of environmental samples in water, soil/sediment, and fish tissues. In addition, the applicant should have a knowledge of EPA methodologies for conducting effluent toxicity identification and reduction evaluations and standard methods for contaminant analysis.

The successful candidate will act as a consultant to our ecotoxicologists and to our affiliates on matters pertaining to the assessment of environmental hazards associated with products, effluents, hazardous wastes, etc. by providing analytical expertise to the design and interpretation of these programs. Client interactions are an important aspect of our work, and thus, we are seeking an individual who has excellent communication skills. Please forward résumé to:

Christine Ramos, Human Resources
Exxon Biomedical Sciences, Inc.
Mettlers Road, CN 2350
East Millstone, NJ 08875-2350
Equal Opportunity Employer M/F/H/V.

FACULTY POSITION MOLECULAR NEUROBIOLOGY

A tenure-track **ASSISTANT PROFESSOR** position is available for an individual using molecular techniques to study problems in developmental neurobiology. The successful candidate is expected to develop a vigorous research program in association with interdepartmental programs in neuroscience and molecular biology. Candidates should send curriculum vitae, a brief research proposal, and three letters of recommendation to: Dr. R. W. Oppenheim, Department of Neurobiology and Anatomy, The Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC 27103.

An Equal Opportunity/Affirmative Action Employer.

TENURE-TRACK FACULTY POSITIONS: BIOCHEMISTRY/MOLECULAR BIOLOGY. Applications are invited for positions in the Department of Biochemistry. Candidates must have a Ph.D., postdoctoral experience, and a plan for an independent research program. Positions also involve teaching at undergraduate, graduate, and medical school levels. Send curriculum vitae and references to: Chairman, Search Committee, Biochemistry Department, University of North Texas (UNT), P.O. Box 13048, Denton, TX 76203. UNT/Texas College of Osteopathic Medicine is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

CHAIRMAN DEPARTMENT OF PHYSIOLOGY

The Stritch School of Medicine of Loyola University Chicago invites applications and nominations for the position of Chairman of the Department of Physiology. We seek a learned doctorate, Ph.D. or M.D., with teaching, research, and service accomplishments commensurate with a tenured faculty appointment at the rank of Professor. A research interest in cardiovascular science with cellular and/or molecular dimensions would be preferred but all strong applicants will be considered. A proven record of scholarly activity, experience in attracting external research support, a commitment to graduate education, and good managerial skills are prerequisites.

Applications or nominations should be received by 1 August 1990 and should include curriculum vitae and the name of four references. They can be sent to:

John F. Moran, M.D.
Chairman, Search Committee
Loyola University Medical Center
Russo Room 1830
2160 South First Avenue
Maywood, IL 60153

PLANT MOLECULAR GENETICISTS

Two tenure-track, 12-month research/teaching positions available for plant molecular geneticists with expertise in genomic mapping technologies. Individuals with nationally competitive research programs are encouraged to apply. Successful applicants will join a major interdisciplinary research effort in crop improvement. Rank (ASSISTANT, ASSOCIATE, OR FULL PROFESSOR) and salary commensurate with qualifications. Closing date: 1 August 1990 or until positions are filled. Send letter of application, curriculum vitae, and names and addresses of three references to: Dr. Gary E. Hart, Search Committee Chair, Department of Soil and Crop Sciences, Texas A&M University, College Station, TX 77843-2474. Telephone: 409-845-8293. *Affirmative Action/Equal Opportunity Employer.*

VISITING FACULTY POSITIONS

The Faculty of Biological Science at The University of Tulsa has openings for three VISITING ASSISTANT PROFESSORS to teach introductory courses in the areas of general biology, cellular biology, and ecology for both majors and nonmajors. The salary is competitive and the 1-year appointments begin 27 August 1990. The department has a faculty of 16 and offers B.S., M.S., and Ph.D. degrees.

The University of Tulsa is a private, comprehensive university with a strong commitment to teaching and research. Applicants should have a Ph.D. degree and teaching experience. Send curriculum vitae and three letters of reference to: Dr. Richard L. Reeder, Faculty of Biological Science, The University of Tulsa, 600 South College Avenue, Tulsa, OK 74104.

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

MOLECULAR BIOLOGY FACULTY POSITION

A full-time faculty position, ASSISTANT OR ASSOCIATE PROFESSOR, will become open in the Department of Microbiology and Immunology. We are looking for an energetic and experienced molecular biologist (Ph.D. or M.D.) who will complement established research programs that include: virology, molecular and immunoparasitology, immunogenetics, tumor biology, and microbial pathogenesis. Space and start-up funds will be provided. Please send curriculum vitae, names of at least three references, and a statement of research interests and goals to:

Richard L. Crowell, Ph.D., Chairman
Department of Microbiology and Immunology
Hahnemann University School of Medicine
Broad and Vine, MS 410
Philadelphia, PA 19102-1192

Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

QUALITY ASSURANCE MANAGER/COORDINATOR FOR U.S. EPA'S ENVIRONMENTAL MONITORING AND ASSESSMENT PROGRAM (EMAP)

The U.S. Environmental Protection Agency's Environmental Monitoring Systems Laboratory, Cincinnati, Ohio, has an immediate opening for a quality assurance manager/coordinator for EMAP. This is a national, interdisciplinary, multiagency monitoring program designed principally to measure the status and trends of the nations ecosystems (e.g., arid lands, surface waters, near coastal waters, great lakes, wetlands). The candidate will be responsible for coordinating quality assurance/quality control (QA/QC) and methods development/standardization activities for the various ecosystem task groups. The position requires knowledge of ecology, chemistry, biology, statistics, computer software, and quality assurance practices. The candidate should have an advanced degree (e.g., physical science, chemistry, biology, ecology, soil science, toxicology, or plant physiology) and have experience in managing a major segment of a large-scale environmental monitoring program. Extensive travel is required. This is a career civil service position with a salary range of \$42,601 to \$65,444 per annum. *Must be a U.S. citizen.*

For consideration, submit an application (SF 171) to:

Attention: Christina A. Denmark
Human Resources Management Division
U.S. Environmental Protection Agency
26 West Martin Luther King Drive
Cincinnati, OH 45268
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FACULTY POSITIONS DEPARTMENT OF MICROBIOLOGY IOWA STATE UNIVERSITY

We seek new faculty at all ranks in three areas: (i) SOIL/ENVIRONMENTAL MICROBIOLOGISTS interested in population dynamics, microbial ecology, microorganisms important to environmental quality, or microbial effects upon soil structure. (ii) FOOD MICROBIOLOGISTS to work on food preservation and safety with interests in the microbiology of meat and poultry products. (iii) A CELLULAR IMMUNOLOGIST with research interests in immunomodulation or neuroimmunomodulation. Applicants are required to have the Ph.D. degree in microbiology or a closely related discipline, strong communication skills, and the ability to work harmoniously with other researchers and departmental colleagues. Postdoctoral experience is required for the soil/environmental and immunology positions. Candidates with teaching or industrial experience are preferred. Appointment at the senior academic ranks requires demonstrated research excellence. A generous start-up package and competitive salaries are available. A letter of application, curriculum vitae with the names of three references, and a statement of research interests should be sent to: Fred D. Williams, Chairman, Department of Microbiology, Iowa State University, Ames, IA 50011. Deadline: 13 July 1990 or until positions are filled. *Iowa State University is an Equal Opportunity/Affirmative Action Employer. Women, minorities, and members of other protected groups are encouraged to apply.*

