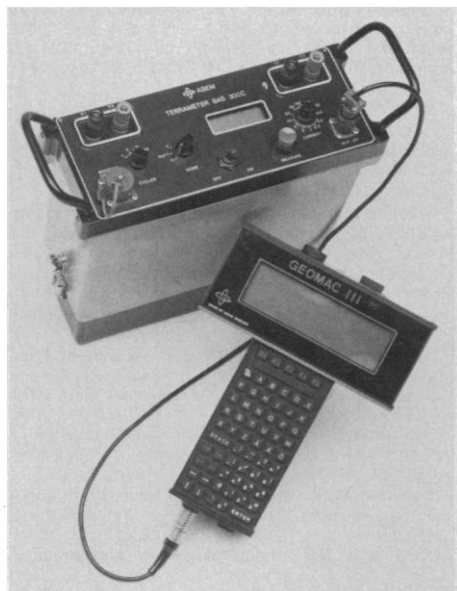


Products & Materials

Computer for Measuring Geological Resistance

The SAS 300 C is a portable instrument that connects to a Geomac III PC hand-held computer for measuring ground conductivity. The instrument measures the ability of earth and rock to conduct electric current,



which in turn indicates which minerals a particular area contains, and whether it is water-bearing. Data can be processed and displayed on the computer screen while measuring continues, thereby saving time in the field. ABEM AB. Circle 506.

Chromatography Storage Cabinets

Four cabinets for the rigid requirements of liquid chromatography are available in one-, two-, and three-door models ranging from 26 to 67 cubic feet. The cabinets hold a preset temperature of 4°C and defrost automatically. All units have duplex receptacles, access portholes for attaching equipment, and adjustable shelves. Durable double-paned glass doors save energy and conserve low operating temperatures. Ure-

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.

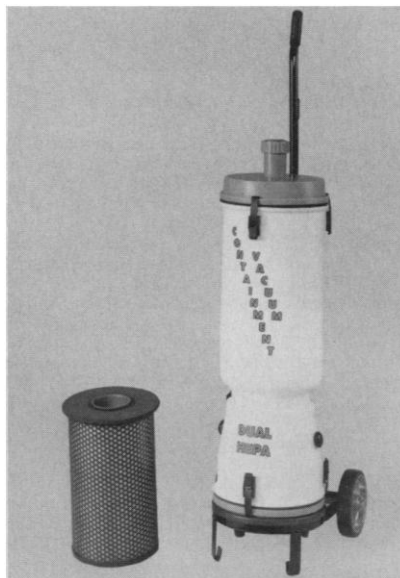
thane insulation binds inner and outer walls into a single unit for greater strength and thinner walls for more working capacity. Kelvinator Scientific. Circle 509.

Thermal Cycler for DNA Sequencing

The MW-1 Programmable Dri-Plate Cycler, when used with the 96-well Microplate "Hi Temp 96," overcomes the problems associated with heating microplates to high temperatures. The microprocessor-controlled temperature cycling block provides rapid heating and cooling between 0° and 99°C with a precision of $\pm 0.1^\circ\text{C}$. An integral keyboard and liquid crystal display enable entry of up to 63 stored programs, each with up to three temperature segments, three different well times, and up to 99 cycles. Techn. Circle 512.

Containment Vacuum Cleaner

This vacuum cleaner collects particulates in a 22-square-foot Containment HEPA (high-efficiency particulate air) Filter or standard paper bag system. To minimize exposure when emptying, users can open the machine with the motor running, creating an airflow away from the operator's breathing zone. A plug is then placed on the filter, sealing it for safe handling or storage. The



Dual HEPA or optional HEPA + ULPA Filter system ensure that only clean air exits from the vacuum. Dedicated filters for each contaminant reduce disposal costs, allow weighing of powders collected, and make precious metal recovery easy. Hazard Technology Co. Circle 513.

Software for Drawing Figures

Science Figure Pack is a software graphics package that includes a comprehensive library of chemical symbols, laboratory equipment, maps, and markers. Chemical symbols include basic building blocks, commonly used compounds, chain polymers, nucleic acid bases, nucleosides, and nucleotides. The building blocks include bonds, arrows, ligands, and ring, crown, and atomic orbital structures. Specialized compounds can be created by the user with these figures. The package is an accessory to the program SlideWrite Plus. Advanced Graphics Software. Circle 492.

Protein Purification System

Genex System 100 is a biocompatible, affinity protein purification system that combines the power of high-performance liquid chromatography and fast-protein liquid chromatography with the ease of open column techniques by offering four different modes of operation. In the automatic mode, collected, purified antibody or antigen can be retrieved within 20 min by answering three simple questions prompted by menu-driven software. The program mode allows creation, storage, and editing of up to nine user-designated protocols. Genex Corp. Circle 496.

Literature

The Molecular Dynamics Computing Densitometer is a six-page brochure that introduces the reader to computing densitometry—the science of digital image analysis applied to electrophoresis gels, autoradiograms, membranes, and cellulose acetate blots—and describes a powerful, laser-based instrument that handles these analyses quickly and easily. Molecular Dynamics. Circle 531.

The *1990 Catalog* contains reagents, amino acid derivatives and relatives, biological buffers, brain research biochemicals, enzyme substrates, enzyme test reagents, fluorescent compounds, immunochemicals, molecular biochemicals, peptides, and more. Research Organics. Circle 533.

Biomeda 90 is catalog of research grade immunochemical and histochemical reagents. Biomeda. Circle 534.

Meaningful Features, Meaningful Results is a full-color brochure describing a line of inductively coupled plasma spectrometer systems. JY Emission Division, Instruments SA. Circle 535.

Personnel Placement

SCIENCE publishes each Friday, except the last Friday of the year, and is mailed on issue date. Personnel advertising is accepted only with the understanding that the advertiser does not discriminate among applicants on the basis of race, sex, religion, age, color, national origin, handicap, or sexual preference. **SCIENCE** reserves the right, in its discretion, to decline to publish advertisements submitted to it.

LINE CLASSIFIED ADVERTISEMENTS

DEADLINE: Thursday, 10 a.m., 2 weeks prior to issue date. Advertising is accepted only in writing.

POLICIES: All classified ads will be edited and typeset according to **SCIENCE** style guidelines. NO ABBREVIATIONS. Any deadline for applications stated in ad must be at least 2 weeks after date of issue in which ad appears.

CLASSIFICATION: **SCIENCE** publishes line classified ads under the following headings: **Positions Open, Employment Agencies, Fellowships, Situations Wanted, Courses and Training, Meetings, Announcements, and Marketplace.** Advertisers should specify classification desired; however, **SCIENCE** reserves the right to decline classification requests which it believes may be misleading to readers.

RATE: \$41 per line, \$410 minimum, per week. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces per line. No charge for use of blind box number. No agency commission for ads less than 40 lines. To ESTIMATE ad cost, structure ad copy on a 52-character line; include any desired heading on 32-character lines. Each line of heading, one line of white space between heading and body of ad, and all partial lines (including centered reply information, if desired) are counted as full lines. Multiply total number of lines x \$41 = approximate cost of ad, per week. (This is an approximate cost ONLY. Allow for variation between estimated lines and actual typeset lines and resulting final cost. Purchase orders must allow for some degree of flexibility and/or adjustment. **SCIENCE** cannot provide proofs of typeset ads.)

PREPAYMENT DISCOUNT: A 3% cash discount is granted to all prepaid line ads. Prepayment in U.S. dollars by checks drawn on U.S. banks is required for all foreign ads.

BOXES AND LOGOS: Any 1-column line classified ad can be boxed and/or published with logo. No extra production charge for use of box or logo. For boxed ads, one line equals 48 characters and spaces; two additional lines will be added to cost of ad to allow for top and bottom rules. Logos are billed according to number of lines needed to accommodate logo.

SITUATIONS WANTED ADS: As a service to AAAS members in good standing, **SCIENCE** offers free placement of Situations Wanted ads for individuals seeking full-time or part-time employment. A blind box may be used. Ads must be submitted in writing with text of 20 words or less, not including address or box number, and are limited to two insertions per member in each calendar year. Please enclose **SCIENCE** mailing label including AAAS membership number when submitting ad.

CANCELLATIONS: Deadline for cancellations is 10 a.m. Tuesday, 10 days prior to issue date.

Address ad copy or requests for information to:

SCIENCE Classified Advertising
1333 H Street, NW, Room 940
Washington, DC 20005
Telephone: 202-326-6555
FAX: 202-682-0816

MARKETPLACE AND DISPLAY PERSONNEL ADVERTISEMENTS

For rates, deadlines, and information about fractional display ads (1/6 page and larger) and all **Marketplace** listings of available products and services, contact:

Scherago Associates, Inc.
1515 Broadway
New York, NY 10036
Telephone: 212-730-1050
FAX: 212-382-3725

RESPONSES TO EMPLOYMENT ADS

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.

To reply to a blind box ad, address correspondence to:

Box (give number)
SCIENCE Classified Advertising
1333 H Street, NW, Room 940
Washington, DC 20005

POSITIONS OPEN

ASSISTANT PROFESSOR. Nontenure-track position is immediately available in the area of cellular/molecular plant physiology, emphasizing growth and development or regulation of crop/grass response to abiotic stress. The positions is 100% research, but opportunities are available to participate in graduate and undergraduate training. Strong research background and postdoctoral experience are required. Rutgers offers competitive salary and generous benefit package. Send curriculum vitae, statement of research interest, and at least three letters of reference before 15 September 1990 to: **Dr. Jaleh Dale, Chairperson, Department of Crop Science, Rutgers University, Cook College, New Brunswick, NJ 08903-0231.** Rutgers is an Equal Opportunity Employer.

ASSISTANT PROFESSOR. Department of Biochemistry and Molecular Biology, The University of South Dakota School of Medicine, is undertaking a major expansion. At least three 12-month, tenure-track positions at the assistant or beginning associate professor level are to be filled during 1990-91. All areas of expertise will be considered, but preference will be given to outstanding individuals with interests in the molecular biology of eukaryotes and protein biochemistry. Successful candidates must be capable of developing a competitive, independent research program and participate in the teaching of medical, graduate, and undergraduate students. Competitive state-supported salary and start-up funds. Rank commensurate with experience. Send curriculum vitae, statement of research plans, and names of three references to: **Dr. Ronald Lindahl, Chair, Department of Biochemistry and Molecular Biology, University of South Dakota School of Medicine, Vermillion, SD 57069.** Consideration of applications will begin 15 August 1990 and continue until suitable candidates are identified. The University of South Dakota is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR, MICROBIOLOGY. The Department of Microbiology and Immunology, University of North Dakota (UND) School of Medicine, invites applications for a tenure-track position at the rank of assistant professor. Candidates should have a Ph.D. and postdoctoral experience. The appointee is expected to develop a competitive research program, participate in the teaching of medical and general microbiology, and develop a course in his/her specialty. Although research involving a molecular approach to microbial pathogenesis, microbial biochemistry/physiology, or environmental microbiology is preferred, other research areas will be considered. Review of applications will begin 1 August 1990. Applicants are to provide a letter of application, curriculum vitae, a statement of research with representative publications, and the names, addresses, and telephone numbers of three references from whom the applicant has requested letters to: **Dr. James J. Kelleher, Chairman, Department of Microbiology and Immunology, School of Medicine, University of North Dakota, Grand Forks, ND 58202.** UND is an Equal Opportunity/Affirmative Action Employer.

INSECT MOLECULAR PATHOLOGIST. A tenure-track 9-month position at the **ASSISTANT PROFESSOR** level in the Department of Entomology at Michigan State University (MSU) will be available in November 1990. Research responsibilities (75%) will entail the development of a vigorous program in any aspect of molecular insect pathology with potentials of developing novel methods in pest control. Teaching (25%) includes participating in a graduate course in molecular entomology and primary responsibilities of developing an advanced graduate course in insect pathology. Qualifications: A Ph.D. in entomology, microbiology, virology, nematology, or related discipline with a strong background in molecular biology. Postdoctoral or similar experience is desirable. The potential candidate should have research experience in the molecular aspects of insect pathology supported by publications in refereed professional journals. Salary depends on qualification. Applicants should forward: (i) letter describing qualifications and career goals, (ii) curriculum vitae, (iii) list of publications (include reprints), (iv) transcripts, and (v) names, addresses, and telephone numbers of three to five references. Send applications to: **Dr. A. S. Raikhel, Search Committee Chairperson, Department of Entomology, Michigan State University, East Lansing, MI 48824-1115.** Telephone: 517-353-7144. FAX: 517-353-5598. Application deadline is 1 September 1990. MSU is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

The Department of Pharmacology and Toxicology invites applications for a tenure-track appointment at the **ASSISTANT PROFESSOR** level. Candidates should have a Ph.D. or M.D. degree, postdoctoral experience, and strong commitment to research. The successful candidate will be expected to participate in teaching in graduate and professional school courses and to develop a vigorous research program capable of attracting extramural funding support. Send curriculum vitae and names of three references to: **William J. Waddell, M.D., Department of Pharmacology and Toxicology, School of Medicine, University of Louisville, Louisville, KY 40292** by 1 August 1990. The University of Louisville is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE

Candidates for assistant professor (tenure track) must hold a Ph.D. or equivalent degree, have at least 2 years of postdoctoral training, and have capabilities in research and teaching. Individuals using molecular methods to study the areas of either protein chemistry (structure/function), endocrinology, or biochemical regulation are especially encouraged to apply. The successful applicant will be expected to develop and maintain an independent, funded research program, and to participate in the training of medical, dental, and graduate students. Interested individuals should submit their curriculum vitae, list of four persons who can provide references, and a statement of research interests to: **Search Committee, Department of Biochemistry, University of Louisville School of Medicine, Health Sciences Center, Louisville, KY 40292.** Applications will be accepted up to 15 September 1990 or until a suitable candidate is identified. The University of Louisville is an Affirmative Action/Equal Opportunity Employer.

The **Seattle Biomedical Research Institute (SBRI)** invites applications for the position of **SENIOR SCIENTIST** (equivalent to an **ASSOCIATE OR FULL PROFESSOR**) from persons working in the area of host-parasite relationships. Junior candidates may be considered for the position of **STAFF SCIENTIST** (equivalent to **ASSISTANT PROFESSOR**). SBRI is a private, nonprofit research institute near the University of Washington that conducts basic biomedical research in a cooperative, scientist-oriented environment. Current programs focus on molecular biology and immunology, with emphasis on parasitic diseases. The successful candidate should have an externally funded, independent research program that employs molecular, biochemical, and/or immunological approaches. Please send curriculum vitae, a brief statement of proposed research, and three letters of reference by 3 August 1990 to: **Search Committee, Seattle Biomedical Research Institute, 4 Nickerson Street, Seattle, WA 98109-1651.** Equal Opportunity Employer.

