

Monoclonal Antibodies

The Diversi-T $\alpha\beta$ Screening Panel 1A is the first collection of monoclonal antibodies to human T cell antigen receptor variable region epitopes. The panel consists of seven monoclonal antibodies for use in investigating the roles of T cells in rheumatoid arthritis, cancer, and viral infections. T Cell Sciences. Circle 510.

Mouse anti-rat natural killer cell monoclonal antibody recognizes and reacts with all rat natural killer cells, large granular lymphocytes, and neutrophils. Rat monoclonal antibody to the mouse f4/80 antigen, a maturation marker for macrophages in bone marrow culture, is also available. Bioproducts for Science. Circle 511.

Kit for Automated DNA Extraction

Applied Biosystems has introduced a DNA extraction kit (part number 401010) for use with its model 340A nucleic acid extractor. The model 340A, introduced in 1986, is an instrument-reagent system that automates DNA and RNA extraction through the interaction of hardware, software, and chemistry. The new kit further simplifies the extraction process by enabling the researcher to purchase with one part number the necessary supplies for up to 150 extractions. The chemistry is based on phenol-chloroform methods. Applied Biosystems. Circle 513.

Right-to-Know Bottles and Labels

Nalgene Right-to-Know Safety Wash Bottles and PolyPaper Labels incorporate Department of Transportation, National Fire and Safety Protection Association, and Occupational Safety and Health Administration Hazard Code Communication Regulation codes and symbols in an easily recognizable format. The bottles feature the name

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.

of the solvent or distilled water, the International Chemical Society chemical formula, and Chemical Abstract System number. They are available for acetone, ethanol, methanol, isopropanol, and distilled water. The waterproof, chemical-resistant labels adhere well to plastic, glass, or metal. They are available in three systems: the Custom Labeling System allows the user to create labels to suit a particular lab's requirements; a Chemical-Specific Label Set contains printed labels with information on 25 common laboratory chemicals; and Individual Chemical-Specific Labels are multiple labels with the same chemical name. Nalgene. Circle 515.

Ultralow-Temperature Freezers

Power Plus is a new line of ultralow-temperature freezers with 50% more horsepower than competitive models. Available in capacities of 13 or 17.3 cubic feet, units feature oversized compressors with reserve capacity. The freezers maintain temperatures down to -85°C . A microprocessor monitoring system displays actual chamber temperature and allows the user to program low and high alarm limits, among many other features. Forma Scientific. Circle 436.

Tiny Microcentrifuge

The MC 200 NanoFuge is a microcentrifuge that fits in the palm of your hand. It is only 12 cm in diameter, yet it holds up to six 2.0- or 1.5-ml microcentrifuge tubes. With an adapter, it will hold microcentrifuge



tubes as small as 0.50, 0.40, and 0.25 ml. The NanoFuge is ideal for applications requiring spinning at low g forces. It reaches a maximum speed of 5000 rpm. Hoefer Scientific Instruments. Circle 517.

CO₂ for Supercritical Fluid Extraction

SFE Grade Carbon Dioxide for supercritical fluid extraction contains nonvolatile organic impurities in each cylinder certified to less than 10 ppb. The gas is available in space-saving disposable cylinders and in various sizes of returnable aluminum cylinders. The product is recommended for supercritical fluid extraction and flame ionization detection applications. Scott Specialty Gases. Circle 575.

HPLC Pump for Critical Conditions

The LC-600 is a high-performance liquid chromatography (HPLC) pump with a 10- μl stroke dual-piston design for improved performance under exacting conditions. It is suited for single-pump applications ranging from isocratic to gradient. The built-in microprocessor provides direct control of quaternary low-pressure mixing to high-pressure mixing. Shimadzu Scientific Instruments. Circle 433.

Highest Resolution Analytical Balances

The expanded AT Series of analytical balances contains the highest resolution, four- and five-place analytical balances available as standard products. The AT400 balance has a capacity of 405 g and a readability of 0.1 mg. The AT 201 is 205 g by 0.01 mg and has a resolution of 1:20,000,000. The other new models are the AT261 (205 g by 0.1 mg), the AT460 (405 g by 1 mg), and the AT20 (20 g by 0.002 mg). All the balances are self-calibrating. Mettler Instrument. Circle 438.

Literature

The *EM Science Catalog* contains information on hundreds of products for the analytical, environmental, and life sciences laboratory, including reagents, solvents, instruments, standards, buffers, pH test strips, dispensers, and a separate chromatography section. EM Science. Circle 541.

Analytical Instruments is a 28-page brochure that features Bruker Instruments' full line, including instruments for high-resolution, high-power, and in vivo nuclear magnetic resonance, data processing, flow cytometry, mass spectrometry, and high-performance liquid chromatography. Bruker Instruments. Circle 542.

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. No cash discount. Prepayment required for all foreign ads. Purchase orders required for all other advertising.

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.)

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 box 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 other 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, nondiscrimination 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

ANATOMY DEPARTMENT seeks **ASSISTANT/ASSOCIATE PROFESSOR** expert in cell, molecular, and developmental biology. The successful applicant should have an independent program and cooperate with colleagues within and outside the department. Send curriculum vitae to: **Dr. Dale E. Bockman, Department of Anatomy, Medical College of Georgia, Augusta, GA 30912-2000. An Equal Opportunity/Affirmative Action Institution.**

ANATOMY AND PHYSIOLOGY LABORATORY INSTRUCTOR

One full-time laboratory instructor with responsibilities for laboratory instruction in the above areas. Requirements: Master's/Ph.D. and demonstrated teaching ability. Send detailed curriculum vitae, transcripts, and three letters of recommendation by 21 March 1990 to: **Sister John Karen Frei, Associate Vice President, Academic Health Science Center, Barry University, Miami Shores, FL 33161.**

ASSISTANT PHYSICIST. Ph.D. in physics. Three years of experience as a researcher in high-energy physics. Education, training, and experience should include a record of accomplishment in elementary particle physics, including a detailed knowledge of construction, operation, and maintenance of high-energy physics experiments; data analysis, reconstruction software, particle and event recognition software (including FORTRAN 77, the CERN Library, and one of the following simulation programs: GEANT, EGS, GHEISHA), software production and maintenance, analysis software development, and detector (particularly calorimeter) simulation. A minimum of 3 years of experience in programming required. All of the above should be evidenced by three to six publications in refereed scientific journals.

Responsible for developing computer simulation techniques for showers and other aspects of high-energy physics events in detectors for elementary particle physics. In particular, responsible for software development aimed at optimizing detectors to be used at the Superconducting Super Collider (SSC) particle physics facility.

The programming work will be done in the FORTRAN 77 language and possible machine languages on computers including DEC VAXes under the VMS operating system, IBM 3033, both under MVS and VM; CRAY X-MP under UNICOS; and possibly more. The software packages to be used include the CERN software Library, GEANT, EGS, and GHEISHA simulation programs, and general packages including the IMSL and NAG software libraries.

Areas of study in high-energy physics include particle detection techniques, particularly calorimetry, proton-proton collisions, Monte Carlo, and other computational techniques. Salary: \$3200 per month; 40 hours per week, 8:30 a.m. to 5:00 p.m. Send résumé to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605, Attention: Leon Donegan. Reference #V-IL-9943-D. An employer-paid ad.**

ROOSEVELT UNIVERSITY TENURE-TRACK ASSISTANT PROFESSOR OF BIOLOGY

This position entails offering some combination of the following courses: genetics, development, ecology, evolution, and biostatistics. Applicants should have a strong interest in undergraduate and M.S. level teaching and research. Send curriculum vitae, a summary of teaching/research abilities, and three letters of recommendation by 15 March 1990 to: **Dr. J. Green, Department of Biology, Roosevelt University, 430 South Michigan Avenue, Chicago, IL 60605. Affirmative Action/Equal Opportunity Employer.**

ASSISTANT PROFESSOR. The Biology Department of the University of Nebraska at Omaha invites applications for a tenure-track faculty position in virology/biotechnology to begin the fall semester of 1990. Duties of the position include teaching at the graduate and undergraduate level (especially virology and molecular biology), directing master's students, coordinating a biotechnology internship program with the University of Nebraska Medical Center, and developing a research program. *We especially encourage applications from women and minorities.* Interested applicants should submit a letter of application, current curriculum vitae, a brief description of research plans, and three letters of recommendation to: **Dr. Robert S. Egan, Department of Biology, University of Nebraska at Omaha, Omaha, NE 68182-0040.** Review of applicants will begin 15 March 1990 and continue until the position is filled.

POSITIONS OPEN

ASSISTANT PROFESSOR. The Department of Biology, Illinois Benedictine College (IBC), has a tenure-track position for fall of 1990; position pending budgetary approval. Ph.D. required. Deadline: 15 April 1990. Duties include teaching cell biology, introductory biology (team taught), and molecular biology/biotechnology as well as directing some undergraduate research. Send curriculum vitae and three letters of recommendation to: **Dr. Al Martin, Chairman, Search Committee, Illinois Benedictine College, 5706 College Road, Lisle, IL 60532. IBC is an Affirmative Action/Equal Opportunity Employer.**

The Department of Biochemistry, Duke University Medical Center, invites applications for the position of **ASSISTANT PROFESSOR** (tenure track). The person will be expected to establish a strong independent research program and to teach both medical and graduate students. The field of interest is open. Send résumé, summary of research interest, and three letters of reference to: **Dr. Robert L. Hill, Duke University Medical Center, Durham, NC 27710. Duke University is an Equal Opportunity/Affirmative Action Employer.** The closing date for receipt of applications is 15 April 1990.

Florida A&M University, Department of Biology, invites applications for two positions at the **ASSISTANT PROFESSOR** level, effective academic year of 1990. We seek bright teacher-scholars for developing research programs in (i) molecular biology biotechnology and (ii) comparative animal physiology.

Applicants should submit an official application, résumé, a statement of research interests and plans, official transcripts, and three letters of recommendation before 15 March 1990. For application form, write to: **Dr. C. B. Subrahmanyam, Department of Biology, Florida A&M University, Tallahassee, FL 32307. Telephone: 904-599-3907. Equal Opportunity Employer.**

ASSISTANT PROFESSOR DIVISION OF PERIODONTOLOGY UNIVERSITY OF CALIFORNIA, SAN FRANCISCO (UCSF)

The University of California, San Francisco, School of Dentistry seeks applicants for a full-time, tenure-track position in the Division of Periodontology at the assistant or associate professor level. Applicants must have a dental degree (D.D.S., D.M.D., or equivalent) and a certificate of advanced training in periodontology. A Ph.D. in either oral biology, microbiology, or immunology is desirable, but not required. Responsibilities include teaching oral biology and periodontology at the undergraduate and graduate levels (30%) and research (50 to 70%). Intramural practice (20%) opportunities are available. Salary commensurate with experience. Filing deadline is 15 March 1990. Send curriculum vitae to: **Dr. Gary C. Armitage, Chair, Division of Periodontology, Box 0650, University of California, San Francisco, School of Dentistry, San Francisco, CA 94143-0650. UCSF is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.**

ASSISTANT PROFESSOR OF MICROBIOLOGY AND IMMUNOLOGY UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE AT CHICAGO

The Department of Microbiology and Immunology invites applications at the level of **ASSISTANT PROFESSOR**, tenure track, from individuals with demonstrated excellence in molecular or cellular immunology, broadly defined. More senior applicants will also be considered. The successful candidate will be expected to develop a strong externally funded research program and to participate in graduate and medical student training. Generous space and start-up funds are available. Applications should provide the search committee with curriculum vitae, at least three letters of recommendation, and a brief statement of future research interests and plans. The first series of candidates will be considered after 15 February 1990, and applications will be accepted until the position is filled. Starting dates can be September of 1990 or shortly thereafter.

Send application to: **A. L. Kenter and E. P. Cohen, Immunology Search Committee, Department of Microbiology and Immunology (M/C 790), University of Illinois College of Medicine at Chicago, P.O. Box 6998, Chicago, IL 60680.**

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

POSITIONS OPEN

ASSISTANT PROFESSOR IN LABORATORY VIROLOGY

The Departments of Laboratory Medicine and Medicine in the University of Washington School of Medicine are recruiting an M.D. as an assistant professor. Candidates should be prepared to direct an established HIV isolation and serology laboratory and work with a large group of university investigators interested in molecular, epidemiologic, and clinical aspects of HIV infection. Requirements include a strong research training background and expertise and interest in research. In addition, responsibilities will include teaching residents, postdoctoral fellows, and medical, graduate, and undergraduate students as well as developing an academic research program. Please submit curriculum vitae to: **Dr. Lawrence Corey, D-536 Childrens Hospital and Medical Center, ZC-10, Seattle, WA 98105.** The University of Washington is an Affirmative Action/Equal Opportunity Employer.

THE UNIVERSITY OF MICHIGAN

The Department of Surgery, Section of Thoracic Surgery, is recruiting for an **ASSISTANT PROFESSOR**, tenure-track position for cardiac cell biologist, biochemist, or molecular biologist with research interests in myocardial preservation, and/or transplantation. Position is in the Thoracic Surgery Research Laboratory of the Department of Surgery at the University of Michigan. New expanded facilities are available. Individual is expected to have relevant publications in peer-reviewed journals, demonstrated ability to obtain extramural funding, and willingness to collaborate with both clinical and basic science colleague. Send curriculum vitae and three letters of reference to:

Kim P. Gallagher, Ph.D.
Chairman, Search Committee
Thoracic Surgery Research Laboratory
The University of Michigan Hospitals
560 MSRB112, Box 0686
Ann Arbor, MI 48109

A nondiscriminatory, Affirmative Action Employer.

TENURE TRACK ASSISTANT PROFESSORS IN BIOCHEMISTRY

The Section of Biochemistry in the Department of Animal Biology at the University of Pennsylvania invites applications for two tenure-track faculty positions. The candidates should have Ph.D., M.D., or veterinary degree, as well as significant postdoctoral experience, and a strong record of research accomplishment. Areas of research interest include, but not restricted to: (i) regulation of transcription, (ii) gene organization and chromosome structure, (iii) cell receptors and signal transduction, (iv) protein targeting and membrane traffic, (v) mechanism of action of growth factors, and (vi) embryonic development. Send curriculum vitae, including a brief description of research and names of three references, to: **Dr. Narayan G. Avadhani, Chairman of Search Committee, The Section of Biochemistry, School of Veterinary Medicine, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104-6046.** The University of Pennsylvania is an Equal Opportunity Employer.

ASSOCIATE OR FULL PROFESSOR DEPARTMENT OF GEOGRAPHY

Applications are invited for the position of associate or full professor in the Department of Geography, College of Natural Resources, Utah State University. Potential candidates for this tenure-track, academic year position should have a Ph.D. in geography or closely related field and an established record of scholarship in remote sensing and GIS with applications in natural resources. The successful candidate will be expected to help develop a multidisciplinary institute (center) for remote sensing and GIS, assist in the development of graduate and research programs in geography, and teach remote sensing/GIS. He/she should have demonstrated effectiveness in administration, extension experience related to land management agencies, and a willingness to engage in international cooperative efforts. Interested individuals are requested to send curriculum vitae and names of four referees to: **Cliff Craig, Chair of the Search Committee, Department of Geography, Utah State University, Logan, Utah 84322-5240.** Application deadline is 1 April 1990 or until a suitable candidate is found. Utah State University is an Affirmative Action/Equal Opportunity and IRCA Employer.

POSITIONS OPEN

Search continued. Applications are invited for a tenure-track **ASSISTANT PROFESSOR** position to begin August of 1990. Experience in recombinant DNA technology required, Ph.D. preferred. The successful applicant will teach recombinant DNA technology, molecular biology, microbiology or immunology, and introductory biology and will develop a research program that actively involves undergraduate and master's level students. Curriculum vitae and three letters of recommendation should be submitted by 21 March 1990 to: **Dr. Richard Beil, Search Committee Chair, Biology Department, Chicago State University (CSU), 95th Street at King Drive, Chicago, IL 60628.** CSU is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

ASSISTANT PROFESSOR DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS

The Department of Physiology and Biophysics in the School of Medicine and College of Science and Mathematics, Wright State University, seeks an assistant professor (tenure-track, 12-month appointment). Applicants should have a Ph.D. in physiology/biophysics or related field and/or M.D., or equivalent with a minimum of 2 years of postdoctoral experience, and a primary research interest and experience in epithelial physiology, preferably in the renal field, with a strong commitment to continue a first-rate research program in a department with a major research focus in cellular physiology and biophysics. Primary team-teaching responsibilities are in physiology and biophysics in the School of Medicine and/or in the biomedical sciences Ph.D. program. Compensation commensurate with professional experience and AAMC regional standards. Applicants should submit curriculum vitae, a statement of research interest, and names and addresses of three references to: **Dr. Peter K. Lauf, Professor and Chair, Wright State University, Department of Physiology and Biophysics, P.O. Box 927, Dayton, OH 45401-0927.** Applications will be considered after 1 April 1990. Wright State University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

ASSOCIATE PROFESSOR AND ASSISTANT PROFESSOR OF BIOCHEMISTRY UNIVERSITY OF NEW MEXICO

M.D. or Ph.D. with research interests in human biochemistry or molecular biology especially relating to disease or parasitology; tenure track. Submit curriculum vitae; five or fewer representative publications; evidence of teaching experience; names, addresses, and telephone numbers of three persons from whom we can solicit references. Candidates for the assistant professorship should have a minimum of 2 years of postdoctoral training and include a one-page statement of research plans. Candidates for the associate professorship should provide comprehensive research plans and evidence of on-going, vigorous, and productive research, including current funding. Equal Opportunity/Affirmative Action Employer. Women and minority groups encouraged to apply. Application deadline: 1 April 1990. Positions are available 1 July 1990 and should be filled by September.

Also available: **POSTDOCTORAL FELLOWSHIP** to investigate molecular biology and biochemistry of glycosidases and phosphatases involved in genetic or human parasitic disease. M.D. or Ph.D. with 2 years of postdoctoral training; \$19,000 plus F.B. Submit two publications, curriculum vitae, and references.

Robert H. Glew, Chairperson
Department of Biochemistry
University of New Mexico School of Medicine
Albuquerque, NM 87131
Telephone: 505-277-3333

RESEARCH ASSISTANT PROFESSOR POSITION. Available immediately. Position (i): Ph.D. synthetic organic chemist to develop new radiopharmaceuticals for nuclear medicine imaging. Strong background in organic synthesis desirable. Position (ii): Ph.D. pharmacologist to join an interdisciplinary team in developing neuro receptor-specific radiopharmaceuticals for nuclear medicine imaging. Strong background in neuropharmacology desirable. Salary commensurate with experience. To apply, send résumé to: **Dr. Hank F. Kung, Department of Radiology, 110 Donner, University of Pennsylvania, Philadelphia, PA 19104.** An Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR

The Department of Environmental Health invites applications for an assistant professor, tenure-track position. The department is seeking a basic scientist (Ph.D.) with expertise in molecular biology, molecular evolution, and mouse genetics. Applicants should have predoctoral and postdoctoral experience identifying transcriptional and posttranscriptional regulatory elements. Applicants should have the ability to conduct independent research on characterization of the expression of genes coding for drug-metabolizing enzymes and have the ability to direct graduate students and postdoctoral fellows, assist in the teaching of a molecular toxicology course, and develop and implement a molecular biology and a computer network core facility. Send curriculum vitae; names, addresses, and telephone numbers of five references; and a statement of research interests by 2 March 1990 to: **Chairperson, Environmental Health Search Committee, Department of Environmental Health, ML 56, University of Cincinnati, Cincinnati, OH 45267-0056.** Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR DEPARTMENT OF PERIODONTICS SCHOOL OF DENTISTRY THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO

The Department of Periodontics invites applications from individuals with a Ph.D., Ph.D./D.M.D./D.D.S. to engage in basic research in areas applicable to host-parasite interactions. The successful applicant will be one who uses molecular or cell biologic techniques to study problems of pathogenesis in either prokaryotic or eukaryotic systems. The individual will join an active research and clinical faculty engaged in addressing problems related to bacterial virulence, host-parasite interactions, the immunology of periodontal disease, and animal models of bacterial infections. Applications will be accepted until 2 April 1990. For application, please send curriculum vitae, present and future research interests, and the names and telephone numbers of three references to: **Dr. S. C. Holt, Department of Periodontics, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-7894.** The University of Texas Health Science Center at San Antonio is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSISTANT/ASSOCIATE PROFESSOR. To participate in studies on macrophage signal transduction mechanisms and hepatic intercellular communication in sepsis. At least 3 years of experience with quantitation of eicosanoids and knowledge of other lipid mediators required. Cell culture experience desirable. Well-funded, well-functioning laboratory. Position available immediately. Contact: **Dr. J. A. Spitzer, Professor, Department of Physiology, Louisiana State University Medical Center (LSUMC), 1901 Perdido Street, New Orleans, LA 70112.** LSUMC is an Equal Employment Opportunity/Affirmative Action Compliance Employer.