NEUROSCIENCE

The Department of Biology at Texas A&M University invites applications for two tenure-track FACULTY POSITIONS at the ASSISTANT PROFESSOR level. Applications from individuals interested in cellular and molecular aspects of invertebrate and lower vertebrate neural systems are of special interest. The successful candidate will be expected to conduct a vigorous research program and to participate enthusiastically in our graduate and undergraduate curricula. Excellent facilities for maintenance of marine and aquatic species, electron, light and video microscopy, and molecular biology (DNA and peptide sequencing and synthesis) are currently available. Please send curriculum vitae, a statement of research accomplishments and goals, selected reprints, and the names, addresses, and telephone numbers of three referees by 15 July 1990 to: Neuroscience Search Committee, Department of Biology, Texas A&M University, College Station, TX 77843-3258. *Texas A&M University is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.*

POSITIONS OPEN

School of Science and Technology is accepting applications for two tenure-track FACULTY POSITIONS to begin 15 August 1990. Participation in the environmental science undergraduate curriculum and graduate life science curriculum, including such areas as radiation, toxicology, air quality, occupational health and safety practices, and vector and pest control. Development of a hazardous waste management program. Ph.D. or substantial progress toward a Ph.D. required. Application deadline has been extended to 25 June 1990. For complete job announcement, write or call: Personnel Office, New Mexico Highlands University, Las Vegas, NM 87701. Telephone: 505-454-3242. *Affirmative Action/Equal Opportunity Employer.*

PHYSICAL BIOCHEMIST

The Institute for Cancer Research is expanding its commitment to molecular biophysics at the Fox Chase Cancer Center and invites applications for a tenured or tenure-track physician in physical biochemistry. Investigators working in the areas of molecular modeling of biologically important molecules, comprehensive analyses of structure-function relationships in proteins, or structural characterization of macromolecular complexes are particularly encouraged to apply. However, outstanding applicants interested in any area of molecular biophysics and physical biochemistry will be considered. The appointee will be expected to conduct a vigorous program of externally funded research. Generous laboratory space and start-up funds will be made available. In addition, the institute offers a comprehensive set of facilities in support of biophysical and biochemical studies. The position requires the Ph.D. degree or equivalent and demonstrable potential for excellence in independent research. Applications for this position require curriculum vitae, a statement of research goals, and the names and addresses of a minimum of three scientists familiar with the applicant's research efforts. Applications should be sent to: Anthony T. Yeung, Ph.D., Chairman, Biochemistry and Biophysics Search Committee, Institute for Cancer Research, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. *We are an Equal Opportunity/Affirmative Action Employer.*

The U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), invites applications for five positions on the Program Development and Coordination Staff in the Office of Oceanic and Atmospheric Research (OAR). The office, located in the Washington, D.C., area, provides scientific, programmatic, and policy staff work to the assistant administrator for OAR. We are seeking a SENIOR PHYSICAL SCIENTIST (salary range: \$50,300 to \$76,900) to serve as staff expert for marine science efforts. Another vacancy exists for a PHYSICAL SCIENTIST (salary range: \$35,800 to \$46,500) to serve as a marine science policy analyst. We are also seeking a METEOROLOGIST (salary range: \$24,700 to \$46,500). Persons with expertise in climate, air quality, weather, modeling, instrumentation, or monitoring are invited to apply. Two positions are available for OCEANOGRAPHERS (salary range: \$24,700 to \$46,500). Biological, chemical, geological, and physical oceanographers are invited to apply. For further information and specific vacancy announcement numbers, please contact: Mr. Paul Jordan, NOAA, NCASC Personnel, DC23, 11420 Rockville Pike, Room 40, Rockville, MD 20852. Telephone: 301-443-3434.

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An ASSISTANT/ASSOCIATE PROFESSOR, 12-month, tenure-track, 60% extension and 40% research toxicology position is available in the Department of Food Science, Purdue University. Candidate should have a Ph.D., experience and strong interest in developing a toxicology program for the state of Indiana. Salary commensurate with experience. The closing date is 15 July 1990 or until qualified candidate is identified. Please send a letter of application, curriculum vitae, three letters of reference to:

Dr. P. E. Nelson, Head
Department of Food Science, Smith Hall
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Applicants should be Zoologists with an appropriate doctoral degree and demonstrated research and teaching experience in the Developmental Biology of animals. Preference will be given to applicants using an experimental approach. The successful applicant will be expected to develop senior teaching in Developmental Biology, as well as participate in teaching Cell Biology at First and Second Levels, develop an active research programme and attract postgraduate students and external research funding.

Salary: \$32,197-\$41,841 (each position).

The Zoology Department has 17 academic staff and 22 support staff. Research interests included terrestrial & marine ecology, genetics & conservation biology, systematics & evolutionary biology, animal physiology and palaeontology. Facilities include electron microscope unit, molecular genetics laboratory, marine field stations on Moreton Bay and at Heron Is. on the Great Barrier Reef and a 16m trawler. Recent University initiatives relevant to Zoology include the Centre for Conservation Biology, an Aquaculture Group, an emerging school of Marine Science, the Centre for Molecular Biology and Biotechnology and the Vision Touch & Hearing Research Centre.

Closing Date: 29 June 1990.

Please send original plus seven copies of application and resume to Director, Personnel Services, The University of Queensland, Q. 4072, Australia. More information: Professor Gordon Grigg, Department of Zoology. Fax (07) 371 0057.

DEAN COLLEGE OF FORESTRY AND NATURAL RESOURCES

Colorado State University invites nominations and applications for the position of Dean of the College of Forestry and Natural Resources. The College is the largest college of forestry and natural resources in the nation with strong programs in education, research, service, extension and international activities. It consists of five departments: Earth Resources, Fishery and Wildlife Biology, Forest and Wood Sciences, Range Science, Recreation Resources and Landscape Architecture and an interdisciplinary research laboratory, the Natural Resource Ecology Laboratory.

As the chief academic officer of the college, the dean is responsible for the strategic planning, administration and coordination of education, research, service and extension programs. The dean reports to the Provost/Academic Vice President. Candidates must have demonstrated administrative and leadership skills, scholarly achievement and a thorough understanding of current natural resources issues. A doctoral degree is required. The successful candidate will have the vision and ability to lead the college in response to the challenges and opportunities of the 21st century.

Interested parties should request a full job description and application materials. All application materials must be received by August 31, 1990. The deadline may be extended if a suitable candidate is not found. The position starts July 1, 1991. All inquiries and nominations should be sent to: **Dr. John C. Raich, Chair, College of Forestry and Natural Resources Dean's Search Committee, C-138 Clark Building, Colorado State University, Fort Collins, CO 80523. FAX (303) 491-0528.**

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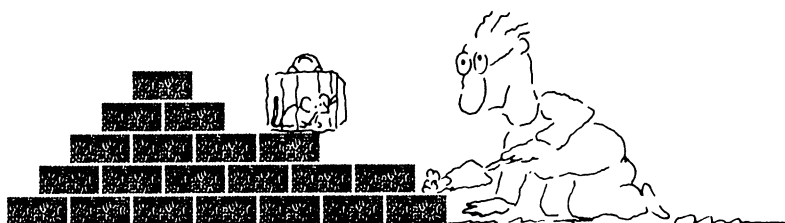
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POSTDOCTORAL POSITION. Available immediately to study molecular genetics of human cell response to mutagen-induced DNA damage. The project will involve the use of retroviral vectors as insertional mutagens in order to identify and isolate genes of interest. Background in molecular biology, somatic cell genetics, or radiation biology is desirable. Send curriculum vitae, statement of research interests, and names of three references to: Dr. Andrew J. Grosovsky, University of California, Environmental Toxicology Program, 5419 Weber Hall East, Riverside, CA 92521.