RADIATION SAFETY OFFICER. The University of Connecticut Health Center seeks a radiation safety officer (RSO) to manage the radiation safety programs under NRC licenses of broad scope (medical/research) and for cobalt-60 teletherapy. The University of Connecticut Health Center includes the Schools of Medicine and Dental Medicine (which house 130 research laboratories), the John Dempsey Hospital, and the Uncas-on-Thames Hospital. Responsibilities extend to research programs housed at the Veterans Administration Medical Center in Newington. Duties include management of the radiation safety office (as **DIRECTOR**); as well as assurance of compliance with state and federal regulations, NRC license conditions, and policies established by the Health Center's Radiation Safety Committee. Minimal requirements for the position include an advanced degree in health physics, radiological health, or related field; 5 years of experience as an RSO or assistant RSO in an NRC, or agreement state, broad license program; and eligibility for ABHP or ABR certification. The position reports to the assistant vice president for research, through the director of research safety. Send curriculum vitae and the names of three references to: **Leonard P. Paplauskas, Assistant Vice President for Research, University of Connecticut Health Center, Farmington, CT 06030.** The University of Connecticut Health Center is an Equal Opportunity/Affirmative Action Employer. Applications from women and minorities are encouraged.

POSITIONS OPEN

ASSISTANT PROFESSOR UNIVERSITY OF WISCONSIN-MADISON

The Department of Dairy Science is searching for a **REPRODUCTION BIOLOGIST**. This is a 70% research, 30% teaching position. It is expected that the incumbent will develop an innovative independent program of research addressing the general area of reproductive biology in cattle using state-of-the-art approaches in either molecular or cellular biology, or physiology, or endocrinology. Collaboration with faculty in interdisciplinary joint research projects and the Endocrinology-Reproductive Physiology Program is desired. Contributions to the department's public service function by interpreting new research and advances and applications in biotechnology are expected. Instructional efforts will include the supervision of research of graduate and undergraduate students and participation in undergraduate and graduate reproduction courses, as well as responsibility for a reproductive management course for farm and industry short course. Applications will be accepted until 15 August 1990 or until position is filled. Send a résumé, transcripts of all university work, a statement of research goals in this position, and three letters of reference to:

**Dr. Robert D. Bremel, Chair
Search and Screen Committee
Department of Dairy Science
850 Animal Science Building
University of Wisconsin-Madison
Madison, WI 53706**

PALEOCLIMATOLOGY/ PALEOCEANOGRAPHY SCRIPPS INSTITUTION OF OCEANOGRAPHY

Applications are invited for a position(s) in paleoclimatology or paleoceanography at the level of **ASSISTANT, ASSOCIATE, OR FULL PROFESSOR** (tenure track or tenured). The successful candidate(s) must hold a Ph.D. in the earth sciences (or related field), and must have a strong commitment to research in fields related to the history of climate and the oceans. The candidate will also be expected to teach and supervise graduate student research. Experience in ocean-related research is desirable but not essential. The level of appointment and salary (based on University of California pay scale) will be commensurate with qualifications and experience. 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 or full professorial level candidates must show evidence of a strong research record. Send 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: **Chair (Paleoclimatology), Graduate Department, A-008, Scripps Institution of Oceanography, University of California, San Diego (UCSD), La Jolla, CA 92093**. Closing date for applications is 15 October 1990.

UCSD is an Equal Opportunity/Affirmative Action Employer.

CHAIR DEPARTMENT OF BIOCHEMISTRY UNIVERSITY OF SOUTH ALABAMA COLLEGE OF MEDICINE MOBILE, ALABAMA

Nominations and applications are requested for the position of **PROFESSOR and CHAIRMAN** of the Department of Biochemistry of the University of South Alabama College of Medicine. The college seeks an individual who possesses and has demonstrated strong leadership abilities. The candidate should have an established and continuing record of major research productivity. The candidate should have a commitment to the further development and strengthening of the research and teaching programs of the department. Applicants and nominations are invited at this time. Applications, including curriculum vitae, bibliography, and the names and addresses of at least three references, should be sent by 15 August 1990 to:

**Herbert H. Winkler, Ph.D.
Chairman, Search Committee
Department of Microbiology, LMB Building
University of South Alabama College of Medicine
Mobile, AL 36688**

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POSITIONS OPEN

PROFESSOR AND CHAIRPERSON DEPARTMENT OF PHARMACOLOGY

The College of Medicine of Howard University invites applications and nominations for the position of chairperson of the Department of Pharmacology. The candidate should possess a Ph.D. degree in pharmacology or the M.D. degree with significant research contributions in pharmacology. Applicants should have a demonstrated record of accomplishment in research, teaching, and administration. The Department of Pharmacology is responsible for educational programs for medical, dental, pharmacy, and graduate students. The department has strong research programs in several specialty areas of basic and clinical pharmacology.

Nominations and applications should be received before September 1990. Applications, consisting of a letter of intent, curriculum vitae, and three references, should be sent to: **Allen R. Rhoads, Ph.D., Chairman of the Search Committee, Department of Biochemistry, College of Medicine, Howard University, 520 W Street, N.W., Washington, DC 20059**. *Howard University is an Equal Opportunity/Affirmative Action Employer.*



BRANCH HEAD BIOSPHERIC SCIENCES BRANCH

The Goddard Space Flight Center, Laboratory for Terrestrial Physics, has a position open for a **BIOLOGICAL OR PHYSICAL SCIENTIST** to serve as head of its Biospheric Sciences Branch.

The branch carries out a broad space research program leading to an understanding of the biospheric and agronomic processes occurring on the surface of the earth and man's influence on these processes, using remotely sensed data. The branch head will also be responsible for pursuing collaborative research with appropriate departments of the University of Maryland. Candidates should possess a Ph.D. or equivalent experience, be actively engaged in advanced research, and have demonstrated capability in leading and developing such research efforts.

Salary (range: \$50,342 to \$76,982 per annum) depends on education and experience. Candidate should submit a résumé or Application for Federal Employment (SF-171) by 6 August 1990 to: **NASA/Goddard Space Flight Center, Employment and Employee Services Branch, Code 115B1A, Greenbelt, MD 20771**. Technical inquiries should be directed to: **Dr. Charles C. Schnetzler at 301-286-7282**.

Equal Opportunity Employer. U.S. citizenship required.

PENNINGTON BIOMEDICAL RESEARCH CENTER CHIEF OF METABOLIC CHAMBERS FACILITY

Applications are invited from investigators with experience in the measurement of human energy expenditure to join an expanding team of basic and clinical scientists investigating the regulation of energy balance and its relationship to the maintenance of health. The successful candidate, an M.D. or Ph.D., will be expected to guide the development of the two new metabolic chambers facilities and the three ventilated hood units as well as develop independent and collaborative research programs using these facilities. A joint appointment is available with an appropriate department in the School of Medicine, School of Veterinary Medicine, or School of Science of the Louisiana State University (LSU) and may be at **FULL, ASSOCIATE, OR ASSISTANT PROFESSORIAL** level, depending on experience. Further details of this position and the Pennington Center and its facilities may be obtained by contacting either the director (**G. A. Bray, 504-765-2513**) or the chief of experimental obesity research program (**D. A. York, 504-765-2548**). Applications, including curriculum vitae and the names of three references, should be submitted by 1 September 1990 to:

**George A. Bray, M.D.
Director
Pennington Biomedical Research Center
6400 Perkins Road
Baton Rouge, LA 70808**

LSU is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

DIRECTOR, RESEARCH AND DEVELOPMENT (R&D), ENGINEERING AND TECHNOLOGY. For U.S. holding company of Finnish corporation. Directs R&D of new products, production methods/services, profitability, and implementation of new manufacturing technology including: manufacturing and application engineering; coal combustion and electrical power generation equipment; electric accessories, components, reinforced thermoplastic composite manufacturing. Coordinates project formulation with plant engineers worldwide/Finland. Researches proposals, locates subcontract and joint venture partners. Must have: Ph.D. degree in engineering physics and 3 years of experience or 3 years as director of engineering/research engineering; experience in engineering management for pulp and paper manufacturing equipment; construction and operation of electric power plants using steam turbines; design of industrial automation systems (Alcont systems); application of artificial intelligence to process control systems; using Infomaster and Dialog computer network Databases; transfer of technology to Europe; develop joint venture opportunities. Must be fluent in Finnish language: utilizes spoken/written 40% of time. Forty hours per week; \$60,000 per year. Job and interview site: San Diego, California. Send ad and résumé to: **Job #JJ16060, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 22 July 1990.

DIRECTOR. Use of Alternatives in Animal Research, Teaching, and Testing Program, University of California, Davis, School of Veterinary Medicine. Applications and nominations are invited for the directorship of the Use of Alternatives in Animal Research, Teaching, and Testing Program centered on the Davis campus of the University of California. The director will hold a joint administrative and academic appointment in a suitable academic department as a faculty member of the university. The director will lead the development and the management of the systemwide University of California Program on the Use of Alternatives in Animal Research, Teaching, and Testing. Applicants should have a background of successful administrative leadership and of achievement in scientific research in an appropriate field; a demonstrated interest and commitment to the goals and objectives of the Animal Alternatives Program; a working knowledge of information systems; an ability to deal effectively with diverse groups, including faculty, students, administrators, government, and the community; an ability and commitment to negotiate and secure funding for programmatic research and development; and a commitment to the Affirmative Action goals of the campus. Applicants should submit curriculum vitae with the names of three references to: **Dean Edward A. Rhode, School of Veterinary Medicine, University of California, Davis, CA 95616**. Deadline for receipt of applications has been extended through 31 August 1990 or until a suitable candidate is identified. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

BIOCHEMIST. Research foundation, Cleveland, Ohio. Research on human parainfluenza virus type 3. Involves in vitro transcription systems, in vitro synthesized RNA characterization, gene cloning, and reconstitution systems. Requires Ph.D. in biochemistry and 2 years of experience; 40 hours per week, 9 a.m. to 5 p.m.; \$30,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **J. Davies, JO #1084559, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216**.

BIOCHEMIST/TOXICOLOGIST, GM-14 ANNOUNCEMENT #N-90-147JWS

NOAA's Ocean Assessments Division invites applicants for a position as project manager and in-house authority in areas of biochemistry and toxicology. Duties include developing and directing projects to identify and quantify the biological effects of marine environmental contaminants, interpreting the significance of contaminants in terms of their biological effects, and presenting program results. Substantial education and experience are required in these areas. Salary range: \$50,342 to \$55,381. *U.S. citizenship is required.* Candidates should send an Application for Federal Employment (SF-171) to: **NOAA/NOS Personnel Management, Room 3257, SSM1, 1335 East-West Highway, Silver Spring, MD 20910**. Attention: **J. Steckman**.

POSITIONS OPEN

LABORATORY CHIEF POSITION. At the Addiction Research Center. A position is available to direct a small laboratory, composed of staff fellows and support staff, within the neuroscience branch. The mission of the laboratory is the utilization of molecular, neurochemical, neuroanatomical, and pharmacologic techniques to explore the mechanism of action of drugs, drug abuse, and dependence. The role of the chief will be to recruit and supervise staff, plan and conduct experimental studies, and to publish results. The position requires an investigator with a Ph.D. or M.D. degree and a substantial track record of achievement. Salary range is \$59,216 to \$76,982 depending on experience and qualifications. *U.S. citizenship is required.* Send curriculum vitae to: Dr. Michael J. Kuhar, NIDA Addiction Research Center, P.O. Box 5180, Baltimore, MD 21224. *The Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) is an Equal Opportunity Employer. ADAMHA is smoke free and drug free.*

COMPUTATIONAL CHEMIST/COMPUTER SCIENTIST. For position of **MANAGER OF MOLECULAR MODELING FACILITY.** Sought by the Institute of Human Genomic Studies of the Mount Sinai School of Medicine. Must have thorough knowledge of graphic systems: SGI 4D/260 server, SGI 4D graphics workstation, and software: Quanta, Sybyl, GCG, MacVector. Systems are networked with Convex C220 and 30-node Appletalk LAN. Opportunity for independent and/or collaborative research in any area of computational chemistry and biology. Must have advanced degree in molecular biology, biophysics, or a related field and should have at least 2 years of experience in computational chemistry, scientific programming, and/or molecular graphics. Good interpersonal and verbal skills are essential. Salary commensurate with experience. Send résumé to: Systems Manager Search, Department of Physiology and Biophysics, The Mount Sinai School of Medicine, Box 1218, One Gustave L. Levy Place, New York, NY 10029-6574. FAX: 212-860-3369. *An Equal Opportunity/Affirmative Action Employer.*

ENVIRONMENTAL DATA ANALYST

Growing consulting firm specializes in study design, data analysis, and methods development in broad range of environmental disciplines. Seek creative, self-motivated individual with real-world experience in statistical analysis and project management. Advanced degree in related field preferred; must have computer skills. Send résumé and references to: EcoAnalysis, Inc., 221 East Matilija Street, Suite A, Ojai, CA 93023.

TECTONICS AND STRUCTURAL GEOLOGY SCRIPPS INSTITUTION OF OCEANOGRAPHY

Applications are invited for one or more tenure-track or tenured **FACULTY POSITIONS.** Applicants must hold the Ph.D. degree at the time of appointment, and will be expected to conduct a vigorous research program in the related fields of tectonics or structural geology. The level of interest in problems involving oceanic crust, and experience in using the tools of marine geology and geophysics, will be considered in the selection process. Areas of interest include but are not restricted to such diverse subjects as kinematic reconstructions, structure and processes of plate boundaries and continental margins, lithospheric deformation, and structural geomorphology of oceanic crust. Teaching and supervision of graduate research will be an integral part of the responsibilities of the successful candidate(s). The level of appointment and salary will be commensurate with the qualifications and experience based on University of California pay scale. 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 or full professorial level candidates must show evidence of a strong research record. Send letter of application including a description of research interests, list of publications, statement of teaching interests and experience, and names of five references to: Chairman, Tectonics Search, Graduate Department, A-008, Scripps Institution of Oceanography, University of California, San Diego (UCSD), La Jolla, CA 92093. Closing date for applications is 1 October 1990. *UCSD is an Equal Opportunity/Affirmative Action Employer.*

More than 150,000 people paid to see your ad in **SCIENCE.** Classified Advertising Department telephone: 202-326-6555. FAX: 202-682-0816.

6 JULY 1990

ENVIRONMENTAL PROFESSIONALS

The New York City Department of Environmental Protection's (DEP) Office of Environmental Policy and Planning has immediate openings for environmental professionals.

ENVIRONMENTAL ECONOMIST

Responsibilities of the position include the coordination of the Office's efforts in environmental economics. This will involve conducting economic cost/benefit analyses of environmental policy and regulatory decisions; assessing the cost-effectiveness of measures to protect water quality and supply, natural resources and the environment; economic forecasting of conditions likely to affect water supply or the environment; working in conjunction with a multi-disciplinary team to evaluate the economic costs of pollution and pollution control measures and communicating results and information on environmental economics to governmental agencies, elected officials, and the public.

ENVIRONMENTAL TOXICOLOGIST / EPIDEMIOLOGIST / MD

Responsibilities will include coordinating the Office's efforts in environmental health areas. This will involve conducting and coordinating exposure assessments; designing, planning, analyzing, interpreting and writing reports on exposure assessments related to complex epidemiological studies of populations exposed to the air, water, land and noise pollution; developing sampling methods for assessing the exposure and risk to humans and natural systems from pollution and developing criteria for setting standards for pollutant discharge and abatement; and communicating results and information on environmental health to governmental agencies, elected officials, and the public.