CARDIOVASCULAR BIOLOGY

Rorer Central Research, a division of Rorer, Inc., a worldwide ethical pharmaceutical company, has an immediate opening available. Due to continued growth in our Cardiovascular Biology Department, Rorer Central Research is currently seeking a **RESEARCH SCIENTIST** interested in innovative research and drug discovery in the areas of hypertension, atherosclerosis, or thrombosis.

The successful candidate must possess a Ph.D. in biochemical pharmacology with 2 years of postdoctoral experience. The incumbent will supply expertise in enzymology receptor biochemistry and protein purification for programs in hypertension and atherosclerosis.

Demonstration of scientific achievement and good communication skills are required. Collaboration with a multidisciplinary group and presentation of experiments is encouraged (**Position #89R-101**). Rorer offers competitive salaries, company-paid benefits, and excellent potential for professional recognition and advancement. Please submit résumé to:

Department 89R-101
Rorer Central Research
640 Allendale Road
King of Prussia, PA 19406
Equal Opportunity Employer, M/F.



DEAN

School of Public Health University of Minnesota

The University of Minnesota invites nominations and applications for the position of Dean, School of Public Health. The school, established in 1944, has developed strong public health academic programs and is organized into the divisions of Biostatistics, Environmental & Occupational Health, Epidemiology Health Services Administration, Health Services Research & Policy, and Human Development & Nutrition. The School of Public Health offers M.P.H. and M.H.A. degree programs; M.S. and Ph.D. programs are offered through the Graduate School.

The Dean is a member of the faculty and the chief executive officer of the School with responsibility for leadership in planning and development, personnel administration, resource improvement and management, and in representing the School.

An earned academic or professional doctorate or extensive experience in public health and a minimum of 10 years experience are preferred. Candidates should have substantial administrative experience, a distinguished record of public health teaching, scholarly activity and documented commitment to service. Faculty rank, tenure, and salary commensurate with qualifications and background. Closing date for applications is April 30, 1990.

Nominations and applications with curriculum vitae should be sent to:

Robert M. Dickler, Chair
Search Committee-Dean School of Public Health
Box 604 UMHC
Harvard Street at East River Road
Minneapolis, Minnesota 55455

The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities.

ASSOCIATE EDITOR

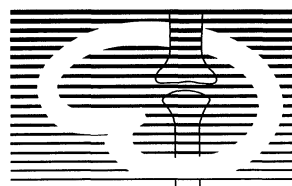
We're looking for a PhD biochemist/molecular biologist with a broad range of interests and research experience in one or more of the following areas: signal transduction, intracellular molecular trafficking, or structural biophysics. Requirements include at least two or three years of post-doctoral experience and publications in the refereed literature.

Science editors have varied responsibilities in manuscript selection ranging from editing for clarity to soliciting papers. Previous editorial experience is not required. This is a full-time position in our Washington offices.

Please send resume and list of publications with cover letter and salary requirements to:

Mr. Gregory Stokes
AAAS
1333 H Street, NW
Washington, DC 20005

EOE



Bristol-Myers Squibb Company Central Nervous System Research

Bristol-Myers Squibb is a worldwide leader in the research, development and marketing of sophisticated pharmaceutical, medical care, consumer, and nutrition products. Our success is derived from a commitment to scientific research, and our future will be molded by individuals who strive for scientific excellence and innovation.

Currently, the Central Nervous System group, located in Wallingford, CT, has positions available for behavioral and receptor pharmacologists. We are seeking individuals who are highly motivated to contribute to the discovery of new psychotherapeutic agents through novel strategies.

BEHAVIORAL PHARMACOLOGISTS

Senior Research Scientist

To lead the Behavioral Pharmacology group. Requires Ph.D. with well-developed leadership skills and 4-10 years postdoctoral experience. The successful candidate will employ behavioral models as part of a diverse effort for elucidating neuropharmacologic mechanisms underlying substance abuse, anxiety and depression. Primate experience is desirable.

Associate Research Scientist

Requires MS with 1-3 years relevant behavioral experience. Familiarity with operant conditioning techniques is desirable. Experience with primates would be a significant asset.

Assistant Research Scientist

BS required with 0-2 years behavioral experience desirable.

RECEPTOR PHARMACOLOGISTS

Assistant/Associate Scientist

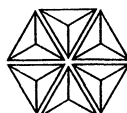
Two positions are currently available. Both require a BS/MS degree. Candidates should have one or both of the following:

- 0-3 years experience with receptor binding techniques desirable.
- Experience with receptor characterization in isolated smooth muscle preparations is desirable.

We offer excellent research facilities in superbly equipped laboratories in a modern research complex; an interactive, fertile and interdisciplinary scientific environment; a commitment towards novel CNS drug development; an excellent salary and comprehensive benefits package.

To apply, send resume and salary history to: **BRISTOL-MYERS SQUIBB COMPANY, Pharmaceutical Research & Development Division, Dept. SS2/SC/90, P.O. Box 5100, 5 Research Parkway, Wallingford, CT 06492-7661.**

An equal opportunity employer, M/F/H/V.



**Bristol-Myers
Squibb Company**

Explore with us.

POSITIONS OPEN

BIOLOGY CHAIR. To begin August of 1990. Seeking highly qualified individual with demonstrated administrative skills, strong research record, commitment to academic excellence, and ability to facilitate interaction among biologists with diverse interests. Candidate should be eligible for tenured **PROFESSOR** rank. The department offers B.S. and M.S. degrees and has 13 faculty members. Application deadline is 8 March 1990. Screening of applications will begin 10 March 1990. Submit curriculum vitae and names of five references to: **Chair, Biology Search Committee, Arts and Sciences Dean's Office, The University of West Florida (UWF), Pensacola, FL 32514.** UWF is an Equal Opportunity/Affirmative Action Employer.

BIOLOGIST

Tenure-track **ASSISTANT PROFESSOR** position beginning August of 1990 for a human anatomist/physiologist with primary responsibilities in courses for biology and occupational therapy majors. Additional duties include contribution to the department's general education offerings and advising of majors. SEM/TEM experience preferred. Ph.D. required. Résumés will continue to be received until the position is filled. However, because the search committee will begin the screening of candidates on 15 March 1990, such submissions are especially encouraged prior to that date. Send curriculum vitae and three letters of reference to: **Director of Personnel, St. Ambrose University, 518 West Locust Street, Davenport, IA 52803.**

Women and minorities are encouraged to apply and identify themselves. Affirmative Action/Equal Opportunity Employer.

BOTANIST—URGENT. Applications are invited for a **RESEARCH FELLOW** position in the National Museum of Natural Science. Salary: \$24,000. Ph.D., some knowledge of plants in Taiwan or neighboring areas required; field, level of plants open. Duties also include curatorial activities. Send curriculum vitae and list of publications to: **Dr. Y. Hwang, Division of Research and Collection, National Museum of Natural Science, Taichung, Taiwan, Republic of China.** Telephone: 4-3226940, ext. 325.

CELL BIOLOGY. The Biology Department at Pacific Lutheran University (PLU) invites applications for a 1-year sabbatical replacement position at the **ASSISTANT PROFESSOR** level. A strong background in plant biology is required. Teaching responsibilities include cell biology at the freshman level, botany for nonmajors, and upper division courses in cell physiology and plant physiology. The position requires the Ph.D., or near completion. The successful candidate must have a commitment to undergraduate teaching; research is encouraged. The position will be available 1 September 1990. Pacific Lutheran University, located in the Puget Sound region of western Washington, is a liberal arts institution with 4000 students. The Biology Department is housed in a new science center and includes 12 full-time faculty members. Applicants should send curriculum vitae, transcripts, statements of teaching and research interests, and three letters of recommendation to: **Dr. John T. Carlson, Chairman, Department of Biology, Pacific Lutheran University, Tacoma, WA 98447.** Closing date: 19 March 1990. PLU is an Affirmative Action/Equal Opportunity Employer. Applications from minority and women candidates are especially encouraged.

CELL/MOLECULAR PHYSIOLOGISTS

Applications are invited for tenure-track positions, preferably at the level of **ASSISTANT/ASSOCIATE PROFESSOR**, in the Department of Physiology of the Ohio State University College of Medicine. Individuals with a promising or established investigative program using a cellular/molecular approach to excitability, contractility, or membrane transport are encouraged to apply. Candidates should have a Ph.D., M.D., or equivalent degree and a minimum of 2 years of postdoctoral experience. The department has 21 full-time faculty with varied research interests including multidisciplinary interaction in neurosciences, digestive disease, and muscle physiology. Applications accepted until 15 April 1990 or until suitable candidates are selected. Send curriculum vitae, a brief description of research interests, the names of four referees, and a record of grant funding to: **Patrick E. Ward, Ph.D., Chairperson, Search Committee, Department of Physiology, 4196 Graves Hall, 333 West 10th Avenue, Columbus, OH 43210.** The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

CELL BIOLOGY/CELLULAR BIOPHYSICS WASHINGTON UNIVERSITY SCHOOL OF MEDICINE ST. LOUIS, MISSOURI

The Department of Cell Biology and Physiology, Washington University School of Medicine, St. Louis, Missouri, is expanding its commitment to research in the following areas: (i) intercellular signaling through receptors, second messengers, and ion channels; (ii) transport of ions and solutes across cell membranes; (iii) assembly, function, and movement of intracellular organelles; (iv) cell motility and contractility; and (v) cell-cell and cell-matrix interactions. Individuals who employ novel biophysical and biochemical methodologies are especially encouraged to apply. Tenure-track positions are available for successful candidates at any level who will be expected to develop an independent research program and to participate in the training of medical and graduate students.

Please submit curriculum vitae and the names of three references to: **Dr. Philip Stahl, Department of Cell Biology and Physiology, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, MO 63110.** An Affirmative Action/Equal Opportunity Employer.

THE SCOTT ENDOWED CHAIR DEVELOPMENTAL BIOLOGY

ASSOCIATE PROFESSOR, tenure-track position beginning August of 1990; scholar with broad background in developmental biology who has a commitment to undergraduate teaching and research in a liberal arts context, consistent with the example of Sister Florence Marie Scott, former professor at Seton Hill College, in whose honor this chair is established. Must have a Ph.D. in developmental biology or related field. Teaching duties: three courses per year with laboratory (developmental biology, other courses for science majors, possibly a course for nonmajors relating liberal arts issues to biology). Research must be appropriate to undergraduate environment and attract outside funding. Seton Hill College is a Catholic liberal arts college for women, 35 miles east of Pittsburgh. Send curriculum vitae, transcripts, three letters of recommendation, and statement of teaching and research goals and research equipment needs, by 9 March 1990, to: **Sister Ann Infanger, Ph.D., Department of Biology, Seton Hill College, Greensburg, PA 15601.** An Equal Opportunity/Affirmative Action Institution.

VIROLOGY/IMMUNOLOGY CHAIR. Applications and nominations are being sought for the position of chair, Department of Virology and Immunology, Southwest Foundation for Biomedical Research. The foundation is a nonprofit, basic biomedical research institution located in San Antonio, Texas. The department has a staff of 82 persons, of whom eight are doctoral level scientific staff members and nine are post-doctoral scientists. Strong research programs in hepatitis, AIDS, SAIDS, and Simian B virus are under way. The successful candidate will hold the George C. Hixon endowed chair. A Ph.D. or M.D. degree with a distinguished research career in virology or immunology is required. Strong administrative and communicative skills are essential. Interested individuals should send curriculum vitae, statements describing research interest and administrative experience, and the names, addresses, and telephone numbers of three references. Send application to: **Dr. Henry C. McGill, Jr., Search Committee Chairman, Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78228-0147.** Equal Opportunity Employer, M/F.

COORDINATOR FOR THE MOLECULAR BIOLOGY FACILITY in the Department of Microbiology. Molecular biologists are invited to apply for a tenure-track position as **INSTRUCTOR OR ASSISTANT PROFESSOR**. The individual will be responsible for developing a laboratory for coordinating molecular biology studies in collaboration with a number of established investigators. Candidates should have demonstrated accomplishments in current techniques of nucleic acid and protein research. Candidates should send curriculum vitae and recent reprints to: **Professor T. Albrecht, Chairman, Faculty Recruiting Committee, Department of Microbiology, Route J19, The University of Texas Medical Branch (UTMB), Galveston, TX 77550** by 15 March 1990. UTMB is an Equal Opportunity/M/F/H/V/Affirmative Action Employer. UTMB hires only individuals authorized to work in the United States.

POSITIONS OPEN

CHAIR DEPARTMENT OF INTERNAL MEDICINE THE UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON

Applications and nominations are invited for the position of chair of the Department of Internal Medicine. Candidates must be highly qualified with nationally recognized credentials in research and senior academic accomplishments with administrative experience or potential. The position offers excellent opportunity to develop an internationally leading academic department with outstanding resources, scientific environment, and faculty positions.

Application or nomination should include curriculum vitae. Address correspondence to the chairman of Search Committee for Chair of Internal Medicine.

James C. Thompson, M.D.
Chairman, Department of Surgery
The University of Texas Medical Branch
Galveston, TX 77550

The University of Texas Medical Branch is an Affirmative Action/Equal Opportunity Employer.

CHAIR, DEPARTMENT OF PHYSIOLOGY

The School of Medicine of The University of North Carolina at Chapel Hill (UNC-CH) is searching for an individual to provide scholarly, academic, and administrative leadership for the research and teaching programs of the Department of Physiology. The department has excellent facilities and strong collaborative relationships with other departments, research centers, and institutes within the university. Other academic and industrial institutions in the Research Triangle enhance the scientific environment. Minimum qualifications include a Ph.D. or M.D. degree and a distinguished record of creative scientific productivity. Preference will be given to candidates who apply before 15 April 1990. Reply with curriculum vitae and a list of three or more references to: **John C. Parker, M.D., Chair, Search Committee for the Chair of the Department of Physiology, Office of the Dean, The School of Medicine, CB# 7000 MacNider Building, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7000.** Women and minority candidates are encouraged to identify themselves. UNC-CH is an Equal Opportunity/Affirmative Action Employer.

DIRECTOR, DIVISION OF LABORATORY ANIMAL RESOURCES. The State University of New York (SUNY) Health Science Center at Brooklyn is searching for a director to assume full responsibility for its laboratory animal care program.

The director of laboratory animal resources is responsible for policy and oversight functions for all animal research activities (species range from traditional laboratory rodents to a major primate facility and regular use of various farm animals) carried out at the Health Science Center. This includes operation and maintenance of all the animal research facilities, review of research protocols, compliance with federal and state animal care regulations, and maintenance of AAALAC accreditation. In addition, the Health Science Center encourages the director to engage in collaborative research efforts with the faculty.

Candidate must possess a D.V.M. degree with training and at least 5 years of experience in laboratory animal medicine. ACLAM Board eligibility or certification will be given preference. Salary and faculty rank will be commensurate with the applicant's experience and qualifications. Candidates should submit their curriculum vitae and the names of three references to: **Mr. John M. Allen, Assistant Provost for Scientific Affairs, SUNY Health Science Center at Brooklyn, Box 97, 450 Clarkson Avenue, Brooklyn, NY 11203.** Equal Opportunity/Affirmative Action Employer. DMC#CR0287.

CYTOGENETICS LABORATORY DIRECTOR. M.D. or Ph.D., ABMG Board-certified or Board-eligible, to direct clinical cytogenetics laboratory in Department of Pathology, University of Missouri Hospital; approximately 800 cases per year. Strong laboratory orientation in methods development and interest/experience in molecular genetics methods highly desirable. Tenure-track position. Clinical/basic research encouraged. Send curriculum vitae with reference letters to: **John Townsend, M.D., Pathology Department, University of Missouri School of Medicine, Columbia, MO 65212.** Affirmative Action/Equal Opportunity Employer.



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For over 100 years, Eli Lilly and Company has been manufacturing pharmaceuticals to ensure brighter futures for everyone. With advanced research, proven professionals, and a quality work environment, Lilly is a leader in the development, manufacturing, and marketing of essential health care, diagnostic, and animal health products. We invite you to contribute to our strong growth and to improving the future for so many.

Opportunities currently exist for BS/MS scientists with research experience in the following areas:

Cell Biology
Neurobiology

We are seeking candidates with degrees in cell biology, neurobiology, molecular biology or a related discipline. Experience in cell culture, electrophysiology, and recombinant DNA techniques are preferred. Skills in small animal surgery and/or training in patch and voltage clamping techniques will be helpful.

In addition to attractive salaries and benefits, Lilly provides excellent programs for continued growth, including ongoing training through in-house seminars and off-site programs, with financial assistance for advanced degrees and job-related coursework.

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Ann Hinson (MBG)
Corporate Recruitment
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, IN 46285

Equal Opportunity Employer



Commitment to Excellence

RESEARCH BIOCHEMIST/ BIOLOGIST

The Department of Molecular Biology of Merck and Co., Inc. is offering an immediate career opportunity for a scientist with a background in protein biochemistry.

A B.S. or M.S. in biochemistry, chemistry or biology or the equivalent is required. The position will involve protein and enzyme expressions, purification, assay, modification and characterization. The techniques employed will include various forms of electrophoresis, chromatography and spectrophotometry. Prior experience with expression systems and sub-cloning techniques is desirable but not required.

Merck Sharp & Dohme Research Laboratories offers excellent salary and benefits programs as well as a stimulating, growth-oriented research environment in which to work. Please send resume to: **Ad B-3, Personnel Manager, W42-2, Merck Sharp & Dohme Research Laboratories, West Point, PA 19486.**

EEO/AA/VH/Employer



Merck & Co., Inc



ASSISTANT DIRECTOR RESEARCH PROGRAMS & SERVICES (Position #907810)

UNIVERSITY OF FLORIDA

Responsibility for design of facilities with commercial companies and university researchers and have day-to-day operational responsibility for these facilities. The person selected for the position must have an understanding of basic science, experience in animal research methods, statistics, and knowledge of scientific equipment. Must have excellent communication skills, and understand the principles of accounting and personnel management. Must be cognizant of rules for biological safety, lab safety, and animal welfare and care. Master's degree in an appropriate area of specialization and two years of work related experience.

To apply send a letter referencing position #907810 and resume by March 1, 1990 to:

**Joseph J. Wnuk, Jr.,
Recruitment Coordinator,
UNIVERSITY OF FLORIDA,
446 Stadium West,
Gainesville, FL 32611.**

All searches are conducted in accordance with Florida's open meetings and records laws. We hire only U.S. citizens and lawfully authorized alien workers. EEO/AA.

POSITIONS OPEN

DEPARTMENT HEAD

The Department of Pharmacology and Toxicology, School of Pharmacy and Pharmaceutical Sciences, Purdue University, solicits applications and nominations for the position of professor and department head. We seek a person with a distinguished pharmacology and/or toxicology research program, who is dedicated to professional and graduate educational programs of high quality, and who has demonstrated leadership qualities. The department consists of ten faculty who have responsibility for teaching in the graduate, medical, nursing, and pharmacy programs. Review of applications will begin immediately and will proceed until the position is filled.

Letters of application, curriculum vitae, and the names, addresses, and telephone numbers of three references should be submitted to:

**Dr. Gary E. Isom, Chairman
Department Head Search Committee
Department of Pharmacology and Toxicology
School of Pharmacy and Pharmaceutical Sciences
Purdue University
West Lafayette, IN 47907**

Purdue University is an Equal Opportunity/Affirmative Action Employer.

Williams College invites applications and nominations for the position of **DIRECTOR OF COMPUTING**. Reporting to the provost, the director is responsible for all aspects of academic and administrative computing, operations, networking, and users' services. Advanced degree with Ph.D. preferred; substantial experience and record of effectiveness in computing, preferably in higher education; familiarity with large-scale and microcomputing and networking; superior leadership abilities and interpersonal skills. Salary based upon training and experience. Send nominations or letter of application with résumé and the names and addresses of at least three references no later than 9 March 1990 to: **Mr. Richard B. Bullett, Director of Personnel, Williams College, P.O. Box 476, Williamstown, MA 01267. Telephone: 413-597-2681. Affirmative Action/Equal Opportunity Employer.**

EXECUTIVE DIRECTOR

The American Fisheries Society, a nonprofit scientific-professional organization, invites applications for its executive directorship in Bethesda, Maryland. Deadline: 1 May 1990; duties begin February of 1991. Salary \$60,000 to \$65,000; other benefits. Requires M.S. or Ph.D. in fisheries or related discipline and 3 years of postgraduate experience including program administration; broad knowledge of aquatic resource issues; ability to raise funds and manage budgets, staff, and volunteers; ability to work with conservation, governmental, and corporate leaders to advance policies; and excellent oral and written communication skills. Obtain application materials from: **R. Kendall, AFS Search Committee, 5410 Grosvenor Lane, Suite 110, Bethesda, MD 20814. Telephone: 301-530-8502. An Equal Opportunity Employer.**

THE U.S. DEPARTMENT OF COMMERCE (DOC) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

Position: **ASSOCIATE PROGRAM DIRECTOR** for Coastal Processes involves the development and evaluation of research programs and the awarding of federal grant funds to support individual projects, coherent assemblages of projects, and large institutional programs at U.S. academic institutions.