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Although applicants for NIH-supported stipends must meet NRSA U.S. citizenship and residency requirements, such restrictions are not placed on other fellowships. In the case of the latter, particular consideration will be given to individuals interested in the physiological basis of contraceptive development in the male. Address application, curriculum vitae, and names of three referees to: Tony M. Plant, Ph.D., Director, Center for Reproductive Physiology, Department of Physiology, University of Pittsburgh School of Medicine, 14th Floor, Biomedical Science Tower, Pittsburgh, PA 15261.

POSTDOCTORAL FELLOW. Available immediately to study biodegradation of chlorinated solvents by methylotrophic bacteria. Investigations focus on characterization of mutants and applications in treatment processes. Ph.D. is required; microbiology, biochemical engineering, or environmental sciences preferred. Please send résumé and names of references to: Dr. G. Georgiou, Chemical Engineering Department, or Dr. G. E. Speitel, Civil Engineering Department, The University of Texas at Austin, Austin, TX 78712. An Equal Opportunity/Affirmative Action Employer.

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Dr. George R. Martin

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Post Doctoral Research Fellowships in the Molecular Biology of DNA Viruses At The Wistar Institute

The Wistar Institute is a center for investigating the basic molecular and biological behavior of viruses and the cells that they infect, and for exploring the molecular mechanisms of a broad range of diseases. The Institute is located on the campus of the University of Pennsylvania and is equipped with the latest biotechnology support facilities. Fellowships are available in the following areas:

Dr. D. L. Ewert: Cellular and molecular mechanisms of herpes virus augmentation of retroviral induced lymphomagenesis.

Dr. N. W. Fraser: The mechanism of Herpesvirus (HSV) latency; use of the latent HSV viral genome as a vector for expression of foreign genes in the nervous system.

Dr. B. B. Knowles: The role of the immune response in tumorigenesis in SV40 T-antigen transgenic mice; the role of HBV in hepatocellular carcinogenesis.

Dr. S. Plotkin: Mechanism of latency in CMV vectors for CMV genes that express immunizing antigens, CMV-HIV molecular interactions.

Dr. R. P. Ricciardi: Transactivation by the Ad Ela protein, MHC Class I shut off by Ela; the role of HHV-6 in lymphoproliferative disorders.

Dr. J. G. Spivack: HSV-1 latency; genetic determinants of HSV virulence; human cytomegalovirus (HCMV) latency.

Dr. R. Weinmann: Mechanisms of gene regulation at the level of transcriptional initiation by RNA polymerase II, regulation of transcription activation during adenovirus infection and teratocarcinoma cell differentiation.

Interested applicants are requested to send a curriculum vitae and the names of 3 references to: **Coordinator of Research Training, The Wistar Institute, 36th & Spruce Streets, Philadelphia, PA 19104.**

Applicants must be U.S. Citizens or have permanent residency status as foreign nationals at time of application. Equal Opportunity Employer, M/F.

THE
WISTAR
INSTITUTE

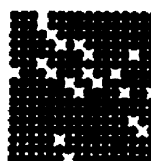


VIRAL DIAGNOSTICS Nucleic Acid Probes

Chiron Corporation, the leader in human hepatitis virus research, is expanding its efforts in the development of diagnostic nucleic acid probe products for the detection of hepatitis viruses and other medically important organisms. These new, sensitive and quantitative diagnostic tests will be based upon Chiron's unique probe technology.

We are seeking highly motivated and exceptional individuals at all levels to join our team. **MOLECULAR BIOLOGISTS, BIOCHEMISTS, VIROLOGISTS** and **MICROBIOLOGISTS** with experience (preferably industrial) in the characterization and application of specific nucleic acid probes and/or with a working knowledge of the methods to identify human pathogens are encouraged to apply.

Chiron Corporation, located in the San Francisco Bay Area, offers a stimulating and challenging research environment, a competitive compensation package and opportunities for professional advancement. Candidates please send C.V. and 3 references to **Chiron Corporation, Human Resources Dept. - NAC89-92, 4560 Horton St., Emeryville, CA 94608.**



CHIRON
CORPORATION



Deutsche
Forschungsanstalt
für Luft-
und Raumfahrt e.V.

The German Aerospace Research Establishment, DLR, invites senior level candidates to apply for the position of

Scientific Director

of the Institute for Aerospace Medicine (Successor of Prof. Dr. K.-E. Klein)

The Institute is concerned with biomedical/biophysical research in the fields of aerospace and underwater operations. The application-oriented work is conducted in an interdisciplinary approach, involving human physiology, medicine, biology, biophysics and psychology. The Institute has five divisions located at Köln and one division in Hamburg with a staff of about 140 including 65 scientists. It is equipped with a number of large scale test and simulation facilities.

The Institute is expected to provide significant bioscientific contributions to the study of relevant environmental factors, like weightlessness, pressure, radiation and biological rhythms. In addition to basic and applied research, the Institute is involved in operational tasks, i. e. selection, training and medical support of aircrews and astronauts, and in user support for bioscientific research projects in space. They are conducted within national and international projects.

DLR and RWTH Aachen are seeking in a joint search procedure a personality with relevant scientific qualification and organizational experience.

Applications, in duplicate, to
Chairman of the DLR Executive Board,
Prof. Dr. W. Kröll, Linder Höhe, D-5000 Köln 90
or to

Dean of the Medical Faculty of RWTH Aachen,
Prof. Dr. med. Dr. rer. nat. H. Greiling, Pauwelsstraße 30, D-5100 Aachen



Rheinisch-
Westfälische
Technische
Hochschule

The Rheinisch-Westfälische Technische Hochschule Aachen, RWTH, offers the position of

Professor (C4)

in aerospace medicine

The appointment will at the same time include leave to hold the DLR position, while involving reduced teaching duties.

Applicants should have demonstrated expertise in the areas of medicine/physiology oriented towards aerospace applications, or in related fields such as environmental or occupational physiology/medicine.

A strong commitment to interdisciplinary cooperation is expected, in particular with the University's Medical Faculty as well as with natural and engineering sciences.

MIT



Research Scientist

The Biology Department is seeking an individual to be involved in the fractionation of enzymes with various column chromatographic techniques and resins, including affinity purification schemes, applications of gel electrophoresis and of centrifugation methods; use of radioactive materials for the analysis of products of enzymatic reactions. Affinity labeling and active site titrations, enzyme kinetics and determination of kinetic parameters; and use of optical methods to assay biochemical reactions.

Requirements: Ph.D. with four years of experience in the area of enzymology and protein purification, familiarity with methods of molecular biology for protein engineering, experience with nucleic acid substrates and preferably transfer RNAs.

Interested candidates should send two copies of a cover letter and resume referencing **Job No. R90-081 to: Prof. Paul Schimmel, MIT Personnel Office, Bldg. E19-239, 400 Main Street, Cambridge, MA 02139.**

MIT is an Equal Opportunity/Affirmative Action Employer
MIT is a non-smoking environment.

