

Products & Materials

Small Sample CO₂ and N₂O Computer

The micro-Capnometer can measure animal respiration with sampling rates as low as 5 ml/min, making it useful for studies involving rats, guinea pigs, and mice. At this low range, it can measure respiration rates of up to 150 breaths per minute. If the respiratory sampling volume is increased to 20 ml/min, the system can provide accurate measurements up to 300 breaths per minute. The micro-Capnometer measures carbon dioxide percentage, nitrous oxide percentage, and respiration rates and documents results, including waveforms, with its own Epson-compatible printer. When interfaced to an external IBM PC/AT-compatible computer, it displays data and waveforms on the computer monitor and can print and store data in user-defined intervals. Columbus Instruments. Circle 522.

Nonlinear Data Modeling Software

EDES/Model is a new program that allows nonlinear modeling of up to seven independent variables simultaneously. The program uses state-of-the-art programming and special functions to provide a nonlinear mathematical model for virtually any data. The result is a robust model of the variables in any of five major levels of complexity, from linear to highly nonlinear. EDES/Model provides a full mathematical model of real-world experimental data. It also presents the model in Fortran source code for inclusion in other programs. The program runs on an IBM AT or 386-compatible personal computer. Schulenberg and Associates. Circle 531.

High-Purity Water System

Millipore's new water system allows complete control over water quality in research facilities that have no central feed water system. Tapwater is fed into the Milli-RO



Plus pretreatment system, after which it is sent to the reservoir. Up to 150 liters per 8-hour day can be processed by the Milli-RO system. It is then final-polished through the Milli-Q Plus system at a flow rate of up to 1.5 liters per minute. Feed water is polished through the Milli-Q Plus system "on demand" as needed, eliminating the need for storage of final product water and the concern of degrading water quality. Millipore. Circle 527.

Fast and Reproducible Genomic Blotting

Vacugene XL, the second generation vacuum blotting unit from Pharmacia LKB, has an effective vacuum area of 20 by 30 cm. This facilitates convenient blotting of large



format gels used in genomic DNA separations. A precision-controlled low-pressure vacuum pump is used to transfer the nucleic acid molecules rapidly and reproducibly from agarose gels to membranes. The vacuum pump maintains the exact transfer conditions required for blotting depurinated DNA fragments from 1 kb up to chromosome size. Gel handling and pretreatment are minimized. Depurination, denaturation, and neutralization are carried out inside the blotting unit and take only 10 min for each treatment. Pharmacia LKB. Circle 524.

Mutagenesis Kit

The T7-GEN In Vitro Mutagenesis Kit enables the user to achieve superior results in site-directed mutagenesis experiments. The kit uses the preferred enzyme for oligonucleotide-directed site-specific mutagenesis, native T7 DNA polymerase. The method is efficient and rapid, giving mutation frequencies of greater than 75% and allowing mutations to be identified directly by nucleotide sequencing. There is no need to purify the covalently closed circular DNA produced in the extension-ligation reaction. United States Biochemical. Circle 535.

Literature

ASPEC System Automatic Sample Preparation with Extraction Columns is an eight-page brochure that describes how the ASPEC system automates solid-phase extraction for both high-performance liquid chromatography and gas chromatography. Gilson Medical Electronics. Circle 554.

J. T. Baker High Purity Solvents is a 12-page publication that includes solvents for special applications such as DNA synthesis and volatile organics. J. T. Baker. Circle 555.

Laboratory Thermal Equipment is a 140-page catalog of autoclaves and sterilizers. The line represents the offerings of an experienced British company that are newly available in the United States. Harvard Apparatus. Circle 556.

The 1990 *Molecular Biology Reagents* catalog presents up-to-date technical information on an entire line of products. An expanded reference section contains restriction maps, restriction endonuclease tables, and troubleshooting guides. United States Biochemical Corp. Circle 557.

Cleanroom Products Catalog features a selection of contamination control products for use in critical environments. Products include wiping cloths, documentation paper, cleaning swabs, face masks, solutions, and presaturated cleaning towelettes. Texwipe. Circle 558.

Selection Guide to Research Products is a 20-page catalog describing stirred autoclaves and catalytic reactors, pressure vessels, engineered systems, laboratory reactor systems, pumps and compressors, agitation and mixing equipment, and high-pressure valves, fittings, and pumps. Autoclave Engineers Group. Circle 560.

LABTECH NOTEBOOK and Related Products is a 20-page brochure that describes data acquisition analysis, and control software. Laboratory Technologies Corp. Circle 561.

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.

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

Entry level **ASSISTANT PROFESSOR** position available now at Pennsylvania State University College of Medicine in Hershey to join multidisciplinary group in microbiology/immunology and medicine/hematology/oncology/infectious disease involved in basic HIV research and AIDS clinical trials. M.D. or Ph.D. with background in molecular biology and demonstrated expertise in HIV detection techniques required. Send curriculum vitae to: **M. Elaine Eyster, M.D., Division of Hematology, The Milton S. Hershey Medical Center, P.O. Box 850, Hershey, PA 17033, by 31 March 1990. An Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.**