Qualifications: A full 4-year or longer professional curriculum in an accredited college or university leading to a bachelor's degree or higher in physical science, engineering, or mathematics. A Ph.D. in a physical science or equivalent is highly desirable.

Salary: \$48,592 to \$63,172 (dependent upon experience and qualifications).

Location of position: Rockville, Maryland.

Send Standard Form 171 to:

**National Oceanic and Atmospheric Administration
NESDIS/OAR Personnel Branch
11420 Rockville Pike, Room 40
Rockville, MD 20852
Telephone: 301-443-3434**

DOC is an Equal Opportunity Employer.

POSITIONS OPEN

DEPARTMENT HEAD AGRONOMY KANSAS STATE UNIVERSITY

Applications and nominations are invited for the position of head of the Department of Agronomy, Kansas State University. The head administers programs, represents the faculty, and promotes development of students and staff of a large department in a major agricultural state. Applicants should have a Ph.D. in crop, soil, range, or weed science; demonstrated leadership; effective communication skills; and national recognition in instruction, research, or extension. Administrative experience is desirable. Submit letter of application, including a statement of administrative philosophy; complete curriculum vitae; and names, addresses, and telephone numbers of five references by 1 April 1990. Address applications, nominations, and inquiries to: **Dr. Gary M. Paulsen, Chair, Agronomy Head Search Committee, Throckmorton Hall, Kansas State University, Manhattan, KS 66506-5501. Telephone: 913-532-7234. FAX: 913-532-6094.**

Kansas State University is an Affirmative Action/Equal Opportunity Employer.

DIRECTOR CENTER OF EXCELLENCE FOR CARDIOVASCULAR STUDIES

Graduate Health System, a multihospital health care system based in Philadelphia, Pennsylvania, is seeking a director for our Center of Excellence for Cardiovascular Studies. This position reports directly to the president of Graduate Health System. Duties of this position include direct supervision of administrative staff hired by the center; development of policies and procedures relating to cardiovascular research, including fund raising and administrative activities; monitoring budget and the disbursement of funds; facilitating research activities; and identifying and contacting potential supporting organizations.

Requirements for this position include:

- Preferred M.D. and/or Ph.D. with a strong cardiovascular science background
- Strong publication background
- Extensive management and administrative experience
- University/corporate/government job-related experience

Qualified individuals should forward curriculum vitae to:

**Lisa M. Babikian
Corporate Recruiter
Graduate Health System
One Graduate Plaza
Philadelphia, PA 19146**

Equal Opportunity Employer, M/F/H/V.

UNIVERSITY OF HONG KONG PRINCIPAL INVESTIGATOR INSTITUTE OF MOLECULAR BIOLOGY

Applications are invited for the post of principal investigator in the Institute of Molecular Biology on a fixed-term contract for 3 years in the first instance.

Applicants should be well-qualified and experienced research scientists, who have an established record of independent, original work in the field. The appointee is expected to initiate own program of research in the newly founded institute, to assist in the development and equipping of the institute, and to supervise the activities of the part-time fellows working within the institute. Will be responsible to the director, Professor Y. W. Kan, and to the managing committee.

Annual salary (nonsuperannuable but attracting 25% taxable, terminal gratuity) is on a nine-point scale: HK\$363,300 to HK\$488,040 (approximate US\$1 = HK\$7.80 as of 12 January 1990). Starting salary will depend on qualifications and experience. At current rates, salaries tax will not exceed 15% of gross income. Housing at a charge of 7.5% of salary; children's education allowances, leave, and medical benefits are provided.

Further particulars and application forms may be obtained from: **Appointments (37465), Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF, UK, or from: Appointments Unit, Registry, University of Hong Kong, Hong Kong. FAX: 852-5-8582549. Closes 23 March 1990.**

POSITIONS OPEN

DIRECTOR JOHN SEALY CENTER FOR MOLECULAR BIOLOGY THE UNIVERSITY OF TEXAS MEDICAL BRANCH AT GALVESTON

Applications and nominations are invited for the position of director of the John Sealy Center for Molecular Biology. Candidates must be highly qualified with nationally recognized credentials in research and senior academic accomplishments with administrative experience or potential. The position offers excellent opportunity to develop an internationally leading academic research center with outstanding resources, scientific environment, and faculty positions.

Application or nomination should include curriculum vitae. Address correspondence to the Chairman of the Search Committee:

James C. Thompson, M.D.
Chairman, Department of Surgery
The University of Texas Medical Branch
Galveston, TX 77550

The University of Texas Medical Branch is an Affirmative Action/Equal Opportunity Employer.

Manufacturer of medical devices based on chronobiological principles needs **DIRECTOR, RESEARCH AND DEVELOPMENT, OPTIC INSTRUMENTATION**, to develop a new opto-thermal device to determine deep-tissue temperatures specifically in the human breast. Define engineering design objectives and milestones and results, including preliminary designs and reviews, working prototypes, final design, and full engineering documentation, and the transfer of these plans to production engineering. Oversee staffing, facilities, equipment, materials, and the required on-line data base source for research. Job requires bachelor's degree in physics and 6 years of experience as a research assistant (may also be called such things as "researcher" and "research director"). The experience must be in laser technology as it applies to measuring resistance values in human tissue; quantitative true-temperature measurement of biological tissue using infrared technology; digital and optical image processing for human tissues; and computer-aided design of holographic optical lens. Forty hours per week, 9:00 a.m. to 6:00 p.m.; \$1500 per week. Qualified applicants send résumé in duplication (no calls) to: **L. Eggleston, JO#1232600, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.** An Equal Opportunity/Affirmative Action Employer.

Ph.D./M.D. CYTOGENETICS. Here is the opportunity for you to participate in the start-up of a new program with internationally known researchers. Candidate for this **SUPERVISORY POSITION** must have Ph.D. or M.D. and be Board-certified/-eligible by the American Board of Human Genetics. Relocation to Miami will be provided by the new research institute. If you are interested, please send your résumé to: **Human Resources, Miami Children's Hospital, 6125 S.W. 31st Street, Miami, FL 33155.** Equal Opportunity Employer.

FACULTY POSITION CELL BIOPHYSICS/PHYSIOLOGY

The Department of Biophysics at the University of Rochester invites applications for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level. Applicants must have a Ph.D. degree and at least 2 years of postdoctoral research experience. The successful candidate will be expected to establish a vigorous and independent research program capable of attracting extramural funding and which ideally will complement existing programs in cell and peripheral vascular biophysics. We are particularly interested in individuals who will apply modern biophysical approaches to some aspect of the regulation of vascular smooth muscle or endothelial cell function, but candidates with interests in other cardiovascular cell types or in associated aspects of cardiovascular function (e.g., regulation of angiogenesis), or outstanding candidates in any area of cell biophysics, are strongly encouraged to apply. Curriculum vitae, a statement of research interests, and names of three references should be sent to: **Dr. Giles R. Cokelet, Department of Biophysics, University of Rochester, Rochester, NY 14642.** Applications should be received by 30 April 1990. *The University of Rochester is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ENVIRONMENTAL MICROBIOLOGY

The Department of Civil Engineering (Division of Water Resources and Environmental Engineering) seeks applicants for a tenure-track faculty position in environmental microbiology. Expertise in microbial physiology, biochemistry, and molecular biology is required. Interest in microbial transformations of contaminants, for example, in groundwater, is desirable; field experience is valued. Send curriculum vitae and names of three references to: **Professor Philip Gschwend, 48-311, Massachusetts Institute of Technology (MIT), Cambridge, MA 02139.** Closing date is 2 April 1990. *MIT is an Equal Opportunity Employer.*

FACULTY POSITION in the Biology Division of the California Institute of Technology (Caltech).

Caltech seeks a new faculty member in the Biology Division with research interests in biotechnology and its application to current biological problems. Research programs might include the development and application of new theoretical treatments, techniques, or instruments to the study of macromolecules, chromosomes, genomic structure, genetic information, or genome evolution. The appointment may be at the **ASSISTANT, ASSOCIATE, OR FULL PROFESSOR** ranks, depending on experience. The appointment will initially be for 4 years and will be either tenure-track or tenured, depending on experience. Send curriculum vitae and names and addresses of three references to: **Barbara Wold, Chair, Biotechnology Search Committee, Biology Division, California Institute of Technology, Pasadena, CA 91125.** *Caltech is an Equal Opportunity Employer and welcomes applications from minorities and women.*

FACULTY POSITION. The University of Georgia seeks applicants for tenure-track, 12-month appointment to develop a research program in insect toxicology. Research areas may include genetics of insect resistance to toxicants, insect/plant co-evolution with emphasis on semiochemicals or natural toxins, or environmental toxicology. Will teach undergraduate/graduate toxicology and graduate course in area of expertise. Expect to fill position at the **ASSISTANT PROFESSOR** level but will consider outstanding applicants at a higher rank. Send résumé, transcripts, three recent reprints, letter stating research goals, and names and addresses of three or more references by 1 May 1990 to: **Dr. C. Wayne Berisford, Department of Entomology, University of Georgia, Athens, GA 30602.**

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

FACULTY POSITIONS IN PHYSIOLOGY. The Department of Physiology, University of Puerto Rico, seeks to fill several tenure-track positions, rank open. Applicants should have postdoctoral training and be able to develop an active research program and participate in medical and graduate teaching. All areas of research will be considered, with special interest in cell physiology or water and electrolyte homeostasis and renal physiology. Applicants should send curriculum vitae, reprints, statement of research interests, and names of three references to: **Dr. Susan Opava-Stitzer, Chair, Department of Physiology, University of Puerto Rico Medical School, G.P.O. Box 5067, San Juan, PR 00936.** Previous candidates may update their applications. *Women and members of minority groups are encouraged to apply.*

The Medical Oncology Division of the Department of Medicine, University of Rochester School of Medicine and Dentistry, and the University of Rochester Cancer Center is seeking a tenure-track **FACULTY MEMBER** as head of the newly established Harold Kaplan Geriatric Oncology Section. The candidate must be an M.D. or M.D./Ph.D., be Board-eligible in medical oncology, and have research experience in molecular biology and/or immunology. The candidate will be responsible for creating a broad-based clinical program in cancer prevention, detection, and therapy for a patient population housed at our chronic disease hospital, Monroe Community Hospital, affiliated with the medical center. Additional responsibilities will be at Strong Memorial Hospital. The majority of the academic time, accounting for approximately 75% time and effort, will be devoted to laboratory research. Preference is for **ASSISTANT PROFESSOR** rank, but a higher rank will not be excluded. Applications will be accepted until the position is filled. Review of candidates begins 1 April 1990. Send curriculum vitae, bibliography, and three letters of recommendation to **Box 11, SCIENCE.** *Equal Opportunity Employer, M/F.*

Discover a bright future at Sterling Research Group, the worldwide pharmaceutical research and development organization of Sterling Drug Inc. As a subsidiary of Eastman Kodak, what makes Sterling outshine the rest is the unbeatable combination of a small, friendly company environment and the depth, resources, and growth potential of a large multinational corporation. Discover Sterling today by applying for this position in our Neurosciences Department. The Neurosciences Department is currently pursuing projects in neurodegenerative diseases, pain and inflammation, and psychotropics.

STERLING CAREERS.

Molecular Biologist— Neurosciences

An excellent opportunity exists for a senior scientist to participate in a challenging, interdisciplinary approach to basic research and drug discovery in the neurodegenerative diseases program. The successful candidate will apply molecular techniques to the study of mechanisms underlying acute and chronic neurodegenerative disorders and join a team of dedicated scientists identifying novel therapies for treating these disorders. Candidates should possess a doctoral degree in Neuroscience, Molecular Biology, Pharmacology, Physiology or equivalent, and a minimum of two years' relevant postdoctoral experience.

The Rensselaer facility is located near Albany, New York, which is a center of summer and winter recreational activities.

In exchange for your talents, we offer a competitive salary and benefits package and outstanding career opportunities for personal and professional growth. For confidential consideration, please forward your resume with salary history/requirements to: **Employee Relations, RS-018, Sterling Research Group, A Division of Sterling Drug Inc., 81 Columbia Turnpike, Rensselaer, NY 12144.** *Equal Opportunity Employer M/F/H/V.*



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POSITIONS OPEN

FACULTY POSITION FOR MAGNETIC RESONANCE (MR) PHYSICIST

The Sanders-Brown Center on Aging and the Magnetic Resonance Imaging and Spectroscopy Center at the University of Kentucky invite applications for a tenure-track faculty appointment from an MR physicist. The successful candidate will have a joint faculty appointment in the appropriate academic department of the University. Appointee will be expected to develop his/her own research programs and be willing to participate in multidisciplinary stroke-related research. A background or interest in MR angiography, flow, detection of cerebral ischemia or imaging sequences, or spectroscopy is appropriate. Superb facilities and an excellent start-up package are available to assist faculty in developing his/her own extramurally funded research program. A letter of interest, recent curriculum vitae, and names of three references should be submitted to: **Val M. Runge, M.D., c/o Sanders-Brown Center on Aging, University of Kentucky, Lexington, KY 40536.** The University of Kentucky is an Equal Opportunity Employer.

IMMUNOLOGIST, FACULTY POSITION. A full-time, tenure-track position in the Pathology Department at the rank of **ASSISTANT OR ASSOCIATE PROFESSOR, M.D. or Ph.D.** with demonstrated leadership in teaching and research. Position includes participation in educational programs in department and hospital service responsibility in immunopathology laboratory. Successful candidate should be able to transfer research activities and funding to Medical College of Georgia. Send curriculum vitae and references to: **C. Robert Baisden, Chief, Section of Clinical Pathology, Medical College of Georgia, Augusta, GA 30912.** Equal Opportunity Employer, M/F. Females and minorities are encouraged to apply.

THOMAS JEFFERSON UNIVERSITY

FACULTY AND POSTDOCTORAL POSITIONS are available for candidates with experience in one or more of the following areas:

- Electrophysiologic studies of ion channels
- Reconstitution of membrane proteins
- Signal transduction mechanisms

The successful candidates will work in the cell biology division of the Department of Pathology and Cell Biology in a dynamic, multidisciplinary group with a common interest in cellular mechanisms of action of alcohol, anesthetics, and other drugs. A wide range of state-of-the-art experimental facilities is available. Faculty appointments may be made at the rank of **ASSISTANT OR ASSOCIATE PROFESSOR**, depending upon qualifications. Send résumé and names of three references to: **Emanuel Rubin, M.D., Professor and Chairman, Department of Pathology and Cell Biology, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107.** Thomas Jefferson University is an Equal Opportunity/Affirmative Action Employer.

TENURE-TRACK FACULTY POSITION ANESTHESIOLOGY RESEARCH UNIT WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

A tenure-track faculty position at the **ASSISTANT OR ASSOCIATE PROFESSOR** rank is available immediately for an investigator interested in basic mechanisms of signal transduction. Desirable candidates will have expertise in biochemical and/or molecular biological approaches to cellular mechanisms that couple ligand binding to physiological effects. Areas of particular interest might include, but are not limited to, G-proteins, kinases, Ca²⁺-binding proteins, and chemical second messengers. The research unit is a small, interactive group of investigators with interests currently focusing on function and modulation of ion channels, regulation of intracellular calcium, phosphoinositide metabolism, smooth muscle physiology, and neuronal pattern generation. The successful applicant would be expected to establish a complementary and independent research program in the research unit. Newly developed modern laboratory space and generous start-up funding are available. A Ph.D. and/or M.D. degree and a minimum of 2 years of postdoctoral training are required. Candidates should send curriculum vitae, a description of proposed research plans, and the names of three referees to: **Dr. J. H. Steinbach, Chairman, Faculty Search Committee, Anesthesiology Research Unit, Washington University School of Medicine, Box 8054, 660 South Euclid Avenue, St. Louis, MO 63110.**

POSITIONS OPEN

BOSTON UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

The Boston University School of Medicine is embarking upon a major new initiative in the area of molecular pharmacology and neurobiology. **FACULTY POSITIONS** are available at all levels. Start-up funds, core facilities, and laboratory space are available to foster the establishment of state-of-the-art research programs. Please send your curriculum vitae, a brief statement of your research accomplishments and plans, and the names and telephone numbers of references to: **Dr. David Farb, Chairman, Department of Pharmacology and Experimental Therapeutics, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118.** Equal Opportunity/Affirmative Action Employer.

Immediate openings for full-time **TEACHING FACULTY** in the areas of gross anatomy, neuroscience, microbiology, physiology, and biochemistry. Master's degree and extensive teaching experience required in area of specialization, Ph.D. preferred. Send curriculum vitae to: **Division Chairman, Basic Science, Parker College of Chiropractic, 2500 Walnut Hill Lane, Dallas, TX 75229.**

DEPARTMENT OF GEOLOGICAL SCIENCES COLUMBIA UNIVERSITY MARINE GEOLOGIST/GEOPHYSICIST

The Department of Geological Sciences of Columbia University is seeking applications for a tenure-track faculty position in the area of marine geology and geophysics. The appointment will be considered at the **ASSISTANT, ASSOCIATE, OR FULL PROFESSOR** level, depending upon level of experience. The faculty member will be expected to lead a strong research program in marine geology and/or geophysics at the Lamont-Doherty Geological Observatory, develop sea-going field experiments, advise graduate students, and teach on the graduate and undergraduate levels. The successful applicant will have a Ph.D. (or its equivalent) in the earth sciences or related field, and a demonstrated ability to conduct high-quality scientific research. Send curriculum vitae and the names and addresses of three persons willing to write recommendations to: **William Menke, Search Committee Chair, L-DGO, Palisades, NY 10964** by 1 April 1990. Columbia University is an Equal Opportunity Employer.

MICROBIOLOGIST

Tenure-track **ASSISTANT PROFESSOR** position, August of 1990. The department has an active, research-oriented Ph.D. program in cell-molecular biology; the candidate is expected to maintain an active and fundable research program in this area. Teaching will include an introductory microbiology course and an advanced course in the candidate's area of specialization. Ph.D. required, postdoctoral experience preferred. Candidate must have demonstrated a commitment to excellence in teaching and research. Send letter of application, curriculum vitae, and three letters of reference to: **Dr. William J. Brett, Chairperson, Department of Life Sciences, Indiana State University, Terre Haute, IN 47809.** Application review will begin 16 March 1990 and will continue until the position is filled. Indiana State University is an Equal Opportunity/Affirmative Action Employer.

MOLECULAR NEUROSCIENTIST

A tenure-track faculty position is available in the Department of Neuroscience at the University of Virginia. This will be one of several appointments to be made over a 4-year period to staff this new basic science department in the University of Virginia Health Sciences Center. We are especially interested in individuals addressing questions of neuronal development or plasticity using molecular biological techniques. Contact:

Oswald Steward, Ph.D.

Professor and Chairman

**Department of Neuroscience, Box 230
University of Virginia Health Sciences Center
Charlottesville, VA 22908**

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

POSITIONS OPEN

MEDICAL PHYSICIST. The Medical Imaging and Computer Applications Branch, Center for Devices and Radiological Health, Food and Drug Administration (FDA), PHIS, DHHS, has an opening for a medical physicist. The branch conducts applied research related to medical diagnostic imaging and computer applications in medicine with particular emphasis on the development of quantitative methods for the evaluation of medical imaging systems. The candidate will be responsible for planning, developing, and implementing performance evaluation programs in mammography, image-intensified fluoroscopy, or digital medical imaging. An M.S. or Ph.D. in physics or optical science with research experience related to the above activities is desirable. This position is at the GS-11 to GS-13 level (\$29,891 to \$55,381 per annum) depending on qualifications. U.S. citizenship is required and applicants must meet Civil Service requirements. For further information, please send résumé to: **Dr. Robert J. Jennings, Medical Imaging and Computer Applications Branch, FDA/CDRH (HFZ-142), 5600 Fishers Lane, Rockville, MD 20857.** FDA is an Equal Opportunity Employer.