Massachusetts Institute of Technology

PENNSSTATE



College of Medicine • University Hospital
The Milton S. Hershey Medical Center

Chair, Neuroscience and Anatomy

The Pennsylvania State University College of Medicine has recently undertaken a major expansion of both clinical and basic research facilities including construction of a 236,000 sq. ft. Biomedical Research Building which will be completed in 1992. As part of this expansion, the University plans to develop a DEPARTMENT OF NEUROSCIENCE AND ANATOMY and we are seeking an outstanding neuroscientist to CHAIR this department.

This individual will be responsible for establishing and guiding the new directions of this department at The Pennsylvania State University College of Medicine. The University's interdepartmental Neuroscience Program is presently comprised of basic and clinical scientists, post-doctoral fellows, and graduate students working in key areas of neuroscience. The current Department of Anatomy offers courses in anatomy and neuroscience for medical and graduate students. We are seeking a chairperson who can unify these areas and provide direction for the continued growth and development of neuroscience. Current research strengths represented include: molecular neurobiology, neuroanatomy, neuropharmacology, neurovirology, brain-behavior relationships and neural control of autonomic function.

The Chair will have the opportunities to develop new areas and recruit additional faculty. The University is committed to building a leading Department of Neuroscience and Anatomy and this international search is evidence of that effort.

The deadline for receipt of applications is September 30, 1990.

Nominations or applications should be sent to:

Julien F. Biebuyck, M.B., D.Phil., Chairman,
Search Committee for the Chair of Neuroscience and Anatomy,
The Pennsylvania State University College of Medicine,
P.O. Box 850, Drawer SC, Hershey, PA 17033, U.S.A.

An Affirmative Action/Equal Opportunity Employer. Women and Minorities are Encouraged to Apply.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE. M.D. and M.S., or Ph.D. background necessary in electron microscopic immunocytochemistry, rapid freezing and freeze substitution, neuroanatomical tract tracing, and image analysis of electron micrographs. Must have 1 year of postdoctoral training in electron microscopy of hypothalamus. Salary at \$18,258 per year. Send résumé and three letters of reference to: **Jack Hiltzheim, Tennessee Job Service, 1295 Poplar, Memphis, TN 38104.**

POSTDOCTORAL POSITIONS in molecular genetics, viral pathogenesis, immunogenetics, and cellular immunology. Three-year funded positions available in two interacting laboratories within an outstanding research environment. Research centers on molecular mechanisms of MHC diversification, structural basis of class I antigen presentation, role of class I molecules in Theiler's virus-induced demyelinating disease (a mouse model for MS) and role of T cells in resistance to disease and in pathogenesis. Competitive stipends and outstanding benefits. Address inquiries (including curriculum vitae and names of three references) to: **Larry R. Pease, Ph.D.** (molecular biology and immunogenetics) or **Moses Rodriguez, M.D.** (viral pathogenesis and cellular immune basis), **Department of Immunology, Mayo Clinic, Rochester, MN 55905.** An Equal Opportunity/Affirmative Action Employer.

FUNDED POSTDOCTORAL POSITION available to study p21ras GRF (*Science*, 6 April 1990, p. 67) and other specific protein interactions of p21ras. Experience in protein purification and molecular biology preferable. The position has a starting salary of \$20,000 and will be located at the Cleveland Clinic Foundation, Cleveland, Ohio. The position will be available approximately at the end of September 1990. Send curriculum vitae and the names of three references to: **Alan Wolfman, Box EHSC, Strong Memorial Hospital Medical Center, 601 Elmwood Avenue, Rochester, NY 14642.**

YALE UNIVERSITY SCHOOL OF MEDICINE THERAPEUTIC RADIOLOGY

POSTDOCTORAL FELLOWSHIP. Exciting opportunity for Ph.D. with background in molecular biology, protein biochemistry, or immunology, and an interest in vascular biology or cell motility to join a vascular and tumor cell biology laboratory at Yale Medical School. Current investigations center around isolation, characterization, and cloning of vascular and epithelial cell migration factor(s). Competitive salary. Please send curriculum vitae to: **Dr. Eliot M. Rosen, Department of Therapeutic Radiology, 132 HRT, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.**

RESEARCH SCIENTIST

The Geochemical and Environmental Research Group (GERG) of the Department of Oceanography at Texas A&M University (TAMU) has a permanent research position immediately available for a Ph.D. biological/chemical oceanographer (or others with appropriate experience) specializing in plant pigments and bio-optical properties of seawater. GERG is an established research center within TAMU consisting of 19 Ph.D. level staff, 80 employees, and funding in excess of \$5 million annually. The successful applicant will operate and maintain an established pigments laboratory and support several presently funded projects for NSF, ONR, and other government and private contractors. Analytical method development (including LC/MS and SFC), proposal submissions, and publication of scientific results are considered an integral part of the position. The pigment laboratory consists of several HPLC's (including autosamplers and fraction collectors), and photodiode array spectrophotometer (HP) UV/VIS and fluorescence detectors, LC/MS, and preparative scale HPLC, as well as access to GC and GC/MS with EI and CI capability. The position is fully funded through existing grants and the laboratory is in place and functional. Compensation will be commensurate with experience and the position is expected to be filled at the **ASSISTANT OR ASSOCIATE RESEARCH SCIENTIST** level. Interested applicants should send a letter stating their research interests, curriculum vitae and names of three references to: **Dr. James M. Brooks, TAMU/GERG, 10 South Graham Road, College Station, TX 77845.** An Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITIONS. In neurobehavioral pharmacology; one available immediately and one likely to be available by July or September. Participate in ADAMHA-supported projects investigating neurochemical and neuroanatomical substrates of drug and alcohol reinforcement (using in vivo microdialysis), and behavioral and neurochemical factors underlying individual variations in susceptibility to the development of addictive behavior (drug self-administration). Please send curriculum vitae and two letters of reference to: **Dr. Stanley D. Glick, Department of Pharmacology and Toxicology, A-136, Albany Medical College, Albany, NY 12208.** An Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE. For research and medical care center in northeastern Ohio to conduct cardiology research into diastolic ventricular function of cardiac patients through performance of the following duties: assess diastolic filling through interpretation of Multiple Gated Acquisitions (MUGA) test data; study left ventricular function by using Doppler imaging and echocardiography; enter data into computer and generate improved diastolic parameters; analyze and interpret research results and develop additional research protocols; prepare research findings for publication. M.D. degree or foreign equivalent as determined by accredited credentials agency and 1 year of experience in job described or 1 year of experience as post medical school intern. Post medical school internship must include interpretation and study of echocardiographic data. Must have published at least one scholarly research article in professional medical journal. Forty hours per week, 8 a.m. to 5 p.m.; \$28,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **C. Bussard, JO# 1084551, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

INSTITUTE OF HUMAN GENETICS UNIVERSITY OF MINNESOTA MEDICAL SCHOOL

The Institute of Human Genetics invites applications for one 12-month, annually renewable position as **RESEARCH ASSOCIATE** to serve as a research scientist and teacher in a research laboratory, beginning 16 September 1990. Research being conducted in this laboratory involves papillomaviruses and its relationship to human and animal malignancies. The responsibilities of this position will include performing research; assisting with the writing of grants, under the supervision of the institute's director, for the acquisition of equipment and in support of research; developing methods and techniques appropriate to the functioning of the laboratory; teaching laboratory methods and other research-related techniques which include lectures to students and staff. Candidates with a Ph.D. in biochemistry or microbiology plus a minimum of 2 years of postdoctoral experience in techniques of molecular biology and virology, including tissue culture and isolation and analysis of RNA, DNA, and proteins, will be considered for this position. Some teaching experience is desirable. Please send curriculum vitae, a short description of relevant experience, and three letters of recommendation to: **Dr. Ronald S. Ostrow, University of Minnesota Medical School, Institute of Human Genetics, Box 206 UMHC, Harvard Street at East River Road, Minneapolis, MN 55455.** The last date for receipt of applications is 15 August 1990. *The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.*