ENVIRONMENTAL ENGINEER / SCIENTIST

Responsibilities will include coordinating the Office's efforts in environmental science or engineering. This will involve coordinating and assessing the gathering and evaluation of data on air, water, soil and environmental quality; developing, refining and participating in specialized research projects aimed at monitoring, measuring, sampling, evaluating, and abating pollution in the environment; monitoring and assessing the state of technologies that may improve environmental quality; developing grant applications to conduct studies of environmental quality; developing, with a multi-disciplinary team, project evaluation methodologies that incorporate the principles of environmental science; communicating results and information on environmental science to governmental agencies, elected officials, and the public.

GEOGRAPHER / PLANNER

Responsibilities will include coordinating the Office's efforts in environmental planning and geographic analysis. This will involve developing and assessing plans for protecting and improving environmental systems at the neighborhood, local, city, and regional levels; monitoring variables that contribute or detract from environmental quality, including land use patterns, regional development, transportation plans, industrial projects, shifts in natural and built systems and communicating results and information on environmental geography and planning to governmental agencies, elected officials, and the public.

All applicants should possess an M.A./M.S., a Ph.D. or equivalent training and/or experience in a field/discipline relevant to environmental regulation and policy-making and extensive experience in environmental policy, regulation or enforcement.

RESEARCH ASSISTANT (2 Positions)

Responsibilities will include coordinating the Office's efforts in environmental policy, planning and regulation. This will involve developing projects to improve environmental quality; analyzing economic, epidemiologic, scientific, engineering and geographic aspects of environmental problems; collecting databases on environmental quality for use by agency officials and developing grant applications to conduct studies on environmental quality.

All applicants for the above 2 positions should possess a baccalaureate degree from an accredited college and six months of satisfactory full-time experience in research which involves gathering, organizing and analyzing data, and report writing; or a satisfactory equivalent. However, all candidates must possess the equivalent of a high school diploma.

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All interested candidates should submit three (3) copies of their resume and salary history to:

Zoe Ann Campbell
Deputy Director of Personnel
DEP Personnel
346 Broadway, Room 831
New York, N.Y. 10013

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NYC residency required within
90 days of appointment.



POSITIONS OPEN

FACULTY POSITION AVAILABLE IN MOLECULAR GENETICS

The Division of Genetics, Department of Pediatrics, The Pennsylvania State University College of Medicine, invites applications at the rank of **ASSISTANT PROFESSOR** for a new position in molecular genetics. Candidates must have proven abilities in gene cloning, DNA sequencing, and PCR technology. Position requires interaction with clinicians in the development of screening and diagnostic tests. A Ph.D. and postdoctoral experience is required. Submit curriculum vitae, names of three professional references, and representative publications to: **Roger L. Ladda, M.D., Division of Genetics, Department of Pediatrics, The Pennsylvania State University College of Medicine, P.O. Box 850, Hershey, PA 17033.**

The Pennsylvania State University College of Medicine is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

FACULTY POSITIONS DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY THE UNIVERSITY OF CHICAGO

The Department of Biochemistry and Molecular Biology at the University of Chicago wishes to invite applications and nominations for several tenure-track positions to be filled in the 1990-1991 academic year. Candidates should have a doctoral degree, significant postdoctoral research experience, a strong record of research accomplishment, and demonstrable potential for the development of an independent research career in an academic setting. Although we are seeking individuals with research interests in any area of modern biochemistry and molecular biology, we are particularly emphasizing recruitment of individuals with research interests in nucleic acid biochemistry, protein-nucleic acid interactions, membrane and cell biochemistry, and structural biology, including magnetic resonance and molecular dynamics. Applications should include curriculum vitae, a list of publications, a summary of current research activities and future research plans, and the names of at least four individuals from whom letters of reference may be solicited. While we have no formal deadline, we would appreciate receiving applications by 15 September 1990. Please send applications or nominations to:

Marvin W. Makinen
Department of Biochemistry and Molecular Biology
The University of Chicago
Chicago, IL 60637

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

THE AUSTRALIAN NATIONAL UNIVERSITY. Faculty of Science, School of Life Sciences: (i) **LECTURER IN EVOLUTIONARY ECOLOGY (TENURABLE).** Applications are invited for the post of tenured lecturer in evolutionary ecology in the Division of Botany and Zoology of the new School of Life Sciences. The successful applicant will be involved in developing, organizing, and contributing to undergraduate units in ecology and evolution. The appointee will have an excellent research record in evolutionary ecology, and will be expected to supervise honors and graduate students in that general area. Closing date: 10 August 1990. **Reference:** FS 7.6.3. (ii) **LECTURER IN PLANT SYSTEMATICS (TENURABLE).** Applications are invited for the post of tenured lecturer in plant systematics in the Division of Botany and Zoology of the new School of Life Sciences. The successful applicant will be involved in developing, organizing, and contributing to undergraduate units with components of anatomy, taxonomy, and systematics of higher plants. It is expected that the appointee will conduct research in plant systematics, and will supervise honors and graduate students in that general area. The large community of systematists and plant scientists in Canberra offers excellent opportunities for collaborative research. Closing date: 10 August 1990. **Reference:** FS 7.6.2. Salary: A\$33,163 to A\$43,096 per annum. Applications should be submitted in duplicate to: **The Registrar, The Australian National University, G.P.O. Box 4, Canberra ACT 2601, Australia,** quoting reference number and including curriculum vitae, list of publications, and names of at least three referees. The university reserves the right not to make an appointment or to appoint by invitation at any time. Further information is available from the registrar.

The University is an Equal Opportunity Employer.

POSITIONS OPEN

FACULTY POSITION DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY UNIVERSITY OF UTAH

Applications are invited for a tenure-track position in the Department of Pharmacology and Toxicology at the **ASSISTANT PROFESSOR** level. Applicants must have a doctoral degree, significant postdoctoral research experience, and demonstrated ability to be productive in an academic setting; salary will be commensurate with experience. Current areas of strength in the department include neuropharmacology, neurotoxicology, human and biochemical toxicology, drug metabolism, cardiovascular pharmacology, and molecular pharmacology. We are seeking a candidate who either has expertise in one of these fields or can augment the department's areas of expertise. Successful applicants will be expected to develop a strong, independent research program with external funding as well as participate in teaching at both graduate and undergraduate levels. *The department encourages applications from women and minorities for this position.*

Candidates should submit a letter of application, a brief statement of research objectives, curriculum vitae, and at least three letters of recommendation. Please submit responses to: **Dr. Garold S. Yost, Search Committee Chair, Department of Pharmacology and Toxicology, 112 Skaggs Hall, University of Utah, Salt Lake City, UT 84112. Telephone: 801-581-7956.** Applications should be submitted by 1 October 1990, but later applications may be considered if no suitable candidates have been identified by the deadline. *The University of Utah is an Equal Opportunity Employer.*

FACULTY POSITION, MARINE AFFAIRS. The Rosenstiel School of Marine and Atmospheric Science (RSMAS), University of Miami, is seeking to fill a full-time faculty position in the Division of Marine Affairs. The candidate must have a Ph.D. and a record of scholarly/professional accomplishments in marine resource economics. The candidate will have to generate research projects and teach graduate and undergraduate courses. Interested candidates should send curriculum vitae, with a letter outlining career goals, and list of references by 15 August 1990 to: **The Division of Marine Affairs, RSMAS, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149.** *An Equal Opportunity/Affirmative Action Employer.*

ENDOWED CHAIR IN HUMANE ETHICS AND ANIMAL WELFARE AND DIRECTOR, CENTER ON THE INTERACTIONS OF ANIMALS IN SOCIETY

The School of Veterinary Medicine of the University of Pennsylvania seeks nominations of an academic veterinarian, or a scholar who has worked in a veterinary setting, to occupy the Marie A. Moore Chair of Humane Ethics and Animal Welfare, an endowed professorship, and to be director of the Center on the Interactions of Animals in Society. Please send nominations or a letter of application and résumé to: **Leon Weiss, M.D., Search Committee, School of Veterinary Medicine of the University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104-6046.** *Equal Opportunity Employer.*

FACULTY POSITION IN MOLECULAR ASPECTS OF MEMBRANE BIOCHEMISTRY

The Departments of Biochemistry and Surgery at Wayne State University School of Medicine invite applications for a joint tenure-track faculty position at the level of **ASSISTANT PROFESSOR.** Within the last few years, the two departments have undergone major expansion in faculty and facilities with an emphasis in molecular biology and cellular function. To further growth in these areas, the candidate's research interests should encompass modern molecular approaches to basic problems of membrane biochemistry or intracellular pH regulation. A Ph.D. with relevant postdoctoral experience in molecular biology is required. Curriculum vitae, the names of at least three references, and a brief outline of future research interests should be sent by 1 September 1990 to: **Chairman, Search Committee, Department of Biochemistry, Wayne State University, School of Medicine, Gordon H. Scott Hall of Basic Medical Sciences, 540 East Canfield Avenue, Detroit, MI 48201.** *Wayne State University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

FACULTY AND POSTDOCTORAL POSITION MOLECULAR VIROLOGIST

The Department of Virology and Molecular Biology at St. Jude Children's Research Hospital is recruiting a molecular biologist who is interested in epidemiology to understand the origin of pandemic influenza viruses in China and elsewhere. Candidates should have a Ph.D., M.D., or veterinary degree with research accomplishments that reflect a strong background in virology. Training in molecular biology while optimal is not mandatory and could be provided. The institution has strong biostatistics support with CORE facilities in molecular biology and computer facilities.

Candidates should send curriculum vitae including a brief description of their research and names of three references to: **Dr. Robert G. Webster, Department of Virology and Molecular Biology, St. Jude Children's Research Hospital, 332 North Lauderdale, P.O. Box 318, Memphis, TN 38101-0318.**

Equal Opportunity/Affirmative Action Employer.

TENURE-TRACK APPOINTMENT IN ENVIRONMENTAL BIOLOGY

The Environmental Science and Engineering Interdepartmental Program and Department of Environmental Health Sciences, University of California, Los Angeles (UCLA), School of Public Health. Tenure-track faculty member in the general area of environmental biology. Specific research areas could be in ecology, ecotoxicology, conservation biology, impacts of pollutants on plant or animal systems, or related areas. Awareness of and interest in policy-related implications of environmental biology will be important, especially in relation to teaching and student guidance. Candidates should have an earned doctorate and several years of experience. The level of this appointment is open; rank and salary will be commensurate with qualifications. The selected individual will serve as one of four core faculty members in the Environmental Science and Engineering Program, which is entirely at the doctoral level. *UCLA is an Affirmative Action/Equal Opportunity Employer.* Interested applicants should submit résumé, by 1 September 1990 to: **Chair, Search Committee for Environmental Biologist, Environmental Science and Engineering Program, School of Public Health, University of California, Los Angeles, CA 90024.**

GEOPHYSICS

Scripps Institution of Oceanography of the University of California at San Diego (UCSD) invites applications for tenured or tenure-track positions in global seismology, geomagnetism, or theoretical geophysics. The level of appointment(s) will depend upon the qualifications of the candidate and the salary will be based upon the pay scale of the University of California. Candidates for the level of **ASSISTANT PROFESSOR** will be expected to show evidence of their potential through a publication record appropriate for their experience and letters of recommendation; candidates for **ASSOCIATE OR FULL PROFESSOR** must show evidence of a strong research record. Applicants must hold a Ph.D. (or equivalent) degree at the time of appointment. Applications should include the names of five references and curriculum vitae giving teaching and research experience, and should be addressed to: **Chairman, Geophysics Search Committee, A-008, Scripps Institution of Oceanography, UCSD, La Jolla, CA 92093.** Applications received after 1 October 1990 may not be considered. *UCSD is an Equal Opportunity/Affirmative Action Employer.*

MOLECULAR BIOLOGY/IMMUNOLOGY

The Division of Developmental and Clinical Immunology and the Departments of Medicine and Microbiology at the University of Alabama at Birmingham invite applications for a tenure-earning faculty position as an **ASSISTANT PROFESSOR.** We are seeking an individual with a strong background in genomic and cDNA cloning who will develop a strong, independent research program and interact with other division members interested in normal and abnormal development of lymphoid and myeloid cells.

Applicants should submit curriculum vitae, a statement of research plans, and the names of three referees to: **Dr. Max D. Cooper, Director, Division of Developmental and Clinical Immunology, University of Alabama at Birmingham, University Station, WTI 263, Birmingham, AL 35294.**

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CHAIR

Department of Pathobiology
University of Washington

The School of Public Health and Community Medicine at the University of Washington invites applications and nominations for the position of Chair, Department of Pathobiology. This department conducts laboratory research on infectious diseases of public health importance and cancer, with particular emphasis on pathogenesis, determinants of microbial virulence, and approaches to disease prevention. The Department has 14 faculty, offers M.S. and Ph.D. degrees, and has close ties with several important research institutions in the Seattle area. We seek an individual with an outstanding research record, committed to academic excellence, who can provide leadership for the Department's teaching and research programs. Position requires an earned doctorate in an appropriate discipline.

Applicants should send a letter of interest, a current curriculum vitae and the names of four references by September 30, 1990, to Noel S. Weiss, M.D., Dr. P.H., Department of Epidemiology SC-36, University of Washington, Seattle, WA 98195. The University of Washington is an Affirmative Action, Equal Opportunity Employer. Women and minority candidates are encouraged to apply.

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Research Scientist/Cell and Molecular Biology

A position is available immediately for an individual with a Ph.D. in Cell/Molecular Biology plus several **years** of relevant laboratory experience. The successful candidate will bring experience in cytokine biology **and/or** cell adhesion molecules to the study of novel topically applied dermatological agents. In addition, **this position** will support ongoing projects in proliferation and inflammation of the skin.

Assistant/Associate Research Scientist/Cell and Molecular Biology

A position is available immediately for an individual with an M.S. or B.S. and several years of relevant laboratory **experience** to participate in the discovery of novel dermatologic agents. Experience in the techniques of modern **molecular biology** such as the use of restriction enzymes, cloning, and gel electrophoresis as well as bacterial **and** mammalian cell culture is a must. A background in the study of gene expression would be a plus.

These positions offer an opportunity to work on scientifically exciting and state-of-the-art programs in Dermatology. A very attractive and competitive salary and comprehensive benefits package is available. **Submit resume** and salary requirements in confidence to:

Supervisor, Human Resources

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Pfizer Inc is an international leader in the research and development of health care products. The Department of Metabolic Diseases of the Central Research Division is committed to innovative research leading to the discovery of novel therapeutics for the treatment of human metabolic diseases. Our approach to drug discovery encourages individual creativity as an important element in guiding a team effort toward a therapeutic target. This philosophy results in an environment that is challenging to the individual while enhancing group productivity. Scientific growth and development are stimulated by frequent interactions with prominent scientists in academia and medicine as well as with members of the research community within Pfizer.

Currently there is an opening for a research scientist with a PhD in physiology or pathology and at least two years of postdoctoral experience. You must have expertise in animal models of atherosclerosis with additional experience in the areas of lipoprotein metabolism, reverse cholesterol transport and/or cholesterol and bile acid metabolism desirable.