MICROBIOLOGIST. Northeast Missouri State University has an immediate opening for a tenure-track position starting August of 1990 in microbiology. Teaching responsibilities will include introductory biology (for majors or nonmajors) and introductory and advanced courses in microbiology. The successful candidate will show strong potential as a teacher and enthusiastically involve undergraduates and graduate students in research. Laboratory space, basic instrumentation, and initial funding for research will be provided. The mission of Northeast Missouri State University is to provide the outstanding educational environment of a small liberal arts and sciences university while remaining economically accessible. The candidate must possess an excellent undergraduate record from a selective liberal arts and sciences institution, strong graduate experiences, and must display leadership and service qualities. *Women and minorities are especially encouraged to apply.* Please send letter of application indicating teaching and research goals, curriculum vitae, undergraduate and graduate transcripts, and three letters of recommendation to: **Dr. L. Scott Ellis, Division of Science, Northeast Missouri State University, Kirksville, MO 63501.** Telephone: 816-785-4597. Complete applications will be accepted and reviewed until the position is filled.

MOLECULAR BIOLOGISTS

Group leader and postdoctoral researcher to use recombinant DNA technology and gene transfer in both fungi and plants to study plant-fungus interactions. Send curriculum vitae and three letters of reference to: **Dr. P. E. Kolattukudy, Director, Ohio State Biotechnology Center, 206 Rightmire Hall, 1060 Carmack Road, Columbus, OH 43210.** Equal Opportunity/Affirmative Action Employer.

Two **OPHTHALMOLOGISTS.** University of Michigan, full-time faculty positions, **INSTRUCTOR, ASSISTANT, ASSOCIATE, OR FULL PROFESSOR.** Training in ophthalmology. Opportunity for clinical and laboratory research, resident and student teaching, clinical practice. Contact: **Paul R. Lichter, M.D., Chairman, Department of Ophthalmology, University of Michigan, W. K. Kellogg Eye Center, 1000 Wall Street, Ann Arbor, MI 48105.** An Affirmative Action Employer.

DEPARTMENT OF PHYSIOLOGY/PHARMACOLOGY

Tenure-track positions are open at **ASSISTANT, ASSOCIATE, AND FULL PROFESSOR** levels for faculty members with established research programs in neuroscience, cardiovascular pharmacology, hypertension, vascular physiology, and molecular endocrinology. Current research in the department includes neurobiology of drug abuse, mechanisms of hypertension, perinatal biology, neurobiology of aging, clinical neuropharmacology, and mechanisms of cardiovascular control. Additionally, Bowman Gray School of Medicine has recently initiated planning and construction of a new building dedicated to research on nutrition and chronic disease. A recent curriculum vitae and brief history of research experience should be sent to: **Sam Deadwyler, Ph.D., Search Committee Head, Department of Physiology/Pharmacology, Bowman Gray School of Medicine, 300 South Hawthorne Road, Winston-Salem, NC 27103.** Affirmative Action/Equal Opportunity Employer.

ARCTIC RESEARCH COORDINATOR

Responsible for coordinating Arctic-related research and field activities, will develop and maintain interactions with other national and international Arctic researchers and Institutions, and identify and pursue diverse research funding possibilities. Bachelor's degree in appropriate field, higher degree preferred. At least 10 years Arctic-related research/administrative experience, with demonstrated ability to conceive and organize Arctic research and field operations. Send cover letter, resume and names/addresses of three references to:

Robert B. Gagolian
Box 54 PP



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INSTITUTION**

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An equal opportunity employer M/F/H/V

Join A Well Respected Industry Leader.

The Medical Research Division of American Cyanamid Company is recognized internationally as a leader in the research and development of therapeutic compounds. The Molecular Neurobiology Group of the CNS Research Department has research projects focusing on the areas of CNS Degenerative Diseases, and Voltage and Ligand Gated Ion Channels. Our current expansion requires three Research Scientists (with at least two years' postdoctoral work) and three Postdoctoral Scientists with the following qualifications:

RESEARCH SCIENTIST having strong molecular and cellular biology backgrounds to work with a team applying molecular techniques to the study of Alzheimer's Disease and other dementias. Respond to department MV.

RESEARCH SCIENTIST with a strong background in at least two areas including molecular biology, biochemistry or electrophysiology to work with a team applying protein biochemistry, molecular biology and electrophysiological techniques to clone, express and study various K⁺ channels. Respond to department RZ.

RESEARCH SCIENTIST with a strong background in molecular biology, biochemical pharmacology and/or electrophysiology to work with a team on our ongoing efforts to clone, express and study various subtypes of the GABA_A receptor/benzodiazepine/Cl⁻ channel complex. Respond to department MA.

POSTDOCTORAL SCIENTISTS (3) with strong background in molecular genetics/biology and biochemistry to work in our Alzheimer's Disease program. Part of this program focuses on transcriptional regulation and post-translational processing of the amyloid gene [see e.g., PNAS 86:7606 (1989)]. Respond to department SJ.

Lederle is located in Rockland County on a 580 acre campus-like setting only 25 miles north of New York City. Starting salaries are very competitive and include comprehensive benefits. For consideration, send resume/c.v. with appropriate department code and the names and telephone numbers of 3 references, to: Professional Employment Representative, Medical Research Division, Lederle Laboratories, Pearl River, NY 10965. An Equal Opportunity Employer M/F.



UNIVERSITY OF BASEL BIOCENTER ASSOCIATE PROFESSOR IN PHARMACOLOGY AND TOXICOLOGY

The Departement of Pharmacology (Medical Faculty) intends to make an appointment at the associate professor level (tenured) effective January 1991 or later. The department covers a wide range of topics in clinical and molecular pharmacology and toxicology, neurobiology and cell biology. We are seeking outstanding candidates in any of these fields. In addition to leading an independent research group at the Biocenter candidates have to be able to teach pharmacology and/or toxicology to medical — and pharmacy — students (they should be able to teach in German within two years). The position offers significant scholarly and scientific resources and the possibility of clinical research in collaboration with the Department of Research of the Basle University Hospitals.

Applicants should submit curriculum vitae, bibliography, a brief (no more than 500 words) description of research interests and the names of at least three references by June 30, 1990 to:

Erziehungsdepartement des Kantons Basel-Stadt Münsterplatz 2, POSTFACH, CH — 4001 Basel/Switzerland.

Further information on this position may be obtained by writing to Urs. A. Meyer, M.D., Chairman, Dept. of Pharmacology, Biocenter, CH — 4056 Basel, Switzerland.

SCIENTIST — BIostatISTICS

The Chemical Industry Institute of Toxicology (CIIT) is an independent non-profit research corporation. Our mission is to improve the scientific basis for understanding and assessing the potential adverse effects of chemicals, pharmaceuticals and consumer products on human health. We are seeking to fill a Scientist position within the area of biostatistics.

The position provides the opportunity for an individual with strong skills and experience in the design, analysis and interpretation of biological studies to participate as a critical member of an interdisciplinary team of biological and physical scientists. The individual must have Ph.D. or M.S. in statistics or biostatistics and have at least 10 years experience consulting in biological sciences. The position requires extensive familiarity with design and analytical methods for univariate and multivariate analysis of variance using general linear models. Experience with nonlinear estimation techniques is desirable. In addition to excellent written skills the position requires strong interpersonal communication skills.

CIIT is located in Research Triangle Park, NC which offers many cultural and recreational activities as well as access to 3 major universities. We offer competitive salary and benefits and a stimulating work environment. Interested applicants should submit a curriculum vitae with the names of three professional references, representative reprints and a summary of research interests to: **Human Resources Manager, CIIT, P.O. Box 12137, Research Triangle Park, NC 27709.**



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POSITIONS OPEN

MOLECULAR VIROLOGIST

The Center for Agricultural Biotechnology and the Department of Microbiology invite applications for a tenure-track position in molecular biology, beginning 15 August 1990. Starting rank will be either **ASSISTANT OR ASSOCIATE PROFESSOR**, salary will be commensurate with experience. Priority will be given, but the search is not limited to, candidates with research expertise in host-pathogen interactions of plant or animal viruses. The successful applicant will be expected to develop a strong, extramurally funded research program in molecular virology. Newly constructed laboratory space and competitive set-up funds will be provided. Instructional responsibilities include teaching one course per year.

Applicants must hold a Ph.D. degree and have research experience in molecular virology. Postdoctoral experience is preferred. Applicants should send curriculum vitae, send a statement of research interests and goals, and have three letters of recommendations submitted. Application deadline is 15 April 1990 or until a suitable candidate is found. Submit all application materials to: **Dr. Thomas W. Scott, Molecular Virologist Search, Center for Agricultural Biotechnology, University of Maryland, College Park, MD 20742.** The University of Maryland is an Equal Opportunity/Affirmative Action Employer.

PHARMACOLOGIST. Faculty position available to teach medical pharmacology and work independently and/or collaboratively with other teaching/research faculty. Primary responsibilities: not more than 25% teaching, at least 75% research time. Salary and academic rank open and commensurate with training, teaching experience, grant track record, and funding support information. Interested qualified candidates are invited to send curriculum vitae and the names of three references to: **Robert E. Mancini, Ph.D., D.O., Associate Dean, Academic and Research Affairs, and Chairman, Department of Pharmacology/Toxicology and Experimental Therapeutics, New York College of Osteopathic Medicine, Box 170, Old Westbury, NY 11568.** Affirmative Action/Equal Opportunity Employer.

PHYSICAL BIOCHEMIST

Oculon Corporation, a firm specializing in cataract research and development, has need for an experienced physical biochemist in its Cambridge laboratory with the following qualifications: Ph.D. in biochemistry or chemistry, minimum 1 to 3 years of postdoctoral experience, strong background in physical biochemistry as applied to proteins. The successful candidate will establish a basic research program in the physical characterization of proteins. Oculon is a development stage company headquartered in Seattle, Washington, offering competitive salary and benefits including equity participation. Interested candidates please send curriculum vitae: **Attention: Human Resources, Oculon Corporation, 20 Staniford Street, Boston, MA 02114.** Oculon Corporation is an Equal Opportunity Employer.

PHYSIOLOGIST. The School of Health Sciences, Grand Valley State University, Allendale, Michigan, is seeking a physiologist for a tenure-track position, academic year appointment, at the **ASSISTANT/ASSOCIATE PROFESSOR** rank to teach a variety of human physiology courses, including basic anatomy and physiology, human physiology with laboratory, and to teach pathophysiology, when needed. The successful candidate will hold a doctorate (Ph.D. or M.D.), will have clinical experience, or will have experience teaching in medical or nursing education. Applicants should send a letter of application and the names and addresses of three references to: **Johnnie L. Callahan, Director, School of Health Sciences, Grand Valley State University, Allendale, MI 49401.** Applications will be received until the position is filled. Equal Opportunity/Affirmative Action Employer.

PHYSIOLOGY FACULTY. A tenure-track position for an established investigator in cellular physiology or biophysics. Researchers in endocrinology, the study of neurons, muscle, renal, or regulation of ion transport are especially invited to apply. Applications, including curriculum vitae, a brief statement of research interest, and the names of three possible references, should be mailed by 1 May 1990 to: **Dr. Robert B. Gunn, Chairman, Department of Physiology, Emory University School of Medicine, Atlanta, GA 30322.** Emory University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION. Available in the endocrinology and molecular biology or peptide hormones including angiotensin and natriopeptins. Send a résumé and three references to: **Professor I. B. Wilson, Department of Chemistry and Biochemistry, University of Colorado, Boulder, CO 80309-0215.** The university is an Equal Opportunity Employer.

POSTDOCTORAL POSITION. Protein chemist or molecular biologist to study newly identified proteins which undergo phosphorylation during the stimulation of phagocytic leukocytes. Send curriculum vitae and names of two references to: **Dr. John A. Badwey, Boston Biomedical Research Institute, 20 Staniford Street, Boston, MA 02114.** Telephone: 617-742-2010, ext. 309. We are an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Available immediately for fibroblast growth factor receptor biochemistry. Analysis of functional epitopes on ECR-R by monoclonal antibodies. Send curriculum vitae, and names of three references to: **M. E. Schelling, Program in Genetics and Cell Biology, Washington State University (WSU), Pullman, WA 99164-4234.** WSU is an Equal Opportunity/Affirmative Action Employer and Employer. Protected group members are encouraged to apply.

POSTDOCTORAL POSITION. Available to study the mechanisms involved in cell injury and repair in the gastrointestinal tract using in vivo (animal models) and in vitro (cells in culture) approaches. Salary range: \$20,000 to \$24,000, depending on experience and qualifications. Send curriculum vitae and the names of three references to: **Dr. Peter R. Kvietys, Department of Physiology, Louisiana State University Medical Center, P.O. Box 33932, Shreveport, LA 71130-3932.** An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION. Available immediately for Ph.D. in biochemistry or related areas to work on calcium signaling in cells, mechanisms of G proteins, and inositol phosphate receptors [see *Nature* 340, 236-239 (1989); *Nature* 342, 16-18 (1989)]. Protein chemistry and some molecular biology experience advantageous. Send letter, curriculum vitae, and have three letters of reference sent to: **Dr. Donald L. Gill, Department of Biological Chemistry, University of Maryland School of Medicine, 660 West Redwood Street, Baltimore, MD 21201.** Equal Opportunity Employer.

POSTDOCTORAL POSITION IN MOLECULAR NEUROBIOLOGY. Immediate opening on NIH grants to study the neurotrophic effects of the insulin-like growth factors, as well as their gene expression related to synaptogenesis and nerve regeneration [*Proc. Natl. Acad. Sci. U.S.A.* 86, 2898 (1989)]. Location near scenic Rocky Mountains. Submit curriculum vitae with names and telephone numbers of three references to: **Dr. Douglas N. Ishii, Physiology Department, Colorado State University (CSU), Fort Collins, CO 80523.** CSU is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS IN PEPTIDE CHEMISTRY. Available to synthesize and characterize opioid peptide analogues, including conformationally constrained derivatives. Experience in organic and/or peptide synthesis required; experience in molecular modeling helpful. Send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Jane Aldrich, College of Pharmacy, Oregon State University (OSU), Corvallis, OR 97331-3507.** Review of applications will begin 1 March 1990. OSU is an Equal Opportunity/Affirmative Action Employer and complies with Section 504 of Rehabilitation Act, 1973. OSU is responsive to needs of dual-career couples.

POSTDOCTORAL ASSOCIATE

A postdoctoral position is available to study translational control. The overall objective is to isolate and clone factors that regulate mRNA expression during the early development of *Xenopus laevis*. A recently published paper that is relevant to this work is *Genes Dev.* 3, 803 (1989). Please send curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Joel Richter, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.**

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POSITIONS OPEN

POSTDOCTORAL POSITIONS. Available at the Guthrie Research Institute. Position (i): molecular cloning of a complement component and macrophage-derived cytotoxic factor(s) involving protein sequencing, cDNA library construction, screening, and PCR (Dr. N. Chang). Position (ii): macrophage biology and regulation of cytokine secretion (Dr. D. Beezhold). Position (iii): surface antigens (biochemistry/molecular biology) and mechanisms of NK and macrophage-mediated cytotoxicity (Dr. R. Hall). Send curriculum vitae and names of three references to: **Guthrie Research Institute, Guthrie Square, Sayre, PA 18840.**

POSTDOCTORAL POSITION MAMMALIAN MOLECULAR GENETICS

A postdoctoral fellow to participate in recombinant DNA-somatic cell genetic studies of eukaryotic (human) ribosomal protein gene families. Applicants must possess recent Ph.D. in molecular biology (genetics) and have some familiarity with recombinant DNA technology, nucleic acid and/or protein biochemistry, or somatic animal cell genetics. Position to begin during the summer of 1990. Salary negotiable. Send letter of inquiry, curriculum vitae, and the names and addresses of three references to: **Dr. Donald J. Roufa, Division of Biology, Kansas State University, Manhattan, KS 66506.** Kansas State University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION, NEUROBIOLOGY. Study alcohol-induced developmental neuropathology. Artificially reared rat pups are fed alcohol diet via gastrotomy and effects on glial and neuronal development analyzed using light and electron microscopic morphometry. Opportunity also exists for immunocytochemical and/or neurophysiological methods. Available immediately; \$23,000 to \$25,000. Screening begins 1 April 1990; will continue until hire is made. Located in Rocky Mountains; area noted for recreational opportunities. Send letter of application, curriculum vitae, and names of three references to: **Dr. D. E. Phillips, Biology Department/WAMI Medical Education Program, Montana State University, Bozeman, MT 59717.** Telephone: 406-994-3230. Veterans preference on inquiry. Affirmative Action/Equal Opportunity Employer.

The Dana-Farber Cancer Institute is seeking to fill a research position at the **POSTDOCTORAL LEVEL** for an individual interested in studying the regulation of neural differentiation, neurite outgrowth, and gene expression in response to FGF, NGF, and other defined growth factors. Interest and experience in signal transduction and the regulation of gene expression is desirable. This position carries a joint appointment in the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School. Send curriculum vitae, a statement of research interests, and names of three references to: **Dr. John A. Wagner, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.** An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL OR RESEARCH ASSOCIATE. In biochemistry or cell or molecular biology to study the regulation of synthesis and secretion of mucin glycoproteins. Studies involve characterization of proteins, oligosaccharide chains, and glycosyltransferases and metabolic studies with isolated mucus-secreting cells. Recombinant DNA techniques will be utilized to examine the regulation of expression and genes encoding mucin glycoproteins and glycosyltransferases.

Please send curriculum vitae to: **Dr. Joseph Mendicino, Department of Biochemistry, University of Georgia, Athens, GA 30602.**

POSTDOCTORAL RESEARCH POSITIONS

Postdoctoral positions are available for individuals to participate in ongoing research in the Anesthesiology Research Unit, Washington University School of Medicine. Traineeships are available in the laboratories of Alex Evers, Chris Lingle, David Russell, Joe Steinbach, Richard Hotchkiss, and Walter Boyle. Research emphasis is on the areas of neuronal pattern generation, function and modulation of ion channels, regulation of intracellular calcium, phosphoinositide metabolism, and vascular smooth muscle physiology. Please send curriculum vitae, proposed area of research interest, and the names of three references to one of the above proposed sponsoring investigators at: **Anesthesiology Research Unit, Washington University School of Medicine, Box 8054, 660 South Euclid Avenue, St. Louis, MO 63110.**



At Vertex Pharmaceuticals, we're pioneering a unique approach that takes the guesswork out of drug development. By combining biotechnology with chemistry and physics, we're making pharmaceutical discovery a more rational and efficient process. This approach insures our success. If you are looking for a position at the forefront, contact Vertex.

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utilizing rational drug design in the discovery and development of novel drugs.

Currently we are seeking a diverse selection of motivated, experienced professionals to join Vertex's growing scientific staff. Minimum requirements are a Bachelor's and/or Master's degree in the appropriate discipline, with at least four years of Post-Bachelor's laboratory experience. If you are a high-energy, forward-thinking innovator and team player in search of an environment where your best ideas will be an integral part of our success story, we would like to speak with you.

SCIENTISTS

Molecular Biology—Expression

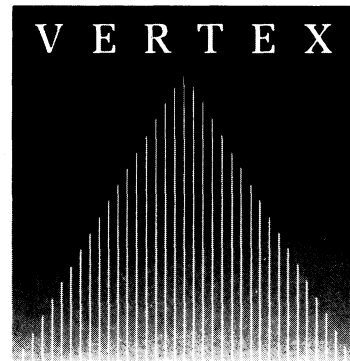
You will direct a program in eukaryotic and bacterial expression of novel protein targets for drug design. Experience in design of novel expression vectors, manipulation of host cells, and analysis of transcription and translation in heterologous systems is required. A highly qualified candidate would have past experience in directing expression efforts, a strong publication record in eukaryotic and bacterial expression, and a history of contributions to interdisciplinary programs in the areas of immunology, control of gene expression and/or intracellular signaling.

Molecular Biology—Transcription

You will direct a program in gene regulation/transcription of proteins involved in immune cell activation. Qualified candidates should have 1-3 years' independent research experience in gene regulation, DNA-binding proteins, and in vitro transcription, including experience in designing and performing transcriptional assays.

Molecular Biology—Yeast Genetics

You will direct a program involving the molecular genetics of yeast proteins related to human proteins of therapeutic interest. Qualified candidates should have a strong background in yeast genetics, including classical and recombinant methodologies for mapping and manipulating genes on the yeast chromosome, as well as DNA sequencing and phenotypic analysis. The position will require the use of methods of integrative disruption and replacement of genes to study novel yeast proteins and protein-protein interactions. A postdoctoral appointment is possible.



Immunology

You will establish in vitro and in vivo assays to evaluate novel immunoregulatory agents. The successful candidate should have at least three years' laboratory research experience in immunology, including experience with T-cell activation models, cytokine assays, solid phase immunoassays, and flow cytometry.

Macromolecular Chemistry

You will be responsible for synthetic and analytical protein and DNA chemistry performed on the latest automated instruments, including DNA synthesizers on an ABI 380A synthesizer, amino acid analysis on an ABI 420A system, and protein sequencing on an ABI 477A sequencer. Automated peptide syntheses and automated DNA sequencing are planned also. The successful candidate will have several years' experience on these instruments and on HPLC purification systems as well as an enthusiasm for working closely in a research-oriented team approach with synthetic chemists, biochemists, and molecular biologists.