PHYSICIST (RESEARCH SCIENTIST). Job site: Troy, New York. To prepare and characterize thin films for optical, electronic, and thermo/mechanical applications. Require master's degree in physics; graduate courses in surface physics, solid-state physics, integrated circuit fabrication laboratory; proficiency in FORTRAN and PASCAL; 4 years of physics research experience including all of the following: PACVD reactor design and construction; 3 years of PACVD processing of materials including 1 year of diamond/diamond-like thin film preparation, 1 year of characterization of the crystalline, texture, electrical, and thermo/mechanical properties of thin film; 1 year of design and application of electro-optical devices. Salary: \$31,000 per year, full time. Submit résumé and two references to: **New York State Department of Labor, C. Hartman/J. Kelley, 100 Broad Street, Glens Falls, NY 12801.** Refer to: DOT 023.061014, J.O. N.Y. 0401514.

POSITIONS OPEN

IN VIVO NUCLEAR MAGNETIC RESONANCE (NMR) SPECTROSCOPIST, RESEARCH ASSISTANT PROFESSOR. In the Department of Pharmacology of Georgetown University. He/she should have experience and publications in the field of in vivo proton localized spectroscopy of cancer and brain and preferably also with cell culture experiments. Funds are available for a period of 2 years, after which the candidate is expected to support him/herself with obtained grants. Laboratory space will be shared with other faculty members and some small start-up funds are available. Review of completed files will begin 25 June 1990. Send curriculum vitae including publications and three letters of reference to: **Dr. Jack Cohen, Department of Pharmacology, Georgetown University Medical Center, 3900 Reservoir Road, N.W., Washington, DC 20007.** Georgetown University is an Equal Opportunity Employer.

RESEARCH CELL BIOLOGIST/ ELECTRON MICROSCOPIST FRANCIS I. PROCTOR FOUNDATION FOR RESEARCH IN OPHTHALMOLOGY UNIVERSITY OF CALIFORNIA SAN FRANCISCO

Applications are invited for a cell biologist with expertise in electron microscopy, cell culture, biochemical techniques, and handling of pathogenic microorganisms. Responsibilities include supervision of a research facility with two electron microscopes, and collaboration with other investigators in the Foundation. This individual will be expected to conduct an extramurally supported research program. The level of academic appointment will be commensurate with experience and productivity. Data available: 1 January 1991 or later. Ph.D. or M.D. required.

Submit a statement of research interests, curriculum vitae, representative reprints, and names and addresses of three references to: **Ms. Elaine Benson, Management Services Officer, Francis I. Proctor Foundation, University of California, San Francisco (UCSF), CA 94143-0412.** Telephone: 415-476-4542.

Filing deadline: 1 September 1990.

UCSF is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

RESEARCH BIOCHEMIST

Research in bioenergetics. Conduct isolation, purification, and identification of proteins and mitochondria membrane enzymes and reconstitution of respiratory chain. Mechanism studies of relationship between these components. Research also includes: biomembrane, immunochemistry, biotechnology, electrophoresis on paper and gel; electrofocusing, column and thin-layer chromatography both on analytical and preparative scale; Western blot and immunoassay and various spectroscopic techniques such as UV, visible, infrared, and CD. Requirements: M.S. in chemistry plus 6 years of experience in biochemistry or B.S. in chemistry plus 8 years of experience which must include: enzymes, proteins, biomembrane, immunochemistry, and biotechnology with strong background in bioenergetics. Experience also must include: equipment and research methodology skills associated with the following: purification and characterization of intracellular respiratory enzymes; electrophoresis on paper and gel, electrofocusing; column and thin-layer chromatography both on analytical and preparative scale; Western blot and immunoassay and various spectroscopic techniques such as UV, visible, infrared, and CD. Forty (40) hours per week, 9 a.m. to 5 p.m., Monday to Friday; salary of \$27,710 per year. Submit résumé or curriculum vitae to: **The Philadelphia Job Bank, 444 North 3rd Street, 3rd Floor, Philadelphia, PA 19123.** Job Order #4344857.

RESEARCH SCIENTIST. Staff research scientist required by Department of Neurology, College of Physicians and Surgeons of Columbia University. Applicants must hold Ph.D. in one of the biological sciences with subsequent postdoctoral training and documented experience with human immunology, lymphocyte cultures, generation of hybridomas, and immunoglobulin gene cloning. Some knowledge of immunochemistry also desirable. Salary and rank based upon experience and credentials. Write to: **Norman Latov, M.D., Ph.D., Neurological Institute, 710 West 168th Street, New York, NY 10032.** Columbia University is an Equal Opportunity/Affirmative Action Employer.

Public Health Service • National Institutes of Health
Clinical Center • Bethesda, Maryland

A Senior Executive Service Vacancy

ASSOCIATE CHIEF
Positron Emission Tomography
and Radiochemistry

The Associate Chief, Positron Emission Tomography (PET) and Radiochemistry, has responsibility for administering a very large intramural program of basic and applied research in the broad fields of PET including radiopharmaceutical development and production to identify biochemical abnormalities in various diseases and normal biochemistry relevant to humans. The research program operates with an annual budget of \$3 million and requires a staff of approximately 30 professional, technical and administrative staff with an additional 20-25 senior investigators from five participating Institutes.

This is a Civil Service position in the Senior Executive Service (SES) with an annual salary between ES-1 through ES-4 (currently \$71,200 to \$79,200 per annum) depending upon the qualifications of the applicant. The applicant selected for the position must join the SES. The individual selected, if not presently in the SES, must serve a one-year probationary period. (Applicants alternatively may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.)

Applicants must meet the minimum educational requirements for Research Chemist, GS-1320. Applicants must also meet established mandatory professional/technical and managerial/executive requirements. Applicants will be further evaluated on the degree to which they possess additional desirable qualifications in the areas of professional/technical experience, training and education, and honors and awards. A copy of the requirements may be obtained by contacting Ms. Sharon Reed in the Clinical Center Personnel Office, on (301) 496-6895.

Applications for Federal Employment (SF-171) are to be sent to: **Ms. Reed, The Clinical Center, National Institutes of Health, Building 10, Room 1N312, 9000 Rockville Pike, Bethesda, Maryland 20892.** A current curriculum vitae and bibliography must accompany all applications for entrance into the SES. Resumes are not acceptable applications for entrance into the SES. Public Health Service Commissioned Officers wishing to enter the SES must follow the above procedures. Officers interested in applying for the position within the Commissioned Corps may submit a resume to the above address.

Applications must be received by: July 6, 1990.

Selection for this position will be based solely on merit, with no discrimination for non-merit reasons such as race, color, religion, sex, national origin, politics, marital status, physical or mental handicap, age, or membership or non-membership in an employee organization.