We offer a stimulating research environment and an excellent opportunity for professional recognition and advancement. In addition, we provide a competitive salary/benefits package and an opportunity to live in an attractive Connecticut shore community. Qualified applicants should submit their resume and references in confidence to: Dr. Jerry K. Larson, Assistant Director, Employee Resources, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, CT 06340. An equal opportunity employer.



OPPORTUNITIES IN RESPIRATORY RESEARCH

Procter & Gamble is expanding its efforts in the upper respiratory research area. As a result, we have two immediate entry-level research staff openings for Ph.D. biomedical scientists at our Miami Valley Laboratories in Cincinnati, Ohio. Post-doctoral training is preferred, and we require experience in respiratory or cardiovascular pharmacology or physiology.

Our goal is to develop novel and superior therapeutic interventions to treat upper respiratory symptoms, primarily nasal congestion. To achieve this goal, we expect our scientists to be able to generate new hypotheses and to design and implement appropriate programs to test these hypotheses. Successful applicants will have independent responsibilities but will also work

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Besides offering a stimulating environment for professional and personal growth, we offer a fringe benefit package (medical, dental, profit sharing) that ranks in the top 5% of U.S. corporations.

Candidates must be presently authorized to work in the U.S. on a full-time basis. Resumes, with a list of publications, should be sent to:

**Dr. T. J. Logan, Manager
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CHAIRPERSON

Department of Microbiology and Immunology

The Pennsylvania State University College of Medicine is seeking a chairperson in Microbiology and Immunology to succeed Dr. Fred Rapp who is retiring from the position effective June 30, 1990, after serving as Chairman of the Department for twenty-one years. The Department has a tradition of excellence in research and teaching. The faculty of the Department excels in their individual fields of research and their endeavors are currently well supported by extramural grants and contracts. The Department offers courses covering various aspects of microbiology, immunology, and molecular biology for medical and graduate students. The faculty participates in a departmental graduate program, as well as, three interdepartmental graduate programs and a college of medicine M.D./Ph.D. program. The department offers unique opportunities for growth and development in a rapidly expanding academic medical center. The candidate should be nationally and internationally recognized with an outstanding reputation as an investigator in an area of research relevant to microbiology and immunology. The candidate should also have proven leadership skills and should be experienced in teaching and administration.

The deadline for applications is September 30, 1990.

Applications or nominations should be addressed to:

**Leonard S. Jefferson, Ph.D.
Chairman, Microbiology and
Immunology Search Committee
The Pennsylvania State University
College of Medicine,
P.O. Box 850, Drawer SC
Hershey, PA 17033**

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Encouraged to Apply.*

**NATIONAL CANCER INSTITUTE
NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE**

**CANCER PREVENTION
FELLOWSHIP PROGRAM**

The **Division of Cancer Prevention and Control (DCPC)** is accepting applications for the Cancer Prevention Fellowship Program (CPFP). The purpose of this program is to attract individuals from a multiplicity of health science disciplines into the field of cancer prevention and control. The program provides for: Participation in the DCPC Cancer Prevention and Control Academic Course; Working at NCI directly with individual preceptors on cancer prevention and control projects; Field assignments in cancer prevention and control programs at other institutions. Funding permitting, as many as ten Fellows will be accepted for up to three years of training, beginning July 1, 1991. Benefits include selected relocation and travel expenses, paid federal holidays, and participatory health insurance.

ELIGIBILITY

M.D. or D.D.S. from a U.S., territorial, or Canadian Medical School. Foreign medical graduates must have current ECFMG/IMG certification and appropriate experience, e.g., one year residency in a training program approved by the Accreditation Council for Graduate Medical Education.

OR

Ph.D., Dr. P.H. or other doctoral degree in a related discipline (epidemiology, biostatistics, and the biomedical, nutritional, public health or behavioral sciences). Foreign education must be comparable to that received in accredited U.S., territorial, or Canadian institutions.

PLUS

U.S. citizenship or resident alien eligible for citizenship within four years.

For details and application catalog, send a postcard or letter with your name and home address to:

**Douglas L. Weed,
M.D., M.P.H., Ph.D., Director
Cancer Prevention
Fellowship Program
Division of Cancer
Prevention and Control
National Cancer Institute
Executive Plaza South, T-41
Bethesda, MD 20892**



Further Inquiries: Mrs. Barbara Redding,
(301) 496-8640 or 496-8641.

**Deadline for receipt of Applications:
September 1, 1990**

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**Executive Dean of Agriculture and Natural Resources
Executive Director of the New Jersey
Agricultural Experiment Station
and
Dean of Cook College**

Rutgers, The State University of New Jersey, seeks candidates for the Executive Dean of Agriculture and Natural Resources with responsibilities for George H. Cook College and the New Jersey Agricultural Experiment Station (NJAES).

Cook College is a four-year undergraduate college with 2,800 students in academic programs in agricultural, life, and environmental sciences and policy studies. NJAES includes research and extension programs in agricultural, life, marine, and environmental sciences and embodies the philosophy and mission of a land-grant college. Cook College and NJAES have an annual estimated budget of \$55 million and approximately 400 full-time faculty.

Candidates should be established scholars of national stature in the scientific community with evidence of proven administrative achievement and leadership ability. The executive dean must possess a demonstrated commitment to the land-grant system and to the relationship among society, agriculture, and the environment.

Applications and nominations will be accepted until September 15, 1990, or until a suitable candidate is found. Please address all correspondence to:

Dr. Myron Solberg, Search Committee Chair
c/o Office of the Vice President
for University Administration and Personnel
Rutgers, The State University of New Jersey
New Brunswick, NJ 08903

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**Postdoctoral
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A postdoctoral Visiting Scientist position focusing on basic research in the area of receptor signal transduction is open within the Receptor Biology group of our Central Research and Development Department. This group is presently investigating structure-function relationships of cytokine receptors. The successful candidate will be expected to utilize the recombinant DNA expertise within the group in combination with cell biology techniques to identify novel mechanisms of receptor signalling.

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POSITIONS OPEN

MOLECULAR GENETICIST/MOLECULAR CELL BIOLOGIST. The University of California, San Francisco, School of Medicine, Department of Ophthalmology and Program in Biological Sciences, is seeking a scientist who has a strong commitment to developing a research program relevant to degenerative diseases of the retina. We prefer candidates at **ASSISTANT PROFESSOR** level, but will consider appointment at a more senior level. Send curriculum vitae, summary of research accomplishments and future plans, and names of at least three references by 30 September 1990 to: **David R. Copenhagen, Ph.D., Ophthalmology-Beckman Vision Center, University of California, San Francisco, CA 94143-0730. Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

MOLECULAR FOREST GENETICIST/BIOLOGIST. ASSOCIATE/FULL PROFESSOR of molecular genetics/biology, tenure track. Candidates are expected to establish a research program to supplement multidisciplinary team focused on using molecular tools for improvement of southern pine. The program is expected to use recombinant DNA and gene transfer technology to elucidate and manipulate genes of economic importance. Financial/staff support associated with position. New plant molecular biology facility available 1993. Ph.D. in biochemistry, forestry, genetics, or related field required. Significant research accomplishments and ability to use innovative approaches and techniques in research, secure extramural funding, and work with a team are essential. Salary commensurate with experience. Submit application letter, including statement of current research direction, résumé, and three professional references to: **Dr. Ronald J. Newton, Chair Search Committee, Department of Forest Service, Texas A&M University, College Station, TX 77843-2135.**



Agricultural Research Service
United States Department of Agriculture

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Crop Protection Research Unit, Urbana, Illinois, is seeking an interdisciplinary **SOIL SCIENTIST/MICROBIOLOGIST**, permanent, full-time, GS-12/13. Successful candidate will be expected to investigate the interaction between pesticides and microorganisms in soil profiles and root rhizospheres with the objective of developing cropping and tillage systems that minimize pesticide accumulation in soil and groundwater. Knowledge of soil microbiology and soil chemistry is required. Ph.D. is desirable. U.S. citizenship required. Salary commensurate with experience: GS-12 starting salary is \$35,825; GS-13 starting salary is \$42,601. For further information about the position, contact: **L. M. Wax, 217-333-9653**. For application procedures/forms, contact: **A. C. Hegarty, 301-344-1542**. Applications in response to this ad should be marked **ONO29**, and must be received by 10 August 1990. *ARS is an Equal Opportunity/Affirmative Action 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 position 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.**

POSITIONS OPEN

NMR SPECTROSCOPIST. To operate, maintain, and further develop a 600-MHz NMR Spectrometer Facility, including a Bruker AM 600 NMR spectrometer and data station, a silicon graphics computer with ethernet access to a VAX 8500 Computer. Opportunities for collaborative research with enzymes, proteins, and peptides. Experience in 2D NMR desirable. Interested individuals should contact: **Dr. Albert S. Mildvan, Department of Biological Chemistry, The Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205-2185. Telephone: 301-955-2038. The Johns Hopkins University School of Medicine is an Equal Opportunity/Affirmative Action Employer.**

NUMERICAL ANALYST AND MATHEMATICIAN. To engage in mathematical and engineering research related to development of new types of electronic brain scanners to detect disorders involving higher functions of the human brain. Must have Ph.D. degree in numerical analysis, specifically numerical linear algebra, optimization, and solution of differential equations. At least 1 year of experience in job offered or 1 year of experience in mathematics involving design of finite element model of human brain and skull and design of efficient algorithms for solving inverse problems to reduce scalp potential distribution. Must have working knowledge of Unix operating system and C computer language, electromagnetic theory, neuroanatomy, and neurophysiology. Job site and interview: San Francisco. Salary: \$37,500 per year. Please submit letter of application and résumé to: **Job Order #DB16133, P.O. Box 9560, Sacramento, CA 95823-0560** no later than 21 July 1990.

PENNINGTON BIOMEDICAL RESEARCH CENTER

SENIOR POSTDOCTORAL POSITION. To work with Dr. Dan Hwang. Available 1 August 1990 to study regulation of eicosanoid biosynthesis in cell culture. Doctoral degree in biological science and 1 year of postdoctoral experience required. Experience in protein purification and molecular biological techniques is essential. Refer to: **PC# 8741201020.**

RESEARCH ASSOCIATE. To work with Dr. David York. To develop molecular biological approaches to the study of the genetic and dietary models of obesity. Doctoral degree in molecular biology, biochemistry, or allied science required. Refer to: **PC# 8941264026.**

Send curriculum vitae and three references to:
**Human Resource Management
Pennington Biomedical Research Center
Louisiana State University Medical Center
6400 Perkins Road
Baton Rouge, LA 70808**

POSTDOCTORAL/LECTURER POSITION. Available 1 September 1990 for 2 to 3 years, Ph.D. preferred. Research area open, though some interest and experience in comparative anatomy and evolutionary biology is preferred. The Department of Cell, Molecular, and Structural (CMS) Biology at Northwestern University's Medical and Dental Schools is composed of a large and diverse group of researchers with interests which include modern structural, molecular, cellular, developmental, and evolutionary biology. The successful candidate will serve as coordinator for a course in histology for dental students. Please send curriculum vitae, names of references, and statement of research interests by 1 August 1990 to: **Postdoctoral Search Committee, Department of CMS Biology, Northwestern University, 303 East Chicago Avenue, Chicago, IL 60611.**

Northwestern University is an Equal Opportunity/Affirmative Action Educator and Employer and invites applications from all qualified individuals. Applications from women and minorities are especially sought.

POSTDOCTORAL POSITION

Position available immediately to investigate mechanisms of synaptic plasticity in the mammalian central nervous system. Electrophysiological studies using hippocampal slices and acutely dissociated neurons. Competitive salary and benefits. Send curriculum vitae, statement of research interests, and names of three references to: **Dr. Armin Stelzer, Department of Pharmacology, State University of New York Health Science Center at Brooklyn, 450 Clarkson Avenue, Box 29, Brooklyn, NY 11203. Equal Opportunity/Affirmative Action Employer. DMC#CO336.**

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POSTDOCTORAL POSITIONS

Fellowships are available for post-doctoral study in the Department of Molecular Oncology and Virology. The Roche Institute is located in a suburban setting only 10 miles west of New York City. Research interests in the Department include:


Tom Curran, PhD: Proto-oncogene transcription factors *fos* and *jun*, structural and functional basis of transcriptional control, signal transduction, role of cellular immediate-early genes in the central nervous system.

Donald Nuss, PhD: Cellular and molecular mechanisms in plant-pathogen interactions, identification and characterization of genes responsible for pathogenic effects, signal transduction, RNA-protein interaction, transgenic approaches to virulence.

Craig Rosen, PhD: Human Retroviruses, molecular basis of AIDS and cellular transformation, structural and functional analysis of proteins involved in viral-host interactions, mechanisms involved in gene regulation.

Interested candidates should send a curriculum vitae and a summary of research interests to: **Department of Molecular Oncology and Virology, Roche Institute of Molecular Biology, Nutley, New Jersey 07110.** We are an equal opportunity employer.

Roche Institute of Molecular Biology

 Hoffmann-La Roche Inc

VICE PRESIDENT OF RESEARCH

PROTOS CORPORATION, based in Emeryville, California, is a rapidly growing affiliate of Chiron Corporation, a leading biotechnology company. Our staff of 20 scientists specialize in peptide and organic chemistry, receptor/enzyme biochemistry, and modeling. We are building an innovative, technology-intensive research operation. Our objective is to become a leader in the field of rational drug design.

We are seeking a creative, energetic, and productive senior-level scientist for the position of Vice President of Research. Reporting directly to the Chairman, the Vice President of Research will lead our multi-disciplinary drug discovery program and play a critical role in advancing the scientific and business goals of the company. Specifically, the Vice President of Research will:

- Manage scientific programs and staff, providing technical and strategic direction in all research areas.
- Integrate the work of in-house scientists and outside collaborators in molecular and cell biology, structural and organic chemistry, and pharmacology.
- Develop and maintain business partnerships and organizational/administrative aspects of the company.

The successful candidate must satisfy the following minimum requirements:

1. A Ph.D. and strong background in chemistry and biochemistry. Must have depth of knowledge in peptides, protein structure/function, and drug design. A breadth of understanding in molecular biology and pharmacology is essential.
2. Experience with proven success as a leader of a significant scientific effort in a pharmaceutical company or academic institution.
3. Excellent communication, organization, and management skills.