Physical Biochemistry and X-Ray Crystallography

You will work with an experienced team of X-ray crystallographers and other biophysicists working to provide structural information on targeted proteins. The successful candidate will have a strong background in physical biochemistry, biophysics, and/or related areas, with an enthusiasm for this rare opportunity to be involved in all aspects of protein structure determination, including crystal growth, data collection, structure solution and refinement. Direct experience with X-ray crystallography is a plus.

Computational Chemistry

You and the rest of the computational chemistry team will be on the critical bridge between biophysicists, who provide the macromolecular structures of our drug targets of interest, and the chemists who will synthesize drug candidates. The successful candidate will function across the full range of computational chemistry. Molecular

modeling and some scientific programming experience with a strong working knowledge of organic chemistry are required, as well as a familiarity with VMS and UNIX operating environments.

Computational Chemistry—Programming

You will use your extensive skills in scientific programming to anchor this critical aspect of our computational chemistry effort providing both novel computational tools as well as adapting academic and commercial software for use by our computational chemistry team. A proven record of efficient and creative programming using Fortran and C in UNIX and VMS environments is required. You will also take primary responsibility for system maintenance of our extensive computational resources, including VAX 3100, μ VAX II, SGI 4D/280S, SGI 4D/25, and Macintosh IIcx/i computers. Experience with programming on Cray supercomputers is desirable.

Protein NMR

Using our dedicated Bruker AMX 500 MHz NMR, you will use protein NMR both as a protein structure determination tool on therapeutically important protein targets of MW < 20 kD and to study the details of ligand/protein interactions. The successful candidate will have extensive experience in all aspects of protein NMR with a demonstrated record of application of these techniques to real problems. The candidate should be enthusiastic about using NMR as part of an integrated application of X-ray crystallography and computational techniques to the study of protein structure and ligand/protein interactions.

Medicinal Chemistry

You will also use your synthetic organic chemistry skills in an experienced and enthusiastic team at the forefront of medicinal chemistry. Previous medicinal chemistry laboratory experience at a major pharmaceutical company is required. The successful candidate will bring a record of achievement in synthetic organic chemistry and an enthusiasm for working in a unique and highly integrated team of chemists, biochemists, and biophysicists dedicated to the design and synthesis of novel drugs.

Our salaries and benefits are excellent, as is the potential for equity and professional development. Please forward a detailed resume with salary history, indicating area of expertise, to: **Vertex Pharmaceuticals Incorporated, 40 Allston Street, Cambridge, MA 02139-4211.** We are an Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION. To use HSV-1 vectors to study neuronal physiology and perform gene therapy. Projects include expressing second messenger enzymes, such as protein kinases, in neurons to study their effects on neuronal physiology, such as neurotransmitter release; and developing HSV-1 vectors to ablate neural tumors. A background in molecular biology or molecular neurobiology is required; experience with tissue culture or HSV-1 is desirable. Send research interests, three letters of reference, and curriculum vitae to: **A. Geller, D810A, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115.**

POSTDOCTORAL POSITION CLINICAL NUTRITION RESEARCH UNIT VANDERBILT UNIVERSITY

A position is available for Ph.D. or M.D. to study energy metabolism in humans. Excellent facilities exist for measuring energy expenditure (including a whole-room indirect calorimeter), for measuring body composition, and for performing substrate clamps. Please send curriculum vitae, a brief description of research interests, and names of three references to: **James O. Hill, Ph.D., Clinical Nutrition Research Unit, D4130 Medical Center North, Vanderbilt University, Nashville, TN 37232.**

POSTDOCTORAL RESEARCH POSITION. The Rheumatic Diseases Division at University Hospitals/Case Western Reserve University has an NIH training grant position available for M.D., M.D./Ph.D., or Ph.D. to study (i) lymphocyte biology/dysfunction or complement metabolism in human and animal models of osteoarthritis. Faculty include Drs. G. Kammer (T lymphocyte biology); H. Smith (autoimmune models/anti-phospholipid syndrome); T. Haqqi (T cell receptor/collagen-induced arthritis); T. Hering (cartilage matrix/link protein); C. Malesud (proteoglycans/osteoarthritis); R. Moskowitz (animal models of osteoarthritis/spondylosis); J. Wisniewski (complement). *U.S. citizenship or permanent visa required.* Send curriculum vitae and three references to: **Dr. R. Moskowitz, University Hospitals, 2074 Abington Road, Cleveland, OH 44106.** *Equal Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITION. Available immediately to study the role of proteases and protease inhibitors in aging and Alzheimer's disease [*Cell* 52, 487 (1988); *Neuroscience* 32, 715 (1989); *Neurobiol. Aging* 10, 463 (1989)]. Individuals with experience in protein chemistry, enzymology, and molecular biology are encouraged to apply. Please send curriculum vitae, relevant reprints, and three letters of recommendation to: **Dr. Carmela R. Abraham, The Arthritis Center, Boston University Medical School, 71 East Concord Street, Boston, MA 02118-2394.**

POSTDOCTORAL POSITIONS. Available immediately to study the molecular activity of purified adenovirus E1A and E1B proteins using molecular biological approaches. Projects include: interaction with cellular factors/oncogenes and anti-oncogenes; **Dr. M. L. Harter.** Molecular virology studies concerning paramyxovirus-induced cell fusion. Projects include: interaction of F and HN glycoproteins, recombinant gene expression, and molecular pathogenesis; **Dr. M. S. Galinski.** Send curriculum vitae, a brief statement of research interests, and the names of three references to: **Department of Molecular Biology, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44119.**

POSTDOCTORAL ASSOCIATE

A postdoctoral position is available to study the basis for drug actions in the nervous system. This work is a collaborative effort combining techniques of electrophysiology and molecular biology in the laboratories of Drs. Steven Treisman and Hagan Bayley. Voltage-clamp techniques will be used to examine the effects of alcohol on membrane channels expressed in host cells from injected mRNA. Site-directed mutagenesis will allow the correlation of drug sensitivity with channel structure. Send curriculum vitae and the names and telephone numbers of three references to: **Dr. Steven N. Treisman, c/o Personnel Office, Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545.**

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POSITIONS OPEN

POSTDOCTORAL POSITION IN IMMUNOLOGY

Postdoctoral position available immediately to study immunological aspects of Alzheimer's disease in an NIA-funded Alzheimer's disease research center. Research will include identification, isolation, and functional significance of microglial cells obtained from Alzheimer's disease patients. Applicant should have strong background in immunology or cell or molecular biology. Position is available for two or three years with stipend negotiable. Send curriculum vitae and names of three references to:

**William R. Markesbery, M.D., or
Thomas Roszman, Ph.D.
Sanders-Brown Center on Aging
University of Kentucky (UK)
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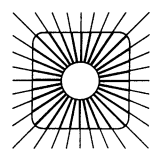
ADVANCE YOUR CAREER WHILE YOU ADVANCE SCIENCE

As one of California's most progressive pharmaceutical companies, Vical is focusing on new drug designs and more effective drug delivery methodologies. Currently, we're developing new therapeutic products in the areas of antiviral agents and enhancement of therapeutic protein action. We have an opening for a

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who will be the Virology Group Leader. Leading our virology research and compound efficacy screening in HIV, HSV and CMV in vitro assays carried out in our new P3 laboratory and supervising our murine LP-BM5 models of retroviral immunodeficiency. The ideal candidate will have a classical virology background with specific experience in HIV and HSV and related methodologies including plaque and p24 reduction assays.

Vical rewards your efforts with excellent benefits. Salary and equity commensurate with experience. For immediate consideration, please send resume to: **Human Resources Dept., Vical Inc., 9379 Towne Centre Drive, Suite 100, San Diego, CA 92121.**



VICAL INC.
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STRUCTURAL BIOLOGIST/ X-RAY CRYSTALLOGRAPHER

The Department of Biochemistry and Biophysics at the University of California, Davis, is seeking an outstanding individual with research training and experience in x-ray crystallography of biological macromolecules for a new tenure-track faculty position. The level of appointment is open (Assistant Professor/Associate Professor/Professor) and includes full-year salary. Applicants must have a Ph.D. (or equivalent), significant postdoctoral research experience, and demonstrated excellence in their field.

The Davis campus has initiated a major effort to enhance important research areas including structural biology and molecular and cellular biology. Several additional campus positions in structural biology have been allocated for the initial development of a Center for Structural Biology. The individual selected for the present position will have an opportunity to play a leading role in the development of the Center for Structural Biology at UC Davis involving faculty in several departments. The Department of Biochemistry and Biophysics is in the College of Agricultural and Environmental Sciences and is one of six departments in the Division of Biological Sciences. All faculty in the department also hold research appointments in the Agricultural Experiment Station. Appropriate space and start-up funds, including funds for new equipment, are available. Applicants will be expected to participate in undergraduate and graduate teaching and to develop a strong research program.

Applicants should provide a curriculum vitae, statement of research interests, selected reprints, and the names and addresses of three references to: **Dr. Don Carlson, Chair of the Structural Biologist/X-Ray Crystallographer Search Committee, Department of Biochemistry and Biophysics, University of California, Davis, CA 95616.** The Search Committee will begin reviewing applications on 1 March 1990; the position will remain open until filled. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

SKIN PHYSIOLOGY

The Gillette Research Institute, a division of The Gillette Company, has an opportunity in our Physiology department for a qualified scientist to join our shaving and skin research programs.

We are looking for a biophysicist/biochemist with a Ph.D. in a related science plus two to five years of related experience. Experience in skin research is desirable.

Gillette Research Institute is located in a new facility, outside of Washington, D.C., in an area rich in government, private, and academic scientific laboratories. We offer an excellent compensation, benefits, and relocation package. For consideration, please send a confidential resume to:



Gillette Research Institute
Personnel Department – SP 2
401 Professional Drive
Gaithersburg, MD 20879

Equal Opportunity Employer

Staff Scientist in Protein Chemistry Cold Spring Harbor Laboratory

Applications are invited for a newly created Staff Scientist position in the area of protein chemistry. The successful applicant will lead a program of protein identification, by microsequencing, as part of a funded effort to build 2D gel databases of mammalian and yeast proteins within the QUEST Protein Database Center. The applicant will also be expected to conduct independent research in an area of cancer biology or cellular regulation. Recently renovated, well-equipped laboratory space will be available including state-of-the-art facilities for 2D gel analysis and protein microsequencing. Appointments will be for 5 years at a level equivalent to Assistant or Associate Professor. Candidates should send a curriculum vitae, a description of their research interests and names of three references to:

Dr. R. J. Roberts
Cold Spring Harbor Laboratory
P.O. Box 100
Cold Spring Harbor, NY 11724

Cold Spring Harbor Laboratory

An equal opportunity employer



Postdoctoral Scientists

SmithKline Beecham Pharmaceuticals is among the world's top research and development companies. Our U.S. Research & Development Division is located in suburban Philadelphia.

At SmithKline Beecham Pharmaceuticals, you'll have the technology and resources to conduct breakthrough research in a collaborative, academic environment where publication of your results is strongly encouraged.

Gene Expression Sciences

As a member of a research group focusing on gene expression in *Streptomyces* species, you'll study transcriptional regulation of catabolite control, expression of regulatory gene products and their purification and characterization of the DNA-protein interaction governed by these regulatory factors.

For BOTH of these positions, you'll need a Ph.D. in Molecular Biology or other biological science, and background in recombinant DNA techniques, molecular genetics of *E. coli* or *Streptomyces*. Expression in microbial and/or eukaryotic systems, as well as protein purification and tissue culture preferred. Please refer to #S0123.

Molecular Genetics

As a member of a research group focusing on the molecular genetics of retroviruses, you will study the mechanism of action of essential retroviral proteins, in particular the transactivator of gene expression (tat), the reverse transcriptase and the retroviral protease.

Macromolecular Sciences Department

You will investigate conformational requirements for a bioactive peptide by installation of the sequence into a protein scaffold; perform experiments in molecular genetics, polypeptide chemistry and biochemistry; design/interpret experiments using computer graphics analysis and work with other groups to determine protein structures.

You'll need a Ph.D. in Chemistry, Biochemistry or the equivalent and background in protein purification and characterization. Also preferred are backgrounds in computer graphics analysis, binding assays and recombinant DNA techniques. Please refer to #S0122.

Each scientist will receive a competitive salary and comprehensive benefits. Our Postdoctoral assignments are normally 2 years in duration. Send your resume indicating position of interest to: Barbara Schwartz, Senior Employment Administrator, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. Equal Opportunity Employer, M/F/H/V.



SmithKline Beecham
Pharmaceuticals

POSITIONS OPEN

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION IN CHEMICAL AND MOLECULAR NEUROANATOMY

Postdoctoral position available (Ph.D. or M.D.), to study cytoskeletal proteins, growth factors, and transmitter and receptor pathways in human brain material and animal models of diseases. Focus is on: Parkinson's disease, Huntington's disease, schizophrenia, and depression. Research is directed toward elucidation of molecular mechanisms underlying psychiatric and neurological disorders that involve cortical-basal ganglia loop systems. Candidate should have a strong background in molecular biology. Send curriculum vitae, summary of research interests, and names of three references to: **Dr. Suzanne N. Haber, Department of Neurobiology and Anatomy, University of Rochester School of Medicine and Dentistry, 601 Elmwood Avenue, Rochester, NY 14642.**

POSTDOCTORAL RESEARCH ASSOCIATE GENE EXPRESSION

Position available to study the elements controlling globin gene activity at the molecular level using expression vectors. Candidates must have Ph.D. with experience in recombinant DNA technology. Salary: \$30,000. Send résumé to:

Dr. R. F. Rieder
Department of Medicine
State University of New York Health Science Center
450 Clarkson Avenue, Box #20
Brooklyn, NY 11203

INFECTIOUS DISEASE RESEARCH

The U.S. Naval Medical Research Unit No. 2 (NAMRU-2), Manila, Philippines, announces U.S. Civil Service openings:

SUPERVISORY MICROBIOLOGIST (GM-14/15). Chief Scientist, managing programs in Manila and Jakarta on malaria, HIV, arboviral diseases, and diarrheal diseases. Research areas include epidemiology, immunology, rapid diagnosis, pathogenesis, treatment, and vector bionomics. Develop and manage independent research in one or more of the above. Requirements: Ph.D. in relevant field, or M.D. with tropical medicine or epidemiology training, superior publication record, and experience in supervision of research. Prior overseas experience desired. Salary range: \$48,592 to \$74,303.

MEDICAL RESEARCH PHYSICIAN (GM-13). Head, Tropical Medicine Division. Areas of research are malaria, enteric diseases, HIV, and arboviral diseases, with emphases in epidemiology, pathogenesis, and treatment. Field studies/international travel integral; opportunity to develop and guide independent and emerging research efforts, and assess disease problems. Required: M.D. and infectious disease/tropical medicine/epidemiology experience. Salary range: \$41,121 to \$53,460.

MICROBIOLOGIST (GS-12). Emphasis on rapid diagnosis of viral diseases. Field studies and international travel integral. Required: Ph.D. in virology, microbiology, or related discipline. Salary range: \$34,580 to \$44,957.

NAMRU-2 is an established Navy research facility with state-of-the-art laboratories. Positions have applicable civil service overseas benefits, including 15% differential, housing, education, and home leave. Send current SF-171, curriculum vitae, and list of three references to: **Commanding Officer, NAMRU-2, APO San Francisco 96528-5000. Telephone: 632-732-3776. FAX: 632-732-3107. U.S. citizenship is required. An Equal Opportunity Employer.**

ASSOCIATE RESEARCH SCIENTIST. Wallingford, Connecticut. Perform experimental research in area of the discovery and development of new anti-viral drugs using knowledge of molecular cloning techniques, molecular biology, immunology, and tissue culture techniques. Utilize computer to analyze research findings. Master's degree (all but thesis) in molecular biology with concentration in DNA cloning and in vitro mutagenesis required. Studies must include use of IBM PC in performing experimental design and data analysis, protein and nucleic acid sequence analysis, and use of Southern blot and Western blot and CNA library screening techniques. Demonstrated use of spectrophotometry, chromatography columns, and electrophoresis instrumentation required. No experience required; 40 hours per week; \$33,000 per year. Send résumé to: **Job Service Technical Unit, Connecticut Department of Labor, 200 Folly Brook Boulevard, Wethersfield, CT 06109. Refer to: Job Order #3065411.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE.

The Research Institute on Alcoholism will have a postdoctoral position available fall of 1990 for candidates with interests or experience relevant to the study of research issues in alcoholism. Position is open to beginning level Ph.D.'s in the biological sciences or neurosciences. Strong background in neurochemical techniques to join research group to investigate neurochemical and behavioral aspects of drug tolerance and dependence in animal models is required. Previous experience in alcohol research is desirable. Salary and fringe benefits are competitive. *The institute has a strong Affirmative Action record and applications from minority candidates are particularly welcome.* Send curriculum vitae and supporting materials to: **Personnel, Research Institute on Alcoholism, 1021 Main Street, Buffalo, NY 14203. An Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE. To study cytokine regulation of the hypothalamic-pituitary-adrenal-axis during stress. Experience in small animal surgery, RIA, ELISA, or HPLC. Knowledge of molecular biology or tissue culture helpful. Joint appointment at Shriners Burns Institute, Massachusetts General Hospital, and Harvard Medical School. Send résumé to: **Hans H. Bode, M.D., 51 Blossom Street, Boston, MA 02114. Equal Opportunity Employer.**

RESEARCH ASSOCIATE IN MOLECULAR ENDOCRINOLOGY

Project to determine the mechanism by which estrogen receptor (ER) binding to regulatory element sequences (EREs) induces nearby promoters. Experiments involve measuring ER-ERE interaction in vitro and ER regulation of transcription from plasmids transfected into cultured cells. See *Proc. Natl. Acad. Sci. U.S.A.* 85, 1038 (1988) and *Biochemistry* 28, 8671 (1989). Send curriculum vitae and references to: **Drs. Russell Hilf and Robert Bambara, Department of Biochemistry, Box 607, University of Rochester, Rochester, NY 14642.**

RESEARCH ASSOCIATE. Cabrini Medical Center, a 493-bed acute care teaching hospital located in mid-Manhattan, is seeking a postdoctoral research associate for its Endocrinology Research Laboratory. Knowledge of molecular biology, tissue culture techniques, and hormonal receptor assays necessary. NIH-funded project examines the regulation of ovarian insulin receptors, insulin-like growth factor receptors, and their genes. We offer an excellent salary/benefits package. Please send curriculum vitae and salary history to: **A. Collado, Human Resources Department, Cabrini Medical Center, 227 East 19th Street, New York, NY 10003. Equal Opportunity Employer, M/F.**

THE UNIVERSITY OF CALGARY RESEARCH IN MOLECULAR ENDOCRINOLOGY

The University of Calgary, Faculty of Medicine, Endocrine Research Group, invites applications for faculty positions at the **ASSISTANT PROFESSOR** level or higher in the area of molecular endocrinology.

Successful candidates will be expected to develop an independent research program in the general area of molecular endocrinology, but priority will be given to applicants dealing with the mechanism of hormone action using molecular biological techniques. Highly qualified individuals in other areas of molecular endocrinology will also be considered. Candidates will be expected to compete successfully for support from the Alberta Heritage Foundation for Medical Research or the Medical Research Council of Canada.

Applicants require a Ph.D. and/or M.D. and research training at the postdoctoral level. Successful applicants will have 75% of their time protected for research.

Interested candidates should submit their curriculum vitae, the names of three references, and a statement of their aims and research interests by 1 June 1990, to:

Dr. H. J. Goren
Endocrine Research Group
Faculty of Medicine
The University of Calgary
3330 Hospital Drive, N.W.
Calgary, Alberta T2N 4N1, Canada

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary has an Employment Equity Program and encourages applications from all qualified candidates, including women, aboriginal people, visible minorities, and people with disabilities.

POSITIONS OPEN

RESEARCH ASSOCIATE. Position available for studies in developmental neuroendocrinology. Ph.D. in physiology, pharmacology, cell biology, or related discipline required. Techniques include cell culture and RIA. Background in signal transduction, molecular biology, or mechanisms of hormone action an asset. Competitive salary. Please send résumé and references to: **Dr. L. Cuttler, Case Western Reserve University/Rainbow Babies and Children's Hospital, Room 790, 2101 Adelbert, Cleveland, OH 44106.**

RESEARCH ASSOCIATE. Pharmacokinetic studies in experimental antimycobacterial chemotherapy. Ph.D. in pharmaceutical sciences, pharmacokinetics, or pharmacology is solicited for a postdoctoral research associate position in an NIH funded project. Experience in bioavailability or clinical pharmacology desirable.

Work involves pharmacokinetic and bioavailability studies in experimental mycobacterial chemotherapy using targeted and sustained drug delivery systems using biodegradable polymers.