NIH is an Equal Opportunity Employer



STAFF SCIENTISTS & POSTDOCTORAL FELLOWS

Neurobiology & Molecular Biology

Regeneron Pharmaceuticals, a company dedicated to developing therapeutic agents for degenerative and traumatic neurological diseases, is seeking to apply recent advances in the understanding of neuronal growth and regeneration.

Regeneron offers an exciting, collegial environment in which state-of-the-art molecular skills are brought to bear on outstanding problems in neurobiology and medicine. Key projects focus on the discovery, purification and molecular cloning of novel neurotrophic growth factors, and on the assessment of their biological roles as well as therapeutic potentials using innovative cell culture methods and animal models.

Positions in Neurobiology require expertise in the areas of:

- **Neural Regeneration (PNS/CNS)**
- **Models of Neuronal Disease**

All positions in Neurobiology require a strong neuronatomical background. Experience with receptor autoradiography and/or *in situ* hybridization is desirable.

Additional openings in Molecular and Cell Biology require skills in the areas of:

- **Protein Biochemistry**
- **Mammalian Expression Vectors**
- **Molecular Genetics**
- **Monoclonal Antibodies**

Regeneron's modern facility is located on a 275-acre wooded campus in Westchester County, 20 miles north of Manhattan, near major universities and medical centers. We offer excellent compensation packages, including generous stock options. Suburban Westchester features attractive and affordable housing, outstanding public schools and recreational facilities along with ready access to the cultural and business centers of New York City.

Please forward your resume, in confidence, to: **Ms. Carol Deaken, Regeneron Pharmaceuticals, Inc. 777 Old Saw Mill River Road, Tarrytown, NY 10591-6706.** Equal opportunity employer.

REGENERON
Pharmaceuticals, Inc.

Assessing Higher Order Thinking in Mathematics

Edited by Gerald Kulm

Teaching higher order thinking is essential in today's world. And what is taught must be tested. Unfortunately, most mathematics tests focus primarily on rote computational skills and memorized facts rather than on higher order thinking. This book addresses such concerns. The authors explore new approaches to mathematics assessment, provide directions for reforming mathematics testing, and give examples of innovative test items. It is especially valuable for teachers, test publishers, researchers, and federal and state educational policy makers.

Topics include: A new world view of assessment in mathematics; power items and the alignment of curriculum and assessment; assessing student growth in mathematical problem-solving; computer-based mathematics assessment; calculators and mathematics assessment; students' theories about mathematics and their mathematical knowledge; assessing schema knowledge for arithmetic story problems; critical evaluation of quantitative arguments; investigation of structured problem-solving items; and new directions for mathematics assessment.

Assessing Higher Order Thinking in Mathematics



Edited by Gerald Kulm

1990; 216 pp.; indexed
#89-27S - softcover; \$24.95
(AAAS members \$19.95)

The Liberal Art of Science Agenda for Action

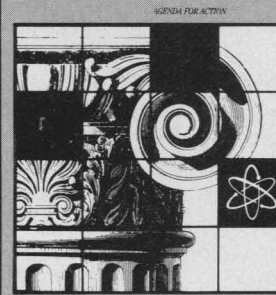
This report presents the conclusions and recommendations of the AAAS Project on Liberal Education and the Sciences. It discusses the level of scientific understanding necessary for optimal participation in 21st century life and the type of undergraduate science education required to achieve such a level of understanding. In addition, this volume supports the idea that science is a liberal art and should be taught as such. It recommends goals for liberal education in the sciences, outlining the multidisciplinary curriculum and teaching strategies necessary to achieve them.

An appendix includes descriptions of existing courses and programs, offered at institutions nationwide, that are consistent

with the project's recommendations. This report is of particular interest to undergraduate science educators as well as to all people committed to quality science education.

Topics include: Agenda for action; faculty responsibility; resource commitment; teaching materials and technologies; assessment instruments; the nature of scientific explanation; historical context; pedagogical techniques; integrating multidisciplinary content; programmatic approaches to liberal education in science; and liberal education for special groups such as future science teachers, the underrepresented in science, people with disabilities, and science and engineering majors.

The Liberal Art of Science



American Association for the Advancement of Science

1990; ca. 130 pp.
#90-13S - softcover; \$12.95
(AAAS members \$10.30)

Order from: AAAS Books, Dept. A4, P.O. Box 753, Waldorf, MD 20604 (FAX: 301-843-0159). To order by phone (VISA/MasterCard only), call 301-645-5643 (9am-4pm ET) and ask for AAAS. Individuals must prepay or use VISA/MC. For institutional purchase orders, add \$3.50 postage/ handling. Please specify item #, and allow 2-3 weeks for delivery. For shipments to CA, add applicable sales tax.

POSTDOCTORAL FELLOWSHIP GASTROINTESTINAL PHARMACOLOGY

**MARION MERRELL
DOW INC.
KANSAS CITY, MO**

Marion Merrell Dow Inc. is seeking applications for a postdoctoral fellowship in gastrointestinal pharmacology to be located at its Kansas City, MO site. The area of research will focus on aspects of intestinal motility and its regulation. Applicants must possess a Ph.D. degree in pharmacology, physiology, or biochemistry with a strong emphasis on gastrointestinal motility. This 2-year fellowship is supported by a competitive salary and benefits package.

Qualified applicants are asked to send a current CV including a list of publications, the names, addresses, and phone numbers of 3 references, and a short statement of career goals to:

**Ms. Nancy Paul
Human Resources
Representative
MARION MERRELL DOW INC.
P.O. Box 9627
Kansas City, MO 64134**

Equal Opportunity Employer

DIRECTOR, CARDIOVASCULAR RESEARCH

The Upjohn Laboratories Division of The Upjohn Company, a worldwide leader in pharmaceutical research and development, is seeking a Director to lead our Cardiovascular Diseases Research Unit as well as maintain their own active research effort. The successful candidate will be responsible for directing a multidisciplinary research group comprised of 50-60 individuals whose efforts are focused on the pharmacological control of cardiac ischemia and rhythm, development of novel antihypertensive therapies and regulation of thrombosis and hyperproliferative responses of vascular smooth muscle. Furthermore, this unit provides cardiovascular support and expertise to other drug discovery programs for compounds undergoing preclinical and clinical evaluation.

Qualified applicants will possess:

- A Ph.D. and/or M.D. degree with an established record of scientific excellence in cardiovascular research as evidenced by publications and/or patents
- Commitment to drug discovery and development
- Managerial experience and excellent communication skills

Upjohn offers a competitive compensation and benefits package in addition to a stimulating, multi-disciplinary research environment at our modern laboratories in Kalamazoo, Michigan. In 1989, Upjohn committed over \$400 million to research and development and is currently increasing its main research facility by 50%. Qualified and interested applicants are invited to forward their cv/resume to: THE UPJOHN COMPANY, CORPORATE RECRUITING, KALAMAZOO, MI 49001-9988. Refer to position number 5693-HA in your cover letter. An Equal Opportunity Employer M/F.

Our Commitment to Scientific Excellence Continues...

Upjohn

UMDNJ-Robert Wood Johnson Medical School

Division of Neurosurgery Nominations and applications are invited for the position of Director of Neurosurgical Laboratory, to begin Fall 1990. Assistant or Associate Professor on tenure track with established research record and demonstrated independent funding to provide neuroscience academic leadership to a large well-equipped neurosurgical laboratory. Joint appointment in a second basic science department will be available. Laboratory is on a joint campus of the University of Medicine and Dentistry of New Jersey and Rutgers University in Piscataway, N.J.