Protos Corporation offers an attractive compensation and benefits package including equity participation, state-of-the-art facilities and excellent opportunities for professional growth. For consideration, send letter of interest with C.V. and salary history to: **Daniel V. Santi, Chairman, Protos Corporation, 4560 Horton Street, Emeryville, CA 94608.**

U.S. PUBLIC HEALTH SERVICE Alcohol, Drug Abuse and Mental Health Administration National Institute of Mental Health (NIMH)

The Associate Director for Special Populations, NIMH has an immediate opening for an Interdisciplinary Mental Health Researcher to serve as Chief of the Office of Rural Mental Health Research with responsibility for planning, developing, directing, and evaluating the Institute's comprehensive research program, designed to improve the effectiveness of mental health prevention and treatment services provided to populations in rural areas. In addition, the incumbent will develop approaches to increase the level of interest, expand the cadre of researchers, and enhance the quality of research on the populations in rural areas. The ideal candidate should possess a doctoral level degree or equivalent training in a mental health or health related field including psychology, sociology, epidemiology or public health. In addition, applicants should possess experience in research related to the treatment and prevention of mental illness in rural populations as well as related administrative experience in the mental health field as either a project director or senior investigator. The grade of the position is GS-14, with a salary range from \$50,342 to \$65,444 per annum. The position may be filled through the Civil Service or through an appointment in the Commissioned Corps of the U.S. Public Health Service. Benefits include a retirement plan, health and life insurance and paid vacation and sick leave. Relocation expenses may be paid. The position may also be filled through an Intergovernmental Personnel Act (IPA), which is a temporary assignment of personnel between the Federal government and State, local, and Indian Tribal governments, institutions of higher learning, and certain other organizations for work of mutual benefit and concern. The position is located in Rockville, Maryland. Send Application for Federal Employment (SF 171), c.v. & bibliography to: Sara Bensch, NIMH Personnel Office, 5600 Fishers Lane, Room 15C-12, Rockville, Maryland 20857, Telephone (301) 443-9094.

ADAMHA IS AN EQUAL OPPORTUNITY EMPLOYER

SR. ANALYTICAL CHEMIST

WYETH - AYERST, a major division of a Fortune 100 corporation and a leading pharmaceutical company, has an immediate opening for a Ph.D. degreed **Sr. Analytical Chemist** in the Analytical Research and Services Laboratories located in Rouses Point, NY. We are seeking an individual with experience in separation techniques (high performance liquid chromatography and electrophoresis), and **specialization in polysaccharide or mucopolysaccharide chemistry.**

In addition to an excellent starting salary, liberal benefits package and opportunities for professional growth, we offer a choice location in the scenic Adirondack Mountains/Lake Champlain region of New York State. Lake Placid, Burlington, Vt and Montreal are all close by...locations boasting 4-season recreational activities and leading NY and VT universities. To express interest, we invite you to forward your resume with salary requirements to: **Mr. Gary D. Wagoner, Wyeth-Ayerst Laboratories, 64 Maple St., Rouses Point, NY 12979.**

 **WYETH-AYERST
LABORATORIES**

Equal Opportunity Employer M/F/H/V

Assistant Professor- Molecular Immunologist

The Dept. of Microbiology and the Cancer Immunobiology Center of the Univ. of TX Southwestern Medical Center invites applications for an assistant professor position. Candidates should have M.D. or Ph.D., strong background in molecular biology, a record of major research achievement, and 2 years post-doctoral experience. Successful candidate will interface with group to develop new approaches to the biology and therapy of lymphoid tumors. Research will include tumorigenesis, dormancy effector cells, lymphokines, immunotoxins and genetically engineered reagents. Send C.V., cover letter and a letter of reference along with a statement of interests to Ellen S. Vitetta, Ph.D., UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75235-9048. An affirmative action/equal opportunity employer.

MOLECULAR BIOLOGIST

Cytel is a growing biotechnology company pursuing recent breakthroughs in the fields of virology, immunology and vascular biology. The company focus is on the discovery and development of novel regulatory molecules through innovative concepts in rational drug design.

Candidates with expertise in the field of molecular biology are sought to participate in an aggressive research and development program at the staff scientist level. To qualify, an individual must have a Ph.D. in molecular biology, virology, cell biology or equivalent and a working knowledge of gene cloning, use of mammalian expression systems and gene regulation. Experience in viral systems favored.

Cytel offers competitive salaries and excellent benefits. For immediate consideration, please send your resume to:

Cytel Corporation
Dept. BC
11099 N. Torrey Pines Road
La Jolla, CA 92037



POSITIONS OPEN

POSTDOCTORAL POSITION. Available immediately to study the effects of mutations in cellular oncogenes on mammalian embryogenesis and tumor development. Opportunity to use and learn the techniques involved in introducing mutations into mice by homologous recombination in embryonic stem cells. Experience in molecular biology preferred. Send curriculum vitae and names of three references to: **Dr. Janet Sawicki, The Lankenau Medical Research Center, Lancaster Avenue, West of City Line, Philadelphia, PA 19151.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION

Biochemist/molecular biologist wanted to study the relation of sphingolipids to myeloid/macrophage development. The project involves identification of novel sphingolipids and characterization of enzymes involved in their metabolism. Salary: \$30,000. Send curriculum vitae and addresses of two references to: **Dr. Richard Kolesnick, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.**

POSTDOCTORAL POSITION. Available immediately for research on the regulation of the natural DNA transfer between bacteria in aquatic systems. A Ph.D. in microbiology or biochemistry is required with experience in microbial ecology or molecular biology. Send curriculum vitae and three references to: **Dr. Michael A. Gealt, Department of Bioscience and Biotechnology, Drexel University, 32nd and Chestnut Streets, Philadelphia, PA 19104.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION. Immediate opening for research on the establishment and use of quantitative assays to assess the efficacy of inactivation of free, cell-associated, and proviral forms of HIV in cellular blood products and to investigate interactions between HIV and blood cells. Ph.D. with experience in growth and assay of human retroviruses required. Send résumé and three references to: **Roger Dodd, Ph.D., Head, Transmissible Diseases Laboratory, American Red Cross, 15601 Crabbs Branch Way, Rockville, MD 20855.** *Equal Opportunity Employer, M/F/V/H.*

POSTDOCTORAL POSITION. Available now to study myeloid membrane structure/function. Research projects involve granulocyte membrane protein purification and characterization, protein phosphorylation, purification of a novel protein kinase, and characterization of molecules recognized by myeloid-specific monoclonal antibodies. Send curriculum vitae and three names or letters of reference to: **Dr. Keith Skubitz, Department of Medicine, Box 325 UMHC, University of Minnesota Medical School, Minneapolis, MN 55455.** *Equal Opportunity Employer.*

NMR POSTDOCTORAL POSITION. The University of Pittsburgh, Western Psychiatric Institute and Clinic Neurophysics Research Laboratory, is looking for an individual with experience in high-resolution, high-field NMR working with biological materials. Ph.D. in chemistry, physics, or biophysics required. Experience in solid-state and proton NMR. Postdoctoral experience and quality publications required. Candidate must be familiar with the electronics of NMR systems. Send applications and three letters of recommendation to: **Dr. J. W. Pettegrew, Neurophysics Laboratory, University of Pittsburgh, Graduate School of Public Health, 130 DeSoto Street, Pittsburgh, PA 15261.** *University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS

Ph.D. biochemistry/immunology with 0 to 3 years of experience. Experience in protein purification, monoclonal antibody, cell culture, and molecular biology techniques is desirable but not necessary. Two positions are available immediately involving: (i) Structure and function of cell receptors of immune system. Research involves isolation and functional characterization of Fc receptors and identification of new receptors. (ii) Cell biology of antigen processing for activation of class II-restricted T cells. Send curriculum vitae and three references to: (i) **Dr. Periasamy Selvaraj** or (ii) **Dr. Peter E. Jensen, Department of Pathology and Laboratory Medicine, Room 777 WMB, Emory University, Atlanta, GA 30322.** *Emory University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS are available to collaborate on studies examining the mechanisms of oxidant-induced alterations in endothelial cell membrane structure and function. Positions are for 1 or 2 years beginning as early as 1 August 1990, and involve (i) isolating and identifying cell and plasma membrane proteins in oxidant injured cells and (ii) assessing the effect of lipid composition on the activity of cell and plasma membrane phospholipases under normoxic, hypoxic, and hyperoxic conditions. Background in protein biochemistry and techniques and/or enzymology is desired. Send curriculum vitae and names and telephone numbers of three references to: **Dr. Edward R. Block, J. Hillis Miller Health Center, Box J-225, University of Florida, Gainesville, FL 32610.** Telephone: 904-374-6069.

POSTDOCTORAL POSITION

Jointly administered by Department of Environmental Engineering, California Institute of Technology, and Department of Experimental Cardiology, Huntington Medical Research Institutes, Pasadena, California. Purpose: to identify nitric oxide or its various precursor materials in biological systems (from endothelial cells). The findings will be correlated with the biopharmacological effect of these nitrogenous substances using bioassay systems. Experience in chemistry and interest in biomedical problems desirable. Starting date: summer or early fall. Send applications to: **Richard J. Bing, M.D., Huntington Medical Research Institutes, 734 Fairmount Avenue, Pasadena, CA 91105.** Telephone: 818-397-5451.

POSTDOCTORAL POSITION DEPARTMENT OF MEDICINE HARVARD MEDICAL SCHOOL

A postdoctoral position is available for a recent Ph.D. to join a multidisciplinary laboratory studying the control of blood cell differentiation, including the molecular biology and biochemistry of hematopoietic growth factors and their mechanism of action. Experience with molecular biological and/or protein biochemical techniques is required. Send curriculum vitae, statement of research interests, and names of three references to:

Arthur J. Sytkowski, M.D.
Laboratory for Cell and Molecular Biology
New England Deaconess Hospital
Harvard Medical School
185 Pilgrim Road
BURL Building, 5th Floor
Boston, MA 02215

A **POSTDOCTORAL POSITION** in forest soils/hydrology is available immediately to plan and conduct studies in forest ecosystem recovery and restoration research related to the effects of hurricane Hugo. Focus is on stream and groundwater quality and treatments to enhance vegetation recovery. *Applicant must be a U.S. citizen and have a Ph.D. with a strong background in forest soils and hydrology. Familiarity with watershed research techniques, soil and water analytical techniques, and principles of plant ecology are desirable.* Position is located at the U.S. Department of Agriculture Forest Service, Forestry Sciences Laboratory, Charleston, South Carolina; research site is the Santee Experimental Forest near Huger, South Carolina. Initial appointment is not to exceed 2 years but may be extended for an additional 2 years, if necessary. Salary is \$35,825. Please send curriculum vitae and Application for Federal Employment SF-171 to: **Nathan Presley, Personnel Section, Southeastern Forest Experiment Station, P.O. Box 2680, Asheville, NC 28802.** Deadline for applications is 1 August 1990.

DEVELOPMENTAL ENTERIC BIOLOGY POSTDOCTORAL RESEARCH FELLOW

A position is available in the research laboratory of the Division of Pediatric Gastroenterology to carry on studies of intestinal development with a particular focus on the developmental cell and molecular biology of lactase-phlorizin hydrolase. Ph.D.-level training in molecular biology is required. A potential for long-term participation in ongoing research programs may be available to individuals with U.S. citizenship or a green card. Interested individuals should submit curriculum vitae, a letter describing background and experience, and three letters of recommendation forwarded to: **Richard J. Grand, M.D., Division of Pediatric Gastroenterology and Nutrition, Tufts University School of Medicine, New England Medical Center, 750 Washington Street, Box 213, Boston, MA 02111.**

POSITIONS OPEN

POSTDOCTORAL POSITION, physical biochemistry. In laboratory studying mechanisms of assembly, communication, and regulation in multisubunit proteins. Experience with site-directed mutagenesis, protein purification and characterization, analytical chromatography, and computer modeling and graphics desirable. Salary competitive, good fringe benefits. Send curriculum vitae and three references to: **Dr. Norma Allewell, Department of Molecular Biology and Biochemistry, Wesleyan University, Middletown, CT 06457.** *Wesleyan University is an Equal Opportunity/Affirmative Action Employer. We encourage applications from minority candidates and women.*

POSTDOCTORAL FELLOW MONELL CHEMICAL SENSES CENTER

To study human olfaction in health and disease. Fellow will work on basic psychophysics of olfaction as well as with patients complaining of altered chemosensory function. Requirements include a Ph.D. in sensory psychology or related field, an interest in chemosensation, and a desire to pursue issues of clinical relevance. Candidate should send curriculum vitae and a letter of interest that includes names and addresses of at least two references to: **Dr. Beverly Cowart, Monell Chemical Senses Center, 3500 Market Street, Philadelphia, PA 19104.**

POSTDOCTORAL FELLOW POSITIONS. In neuroscience at the Addiction Research Center. Topics of research include: characterization and purification of drug and neurotransmitter receptors, cocaine receptors, neurotransmitters of reward and addiction, and effects of drugs on neurotransmitter systems. Salaries range from \$29,000 to approximately \$49,000 depending on experience and qualifications. Benefits and relocation expenses may be available. Previous postdoctoral experience desirable but not necessary. Send curriculum vitae to: **Dr. Michael J. Kuhar, NIDA Addiction Research Center, P.O. Box 5180, Baltimore, MD 21224.** *The Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) is an Equal Opportunity Employer. ADAMHA is smoke free and drug free.*

JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

Applications are invited for a research **POSTDOCTORAL FELLOWSHIP** in molecular and cell biology of intestinal ion transport. Research deals with cloning of a family of intestinal Na/H exchangers and study of their function in transfected cell lines. Molecular and cell biologic techniques including fluorescent imaging of intracellular Ca^{2+} and pH will be used. Previous experience in molecular and cell biologic techniques is desirable. Candidates should send curriculum vitae and names of two referees to: **Mark Donowitz, M.D., Chief, GI Unit, Departments of Medicine and Physiology, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205.**

POSTDOCTORAL RESEARCH ASSOCIATE.

To study amino acid synthesis and nitrogen assimilation at the gene, mRNA, and enzyme levels in soybean and carrot. Ph.D. required with experience in plant molecular biology or biochemistry. Salary: \$29,891 per year. Start by 1 September 1990. Send SF-171 and curriculum vitae to: **B. F. Matthews, U.S. Department of Agriculture, Agricultural Research Service (ARS), Plant Molecular Biology Laboratory, B-006 BARC-W, Beltsville, MD 20705.** *ARS is an Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH IN MOLECULAR NEUROBIOLOGY. Opportunity at Harvard Medical School in molecular neurobiology laboratory studying mechanisms of protein transport during synaptogenesis with relevance to neurodegenerative diseases and aging. Background in molecular biology, biochemistry, or immunology would be helpful. Please contact: **Dr. S. Bursztajn, Mailman Research Center, 115 Mill Street, Belmont, MA 02178.** Telephone: 617-855-2412.

STAFF ASSOCIATES COLUMBIA UNIVERSITY

Two positions available for peptide chemists in the Core Facility to synthesize peptides on automated equipment and purify same on HPLC. Must have 4 to 5 years of experience in field. Minimum: bachelor's degree. Competitive salary and benefits. Write to: **S. Birken, Columbia University, Department of Medicine, 630 West 168th Street, New York, NY 10032.** *Columbia University is an Affirmative Action/Equal Opportunity Employer.*



The Biogen story starts with our strategic focus on the development of human therapeutics. Advanced genetic engineering techniques and a rational approach to drug design have led to breakthroughs in the AIDS, inflammation and selected cancer markets. Among our latest developments is rsCD4, a potential AIDS therapy in human clinical trials. And our West German affiliate is marketing gamma interferon for the treatment of rheumatoid arthritis. Clearly, Biogen is making the progress necessary to meet its goal of becoming a fully-integrated pharmaceutical company. Now that you've heard the Biogen Bio, isn't it time you sent us your bio?