Interested candidates may submit applications with curriculum vitae and three references to: **Dr. Pattisapu R. J. Gangadharam, Director, Mycobacteriology Research, National Jewish Center for Immunology and Respiratory Medicine, 1400 Jackson Street, Denver, CO 80206.**

The Department of Neurosciences, University of California, San Diego (UCSD), is seeking qualified applicants for a position as **ASSISTANT RESEARCH NEUROSCIENTIST**. The successful candidate will have extensive experience in behavioral studies of the avian visual system, methods in experimental neuroanatomy, including immunohistochemistry, various anterograde and retrograde tracing techniques with specific background in the organization of the avian visual system. Specific experience with behavioral, physiological, and anatomical studies of the ascending visual pathways to the telencephalon in birds is essential. Applicants must also have extensive familiarity with computer applications of statistics and graphics programs for morphometric measurements and three-dimensional spatial reconstructions of sections. M.D. or Ph.D. with at least 3 years of postgraduate experience required. Applications received on or before 31 March 1990 will be considered. Salary will be commensurate with candidate's experience and university policy. Send curriculum vitae and names and addresses of five references to: **Dr. Harvey Karten, Department of Neurosciences, M-008, UCSD, La Jolla, CA 92093. The University of California is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH SCIENTIST BIOMOLECULAR SCIENCE

This position will pursue frontier research in computational biomolecular science on our advanced scientific supercomputing facility, which includes a CRAY X/MP-48, CRAY-2, ALLIANT FX/80, a scientific visualization facility, CM-2, and a host of scientific workstations. The successful candidate will be expected to interact with the NCSA's (National Center for Supercomputing Applications) industrial partners active in biomolecular science and pharmaceutical design.

Qualifications:

- A Ph.D. in a related field.
- Five years of research experience at the postdoctoral level in supercomputer simulations of biomolecular dynamics, preferably of large molecules.
- Familiarity with molecular modeling and quantum chemistry applications software is highly desirable, as is an interest in protein analysis and drug design.

Starting date will be as soon as possible; salary will be commensurate with experience. The position can either be filled as a 12-month, 100%-time appointment, or in conjunction with a part-time faculty appointment, to be arranged with an appropriate departmental unit.

To insure full consideration, please send letter of application, résumé, and three letters of reference by 15 March 1990 to:

Michael Welge
National Center for Supercomputing
Applications-SM
Search #2365

152 Computing Applications Building
605 East Springfield Avenue
Champaign, IL 61820
Telephone: 217-244-2006

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

MOLECULAR BIOLOGISTS/VIROLOGISTS

Infectious Disease Research Department of Virology

Bristol-Myers Squibb has an active program in antiviral research, encompassing diagnostics, prophylactics and chemotherapeutics targeted against herpesviruses and retroviruses. The Department of Virology of the infectious disease research program in Wallingford is committed to the discovery and evaluation of novel chemotherapeutic agents of natural or synthetic origin. We have several candidate antiviral agents in preclinical and clinical evaluation.

To ensure our future success, we are now expanding our antiviral evaluation and molecular virology efforts. The evaluation involves *in vitro* and *in vivo* systems of retrovirus and herpesvirus infections, including HIV, and work in infected animals. The molecular virology concerns the replicative strategies of HIV and papillomaviruses, and murine transgenic models of viral infections.

The newly appointed scientists will be members of already existing groups, and will collaborate with scientists in Wallingford in medicinal chemistry, antiviral evaluation, biochemistry and molecular biology. If you want to join our active and successful antiviral research program and contribute to the discovery of new antiviral agents and help develop novel strategies, you should contact us.

We are looking for top quality, highly motivated candidates, who are willing to work with infectious HIV, to fill the following positions:

RESEARCH SCIENTISTS (2)

To develop programs in antiviral research on retro- or DNA viruses. Qualifications: Ph.D. and several years of post-doctoral experience in molecular virology, immunology or transgenic mouse technology.

ASSISTANT/ASSOCIATE RESEARCH SCIENTISTS (2)

To participate in the molecular virology program. Qualified B.S. or M.S. with laboratory experience in molecular or cellular biology, virology or transgenic mice techniques. Knowledge of histology is desirable.

RESEARCH SCIENTIST

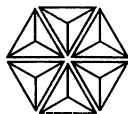
To develop a strong research program in virology related to (a) antiviral drug evaluation in infected animals and corresponding *in vitro* systems and, (b) development of animal models of virally-induced disease. Qualifications: Ph.D. in virology, physiology or immunology; 0-2 years of post-doctoral experience; experience with animal viruses, immunology and immunological techniques; experience in antiviral drug evaluation is preferred and understanding of animal physiology, pharmacology and viral pathogenesis is a major asset.

ASSISTANT/ASSOCIATE SCIENTIST

To evaluate antiviral agents against HIV and in other relevant cell-based assays. Qualifications: M.S. or B.S. with several years of experience in a biological science, including hands-on experience in tissue culture and retrovirus work. Preference will be given to candidates with prior experience with HIV.

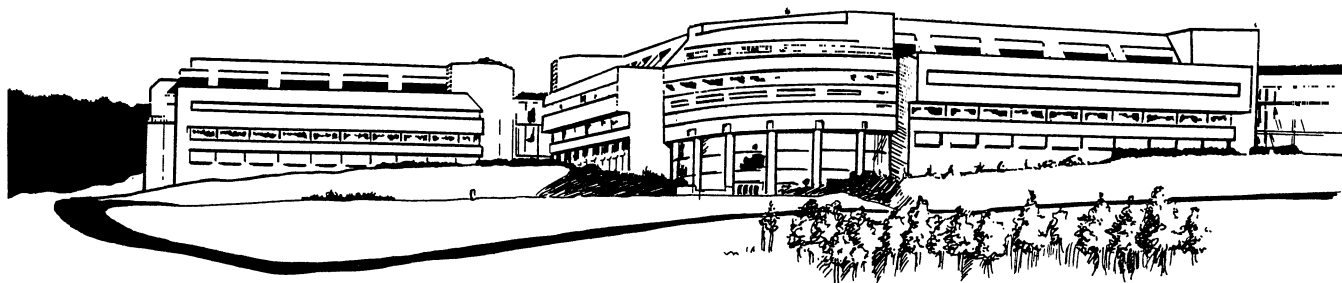
We offer excellent research facilities in well-equipped laboratories in a new research complex, encompassing a spacious vivarium and excellent BSL-3 laboratories currently under construction; an interactive, fertile and interdisciplinary scientific environment and a commitment to drug discovery and development, an excellent salary and a comprehensive benefits package. To apply, send resume and salary history to: **BRISTOL-MYERS SQUIBB COMPANY, Pharmaceutical Research & Development Division, Dept. SS1/SC/90, P.O. Box 5100, 5 Research Parkway, Wallingford, CT 06492-7661.**

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Cardiovascular Research

Scientist

CIBA-GEIGY Pharmaceuticals Division is world renowned for developing innovative compounds to treat cardiovascular and other disorders.

We have a challenging opportunity at our 100-acre headquarters complex in Summit, New Jersey for a Scientist to conduct experiments using in vivo techniques in small animals. Responsibilities include performing surgery, recording hemodynamic parameters, summarizing and reporting data. BS/MS in Biology, Zoology, Physiology, Pharmacology, and 2-8 years related experience required.

We offer competitive salaries, excellent benefits, and state-of-the-art facilities. Please send resume with salary history and requirements to: **Al Aronson, Staffing Center, CIBA-GEIGY Corporation, Pharmaceuticals Division, Dept 390, 556 Morris Avenue, Summit, New Jersey 07901.** We Are An Equal Opportunity Employer M/F/H/V.

Science Serving Mankind

CIBA-GEIGY



SERAGEN, INC. develops and produces genetically engineered hybrid toxins for human therapeutic application in various autoimmune disorders and cancers. We currently have the following professional opportunities.

Ph.D. Protein Chemist

We are seeking a Ph.D.-level Protein Chemist with a background in the large-scale purification of proteins. You must have experience in size exclusion and ion-exchange chromatography, diafiltration and HPLC; postdoctoral or industry experience, preferably with project or lab management background, is also required.

Cellular Immunologist

You will participate in ongoing biomedical research on the interaction of genetically engineered molecules with the immune system. We require experience in mammalian cell culture, lymphocyte separations, cryopreservation of lymphocytes, mixed lymphocyte culture, cytotoxicity assays, immunocytochemistry, radioimmunoassay and ELISA. Five years' hands-on research laboratory experience in tissue culture and cellular immunological techniques is desirable, and a BS in a Biological Science required.

Protein Purification

Working with our development group, this highly-motivated individual should be experienced in protein purification and characterization. You should have experience with column chromatography, SDS-PAGE, and basic biochemical assay techniques in order to develop a purification process for novel therapeutic proteins. A BS/MS in Biochemistry or related field is required.

Seragen, Inc. offers a highly competitive base salary and benefits program, plus a 401(k) plan. Interested candidates should send their resumes to our Human Resources Department; please reference specific position. An Equal Opportunity Employer.



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MOLECULAR BIOLOGISTS

SIGMA CHEMICAL COMPANY is seeking accomplished scientists to play a lead role in the development of diagnostic assays for infectious agents. Positions for biochemists, molecular biologists, and virologists are available. Positions require highly motivated individuals trained in genetics or molecular biology and who have experience utilizing nucleic acid probes.

SIGMA offers the unique opportunity to participate in challenging research programs, in an environment that fosters creativity and collaboration. If you meet the requirements and would like to experience research in a supportive environment, please submit your resume to:

Personnel Manager

Position -3

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St. Louis, MO 63178

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In the general area of computational science and computational engineering with special emphasis on:

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- simultaneous engineering and real time control of mechanical design and manufacturing
- computational physiology

POSTDOCTORAL MEMBERSHIPS are available. All requirements for a doctorate should be completed by September 1, 1990. The materials listed below must be submitted:

1. Personal statement of scientific interests, research plans, and reasons for wishing to participate in the Army High Performance Computing Research Center (AHPCRC).
2. Curriculum vitae and a list of publications.
3. Three (3) letters of recommendations, to be sent **directly** to the AHPCRC.

SENIOR MEMBERSHIPS are available. Preference will be given to supplementary support for those with sabbaticals, fellowships, or other stipends.

All materials should be submitted by March 16, 1990 (deadline extended).

All correspondence should be directed to:

University of Minnesota
Army High Performance Computing Research Center
Visiting Memberships
6-196 EE/CS Building
200 Union Street S.E.
Minneapolis, MN 55455

The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities.

NATIONAL INSTITUTES OF HEALTH

**DIRECTOR, DIVISION OF COMPUTER
RESEARCH AND TECHNOLOGY**

The National Institutes of Health, in Bethesda, Maryland, is recruiting for the position, Director, Division of Computer Research and Technology. The Director plans, directs, and conducts a broad research and services program to provide professional programming, computational, and automatic data processing capabilities in support of NIH's biomedical research needs. The Director provides executive level leadership for the transition into the future phases of computer science and technology as these new and advanced phases affect biomedical research and NIH computational requirements. This includes responsibility for keeping current with innovative and unique computer technologies and capabilities as well as advancing the state-of-the-art in computer research and applications. The Division of Computer Research and Technology is comprised of seven laboratories and branches with a staff of over 310 employees and a budget of approximately \$85 million.

This position is in the Senior Executive Service and has a salary range of \$71,200 - \$81,400, plus benefits. In addition, physicians may be eligible to receive an allowance up to \$20,000 per year.

Applicants must possess broad administrative experience in planning and conducting and integrated and multidisciplinary computational biomedical research and services program. In addition, applicants must have training and experience in one or more of the following disciplines: biomedical research, computer science, electronics or computer engineering, mathematics, or statistics.

To apply, send an Application for Federal Employment, SF-171, (available at all Federal Job Information Centers and Federal Personnel Offices), curriculum vitae and bibliography to the following address. Resumes are not acceptable applications.

Applications must be received by March 30, 1990.

**Mr. Stephen C. Benowitz, Director (S)
Division of Personnel Management
National Institutes of Health
Building 1, Room B1-60
9000 Rockville Pike
Bethesda, Maryland 20892**



Additional information may be obtained by calling Mr. Jack Andrews on (301) 496-5087.

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

***Program of Excellence in Molecular
Biology of Cardiovascular and
Pulmonary Growth and Development***

***Postdoctoral and Junior
Faculty Positions***

The University of California, San Francisco, announces two new research programs for **Junior Investigators** (Postdoctoral Fellows) and independent **Advanced Investigators** to participate in a 7-year NIH Program of Excellence in the Molecular Biology of the Cardiovascular System. The Program combines Faculty from the Departments of Anatomy, Biochemistry/Biophysics, Medicine, Pediatrics and the Cardiovascular Research Institute, and Howard Hughes Medical Institute. The research interests of the Program Faculty are:

Lewis T. Williams:	Regulation of Angiogenesis and Cardiogenesis by Growth Factors
Gail Martin:	Function of the Fibroblast Growth Factor Gene Family in Mammalian Embryogenesis
Marc Kirschner:	The Study of Mesoderm Induction in Amphibian Embryos
Patrick O'Farrell:	Developmental Coordination of Cell Proliferation
Charles Ordahl and Roger Cooke:	Molecular Analysis of Myofibrillar Isoprotein Switching
Robert Fletterick:	Structural Analysis of Proteins Involved in Cardiovascular/Pulmonary Function and Development
Keith Yamamoto and Philip Ballard:	Regulation of Gene Expression in Developing Lung

Junior Investigators will participate in postdoctoral research under supervision of Program Faculty and should have either a PhD, MD or both degrees at the time of their appointment. Inquiries and/or applications are encouraged from persons wishing to combine research with postgraduate clinical training. Applicants for Junior Investigator positions should send a letter of intent, research interests, curriculum vitae and the names and telephone numbers of three references, either directly to the Program Faculty or to the address given below. There is no deadline for application.

Advanced Investigators, to be selected by Program Faculty, will be provided with research space and funds for up to three years to pursue independent research projects of their own design on the developmental/molecular biology of the cardiovascular or pulmonary systems. In addition to appointment in the Program, Advanced Investigators will also hold faculty appointments (non-tenure-track) in appropriate clinical and/or basic science departments at UCSF. Advanced Investigators should have completed predoctoral (MD or PhD) and postdoctoral (research or clinical) training and should have a strong interest in pursuing novel approaches to the study of cardiovascular and/or pulmonary development. Applications for Advanced Investigator positions should include a letter of intent and research interests including a two-page outline of proposed research under the program, a curriculum vitae, and the names and telephone numbers of three references. Applications submitted prior to April 1, 1990, will be considered for the 1990 Advanced Investigator positions. Applications for the 1991 Advanced Investigator positions should be received no later than July 1, 1990.

**APPLICATIONS AND INQUIRIES
SHOULD BE ADDRESSED TO:**

**Ms. Marie Demcho-Wagor
c/o Lewis T. Williams, Box 0724
University of California, San Francisco
San Francisco, CA 94143-0724**

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Discover a bright future at Sterling Research Group, the worldwide pharmaceutical research and development organization of Sterling Drug Inc. As a subsidiary of Eastman Kodak, what makes Sterling outshine the rest is the unbeatable combination of a small, friendly company environment and the depth, resources, and growth potential of a large multinational corporation. So, apply for the following opening and discover Sterling.

STERLING CAREERS

Research Biologist

Natural Products Biology

Applications are invited for the position of Research Biologist at our laboratories in Rensselaer, New York. We are searching for a highly motivated individual who is interested in the study of microbial secondary metabolism and the discovery of biologically active natural products. The responsibilities will involve culturing microorganisms for the production of novel compounds and the development of analytical methods, including HPLC and TLC, for the initial characterization of unknown natural products.

The position requires a B.S./M.S. degree with formal training in biochemistry and organic chemistry. The ideal candidate would have experience in analytical biochemistry, chromatography, and industrial microbiology. In addition, we are seeking individuals who are familiar with and interested in fermentation scale-up and the operation of computer-controlled batch fermenters.

Sterling Drug offers competitive salaries and a comprehensive benefits program along with outstanding career opportunities for personal and professional growth. For confidential consideration, please forward your resume with salary history/requirements to: RS-077, Sterling Research Group, A Division of Sterling Drug Inc., 81 Columbia Turnpike, Rensselaer, New York 12144, a Subsidiary of Eastman Kodak Company, Equal Opportunity Employer M/F/H/V.



STERLING RESEARCH GROUP

A Division of Sterling Drug Inc.
A Subsidiary of Eastman Kodak Company

Build A Future With Sterling.

POSITIONS OPEN

RESEARCH ASSOCIATE. To conduct independent research involving controlled environment and field experiments as well as develop mechanistic computer simulation models to study effects of water deficits and plant growth regulators on crop plants. Will collect data involving measurements of carbon balance components (photosynthesis and respiration), carbon partitioning, transpiration, soil-plant water relations, and the plant environment. Will validate these models and will integrate them into more general crop production models. Will publish findings in refereed journals and cooperate with scientists of related disciplines. Salary: \$30,000 per year; 40 hours per week. Requires Ph.D. in agronomy and 3 years of related experience in research in crop-environment relations (field) including computer simulation modeling. Apply at: **Texas Employment Commission, Bryan, TX**, or send resume to: **Texas Employment Commission, TEC Building, Austin, TX 78778, J.O. #5518110.** Ad paid by an Equal Employment Opportunity Employer.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH SERVICE (USDA ARS)

RESEARCH CHEMIST. GS-13/14/15. Dairy Management Unit, Logan, Utah. ARS is seeking a dairy colloidal chemist to: (i) examine milk composition and factors that may effect the stability of emulsions and milk protein; (ii) study the conformation of proteins on the surfaces of emulsions; (iii) examine effects of homogenization on protein structure, especially casein micelles; and (iv) study the behavior of proteins in heated casein micelles. Candidates must be U.S. citizens and have a Ph.D. or equivalent doctoral degree in physical chemistry, food chemistry, or closely related fields plus: (i) knowledge of mechanisms of reaction and behavior of emulsions and casein micelles during milk processing; (ii) knowledge of dairy food processing on milk protein structure; (iii) knowledge of surfactants and/or colloidal chemistry; (iv) knowledge of Ca ion concentration effects on emulsions and milk casein structure and function; (v) skill in HPLC/FPLC and amino acid analysis; and (vi) skill in light scattering devices (UV/VIS, fluorescence and infrared). Salary is commensurate with experience (\$55,381 to \$63,164). For information on the research program and/or position, contact: **Dr. David H. Clark, telephone: 801-750-3297.** For information on application procedures/forms, contact: **Ms. Julia Murchinson, telephone: 301-344-3138.** Applications must be received by 30 March 1990. Applications in response to this advertisement should be marked **RB-9W-072-OW-002** and addressed to:

**USDA, Agricultural Research Service
Personnel Operations Branch
Western Section, W09, Room 318
6305 Ivy Lane
Greenbelt, MD 20770-1435
An Equal Opportunity Employer.**

RESEARCH SCIENTISTS IN MOLECULAR CARCINOGENESIS. POSTDOCTORAL POSITIONS available immediately to study the role of specific DNA lesions and chromatin structure in mutation and neoplastic transformation. Experience in biochemistry and molecular biology desirable. Send curriculum vitae and names of three references to: **Dr. Steven R. Patierno, Department of Pharmacology, The George Washington University Medical Center, 2300 Eye Street, N.W., Washington, DC 20037.** The George Washington University is an Equal Opportunity/Affirmative Action Employer.

RESEARCH SCIENTIST

The University of Virginia is seeking applications for a research scientist position in the area of design and fabrication of submillimeter wavelength GaAs Schottky barrier devices. Applicants should have experience in all areas of semiconductor device fabrication, including sub-micron lithography, RIE, CVD, evaporation, sputtering, mask design, vacuum systems, cryogenics, and microwave device testing. Experience in the theory and optimization of THz devices is necessary. An M.S. degree in electrical engineering or physics is required. Salary commensurate with experience and qualifications. Submit complete curriculum vitae to: **T. W. Crowe, Department of Electrical Engineering, Thornton Hall, University of Virginia, Charlottesville, VA 22903-2442** by 2 March 1990. The University of Virginia is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

RESEARCH POSITIONS. Available to work on gene regulation in the mammalian testis. Possible projects include: transcriptional analyses using an in vitro testicular transcription system; studies on RNA-protein interactions that modulate translation; in vivo footprinting of temporally regulated genes; and PCR studies of mitochondrial biogenesis during differentiation. Preference will be given to applicants with experience in molecular biology or protein chemistry. Salary commensurate with experience. Please send resume and names of references to: **Norman Hecht, Ph.D., Department of Biology, Tufts University, Medford, MA 02155.** An Equal Opportunity Employer.