Nominations and expressions of interest should be sent to: **GEORGE A. ZAZANIS, M.D., Professor and Chief, Division of Neurosurgery, UMDNJ-Robert Wood Johnson Medical School, 1 Robert Wood Johnson Place, CN 19, New Brunswick, NJ 08903-0019.** The UMDNJ is an Affirmative Action/Equal Employment Opportunity Employer, m/f/h/v, and a member of the University Health System of New Jersey.



Ph.D. Senior Scientist In Behavioral Pharmacology

An opening is available in the Central Nervous System Group in Pharmaceuticals Research for a Ph.D. Behavioral Pharmacologist. This position provides a challenging opportunity to lead a team of research scientists in a multi-disciplinary drug discovery program. In addition to their own research responsibilities, this person will supervise several Ph.D. scientists engaged in drug discovery efforts directed towards the treatment of central nervous system disorders. The ideal candidate should have demonstrated skills in experimental psychology (with an especially strong focus on animal models of learning and memory) and evidence of supervisory skills and the ability to work in a team environment.

You will find a highly stimulating scientific environment in a modern research facility located near Wilmington, Delaware. We offer excellent compensation and benefits, including relocation. Our mid-Atlantic location offers an attractive life-style with easy access to a wide range of academic, cultural, and recreational activities. Interested candidates should send their resumes and references to Employee Relations Department, Room PSS-0014, Du Pont Company, Wilmington, Delaware 19898.



An Equal Opportunity Employer

POSITIONS OPEN

RESEARCH ASSOCIATE. We are seeking an individual with research experience in mechanisms of human airway inflammation to develop a new research direction which will emphasize the study of indoor air pollutants. The position provides a unique opportunity for a creative scientist to work independently and in collaboration with a multidisciplinary team of University of North Carolina and U.S. Environmental Protection Agency scientists active in the area of pulmonary cell and molecular biology. The successful candidate should have at least 2 years of postdoctoral training in biological and biochemical approaches to study mediators including neurogenic substances and cytokines involved in the inflammatory/allergic response. Competitive salary and fringe benefits commensurate with education and experience. Interested applicants should send curriculum vitae, a statement of research interests and goals, and the names of three references to: **Dr. Hillel Koren, Center for Environmental Medicine and Lung Biology, University of North Carolina School of Medicine, CB #7030, Medical Research Building C, Chapel Hill, NC 27599. Affirmative Action/Equal Opportunity Employer.**

ASSOCIATE SCIENTIST (Physicist). Conduct research and development of a new class of metallic thin films and rare earth-based detectors for nuclear biology. Develop magnetic and magneto-optic detector readouts, cryogenic GaAs electronic, data acquisition system and software. Perform cryogenic tests in millikelvin temperatures. Supervise five employees. Must have Ph.D. in physics and 5 years of experience. Must have expertise in low-temperature physics, III-V compounds (GaAs), magnetic measurements, modern electronics, and spectroscopy. Forty hours per week, 9:00 a.m. to 5:00 p.m.; \$49,920 per year. Mail résumé and copy of ad to: **DEED, 1100 North Eutaw Street, Room 212, Baltimore, MD 21201, Job #8944231.** Job location: College Park, Maryland. *Proof of legal right to work in the United States required.*

RESEARCH SCIENTIST POSITIONS (2). Available immediately for studying metabolism of chemical carcinogens in mammalian, fish, and bacterial systems. Ph.D. in biochemistry, bioorganic chemistry, medicinal chemistry, pharmacology, or related field required. Experience in isolation and structural identification of metabolites preferable. The positions provide an opportunity for developing a program of candidate's interest. Please send résumé and names of three references to: **Dr. H. Sikka, Director, Division of Environmental Toxicology and Chemistry, Center for Environmental Research, State University of New York College at Buffalo, 1300 Elmwood Avenue, Buffalo, NY 14222. Telephone: 716-878-5422.**

RESEARCH SCIENTIST who will plan and perform in vivo and in vitro studies on gene activation by estrogens. Conduct research in estrogen receptors, reproductive biology, tissue culture, and all major areas of recombinant DNA methodology. Small animal handling and use. Supervise/train all levels of technicians and students. Maintain/repair major items of laboratory equipment. Organize/write up results for publication. Ph.D. degree in biochemistry; 3 years of postdoctoral training and 1 year of research experience in molecular endocrinology. Forty hours per week; \$32,748 annual salary. Contact: **Texas Employment Commission, Houston, Texas,** or send résumé to: **Texas Employment Commission, Placement Unit, TEC Building, Austin, TX 78778. J.O. #5517773.** *The University of Texas is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

SURGICAL RESEARCHER. The Department of Surgery and the Research Institute at The Mary Imogene Bassett Hospital, a major teaching affiliate of Columbia University, are seeking a Ph.D. to conduct basic surgical research in an area of general surgery. Laboratory space and initial support provided. Competitive salary, with a fine benefits package and academic appointment. Located in Cooperstown, New York, a rural four-season resort village with excellent schools and unusual recreational and cultural opportunities. Reply: **Michael S. Gold, M.D., Surgeon-in-Chief, The Mary Imogene Bassett Hospital, Cooperstown, NY 13326. Telephone: 607-547-3968 or Thomas A. Pearson, M.D., Ph.D., Director, Research Institute, The Mary Imogene Bassett Hospital, Cooperstown, NY 13326. Telephone: 607-547-3045.**

POSITIONS OPEN

SENIOR SCIENTIST AND ENGINEER (PHYSICIST). For Portland metropolitan area company producing electron and ion beam source and focusing systems. Designs/engineers focusing columns for point sources of electrons and ions using electrostatic and magnetic lenses; designs/engineers high-speed beam blanking, mass filter, electronics, vacuum chamber items associated with focusing columns; develops, applies, analyzes mathematical computer models for predicting focus column performance including all aberrations; performs experimental measurements of column performance and evaluates. Ph.D. in electron physics; 2 years of experience in electron optics and source technology; must be familiar with electron and ion focusing column design, high brightness field emission sources of electrons and ions, and ultrahigh vacuum system design. Forty hours per week (8:00 a.m. to 5:00 p.m.) with some overtime; \$42,294 to \$45,000 per year. *Must have proof of legal authority to work in the United States.* Send résumé to: **Employment Division, Attention: Job Order 2418800, 875 Union Street, N.E., Room 201, Salem, OR 97311.**

STATISTICIAN. For economic, engineering, and statistical consulting firm. Design and develop engineering and econometric models. Design, develop, and supervise applied data analysis using SAS. Prepare written reports and make formal presentations of findings to client groups. Requirements: Ph.D. in statistics with graduate-level course work in stochastic processes and applied statistics. Position requires at least 1 year of prior employment experience in stochastic processes, probabilistic modeling, sampling design, and econometrics. Experience must reflect strong writing and verbal presentation skills. Must be fluent in SAS. Salary: \$50,000 per year. Job site/interview: Berkeley, California. Send copy of this ad and résumé to: **P.O. Box 9560, Job #JJ15456, Sacramento, CA 95823-0560,** no later than 26 June 1990.