HPLC Biochemist

We are seeking a Biochemist with a high level of HPLC expertise to help us expand the role of Process Development analytical work to include amino acid analysis and identification of the carbohydrate moieties of glycoproteins. This will involve working with recombinant protein samples from conditioned media and purified materials. Specific responsibilities will include implementing a lab program for periodically validating assays, reagents and equipment; and implementing a sample recording and assay reporting system. Ideal candidate will have a PhD and 0-1 year's industrial experience, or Master's and 6+ years' industrial experience. Must be expert with a wide range of HPLC systems and systems development. Strong supervisory and communication skills are essential.

Biochemical Engineers Fermentation

Due to expansion, we are seeking a Biochemical Engineer to play a key role in process scale up. Interacting closely with Industrial Microbiologists, Molecular Biologists, Protein Chemists and Pilot Plant personnel, you will design and supervise experiments to evaluate the suitability of rDNA derived microorganisms for use in GMP large scale manufacturing in our pilot plant facility. This will include evaluation of the effect of environmental parameters on product formation; optimization of mass and heat transfer, optimization of feed control strategies, carbon/nitrogen source utilization, and kinetics of product formation. The successful candidate will have a PhD or MS in Biochemical Engineering with training in bacterial or yeast fermentation and 2+ years' experience in an industrial setting in the area of fermentation process development, manufacturing technical services, or related work in support of GMP bacterial or yeast manufacturing processes.

Cell Culture

As an addition to our exciting Process Development team, you will supervise several BS/MS level technicians, and play a key role in process scale up. You'll be responsible for cell culture process optimization including: designing and directing experimental work in bioreactors to develop defined cell culture media suitable for large scale manufacturing and designing and directing experimental work to evaluate the performance, stability and productivity of different production clone candidates. In addition, you will be conducting "scaled down" experiments to simulate large scale production systems in order to fully evaluate clone performance. Qualified candidates will have a PhD or MS in Biochemical Engineering, or equivalent with hands on experience using mammalian cells in continuous culture conditions. A working knowledge of process development or GMP manufacturing functions and involvement in technical support services for rDNA and GMP cell culture manufacturing processes are required.

Exposure to scale-up development is a must for Biochemical Engineering candidates. These are highly visible positions, therefore excellent written, verbal, and presentation skills are required.

The outstanding Biogen benefits package includes fully-paid life, medical, dental and disability insurance. A 401k savings plan with a company-matching provision along with company-paid pension. 100 percent tuition reimbursement for as many as 4 courses a year. And 10 weeks' paid maternity leave. Plus a lot of little things that really add up — like our credit union, on-site aerobics and relocation assistance.

To apply for these immediate openings, send your resume to Biogen, Inc., Ref. SMBE702, 14 Cambridge Center, Cambridge, MA 02142. Biogen is an Equal Opportunity Employer.

BIOGEN

Department of Health and Human Services
Public Health Service • National Institutes of Health
National Institute of Diabetes and Digestive
and Kidney Diseases

DIRECTOR Division of Intramural Research

Opening Date: July 5, 1990 Closing Date: August 6, 1990

(All Applications must be postmarked by the closing date.)

The National Institute of Diabetes and Digestive and Kidney Diseases is recruiting for the Scientific Director of the Division of Intramural Research. The Scientific Director directs a program of multidisciplinary laboratory and clinical research for the National Institute of Diabetes and Digestive and Kidney Diseases, NIH. The Scientific Director serves as the principal advisor to the Institute Director on biomedical and scientific affairs involving the intramural research program. The Scientific Director develops and recommends policies for the execution of the intramural research programs, determines their ongoing effectiveness, and recommends or develops new or revised direct research programs dealing with fundamental and clinical research related to diabetes and digestive and kidney diseases. In collaboration with senior officials, participates in the design and implementation of overall Institute management policies including program planning, budget formulation and resource allocation. The Division has a staff of approximately 445 employees and a current annual budget in excess of \$69 million.

This is a Civil Service position in the Senior Executive Service (SES), with a base salary from \$71,200 to \$79,200 per year depending on qualifications. SES members are eligible for various bonuses and awards, and physicians are eligible for payments of up to \$20,000 per year, although total compensation cannot exceed the rate of Executive Level I currently (currently \$107,300 per year). (Alternatively, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.) The SES individual selected, if not presently in the Senior Executive Service, must serve a one-year probationary period.

Further information about the position and qualification requirements may be obtained by contacting Mr. Clifford Moss at (301) 496-4231. An Application for Federal Employment (SF-171) along with a Curriculum Vitae and Bibliography should be submitted to:

Mr. Clifford Moss
Personnel Officer, NIDDK
National Institutes of Health
Building 31, Room 9A30
9000 Rockville Pike
Bethesda, Maryland 20892



Additional Information may be obtained from:

Dr. Irwin Kopin, Chairman; Director, Division of Intramural Research Search Committee; National Institute of Neurological Disorders and Stroke, National Institutes of Health; Building 10, Room 5N214; 9000 Rockville Pike; Bethesda, Maryland 20892; (301) 496-4297.

U.S. Citizenship Required
NIH is an Equal Opportunity Employer

Research Associate DNA Synthesis Facility

ZymoGenetics, Inc., a Seattle-based biotechnology company, has an opening for a Research Associate to manage our DNA Synthesis Facility. A BS/BA or equivalent and two to four years of experience in all aspects of DNA synthesis are required including: synthesizer operation, maintenance and repair; oligonucleotide design, synthesis and purification; computer sequence analysis and database management; supplies purchasing and inventory. The successful candidate will have demonstrated the ability to maintain a rigorous quality control regimen, to interact in a service capacity with a variety of scientists and to develop and expand current capabilities using novel chemistries and new techniques.

ZymoGenetics offers competitive salaries commensurate with experience, outstanding benefits, a strong connection with the University of Washington and an excellent Pacific Northwest location. Please send CV and cover letter to: **ZymoGenetics, Inc., Human Resources, 4225 Roosevelt Way NE, Seattle, WA 98105. (206) 547-8080.**

ZYMOGENETICS

ZymoGenetics, Inc. is a subsidiary of Novo-Nordisk a/s, one of the world's leading biotechnology companies. Novo-Nordisk is a major force in insulin manufacture and diabetes treatment and is the world's largest producer of industrial enzymes. ZymoGenetics is an equal opportunity employer and encourages applications from women and minorities.

DEPARTMENT OF THE ARMY OVERSEAS JOB VACANCY ELECTRONICS ENGINEER

Applications are being accepted for the position of Electronics Engineer at the U.S. Army Research, Development and Standardization Group (United Kingdom) in London, England. This is a Civil Service position at the GS-15 grade level with a salary range of \$59,216-\$76,982 per annum. The initial overseas assignment is 36 months with a possible tour extension of 24 months.

The incumbent plans, directs and coordinates the electronics research program of the Department of the Army in Europe. The research program is accomplished through contracts with educational institutions, research institutes and government and industrial laboratories. The incumbent encourages proposals for research in various fields of electronics including electronic and/or electro-optic materials, devices and integrated circuits; communications engineering; and digital and computer engineering. Makes decisions concerning the relative value of proposed and ongoing research projects. Establishes and maintains contact with the entire professional and scientific community of Europe identified with electronics research.

In addition to the basic requirement of a bachelor's degree in engineering, applicants must have one year of specialized experience in electronics engineering equivalent to the next lower grade in the Federal Service and a background in fundamental research. Applicants should possess (1) Ability to plan, direct and guide a research program in electronic and electro-optic materials, devices, and integrated circuits; communications engineering; or digital and computer engineering; (2) Advanced knowledge of electronics engineering and evidence that technical competence has been maintained; (3) Ability to evaluate research proposals for technical merit; and (4) Ability to interact effectively with other scientists, professional groups and management officials.

Applicants should submit a Standard Form 171, Application for Federal Employment (available at Federal Job Information Centers and Federal Personnel Offices) and a supplemental statement which addresses each qualification listed above to the U.S. Army Research Office, ATTN: SLCIS-CP-AR, P.O. Box 12211, Research Triangle Park, NC 27709-2211. Additional information may be obtained by calling (919) 549-0641, extension 212.

Applications must be received by July 30, 1990.

THE DEPARTMENT OF THE ARMY IS AN EQUAL OPPORTUNITY EMPLOYER

ST JUDE CHILDREN'S RESEARCH HOSPITAL

Post doctoral Research Associate
Department of Hematology Oncology
(Bone Marrow Transplantation)

St Jude Children's Research Hospital is a leading international center for Basic and Clinical Research into catastrophic childhood diseases. An additional 200,000 sq ft Basic Research Facility is being constructed and will be occupied early 1991.

With the expansion of research capabilities, applications are invited from recent PhD or PhD/MD candidates with a background in Cell or Molecular Biology or Immunology to participate in one of two projects;

1) Gene Transduction of Marrow cells to investigate Stem Cell Biology in vivo in Man and to analyze the mechanisms underlying relapse of malignant disease

2) Molecular Recognition Mechanisms used by immune system cells to kill malignant cells, as part of a programme to improve the outcome of Bone Marrow Transplantation.

These projects are being undertaken in close collaboration with the Departments of Biochemistry (Chairman Dr James Ihle PhD) and Immunology (Chairman Dr Peter Doherty PhD FRS) at this research institution.

Interested individuals should send a recent c.v. and the names and addresses of three referees to:

Dr. Malcolm Brenner PhD FRCP
St Jude Children's Research Hospital
Box 318, Memphis TN 38101

An equal opportunity/affirmative action employer

STATE UNIVERSITY OF NEW YORK

Stony Brook BIOCHEMISTRY, CELL, AND MOLECULAR BIOLOGY OF METABOLIC DISEASES

POSTDOCTORAL FELLOWSHIPS FOR Ph.D.'s and M.D.'s

Postdoctoral positions are available within a multidisciplinary, interdepartmental program of the Diabetes & Metabolic Diseases Research Program at Stony Brook, supported by an NIH Institutional Training Grant. Research interests of some of the 23 faculty trainers are:

Paul Adams
William Benjamin
Michael Berelowitz
Joel Brown
Ira Cohen
Paul Fisher
Howard Haspel
Roger Johnson
William Lennarz
Craig Malbon
Richard Miksicek
Simon Pilakis
Joav Prives
James Quigley
Mario Rebecchi
Edward Reich
Sidney Strickland
Linda Tseng
William Van der Kloot
Jeffrey White
Jonathan Whittaker
David Williams
Eckard Wimmer

(Neurobiology)
(Physiology/Biophysics)
(Endocrinology)
(Washington Univ. affiliate)
(Physiology/Biophysics)
(Pharmacology)
(Physiology/Biophysics)
(Physiology/Biophysics)
(Biochemistry)
(Pharmacology)
(Pharmacology)
(Physiology/Biophysics)
(Anatomical Sciences)
(Pathology)
(Physiology/Biophysics)
(Pharmacology)
(Pharmacology)
(Medicine-OB/GYN)
(Physiology/Biophysics)
(Endocrinology)
(Endocrinology)
(Pharmacology)
(Microbiology)

Excitability of Nerve Cells
Mechanisms of Insulin Action
Hypothalamic Peptide Regulation of Growth Hormone
Transduction in Photoreceptors
Patch-clamping in Cardiac Cells
Eukaryotic DNA Replication/Karyoskeletal Structure & Function
Regulation of Hexose Transporter Expression
Intracellular Signaling Mechanisms
Glycoprotein Synthesis and Function
Structure and Biology of G-Proteins and Receptors
Functional Organization of the Estrogen Receptors
Molecular Mechanisms of Hormone Action
Regulation of ACh Receptor Biogenesis and Topogenesis
Cell-Matrix Interactions
Regulation of Phosphoinositide-specific Phospholipase C.
Autocrine Regulation; Parasite Biochemistry
Mammalian Development and Differentiation
Reproductive Molecular Endocrinology
Regulation of Neurotransmitter Packaging and Release
Regulation of Neuropeptide Expression
Insulin Receptor Structure and Function
Molecular Biology of Lipoproteins/mRNA Stability
Proteolysis of Poliovirus & HIV Polyproteins; Poliovirus Receptor

Send letters of reference, c.v., a description of research interests, training faculty of interest, to:

Dr. C. C. Malbon, Director
Diabetes & Metabolic Diseases Research Training Program
Health Sciences Center, State University of New York
Stony Brook, Long Island, New York 11794-8651

Minorities and women candidates are strongly encouraged to apply

POSTDOCTORAL ASSOCIATE POSITIONS THE UNIVERSITY OF IOWA

Please contact the appropriate department to express your specific interest:

ANATOMY - J. D. Coulter, Ph.D., Professor and Head, Bowen Science Building.

ANESTHESIA - John H. Tinker, M.D., Professor and Head.

BIOCHEMISTRY - Alan G. Goodridge, Professor and Head, Bowen Science Building.

DERMATOLOGY - John S. Strauss, M.D., Professor and Head; or Kenzo Sato, M.D., Professor; 2 Boyd Tower, General Hospital. A postdoctoral research associate for the study of electrophysiology of cultured cells.

INTERNAL MEDICINE - Openings available in all disciplines in the Internal Medicine Department, College of Medicine, University of Iowa. Contact Francois M. Abboud, M.D., Professor and Head; or Darris Goerdt, Administrator. Phone 319/356-2850.

MICROBIOLOGY - Dr. Allen J. Markovetz, Professor and Acting Head, Bowen Science Building.

Neurology - Postdoctoral associate positions are available in Cognitive Neuroscience, Neurophysiology, Neurobiology, Cerebrovascular Disease, Epilepsy, Sleep, and Neuromuscular Diseases. Antonio R. Damasio, M.D., Professor and Head, 2151 Roy Carver Pavilion.

OPHTHALMOLOGY/OCULAR PATHOLOGY - Extensive training offered in diagnostic pathology, laboratory management. Experimental ocular pathology is emphasized and participating in research involving molecular pathology and ocular carcinogenesis is expected. Thomas A. Weingeist, M.D., Ph.D., Professor and Head.

PATHOLOGY - Dr. Richard G. Lynch, Professor and Chairman, 144 Medical Laboratories. Research activity in all areas of Pathology.

PEDIATRICS - Dr. Frank H. Morriss, M.D., Professor and Head.

PHARMACOLOGY - Dr. P. Michael Conn, Chairman and Head, Bowen Science Building. Openings available in all areas of pharmacology and toxicology.

PHYSIOLOGY & BIOPHYSICS - Openings available in cellular and molecular endocrinology, neurophysiology and membrane biology. Contact Robert E. Fellows, M.D., Ph.D., Professor and Head, 5-660 Bowen Science Building.

UROLOGY - Dr. Richard D. Williams, Professor and Chairman, Carver Pavilion. A postdoctoral position is available for physicians interested in the study of immune modulation of genitourinary cancer cells *in vitro* and in animal models.

A Ph.D. or equivalent is required. Desirable qualifications are based on Project Investigator's interest for research. Women and minorities are encouraged to apply. The University of Iowa, College of Medicine, Iowa City, Iowa, 52242, is an Equal Opportunity/Affirmative Action Employer.