RESEARCH SCIENTIST. Buffalo, New York. Perform research and develop new topical and dermatological semi-solid dosage formulations and novel drug delivery systems using knowledge of disperse and diffusion systems and skin permeation techniques and HPLC. Optimize stability and quality of products. Ph.D. in pharmaceuticals with concentration in skin permeation and transdermal drug delivery required. Coursework must include use of HPLC, disperse and diffusion systems. No experience required; 40 hours per week; \$47,000 per year. Send resume to: **New York State Job Service, Int. #50, 68 Huron Street, Buffalo, NY 14202.** Refer to: **Job Order #0104033.**

SENIOR RESEARCH ASSOCIATE SECTION LEADER/PERMANENT POSITION ACADEMIC APPOINTMENT POSSIBLE

Experienced biochemist/cell biologist at University Medical School, H. M. Bligh Cancer Biology Research Laboratory. Bench-work-oriented individual with meticulous working habits for in-depth investigations of role of human carcinoma cell membrane glycoconjugates in primary tumor establishment. Technical help available. Especially outstanding salary and benefits in view of the importance of the academic task, not grant-dependent. Send curriculum vitae, details of bench-work expertise, and bibliography to: **G. F. Springer, M.D., Head, H. M. Bligh Cancer Biology Research Laboratory, Chicago Medical School/Veterans Administration Medical Center, 3333 Green Bay Road, North Chicago, IL 60064.** Equal Opportunity Employer, M/F.

IN VIVO SPECTROSCOPIST UNIVERSITY OF IOWA COLLEGE OF MEDICINE

The Departments of Radiology and Biochemistry of the University of Iowa seek a highly qualified applicant for a joint faculty position at the **ASSISTANT PROFESSOR** (tenure track) **TO PROFESSOR** (tenured) level. This position is for a person who uses in vivo NMR to solve significant problems in biochemistry and who will provide leadership in collaborations on the development of spectroscopic techniques for clinical applications. The primary appointment will be in radiology, which will be operating three clinical NMR systems, including two with full spectroscopic capabilities. The secondary appointment will be in biochemistry, which provides educational programs for professional, graduate, and undergraduate students. A joint appointee is expected to give one-half of the full-time effort to each department's activities. In addition to teaching and research, the faculty member will be expected to direct graduate student research. Salary will be competitive and will depend on qualifications and experience. Start-up support for equipping a laboratory and initiating research programs will be provided.

All applicants must have a Ph.D., M.D., or the equivalent. Experience with in vivo NMR is preferred. Applicants for assistant professor rank should have at least 2 years of productive postdoctoral experience and the potential to initiate and maintain a rigorous research program. Applicants for associate or full professor rank should have well-funded, on-going research programs and significant national stature in their research areas. Applications should include complete curriculum vitae and a summary of future research plans. Applicants for a junior faculty position should ask three scientists familiar with their work to write letters of reference. Applicants for a senior position should include the names of at least three references. Applications, nominations, and letters of reference should be sent to: **James C. Ehrhardt, Ph.D., Department of Radiology, College of Medicine, University of Iowa, Iowa City, IA 52242.** Women and members of minorities are encouraged to apply. The University of Iowa is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

SENIOR RESEARCH ASSOCIATE. To conduct experimental research in the physics of charged particle beams involving studies of intense relativistic electron beams including beam generation, propagation, transport compression, and collective ion acceleration. Ph.D. in nuclear engineering or physics and 5 years of experience or 5 years of experience as researcher in areas relevant to charged particle beams and accelerators, diagnostics, high-speed electronics, data acquisition, and pulse power. Five-day, 40-hour week; \$40,000 per year. Send résumé with copy of ad to: **DEED, Room 212, 1100 North Eutaw Street, Baltimore, MD 21201. CO#8943524.** Proof of legal right to work in United States required.

LABORATORY RESEARCH TECHNICIAN TRANSPLANTATION BIOLOGY

The Transplantation Biology Research Laboratory in the Department of Surgery, Cedars-Sinai Medical Center, is seeking qualified applicants for a full-time position at the laboratory research technician level. The incumbent should have a B.S., M.S., or equivalent with at least 2 years of related experience working in a health sciences research laboratory. The individual will be responsible for nonsurgical experimental procedures for defined investigations such as anesthesia, pre- and post-operative pharmacologic treatments, splenic lymphocyte immunization, and blood collection. Minor surgical procedures will include skin grafting, splenectomy, and collection of bodily fluids and tissues at necropsy. Established work duties are performed with considerable independence.

Applicants will be accepted until the position is filled. Candidates should submit their résumé and names of three references to:

Dr. Donald V. Cramer
Department of Surgery
Cedars-Sinai Medical Center
8700 Beverly Boulevard
Los Angeles, CA 90048

SENIOR TECHNICIAN PROTEIN ELECTROPHORESIS MOLECULAR EVOLUTION PROGRAM

The Smithsonian Tropical Research Institute, located in the Republic of Panama, seeks a senior technician to manage a protein electrophoresis laboratory, beginning 1 June 1990. M.S. degree or equivalent with substantial experience in both laboratory techniques and data analysis required. Must work effectively with scientists varying widely in biochemical training and linguistic background. The successful candidate will be part of a growing program whose goal is to bring modern biochemical methods to the study of diverse tropical biotas. Curriculum vitae and two confidential letters of recommendation should be sent directly to: **Nancy Knowlton, Smithsonian Tropical Research Institute, APO Miami, FL 34002-0011.** Review of applications will begin 15 March 1990 and continue until position is filled. *Equal Opportunity Employer. Employment not limited to U.S. citizens.*

VASCULAR PLANT SYSTEMATIST

The Department of Biology at the University of Northern Iowa (UNI) invites applications from individuals with a Ph.D. degree for a tenure-track position effective August of 1990. The applicant's research must be in vascular plant systematics using modern systematics techniques and include a significant field component. The research specialty should invite participation by graduate (M.A.) and undergraduate students. One responsibility of the position is active curation of the M. L. Grant Herbarium (ISTC) which contains 33,000 specimens, primarily of Iowa vascular plants. Teaching responsibilities typically are three courses per academic year including plant systematics, an advanced specialty course, and introductory biology. An opportunity is available for summer teaching and research at Iowa Lakeside Laboratory. The department expects excellence in both teaching and research. Salary is competitive and commensurate with experience and qualifications. Teaching experience and/or postdoctoral research preferred. Applicants should send curriculum vitae, transcripts, a statement of interests and goals in both teaching and research, relevant reprints, and three letters of recommendation. For full consideration material should be received by 9 March 1990. Send application to: **Dr. George Hoffman, Department of Biology, University of Northern Iowa, Cedar Falls, IA 50614-0421.** UNI is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE OPPORTUNITIES

Amgen has emerged as an innovative leader in the discovery and development of human therapeutics through applied biotechnology. We recognize that our future success depends upon continued commitment to scientific excellence. As a result of this commitment and our rapid growth we have several opportunities for B.S. and M.S. level scientists who wish to share **Amgen's** commitment to scientific excellence. Those opportunities currently being recruited for are listed below.

EXPERIMENTAL HEMATOLOGY

Dept. #506

Responsibilities include mouse and human bone marrow cell culture, tissue culture of a variety of mammalian cell lines and performing a number of factor dependent bio-assays in our Experimental Hematology Group. Qualified candidates must have a B.S. or M.S. in Cell Biology or a related discipline and a minimum of one year's experience in mammalian cell culture. Previous experience in bone marrow culture, cellular bio-assays and handling of small animals is highly desirable.

BIOCHEMISTRY

Dept. #507

Contributions will be made to on-going research efforts in the identification of novel hematopoietic growth factors as well as comparing and characterizing recombinant and natural proteins. Candidates must have a B.S. or M.S. in Cell Biology, Biochemistry or a related discipline and a minimum of two years' experience in mammalian cell culture and general biochemical techniques. Familiarity with immunological and biological assays for the quantification of biological activity is essential.

ANALYTICAL PROTEIN CHEMISTRY

Dept. #508

Qualified candidates will participate in the development of analytical methods for the analysis of recombinant proteins. A B.S. or M.S. in Biochemistry or a related discipline and a minimum of two years' experience applying a variety of methodologies from HPLC to protein analysis are required. Demonstrated ability to work independently is essential. Previous industrial experience is highly desirable but not essential.

MOLECULAR BIOLOGY

Dept. #509

Our Molecular Biology and Immunology Groups have several opportunities available with responsibilities including assay development, cDNA cloning, and general molecular biology as they relate to a number of on-going research projects. A B.S. or M.S. in Molecular Biology, Biochemistry or a related discipline and a minimum of two years' experience in molecular and cellular biology are required. Experience in basic gene cloning and mammalian tissue culture is essential. Familiarity with a variety of bio-assays, cDNA cloning and gene expression in prokaryotic and/or eukaryotic systems is highly desirable.

Amgen offers a stimulating and challenging research environment on the leading edge of biotechnology as well as an excellent compensation and benefits package. If you have the necessary skills and qualifications and would like to be a part of a company that places a high priority on its human resources, please send a resume or CV, specifying the appropriate Dept. #, in confidence, to:

AMGEN, INC.
Recruitment, Dept. # (please specify)
Amgen Center
Thousand Oaks
CA 91320-1789

Equal
Opportunity
Employer

AMGEN

POSITIONS OPEN

SUPERVISORY PHYSICAL SCIENTIST. The Ocean Applications Group (OAG), a division of the Office of Ocean Services, National Ocean Service, NOAA, U.S. Department of Commerce, is a component of the NOAA Center for Ocean Analysis and Prediction (COAP). COAP is co-located with the Navy's Fleet Numerical Oceanography Center, Monterey, California. COAP was established to be a national NOAA center for the development, exchange, integration, and dissemination to government, industry, and academia of biological, chemical, and physical oceanographic products and services for effective management of living marine resources. In addition, the center will perform selected tasks in support of climate and global change and coastal ocean programs. The OAG provides physical oceanographic support and data management services. The incumbent will plan activities of the OAG in coastal oceanography and supervise other scientists. Must have a bachelor's degree in physical science, engineering, or mathematics that included 24 semester hours in physical science (additional education to the Ph.D. level is preferable) plus 1 year of professional experience involving research of coastal oceans. Must show ability to (i) manage research projects; (ii) perform applied research in the areas of physical oceanography, marine meteorology, and remote sensing; (iii) utilize ADP systems from mainframes to desktop interactive systems; and (iv) apply numerical modeling and evaluate models developed by others. Salary is \$50,342 to \$65,444 per year plus benefits. Send application noting announcement FLP-30-90 to: U.S. Office of Personnel Management, Los Angeles Area Office, 845 South Figueroa Street, Room 324, Los Angeles, CA 90017, postmarked no later than 15 March 1990. For additional information, a copy of the announcement, or federal application form (SF-171), contact: Maria Harris, telephone: 206-526-6517. *Equal Opportunity Employer.*

VERTEBRATE PHYSIOLOGY

Anticipated tenure-track **ASSISTANT PROFESSOR** position in vertebrate physiology, August of 1990. A successful candidate will be expected to obtain extramural funding, develop and maintain a vigorous research program, and to teach in an area of specialization. Ph.D. required, postdoctoral experience preferred. Candidate must have demonstrated a commitment to excellence in teaching and research. Send letter of application, curriculum vitae, brief description of current and future research interests, and four letters of reference to: **Dr. Timothy Mulkey, Chairperson, Physiology Search Committee, Department of Life Sciences, Indiana State University, Terre Haute, IN 47809.** Application review will begin 16 March 1990 and will continue until position is filled. *Indiana State University is an Equal Opportunity/Affirmative Action Employer.*

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH SERVICE (USDA ARS) VETERINARY MEDICAL OFFICER MICROBIOLOGIST PHYSIOPATHOLOGY RESEARCH UNIT NATIONAL ANIMAL DISEASE CENTER (NADC) AMES, IOWA

ARS is seeking a scientist to participate in its research program on pathogenesis and transmission of salmonellosis in swine. This individual will be a member of a team comprised of two other scientists, three technicians, and two research animal technicians. The primary objectives of this project are to define the host-microbe relationships responsible for establishing and maintaining chronic enteric *Salmonella* infections in swine (carrier state) and develop strategies to modify the carrier state.

The candidate must have proven research experience with a strong background in molecular biology, immunology, and virulence attributes of pathogenic bacteria and demonstrated knowledge and skill in communication.

Ph.D. is desirable. *Must be U.S. citizen.* Salary is commensurate with experience (\$42,601 to \$55,381). For information on the position, contact: **Dr. Shannon C. Whipp, Research Leader, Physiopathology Research Unit, NADC, or telephone: 515-239-8242.** For information on application procedures/forms, contact: **Janie E. Carr, telephone: 301-344-4569.** Applications in response to this advertisement should be marked 0N014.

Applications must be postmarked by 3 April 1990.

FELLOWSHIPS

POSTDOCTORAL FELLOW. Development of efficient molecular probes and alternate methods of detection of RNA viruses for studies of pathogenesis of hemorrhagic fever viral infections. Qualifications should include cloning techniques, oligonucleotide labeling PCR techniques. Contact: **Dr. A. B. Jensen, Department of Pathology, Georgetown University School of Medicine, 3900 Reservoir Road, N.W., Washington, DC 20007.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW (PHARMACOLOGY/TOXICOLOGY). To study the nephrotoxic mechanisms of succinimides and related compounds. Experience with enzymatic assays, HPLC techniques, and/or medicinal chemistry methods is highly desirable. Send résumé and the names and addresses of three references to: **Gary O. Rankin, Chairman, Department of Pharmacology, Marshall University School of Medicine, Huntington, WV 25755-9310.** Available immediately. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW, MOLECULAR BIOLOGY OF NEURAL INDUCTION. Excellent prospects for beginning a research project aimed at resolving one of the core problems of neurobiology, using molecular biological and immunological methods. Expertise in molecular biology essential. Write: **Marcus Jacobson, Anatomy Department, University of Utah School of Medicine, Salt Lake City, UT 84132.** Telephone: 801-581-6720. *Equal Opportunity Employer.*

POSTDOCTORAL FELLOW. Position open to study systemic and renal hemodynamics and changes in vasoactive humoral substances before and after altered divalent ion nutrition. Ph.D. in physiology or pharmacology required. Position is for 2 years of support, salary is negotiable. Closing date: 1 May 1990. Submit curriculum vitae to: **Edward T. Zawada, Jr., M.D., Professor and Chairman, University of South Dakota, School of Medicine, P.O. Box 5046, Sioux Falls, SD 57117-5046.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOWSHIPS. Available immediately on NINCDS training grant. Specialty areas of 20 preceptors focus on control of brain catecholamine systems, anatomy of pain and somatic sensation, neuromuscular anatomy and physiology, ion channels and receptors, autonomic nervous system function, neural development and growth factors, neural bases of cyclicity and reproduction, genetic and endocrine control of behavior, neural plasticity in adult animals, brain energy metabolism, genetic and disease vectors in neuropathology, and brain-behavior specialization. Training program has been in existence since 1975 and is broadly interdisciplinary with preceptors representing nine university departments. *Applicants should be U.S. citizens and have earned either the Ph.D., M.D., D.O., or D.V.M.* Send curriculum vitae, statement of research interests, and names of three references to: **Cheryl L. Sisk, Neuroscience Program, Michigan State University, East Lansing, MI 48824-1117.** Telephone: 517-355-5253. *Women and minorities are encouraged to apply.*

POSTDOCTORAL FELLOWSHIPS

The Science Alliance Center of Excellence invites applications for two postdoctoral positions available in the following areas: Chronic Virus Infection of the Gastroenteric Tract—**D. A. Brian, coronavirus; L. N. D. Porcieter, flavivirus; N. K. Clapp, marmoset research; Molecular Biology of Pathogenic Fungi—J. M. Becker, pheromones and transport; W. S. Riggsby, dimorphism and epidemiology; R. N. Moore, immunobiology; Molecular Evolutionary Genetics—G. F. McCracken, DNA variation in natural populations; potential collaboration with C. R. B. Boake, A. C. Echternacht, D. A. Etnier, J. L. Gittleman, S. E. Riechert; Phytoplankton Ecology—W. O. Smith; Immunobiology of Viral Infections—B. T. Rouse, herpesvirus; S. Kennel, antiviral immunity; Protein Engineering—D. M. Roberts, calcium regulatory proteins; E. Howell, dihydrofolate reductase; Metal Biochemistry—J. G. Joshi, ferritin; J. C. Churchich, pyridoxal phosphate kinase; S. Georgiou, stopped-flow fluorometry; W. R. Farkas, metal toxicity; K. B. Jacobson, metal toxicity. Interested individuals should write for an application packet by 15 March 1990. Positions are available immediately at a starting salary of \$25,000 per annum with the possibility of renewal. Write to: **Science Alliance Postdoctoral Fellowship, Biology Consortium, M303 Walters Life Science Building, The University of Tennessee, Knoxville, TN 37996.** *The University of Tennessee is an Equal Opportunity/Affirmative Action/Title IX/Section 504 Employer.***

FELLOWSHIPS

FOSSIL ENERGY POSTGRADUATE RESEARCH PROGRAM. Opportunities at Department of Energy Technology Centers in Morgantown, West Virginia, and Pittsburgh. Research positions in the areas of physical sciences, engineering, and microbiology available. Degree within last 3 years required, as is U.S. citizenship or PRA status. Contact: **Fossil Energy Postgraduate Program, Science/Engineering Education Division, Oak Ridge Associated Universities, Box 117, Oak Ridge, TN 37831-0117.** Telephone: 615-576-3456.

RESEARCH FELLOW, DIVISION OF CHEMICAL CARCINOGENESIS

A research position is available for a highly motivated scientist to study the role of endogenous aldehyde in nitrosamine carcinogenesis. Experience in DNA adduct studies is a plus, but is not a requirement.

The American Health Foundation is located in a northern suburb of New York City and provides an excellent research environment for career development.

Please submit curriculum vitae and three references to:

**Dr. Fung-Lung Chung
American Health Foundation
Division of Chemical Carcinogenesis
Section of Nucleic Acid Chemistry
1 Dana Road
Valhalla, NY 10595**

An Equal Opportunity Employer, M/F/H/V.

POSTDOCTORAL RESEARCH FELLOW-SHIP. Fellows may be involved in design, development, and implementation of AIDS behavioral research: KAP surveys, intervention programs, evaluation strategies, and related activities. Duration: 18 to 24 months. Eligibility: Ph.D., M.D., Dr.Ph.; U.S. citizen or permanent resident. Placement will be in a Third World country with a host-country institution involved in AIDS prevention. Experience in AIDS or related fields such as STD, adolescent pregnancy prevention, or substance abuse required. Research will be conducted under the guidance of a U.S. preceptor. Send inquiries, curriculum vitae, three-page research proposal, and two letters of recommendation to: **Director, AIDSTECH Project, Family Health International, P.O. Box 13950, Research Triangle Park Branch, Durham, NC 27709.** FAX: 919-544-7261. *Equal Opportunity/Affirmative Action Employer, M/F/H.*

Are you a recent Ph.D. who enjoys research? This is a challenging position for an independent, clear-thinking individual who is well organized and dedicated to understanding the genetic and molecular basis of malignant disease in humans. As part of a highly interactive group, you will direct research focused on cloning important cancer genes as well as the development of probes and novel technology to map selected regions of the human genome. A thorough working knowledge of molecular biology and postdoctoral experience are required. We offer a very competitive salary and benefits package. Please submit your résumé, a statement of research interests and background, and the names of three references to: **Search Committee for Molecular Oncology Research Fellow, c/o Personnel Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111.** *Equal Opportunity Employer.*

GRADUATE FELLOWSHIPS IN MICROBIOLOGY AND MOLECULAR GENETICS

The Department of Microbiology and Molecular Genetics at the University of Vermont invites applications from persons interested in a career in molecular biology. Current research opportunities include study of: the enzymology and regulation of cellular DNA repair processes; ribozyme structure and function; structure and assembly of transcription complexes in yeast chromatin; cloning and regulation of yeast ras/rho homologs; cloning and regulation of *Schizopyllum* mating type genes; molecular mechanisms of bacterial adhesion; DNA methylation-directed regulation of mammalian transcription; RNA polymerase II/DNA interactions in eukaryotic cells; initiation and control of the carcinogenic state; and receptor-mediated endocytosis and intracellular processing of protein toxins and viruses with cultured mammalian cells. Tuition remission plus current stipend of \$10,700 per year. Write: **Dr. David S. Pederson, Department of Microbiology and Molecular Genetics, The University of Vermont, Given Building, Burlington, VT 05405.**

**THE UNIVERSITY OF ADELAIDE
SOUTH AUSTRALIA**

Invites applications from both women and men for the following position:

RESEARCH ASSOCIATE

AT THE

WAITE AGRICULTURAL RESEARCH INSTITUTE

(Ref: 6987) to commence as early as possible in 1990. The Associateship may be held in any department of the Waite Agricultural Research Institute, namely the Departments of Agricultural Biochemistry, Agronomy, Animal Sciences, Entomology, Plant Pathology, Plant Physiology, Soil Science and the Biometry Section.