TECHNICIAN IN BIOLOGY. B.S. in biology or related area. The individual will participate in a program in molecular parasitology centered on trichomonads. Research techniques to be utilized will be enzymology, DNA sequencing, cell fractionation, and molecular biology. Salary \$15,000 to \$20,000. Starting date 5 July 1990. Applicants should send résumé, curriculum vitae, letter of introduction, and the names and telephone numbers of three references by 29 June 1990 to: **Donald G. Lindmark, Ph.D., Department of Biology, Cleveland State University, East 24th and Euclid Avenue, Cleveland, OH 44115. Equal Opportunity Employer, M/F/H.**

VIROLOGIST. At Northwestern University Medical School. A tenure-track university faculty position in the Department of Pathology offering the opportunity for a major commitment to research with a modicum of hospital service. The successful candidate can be either an M.D. or Ph.D. who has an active research program and experience in the laboratory diagnosis of AIDS. Faculty rank and salary will be commensurate with the level of qualification and academic development. In addition, the candidate will have administrative leadership of a BL-3 level research/diagnostic laboratory. The institution has made a major commitment to AIDS and has an NIH Comprehensive AIDS Center and an active multidisciplinary group of AIDS investigators. Interested candidates should submit curriculum vitae by 30 June 1990 to: **Dr. Dante G. Scarpelli, Chairman, Department of Pathology, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611.**

Northwestern University is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon eligibility to work in the United States.

WEED SCIENCE OPENINGS. One research/teaching, one extension. Research program and course to cover modern approaches to weed science, including plant physiological and biochemical aspects. Extension with emphasis on modern applied approaches to plant physiology and weed science. Ph.D. and postdoctoral research or equivalent experience required for both. Application deadline: 1 August 1990. Send résumé, transcripts, brief statement of future research, copies of selected publications, and three letters of reference to: **Dr. Brian Larkins, Head, Department of Plant Sciences, The University of Arizona, Tucson, AZ 85721. Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

SITUATIONS WANTED

Ambitious Ph.D. **MOLECULAR BIOLOGY** (1986), seeks administrative/managerial position. Experience includes interaction with marketing staff, technical support, and laboratory management. **Box 50, SCIENCE.**

INSECT BIOCHEMIST. Ph.D. entomology, M.S. biochemistry; 10 years of HPLC; enzymes, hormones, antibodies; Lepidoptera, Diptera; Macintosh. Seeks permanent position. **Box 48, SCIENCE.**

NEUROCHEMIST/CELL BIOLOGIST, Ph.D., 18 years of experience: neuronal development, TEM, SEM, protein chemistry, SDS-PAGE, immunochemistry. Seeks R&D government/industry. **Box 51, SCIENCE.**

MEETINGS

Vth INTERNATIONAL SYMPOSIUM ON AMYLOIDOSIS 5 TO 8 AUGUST 1990/OSLO, NORWAY

The scientific program will deal with all aspects of amyloid proteins, amyloidosis precursors, and amyloidosis. Please contact: **Professor J. B. Natvig, Institute of Immunology and Rheumatology, Fr. Qvams Gate 1, N-0172 Oslo 1, Norway. Telephone: +472-11-15-10. FAX: +472-20-72-87.**

COURSES AND TRAINING

POSTDOCTORAL POSITIONS IN AGING AND CELL GROWTH CONTROL. Boston University announces the availability of postdoctoral fellowships for studies on the effects of aging on gene expression and cell growth control. Training faculty include Judy Campisi (oncogene expression in late passage diploid fibroblasts); Deborah Dobson (adipocyte differentiation); Barbara Gilchrist (fibroblasts and keratinocytes from elderly donors); and Richard Miller (signal transduction in T lymphocytes). For further information, contact: **Richard Miller, Boston University, 80 East Concord Street, Boston, MA 02118.** Please include curriculum vitae and list laboratory (or laboratories) of particular interest.

POSTDOCTORAL POSITIONS IN IMMUNOLOGY. Boston University announces the availability of postdoctoral fellowships for studies in cellular and molecular immunology. Training faculty include David Beller (macrophage function), Paul Black (AIDS; psychoimmunology), David Center (CD4 signaling and HIV), Matt Fenton (macrophage gene activation), Shyr-Te Ju (cytotoxic T cells), Elinor Levy (HIV and T cell colonies), Ann Marshak-Rothstein (autoimmunity in MRL mice), Richard Miller (T cell activation and aging), Tom Rothstein (B cell activation), Jackie Sharon (Ig genetic engineering), and Gail Sonenshein (c-myc gene expression). For further information, please contact: **Richard Miller, Boston University, 80 East Concord Street, Boston, MA 02118.** Please include curriculum vitae and list laboratory (or laboratories) of particular interest.

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ENDOWED CHAIR CHAIRMAN, NEW GENETICS DEPARTMENT

St. Jude Children's Research Hospital, a private research institute, is creating a new Department of Genetics. The chairperson will be expected to direct an internationally recognized research program in contemporary genetics and will shape the future of genetics research within the institution through new faculty recruitment and by contributions to its overall scientific leadership. The Department of Genetics will be located in a new 240,000 square foot research building to be completed in early 1991, which will also accommodate ongoing basic science programs in Virology and Molecular Biology, Biochemistry, Immunology, Pharmacology, and Tumor Cell Biology, leaving ample space for further future expansion. The Chairman's salary will be provided through committed endowment funds, together with additional resources commensurate with the needs of a dynamic and ambitious individual. Opportunities exist to interact with strong clinical programs in pediatric Hematology/Oncology and Infectious Disease. Applicants should submit a curriculum vitae and the names and addresses of four references to:

James N. Ihle, Ph.D.
Chairman, Department of Biochemistry
St. Jude Children's Research Hospital
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1. Nielson, K. and Mathur, E.J. (1990) Strategies 3:17-19.

2. Nielson, K. and Mathur, E.J. Manuscript in preparation.

3. Nielson, K. and Mathur E.J. (1989) U.S. patents filed.

4. Mullis, K.B., and Faloona, F.A. (1987) Meth. Enzymol. 155:335-350.

Figure 1 shows two examples of *in vitro* amplification reactions that are significantly enhanced by the addition of Perfect Match polymerase enhancer to the polymerase preparation. Note that in lanes 1 and 2, the desired PCR product cannot be detected unless Perfect Match polymerase enhancer is added to the amplification reaction.

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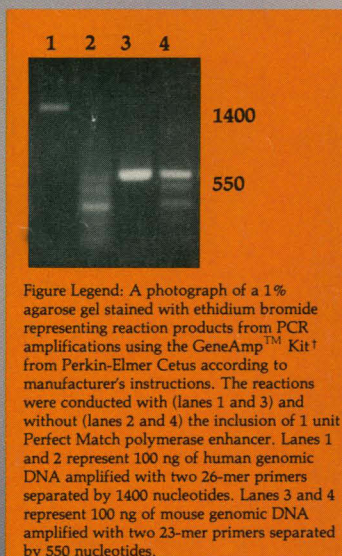


Figure Legend: A photograph of a 1% agarose gel stained with ethidium bromide representing reaction products from PCR amplifications using the GeneAmp™ Kit† from Perkin-Elmer Cetus according to manufacturer's instructions. The reactions were conducted with (lanes 1 and 3) and without (lanes 2 and 4) the inclusion of 1 unit Perfect Match polymerase enhancer. Lanes 1 and 2 represent 100 ng of human genomic DNA amplified with two 26-mer primers separated by 1400 nucleotides. Lanes 3 and 4 represent 100 ng of mouse genomic DNA amplified with two 23-mer primers separated by 550 nucleotides.

*Patents Pending

†GeneAmp is a trademark of Perkin-Elmer Cetus