U.S. Environmental Protection Agency Climate Change Division

The Office of Policy Analysis, responsible for coordinating research, analyses and policy studies in the area of global climate change, has two senior positions. The successful candidates will design and manage national and international programs requiring innovative leadership and vision. Each position will have responsibility for supervising a technical staff composed of experts from many disciplines including engineers, economists, ecologists, and other environmental experts. We have a challenging environment for the following candidates:

STABILIZATION BRANCH CHIEF

Applicants should have knowledge of sources and sinks of greenhouse gas emissions, technologies, management practices, and economic methods for assessing costs of alternative national and international strategies. Individuals should have experience with formulating policy options for the energy, industry, agriculture, and forestry sectors.

ADAPTATION BRANCH CHIEF

Applicants should have knowledge of methods for assessing environmental impacts, models and tools for understanding the economic consequences of climate change, and alternative policy instruments for adapting to climate change including options at the local, state, national and international level. Individuals should have experience with evaluating impacts and policy options related to health, water resources, forests, wetlands, air pollution, infrastructure, energy systems, and other related topics.

SALARY RANGE: 59,000-76,000

Excellent writing skills and oral skills required. U.S. citizenship required. Advanced degree in related discipline and 5 years of experience designing policy and managing programs preferred.

Submit Application for Federal Employment (SF171) accompanied by current resume to:

Climate Change Division (PM221)
U.S. Environmental Protection Agency
401 M Street SW
Washington, DC 20460

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POSITIONS OPEN

POSTDOCTORAL RESEARCH POSITIONS

To study the effect of DNA sequence and gene activity on DNA damage and repair [*J. Biol. Chem.* 264, 14455 (1989); *Biochemistry* 28, 5821 (1989); and *J. Mol. Biol.* 203, 939 (1988)]. Recent graduates with a background in molecular genetics or biochemistry. Send curriculum vitae and names of references to: **Dr. Moon-shong Tang, University of Texas M. D. Anderson Science Park, P.O. Box 389, Smithville, TX 78957. An Equal Opportunity/Affirmative Action Employer. University of Texas M. D. Anderson Science Park is a smoke-free workplace.**

POSTDOCTORAL RESEARCH ASSOCIATE

For 3-year project to electronically record and analyze changes in late Quaternary mammal communities. Data will be derived from scientific literature and museum collections. Disciplines of Quaternary sciences or GIS are preferred and experience in vertebrate paleontology, biogeography, or biology is desired. Knowledge of electronic data processing is essential and experience with GIS and ARC/INFO systems is desired. Send letter of application, résumé, and names of three references by 15 August 1990 to: **R. W. Graham, RCC, Illinois State Museum, 1920 10-1/2 Street South, Springfield, IL 62703.**

POSTDOCTORAL RESEARCH ASSOCIATE DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

A Ph.D. with a background in protein chemistry and an interest in reproductive biology is sought to join a laboratory at the University of Illinois investigating hormonal control of the female reproductive tract during pregnancy. Investigation centers around the identification, isolation, and characterization of hormone-induced proteins.

Salary: Competitive, dependent upon qualifications. Person to contact: **Dr. O. D. Sherwood, Department of Physiology and Biophysics, University of Illinois, 524 Burrill Hall, 407 South Goodwin Avenue, Urbana, IL 61801.**

Closing date: In order to insure full consideration, applications (curriculum vitae and three letters of reference) must be received by 1 August 1990. Starting date: As soon as possible after closing date.

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

FUNDED INVESTIGATORS

The Coriell Institute for Medical Research, an independent basic research institute, has recently moved into a new facility on the campus of the University of Medicine and Dentistry of New Jersey and Cooper Hospital/University Medical Center in Camden, New Jersey. Areas of investigation at Coriell include: molecular genetics, genetic diseases, growth factors and receptors, cancer biology, environmental mutagenesis, cell biology, infectious diseases, including AIDS. Coriell also maintains several key cell culture collections. These include the Human Genetic Mutant Cell Repository for NIGMS, the Aging Cell Repository for NIA, and the Human Biological Data Interchange, a collaboration among Coriell, the Juvenile Diabetes Foundation, and the National Disease Research Interchange.

Coriell has laboratory space for an investigator with a funded program in the above or related areas. Coriell offers excellent laboratory services, a strong seminar program, and clinical collaborations. Faculty appointments are possible. *Coriell is an Affirmative Action/Equal Opportunity Employer.* Address replies to:

**Gerard J. McGarrity, Ph.D.
President**

**Coriell Institute for Medical Research
401 Haddon Avenue
Camden, NJ 08103**

RESEARCH TECHNICIAN. To work in the area of human retroviral molecular biology. Applicants should have a bachelors or masters level degree in biochemistry, microbiology, or a related field and experience working in a research environment. Applications are encouraged from individuals with a good working knowledge of recombinant DNA and tissue culture techniques. Attractive salary and benefits package. Send full curriculum vitae and references to: **Bryan R. Cullen, Howard Hughes Medical Institute, Box 3025, Duke University Medical Center, Durham, NC 27710.**

POSITIONS OPEN

UNIVERSITY OF TENNESSEE, MEMPHIS COLLEGE OF MEDICINE

POSTDOCTORAL RESEARCH ASSOCIATE positions available in five basic science departments: anatomy/neurobiology, biochemistry, microbiology/immunology, pharmacology, and physiology/biophysics. Applicants must hold a doctorate degree. Salary determined by experience and available extramural funds. Please send curriculum vitae and letter to: **James C. New, Associate Dean/Administration, 62 South Dunlap, Memphis, TN 38163.**

The University of Tennessee is an Affirmative Action/Equal Employment Opportunity/Title IX/Section 504 Employer.

JET PROPULSION LABORATORY/NASA VISITING SENIOR SCIENTIST ASTROPHYSICS DIVISION CHIEF SCIENTIST

The Jet Propulsion Laboratory (JPL) invites applications to the visiting senior scientist program in the Astrophysics Division at NASA Headquarters. The position of chief scientist will be open about 1 August 1990, when the present incumbent, Robert Haymes, returns to his home institution, Rice University. Responsibilities include science policy, science strategy and planning, activities which bridge discipline boundaries, liaison with the scientific community, working with international partners, and contributing to the origin of new science projects, among others. The position is filled by a scientist from outside of NASA and reports directly to the director of the Astrophysics Division, Charles Pellerin. This is a unique opportunity for a well-known scientist to have an interesting and rewarding experience and, as the same time, perform an important service to the astronomical community. *Appointees must be U.S. citizens or permanent residents and are expected to return to their home institution following their NASA assignment.* Please provide curriculum vitae, bibliography, and the names of four references to:

**Dr. Harry Ashkenas
Jet Propulsion Laboratory 183-900
4800 Oak Grove Drive
Pasadena, CA 91109
Telephone: 818-354-8251**

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RESEARCH ENGINEER ADVANCED CERAMICS

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RESEARCH ASSOCIATE. University in central Ohio. Research involves cell culture, interleukin-1, tumor necrosis factor assays, enzyme-linked immunosorbent assay (ELISA), SDS-polyacrylamide gel electrophoresis (SDS-PAGE), Western and Northern blot analysis, protein purification by affinity, anion exchange and gel chromatography, restriction enzyme analysis of DNA, enzyme kinetic analysis of IL-1 protease. Prepares publications for peer-reviewed scientific journals, presents research at national scientific meetings. No experience required in job described but applicants will qualify with the following: Ph.D. in clinical biochemistry; 2 years of clinical research experience in biochemistry and immunochemistry using antigen analysis and immunoprecipitations in use of enzyme kinetics for studies evaluating the role of proteases and antiproteases in cellular biology and statistical analysis of experimental results; and at least one scholarly publication in the field. Forty hours per week, 8 a.m. to 5 p.m., Monday to Friday; \$24,840 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumés in duplicate (no calls) to: **S. Holton, JO No. 1219590, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

SCIENCE recruitment ads reach thousands of scientists in all disciplines, worldwide. Classified Advertising telephone: 202-326-6555. FAX: 202-682-0816.

POSITIONS OPEN

NATIONAL SCIENCE FOUNDATION (NSF)

NSF's Division of Cellular Biosciences is seeking qualified applicants for the position of **SENIOR STAFF ASSOCIATE** under the Intergovernmental Personnel Act Appointment. Responsibilities for this senior divisional position include assistance to the division director in the formulation of policy and identification of research emphases, long-range planning, and proposal review and oversight. Additional duties include the coordination of cross-directorate programs in which the division is involved and the direction of at least one cross-directorate program. Applicants for this senior position should have a Ph.D. or equivalent and 6 years of research experience. Additional credit will be given for at least 10 years of research experience in a field related to the cellular biosciences and some administrative experience is required.

Applicants should send résumé to: **National Science Foundation, Personnel Administration Branch, Room 208, 1800 G Street, N.W., Washington, DC 20550, Attention: Catherine Handle.** For further information, contact: **Dr. Bruce L. Uminger, Division Director, Cellular Biosciences, telephone: 202-357-7905.** Hearing-impaired individuals should call: 202-357-7492. *NSF is an Equal Opportunity Employer.*

RESEARCH SCIENTIST. Position open immediately. Required qualifications: Ph.D. or M.D. or equivalent degree. Previous research experience in cellular electrophysiology. Preferred experience in intracellular electrophysiology in vivo and in vitro brain slices. This position will focus on studies of roles of 5-HT receptors in the action of antipsychotic drugs. Nonsalaried faculty appointment available with this department in conjunction with this paid position. Annual salary: up to Department of Energy; \$36,000 plus full benefits. Send résumé and three references immediately to: **Rex Y. Wang, Ph.D., Associate Professor, Department of Psychiatry and Behavioral Science, Putnam Hall (C-Building), Room 141, South Campus, State University of New York (SUNY) Stony Brook, Stony Brook, NY 11794-8790. SUNY Stony Brook is an Affirmative Action/Equal Opportunity Educator and Employer. AK 107.**

RESEARCH SCIENTIST PHYSIOLOGY/TOXICOLOGY

A position is available in the Department of Physiology and Pharmacology for an assistant research scientist. This is a non tenure-track faculty position carrying all the rights and privileges of an assistant professor appointment with the exception of tenure. Applicants should have general interest in toxicology of the endocrine system and ideally the interaction of heavy metals with the pituitary. While the position is intended to be full-time research, teaching opportunities at undergraduate, graduate, and professional levels may be arranged. Salary dependent upon qualifications. Please submit current curriculum vitae, statement of research interests, and names, addresses, and telephone numbers of four references to: **Dr. C. Michael Moriarty, Office of the Vice President for Research, 616 Boyd Graduate Studies Research Center, The University of Georgia, Athens, GA 30602. The University of Georgia is an Equal Opportunity/Affirmative Action Institution.**

RESEARCH SCIENTIST. Will perform basic research investigations in order to analyze factors involved in physical isolation, purification, and characterization of soluble protein molecules and receptor molecules involved in immune response by using in vitro and in vivo assays and by cloning and analysis of cDNA as well as genomic DNA. Ph.D. in biological sciences (biology, microbiology, molecular biology, or medical science) required. Three years of postdoctoral laboratory experience required; laboratory experience must include work in cell isolation techniques and immunological assay methods for protein of human and/or rodent origin, allergy-related diseases of humans and animals, immunogenetical approaches to the polymorphism of IgE immune response in healthy and diseased animals, T-T and B-B hybridoma techniques, purification of protein from culture supernatants for biochemical characterization, and techniques for the cloning of cDNA and genomic DNA. Job and interview site: San Diego, California. Salary: \$3083 per month; 40 hours per week. Send this ad and your résumé or letter of qualifications to: **Job #CR15934, P.O. Box 9560, Sacramento, CA 95823-0560 not later than 23 July 1990.**

CLINICAL ASSOCIATE OR SENIOR STAFF FELLOW

The Laboratory of Clinical Studies, National Institute on Alcohol Abuse and Alcoholism, Public Health Service, invites applications for a position to study the psychobiology and molecular biology of alcoholism and its complications. Unique opportunity to become a member of a multidisciplinary team working in a 10-bed research ward and outpatient clinic at the National Institutes of Health Clinical Center, Bethesda, Maryland. State-of-the-art equipment and experienced technical support available. The salary range is \$40,000 to \$52,000 per annum commensurate with qualifications. Interested candidates must be board certified or eligible psychiatrists or neurologists who are U.S. citizens or permanent residents. Position information and qualification requirements may be obtained by contacting Dr. George. This position is available now. Submit Curriculum Vitae and names of three references to:

Ted George, M.D.
National Institute on Alcohol
Abuse and Alcoholism
Laboratory of Clinical Studies
Building 10, Room 3B-19
9000 Rockville Pike
Bethesda, Maryland 20892
Phone: (301) 496-9705



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DISCOVERY

The Biotechnology Systems Division of our Medical Products Department is currently seeking qualified professionals to develop new products for our Research Products business. Creativity and innovation are the most essential qualifications for these positions. Du Pont places a great value on skilled Ph.D.s. Our impressive resources enable us to offer state-of-the-art research facilities.

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You will use microtiter technology to independently develop immunoassay kits for our cancer and virology product lines. Qualified candidates will have a Ph.D. in Biochemistry, Immunology or Virology and several years of related experience.

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You will independently identify new iodinated products and iodination technologies and coordinate the transfer of this technology to manufacturing and marketing. Qualified candidates will have a Ph.D. in Biochemistry or Medicinal Chemistry and experience with protein modification.

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Interested candidates should send a resume to Leslie Greenfield, The Du Pont Company, 331 Treble Cove Road, N. Billerica, MA 01862. 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

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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.

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POSITIONS OPEN

MOLECULAR NEUROBIOLOGIST, ASSISTANT RESEARCH SCIENTIST. To head molecular biology section of an integrated laboratory at University of California, Los Angeles (UCLA). Research includes opioid receptor regulation, opioid peptide synthesis/release processes, and molecular adaptations during tolerance. Requires Ph.D. plus experience in molecular neurobiology research. Salary: \$39,300 to \$44,300. Send curriculum vitae and three letters of reference to: Dr. Jack D. Barchas, Associate Dean for Neuroscience, UCLA Center for Health Sciences, 10833 Le Conte Avenue, Los Angeles, CA 90024. Equal Opportunity/Affirmative Action Employer.

OPHTHALMOLOGIC RESEARCH SPECIALIST. Los Angeles facility seeks individual to perform nonroutine technical procedures related to tumor biology and mammalian cell culture experiments. Must plan and conduct technical research related to the development and examination of photodynamic therapy for the treatment of solid tumors, utilizing lasers and related equipment. Ph.D. in biological sciences and 1 year of experience required. Job site: Los Angeles. Salary: \$16.46 per hour. Send this ad and your résumé to: Job #CP16122, P.O. Box 9560, Sacramento, CA 95823-0560 not later than 22 July 1990.

SCIENTIST. Research in the area of molecular modeling applied to biological macromolecules (proteins). Requires experience in the development, application, and analysis of free energy techniques in the development, application, and analysis of a broad range of modeling techniques, including quantum mechanics, statistical mechanics, and Brownian dynamics, and an understanding of the theory (first principles) as well as practical programming experience. Must be familiar with VAX/VMS, UNIX workstations, and Cray supercomputer. Must also be familiar with real-time molecular graphics programs. Must have Ph.D. and 2 years of employment in postdoctoral chemistry modeling. Ph.D. in chemical physics and 2 years of experience in postdoctoral chemistry modeling required. Job and interview site: San Diego, California. Salary: \$44,000 per year; 40 hours per week. Send this ad and your résumé to: Job #CC16100, P.O. Box 9570, Sacramento, CA 95823-0570 not later than 23 July 1990.