Applicants should have gained their PhD qualification elsewhere than at the University of Adelaide.

The Associateship will be tenable for two years from the date of commencement and will not be renewable.

TRAVEL PROVISION: The University will provide, for a person taking up appointment from outside South Australia, an economy class airfare to Adelaide by the shortest practicable route. There is no provision for transfer of personal effects.

INFORMATION about the general conditions of appointment and selection criteria may be obtained from the Senior Assistant Registrar (Personnel) at the University.

SALARY per annum: A\$27,953 × 5 — A\$31,808.

APPLICATIONS must be made on the prescribed form obtainable, together with a leaflet outlining conditions of appointment, from the Senior Assistant Registrar (Personnel) of the University of Adelaide, GPO Box 498, Adelaide, South Australia, 5001, Telex UNIVAD AA 89141, Facsimile (08) 224 0464, with whom applications must be lodged not later than 16 March 1990.

The University reserves the right to make enquiries of any person regarding any candidate's suitability for appointment, not to make an appointment or to appoint by invitation.

THE UNIVERSITY OF ADELAIDE IS AN EQUAL OPPORTUNITY EMPLOYER.



Specialist in Xenobiotic Metabolism

The Metabolism Department of Bio-Research Laboratories is seeking a scientist to supervise pre-clinical ADME projects. The position calls for a PhD in pharmaceutical sciences or medicinal chemistry and ideally postdoctoral experience in the drug metabolism field. In addition, you must have a strong background in radiometric techniques and bioanalytical methods of analysis, as well as excellent oral and written communication skills. Knowledge of GLP regulations would be an asset.

Bio-Research Laboratories, one of the world's leading contract research laboratories in the life sciences, is located just outside cosmopolitan Montreal. With a staff of over 600, the company conducts pre-clinical and clinical testing of chemicals and pharmaceuticals.

We offer a competitive compensation, commensurate with qualifications and experience, in addition to an excellent benefits package. For consideration, please forward your resume to: **Human Resources Department, Bio-Research Laboratories Ltd., 87 Senneville Road, Senneville, Quebec, Canada H9X 3R3.**

RESEARCH SCIENTISTS PhD/MS/BS

Cellular and Molecular Biology

Bristol-Myers and Squibb who have joined forces to form one of the world's pre-eminent pharmaceutical research and development organizations, has a state-of-the-art facility in Wallingford, Connecticut that fosters individual achievement and interdisciplinary cooperation. We currently have excellent opportunities to join a multidisciplinary group studying the molecular and biochemical mechanisms of cancer:

Research Scientist

Primary focus of position will be the identification and characterization of trans-acting factors involved in oncogene and growth factor regulation. Candidates should have a PhD and Postdoctoral experience in a relevant biological discipline.

Associate Research Scientist

Primary focus will be participation in gene regulation studies. Candidates must have BS or MS in Biology or related field, and experience in DNA/RNA isolation and characterization, DNA sequencing, cloning and transfection.

Bristol-Myers Squibb offers sustained growth, highly competitive salaries, extensive benefits and career support. To apply, please send resume to: **BRISTOL-MYERS SQUIBB COMPANY, Pharmaceutical Research & Development Division, Att: MH184, P.O. Box 5101, 5 Research Parkway, Wallingford, CT 06492-7661.** An Equal Opportunity Employer M/F/H/V.



Bristol-Myers Squibb Company

"Stronger Than Ever In Global Health Care"

FELLOWSHIPS

POSTDOCTORAL RESEARCH FELLOW-SHIP. Two-year position funded by the American Cancer Society to study problems related to the role of metalloproteinases in human prostate carcinogenesis. Ph.D. or M.D. with experience in cell and/or molecular biology techniques desired. Position available immediately. Apply with curriculum vitae and three letters of reference to: **Ray B. Nagle, M.D., Ph.D., Department of Pathology, University of Arizona, Tucson, AZ 85724** by 2 March 1990. *The University of Arizona is an Equal Opportunity/Affirmative Action Employer.*

INTERNATIONAL CANCER RESEARCH FELLOWSHIP

The Hayashibara Foundation, a nonprofit organization within the Hayashibara Group, announces a fellowship program. Fellowships will be taken up at the Fujisaki Cell Center, which is devoted to basic and applied research related to the problems in human cancer. The fellowship is normally made for 1 year and is renewable for up to 5 years. The fellowship will be expected to commence within 6 months of the announcement of the awards. No fixed deadline for application is set throughout the year. The awards are for high quality research work in one of three categories:

- Fundamental leukemia-lymphoma research
- Cytokine-lymphokine research
- Hematopoietic cell lines

Qualified persons who hold a Ph.D., M.D., or equivalent qualifications should request additional information and application forms from: **Jun Minowada, M.D., Director, Fujisaki Cell Center, 675-1, Fujisaki, Okayama 702, Japan.**

POSTDOCTORAL FELLOWSHIP RENAL CELL PHYSIOLOGY BIOCHEMISTRY

Several postdoctoral positions are available in a multidisciplinary hypertension program project, "Vasoactive Hormones: Receptor and Signaling Mechanisms," which includes the Departments of Medicine, Physiology and Biophysics, Pharmacology, Genetics, and Environmental Health Sciences. Primary focus is on cell culture of primary and transformed renal epithelial cells, regulation of transport in cell monolayers, and biochemistry of intracellular signaling pathways. The positions provide training opportunities in cell culture, transformation of cells, epithelial electrolyte transport, biochemistry of P450 enzymes, molecular biology, and video- and computer-enhanced light microscopy. Interested persons should send curriculum vitae and two letters of recommendation to: **Ulrich Hopfer, M.D., Ph.D., Department of Physiology and Biophysics, Case Western Reserve University (CWRU) School of Medicine, 2119 Abington Road, Cleveland, OH 44106. Telephone: 216-368-2878. CWRU is an Equal Opportunity Employer.**

PREDOCTORAL AND POSTDOCTORAL FELLOWSHIPS IN ENVIRONMENTAL TOXICOLOGY

The Joint Graduate Program in Toxicology of Rutgers, The State University of New Jersey and the University of Medicine and Dentistry of New Jersey/Robert Wood Johnson Medical School, in association with the Environmental and Occupational Health Sciences Institute, is conducting a national search for scholars who wish to earn the M.S. and/or Ph.D. in toxicology as well as for degree holders who wish to do postdoctoral training in a research institute dedicated to the advancement of our understanding of the effects of chemicals in our environment. Our internationally recognized faculty will provide you with an opportunity to conduct basic research into cellular/molecular toxicology, toxicology of the immune system, the liver, the bone marrow, the lung, the nervous system, the reproductive system, carcinogenesis, and avian and aquatic toxicology. Special emphasis is placed on mechanisms of toxicity, the role of the metabolism of environmental chemicals, and the application of the techniques of molecular biology to solve toxicological problems. Sources of support come from an NIEHS training grant, teaching assistantships, and a variety of fellowships. For further information please contact: **Dr. Robert Snyder, Director, Joint Graduate Program in Toxicology, Rutgers University College of Pharmacy, P.O. Box 789, Piscataway, NJ 08855-0789. Telephone: 201-932-3720. Rutgers, The State University of New Jersey, is an Equal Opportunity/Affirmative Action Employer.**

FELLOWSHIPS

Several **POSTDOCTORAL FELLOWSHIPS** will be available in the Center for the Neurobiology of Aging at the University of Florida, beginning 1 July 1990. These fellowships are funded by the National Institute on Aging (NIH-type stipends) and can be used to study with any of the 35 faculty members of the center, representing ten departments. For more information about these fellowships or the center faculty, please write to: **Edwin M. Meyer or James W. Simpkins, Co-Directors, Center for the Neurobiology of Aging, P.O. Box J-267, J. H. Miller Health Center, University of Florida, Gainesville, FL 32610.**

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE. Available immediately. Research project concerning the mechanism of complement-induced leukocytosis. Candidate should have a Ph.D. or M.D. degree with primary interest in cellular activation mechanisms and cell trafficking in animal models. A background in biology, pharmacology, or biochemistry is required. Experience in cellular biology is preferred. Please send curriculum vitae and three letters of reference to: **Dr. Tony E. Hughli, Immunology Department (IMM18), Research Institute of Scripps Clinic, 10666 North Torrey Pines Road, La Jolla, CA 92037.**

POSTDOCTORAL FELLOWS. The Westinghouse Savannah River Company has immediate openings for two postdoctoral fellows in the Environmental Sciences Section of the Savannah River Laboratory.

These openings are for 1-year contracts, which are renewable for one additional year. Minimum requirements: Ph.D. in soil microbiology or microbial ecology. Preference will be given to those with experience in any of the following: molecular biology, bioremediation, bioreactor design, studies in contaminated groundwaters or soils, and/or biodegradation of xenobiotics. Candidates must qualify as Oak Ridge Associated Universities postdoctoral fellow, curriculum vitae, reprints, and names, addresses, and telephone numbers of three references.

Applicant must be able to obtain a U.S. Department of Energy "Q" clearance. *U.S. citizenship required.*

Salary is commensurate with your training and experience. For confidential consideration, please send résumé and salary history to: **Dr. Terry C. Hazen, Environmental Sciences Section, Savannah River Laboratory, Westinghouse Savannah River Company, Aiken, SC 29808-0001. An Equal Opportunity Employer.**

ANNOUNCEMENTS

CALL FOR RESEARCH PROPOSALS

The Johns Hopkins Center for Alternatives to Animal Testing (CAAT) is soliciting proposals for the 1991-92 grant period. These research proposals should provide fundamental knowledge needed to develop alternative methods to whole animals for the safety and evaluation of commercial products.

The CAAT encourages the development of methods using human cells/cell lines and studies in the areas of hypersensitivity, phototoxicity, dermatotoxicity, structure-activity relationships, and other in vitro approaches to toxicity evaluation. At present funds are not available for mutagenicity and carcinogenicity.

Guidelines for preparation of proposals can be obtained from: **Mrs. Joan S. Poling, The Center for Alternatives to Animal Testing, 615 North Wolfe Street, Baltimore, MD 21205. Telephone: 301-955-3343.**

Deadline for submission of preproposal abstract: 16 March 1990.

Deadline for submission of research proposals: 31 May 1990.

COURSES AND TRAINING

MOLECULAR GRAPHICS AND MOLECULAR MECHANICS SIMULATIONS OF PROTEINS, PEPTIDES, AND SYNTHETIC POLYMERS

A 1-day short course sponsored by the Center for Biopolymers at Interfaces, the Department of Bioengineering and the Department of Pharmaceutics, University of Utah, Salt Lake City, Utah, 4 April 1990, Red Lion Hotel, Salt Lake City. For registration information, please contact: **Ms. Arline Allen, telephone: 801-581-3867.**

COURSES AND TRAINING

CAREER CHANGE OPPORTUNITY

This unique program offers the candidate with an earned doctorate in the sciences the opportunity to obtain the Doctor of Optometry (O.D.) degree in two calendar years. Employment opportunities exist in private practice, industry, education, and research. Contact: **Dr. D. Chauncey, Program Director, Accelerated Program, The New England College of Optometry, Room S, 424 Beacon Street, Boston, MA 02115.**

PRE- AND POSTDOCTORAL RESEARCH TRAINING IN SALIVARY SECRETION

NIH-supported positions are available for predoctoral and postdoctoral trainees at the University of Washington in the cell biology and pathophysiology of salivary secretion. Possible topic areas include autonomic receptors and intracellular messengers, transport and secretion of macromolecules and electrolytes, interactions between salivary macromolecules, tissue culture, bacterial colonization, etc. Applicants should have a baccalaureate degree to be considered for a predoctoral position, and a D.D.S. or equivalent to be considered for a postdoctoral position. *All applicants must be U.S. citizens or hold a permanent resident visa (green card).* Send curriculum vitae, three references, and statement of research interests to: **Dr. Kenneth Izutsu, Department of Oral Biology, SB-22, University of Washington, Seattle, WA 98195. The University of Washington is an Equal Opportunity Educator and Employer. We actively and specifically invite and encourage applications from women and minorities.**

SITUATIONS WANTED

ELECTRON MICROSCOPIST, Ph.D. Publications in neurocytology, experimental pathology, toxicology, cytochemistry. Seeks part-time/full-time participation in ultrastructural research, preferably in Chicago. Box 9, SCIENCE.

ENVIRONMENTAL STUDIES, M.S. Experience in environmental controls. Training in policy, resource management, and analysis. Seeks position in industry or academia. William Bower, 323 East Maplewood Estates, Scott Depot, WV 25560. Telephone: 304-757-7883.

PROTEIN CHEMIST, Ph.D. Experienced project manager, background in collagen and extracellular matrix biochemistry, connective tissue pathology in diabetics, monoclonal antibodies. Box 15, SCIENCE.

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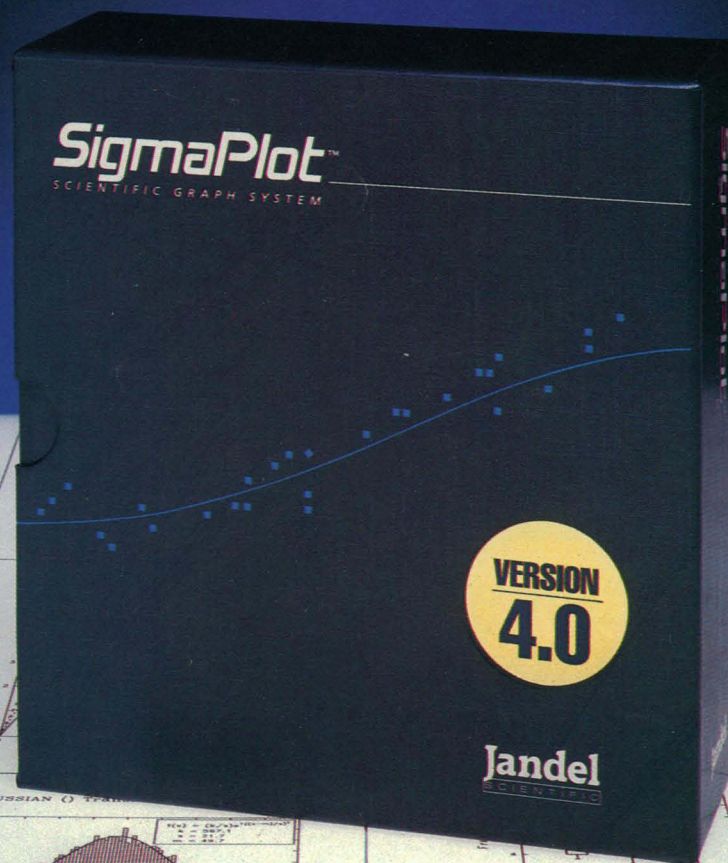
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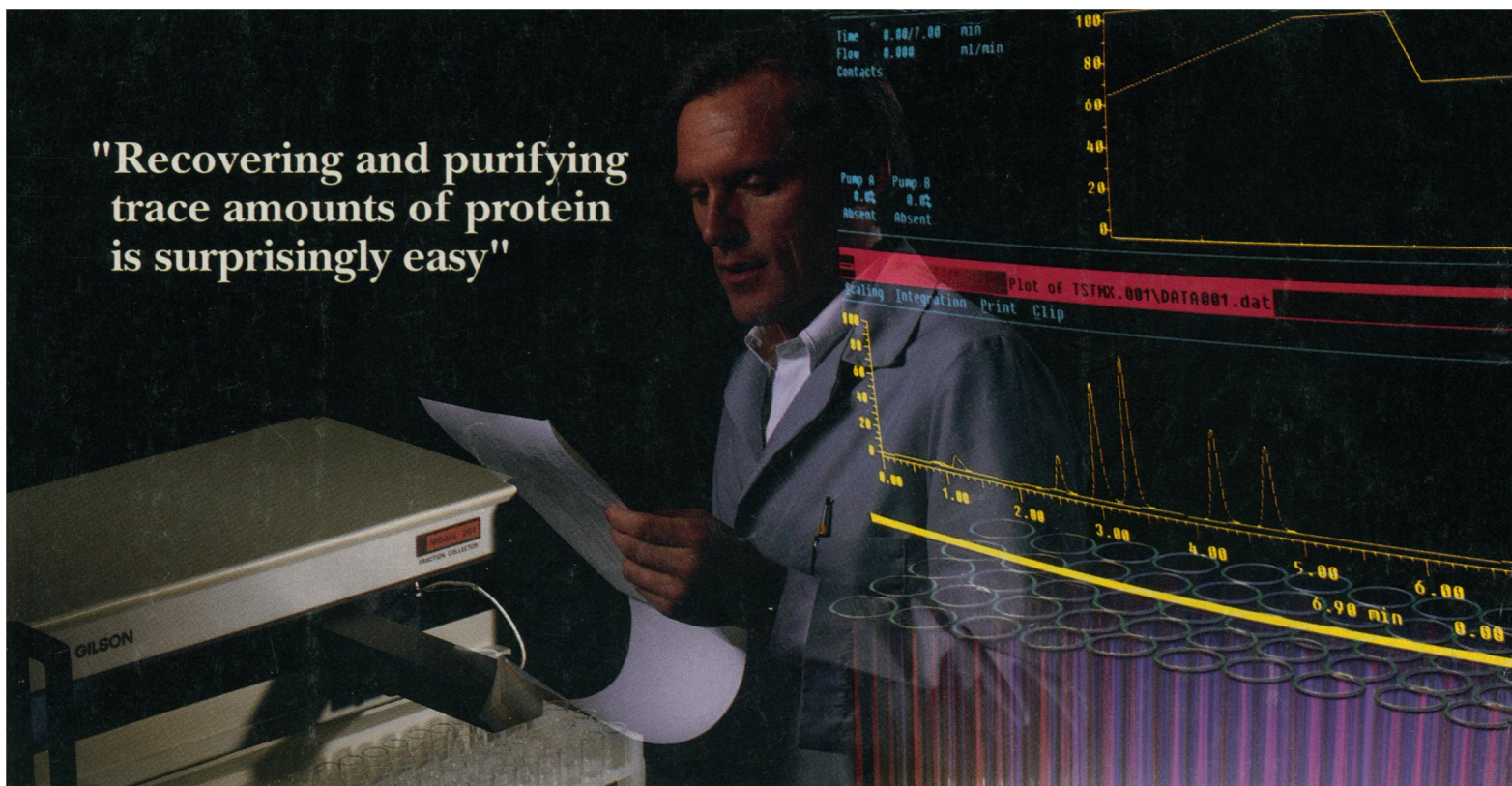
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"Recovering and purifying trace amounts of protein is surprisingly easy"



Chromatographers speak out about the Gilson Auto-Prep HPLC system

The Gilson Auto-Prep HPLC system has one pump for mobile phase delivery, another for repetitive sample injection. And that, according to a chromatographer in radiation oncology and cancer research, makes it surprisingly easy to recover trace amounts of protein from complex sample matrices. Repetitive injection of small volumes of sample allows the use of high-efficiency analytical or semi-prep columns for high throughput, excellent resolution, and very pure fractions.

"Overnight operation has really increased throughput"

A pharmaceutical QC lab supervisor likes the capacity and reliability of the system. A multimode fraction collector with 120- or 540-tube capacity is the key. The collector—either the Gilson 201 or 202—has a stationary rack design. Unlike collectors with carousel racks, it won't jam. The collector acts as a system controller, and multicycle capability allows collection of fractions from the repetitive runs into the same set of tubes for automated sample purification.

"Analytical and prep run results are reproducible"

After method development with an analytical system, many labs switch to preparative scale sample purification. Or switch back and forth to perform purity checks. With Gilson HPLC pumps, you simply replace the pump head to change the flow rate. Eight interchangeable pump heads offer flow rates as high as 200 ml/min.

"It's a compact system that saves bench space"

The Gilson Auto-Prep system is made up of modular components. The basic system stack, including the detector and pumping modules, has a footprint of about one square foot. And the 201 fraction collector offers 120-tube capacity in an equally compact space.

"Upgrading to gradient analysis was easy"

The modular design that makes our systems easy to fit on a crowded bench also makes it easy to upgrade the system. Going from isocratic to

gradient with the Auto-Prep system simply requires the addition of pumping modules and, when necessary, a controller. All components from the original system are used, so none of your initial investment is lost.

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We'll start by sending you a data sheet on this and other Gilson HPLC systems. Then, if you'd like, we'll put you in touch with some of the researchers we've been talking to. You can ask them yourself about the performance of the Gilson Auto-Prep HPLC system. Just mark the reader service number below. Or call us toll-free at 800-445-7661 (In Wisconsin call 608-836-1551).



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