COURSES AND TRAINING

NEUROSCIENCE TRAINEESHIPS
COLLEGE OF MEDICINE
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PREDOCTORAL AND POSTDOCTORAL TRAINEESHIPS, supported by a recently funded NIH training grant, are available. The program provides in-depth, multidisciplinary training for careers in neuroscience. Seventeen faculty with a proven track record for successful predoctoral and postdoctoral training offer research training in the areas of neurophysiology, axonal tracing, developmental neurobiology, integrative systems neurobiology, molecular biology and biochemistry of neurotransmitters and modulators, and neuroendocrinology. Teaching opportunities also will be offered.

Direct inquiries to: S. T. Kitai, Professor and Chairman, Department of Anatomy and Neurobiology, The University of Tennessee (UT), 875 Monroe Avenue, Memphis, TN 38163.

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ANNOUNCEMENTS



GRANT APPLICATIONS are being accepted by the American Health Assistance Foundation. Grants are available for 2 years, \$100,000 maximum per year, renewable. Deadline date: 31 October 1990. Write to:

American Health Assistance Foundation
Research Grants Manager
15825 Shady Grove Road, Suite 140
Rockville, MD 20850

EMPLOYMENT AGENCIES

ALL NATIONAL OPENINGS DRUG METABOLISM/PHARMACOKINETICS

Several positions available. Senior scientist to managerial level. Ph.D. pharmaceuticals or a related field. Experience with method development HPLC for the analysis of drugs in biofluids, in vitro or in vivo research. Identification and separation of drugs and their metabolites a plus. Clinical or preclinical pharmacokinetics background. Salary: \$45,000 to \$75,000. New graduates are encouraged to apply.

ANALYTICAL CHEMIST

Positions available for Ph.D. analytical chemists. The scope of these positions is:

- Drug stability knowledge of stability testing, degradation studies, and method development.
- Analytical methods experience in regulatory matters for FDA submission.

Expertise in HPLC, GC, GC/LC/MS would be desirable. Laboratory automation experience a plus. Salary: \$45,000 to \$65,000.

Call or send résumé to:

Guy Andrew
Central Clearing, Inc.
10031 West Roosevelt Road
Westchester, IL 60154
Telephone: 708-450-2660

SITUATIONS WANTED

BIOCHEMIST, Ph.D. Protein, enzymes, monoclonal polyclonal antibody, affinity chromatography receptor purification, RIA, ELISA, hemopoietic growth factors. R&D position. Waheed, 4724 Denbigh Court, Allison Park, PA 15101.

COMPUTER SCIENCE, Ph.D. Extensive graphics experience. Seeks computer applications to molecular biology. Special interests: protein structure, gene regulation, sequence analysis. Box 63, SCIENCE.

NEUROETHOLOGIST, Ph.D., University of Chicago, Active research, invertebrate visual perception and history of biology. Extensive teaching experience. Seeking academic position. Box 57, SCIENCE.

PARASITOLOGIST. Postdoctoral experience in protein purification. Seeks further experience in same, or will accept new challenge. Box 66, SCIENCE.

SCHIZOPHRENIA RESEARCHER. Brain electrical activity mapping, complex information processing. Strong neuroscience/cognitive science theoretical commitment. Seeking research/teaching/administrative position. Box 62, SCIENCE.

MEETINGS

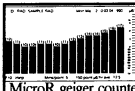
DESKTOP MOLECULAR VISUALIZATION: A WORKSHOP

23 to 25 August 1990; Holiday Inn, Bethesda, Maryland. An exploration of the role of personal computers in molecular modeling by the Molecular Graphics Society of the Americas. Cost-effective solutions will be emphasized by tutorials, interactive demonstrations, vendor displays, a film festival, and a CD-ROM of sample software. Registration: \$100 nonprofit, \$150 others. After 20 July 1990, add \$50. Contact: Dr. W. R. Light, Code 6090, Naval Research Laboratory, Washington, DC 20375-5000. Telephone: 202-767-1154. FAX: 202-767-1295.

WORKSHOP ON MEMBRANE PROTEIN STRUCTURE

A workshop sponsored by NIDDK will be held 13 to 18 October 1990 at Vanderbilt University School of Medicine, Nashville, Tennessee. The format of the workshop will include morning lectures and afternoon laboratory demonstrations, wet laboratories, and workshops. Topics include crystallization, diffraction analysis, EPR, NMR, fluorescence, CD, and predictive methods, all as they relate to membrane proteins. For a program, information concerning application to the workshop, housing arrangements, etc., please write to: Dr. James V. Staros, Department of Biochemistry, Vanderbilt University, School of Medicine, Nashville, TN 37232-0146. FAX: 615-322-4349.

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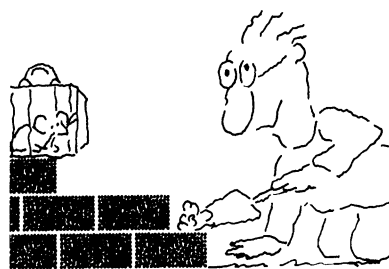
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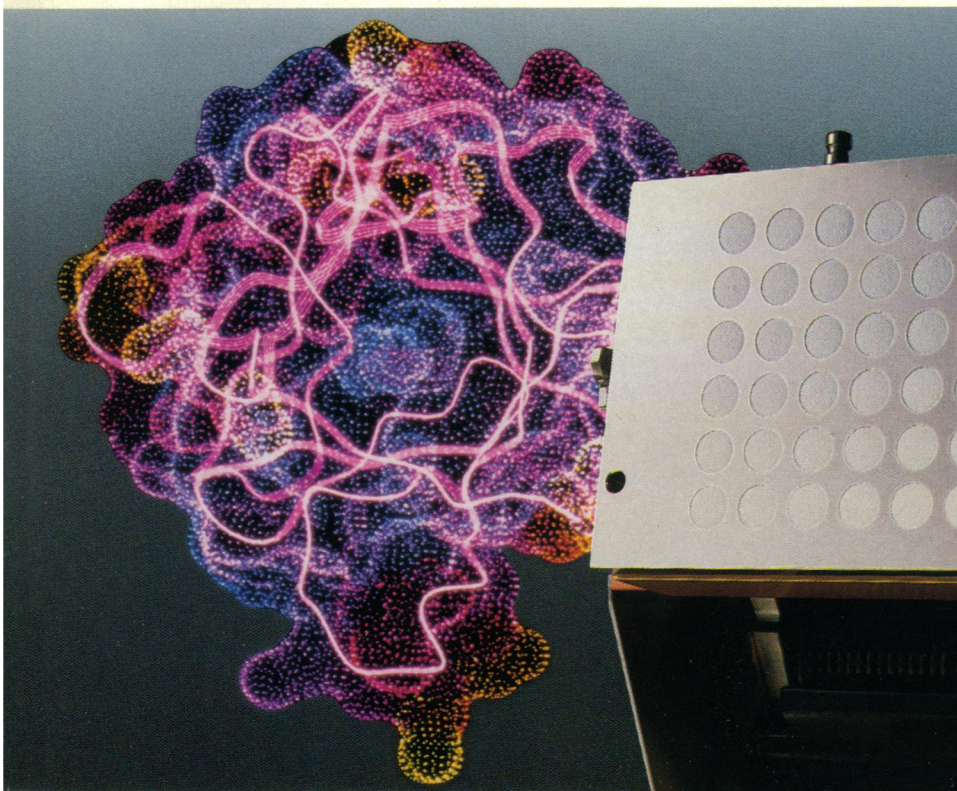
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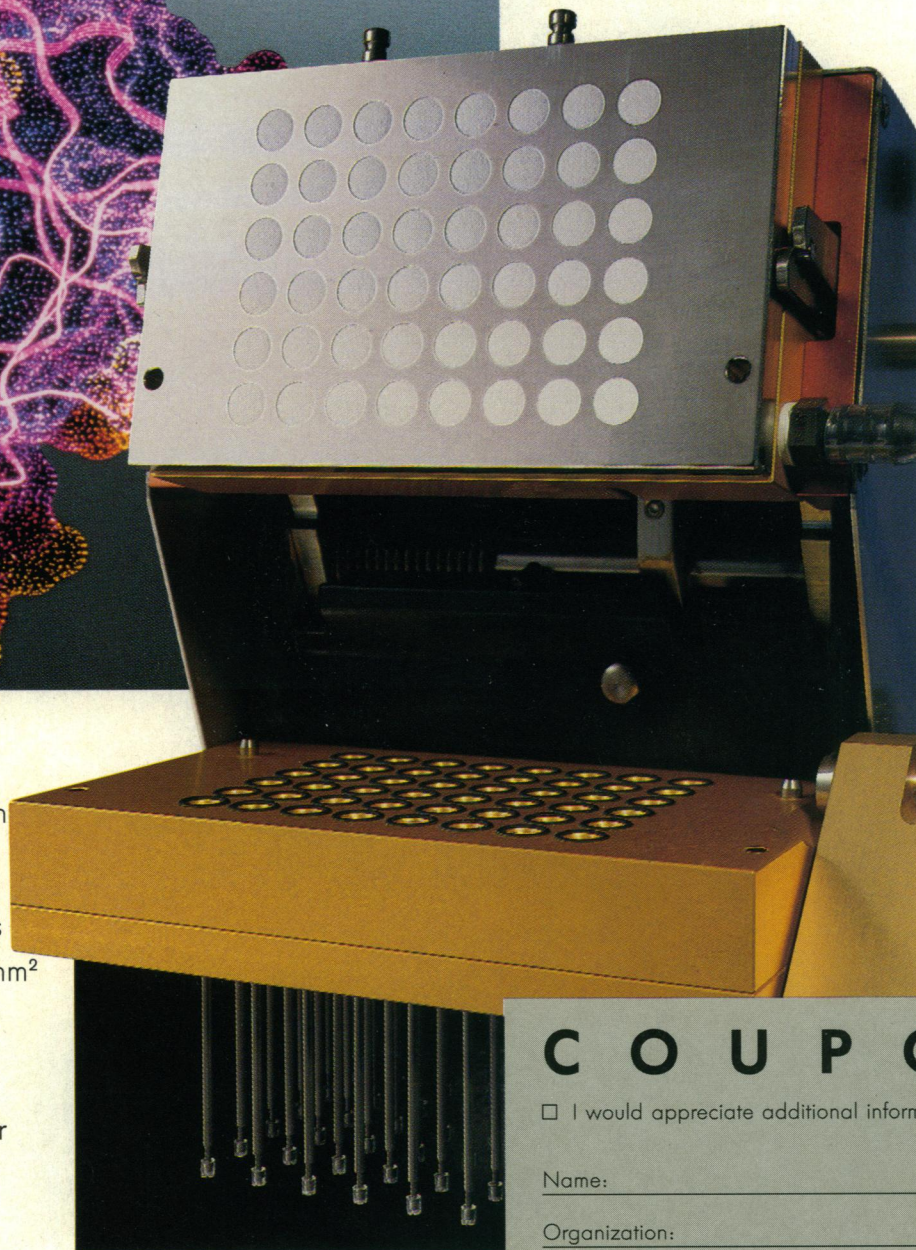
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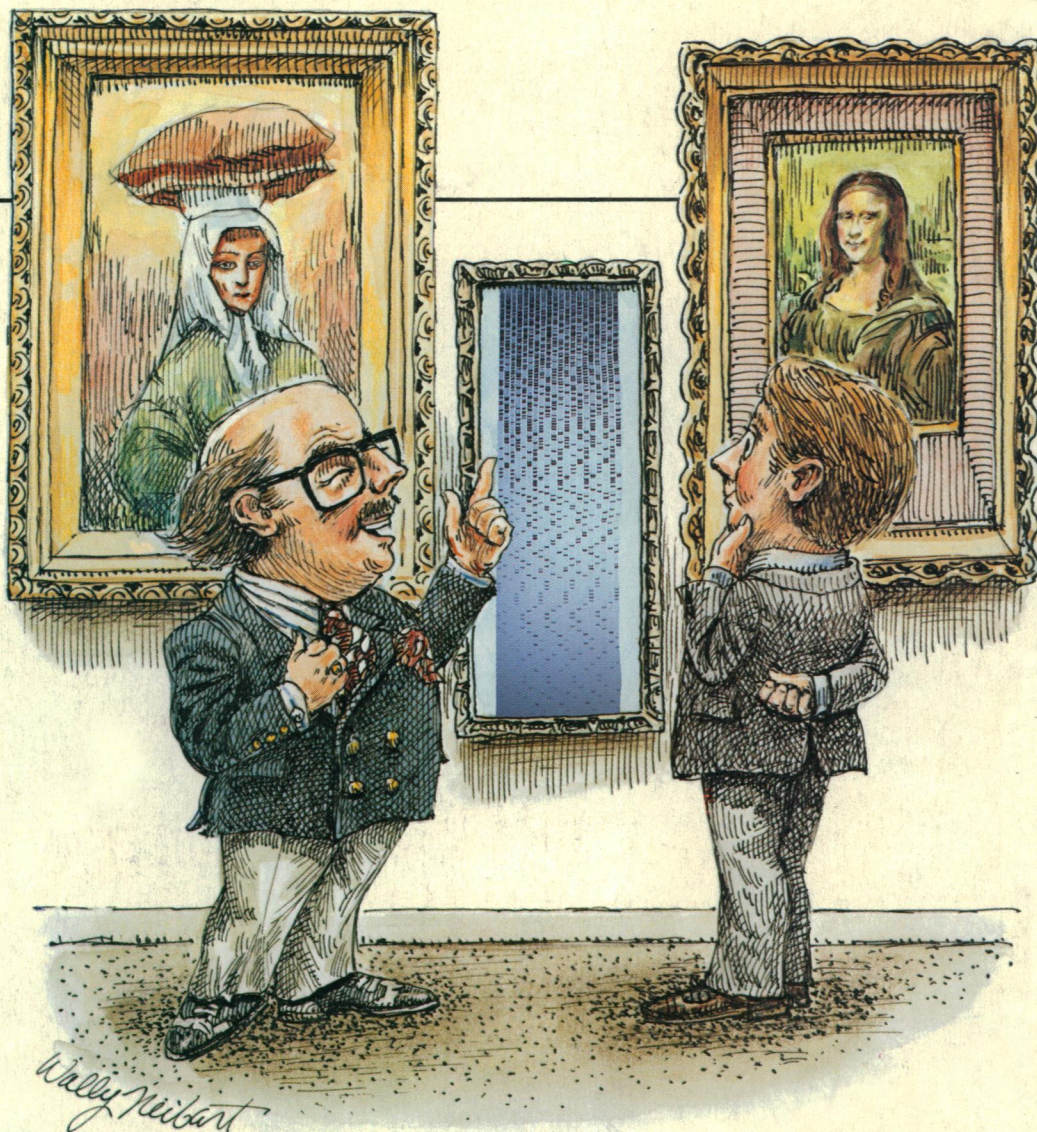
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