TRENTON STATE COLLEGE ASSISTANT PROFESSOR CELL BIOLOGIST

Trenton State College (TSC) seeks candidates recently trained in cell biology to represent this discipline in a strong undergraduate program. Teaching introductory and advanced courses, the latter involving light and electron microscopic techniques. Oversight of a modern light and electron microscope facility is also required. Tenure track, Ph.D. required. Applications will commence 1 April 1990. Credentials and curriculum vitae should be sent to: **Dr. Albert F. Eble, Trenton State College, Department of Biology, Hillwood Lakes, CN 4700, Trenton, NJ 08650-4700. To enrich education through diversity, TSC is an Affirmative Action/Equal Opportunity Employer.**

ASSISTANT OR ASSOCIATE PROFESSOR, BIOLOGY. Tenure-track position available 19 August 1990 primarily teaching biology for nonmajors. Doctorate required; computer-assisted instruction and grant proposal writing experience important; specialty to complement current faculty desirable. Send letter of application, curriculum vitae, all graduate/undergraduate transcripts, and three letters of recommendation by 22 April 1990 to: **James Schlough, Biology Department, University of Wisconsin-Whitewater, Whitewater, WI 53190. UW-Whitewater is an Affirmative Action/Equal Opportunity Employer.**

The Department of Biology at Morehouse College invites applications for a tenure-track position at the **ASSISTANT/ASSOCIATE PROFESSOR** level for an environmental biologist. Applicants must hold a Ph.D. in either ecology or environmental science. Teaching responsibilities will include a general course in ecology for seniors and a topics course in environmental biology for juniors and seniors. Faculty members are expected to maintain active research programs which involve undergraduate and graduate students. Closing date: 12 May 1990 or until suitable candidates are found. Applicants should submit their curriculum vitae, graduate school academic transcript, and a statement of teaching and research goals, and arrange to have three letters of recommendation sent to: **Dr. J. K. Haynes, Chairman, Department of Biology, Morehouse College, 830 Westview Drive, S.W., Atlanta, GA 30314. An Equal Opportunity/Affirmative Action Employer.**

UNIVERSITY OF OKLAHOMA COLLEGE OF MEDICINE DEPARTMENT OF ANATOMICAL SCIENCES

Tenure-track positions are available at the **ASSISTANT/ASSOCIATE PROFESSOR** level. Teaching responsibilities comprise instruction in gross anatomy or histology to medical, dental, and graduate students. Candidates should possess a Ph.D., M.D., D.D.S., or equivalent degree and have postdoctoral research experience. Applications are encouraged from candidates with experience in current departmental programs in cell and/or developmental biology or neurobiology. Expertise in molecular biology techniques is desirable. Starting dates are negotiable.

Curriculum vitae and names of three references should be directed to:

Search Committee
Department of Anatomical Sciences
College of Medicine
University of Oklahoma Health Sciences Center
P.O. Box 26901
Oklahoma City, OK 73190

Closing date for applications is 31 July 1990.

We are an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR, EAR RESEARCH. Tenure-track position for neuroscientist with research interests in auditory or vestibular mechanisms. Must have 2 years of postdoctoral experience and ability to establish independent research program. Duties include research training for residents. Joint appointment in basic science department. Send curriculum vitae, statement of research objectives, and three references to: **Dr. S. J. Wetmore, Chair, Otolaryngology, West Virginia University Medical Center, Morgantown, WV 26506. Affirmative Action/Equal Opportunity Employer.**

Search Reopened. A tenure-track appointment at the **ASSISTANT PROFESSOR** level is available as of September 1990. Qualifications include a Ph.D. and postdoctoral experience. The successful candidate will be expected to teach undergraduate courses in cell biology, developmental biology or genetics, and general biology, and graduate courses in his/her area of expertise and participate in our genetic engineering option. Training of graduate students at the M.S. level and the ability to develop a fundable research program are expected. Please send your curriculum vitae, reprints, statement of career goals and research plans, and the names and addresses of three references to: **Southern Illinois University at Edwardsville (SIUE), Biology Department, Box 1651, Edwardsville, IL 62026-1651, Attention: Search Committee. Search will continue until position is filled. SIUE is an Affirmative Action Employer.**

Several tenure-track positions are available at the **ASSISTANT AND ASSOCIATE PROFESSOR** levels in the Department of Cellular and Molecular Physiology at Harvard Medical School. The department is especially interested in studies at the cellular and molecular level on the following research topics: receptors, hormones, signal transduction, and cell motility. Successful candidates are expected to develop a strong independent research program and to participate in teaching medical and graduate students. The department is acquiring newly renovated facilities and is undergoing substantial expansion. Send curriculum vitae, a brief description of future research, and names of three references to: **Search Committee, Department of Cellular and Molecular Physiology, Harvard Medical School, 25 Shattuck Street, Boston, MA 02115.**

ASSOCIATE OR FULL PROFESSOR

The Department of Cell and Molecular Biology, School of Medicine, Medical College of Georgia, seeks an immunologist for a tenure-track appointment as associate/full professor. The successful candidate should have an established, independently funded research program applying modern molecular/cell biological approaches to the study of the immune response. The position requires active participation in teaching graduate and medical students. Send curriculum vitae, a brief statement of research interests, a copy of two recent publications, and names and addresses of three references to: **Dr. David F. Lapp, Chairman, Search Committee, Department of Cell and Molecular Biology, Medical College of Georgia, Augusta, GA 30912-2100. Preference will be given to applications received by 15 April 1990. An Equal Opportunity/Affirmative Action Employer. Females and minorities are encouraged to apply.**

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.**

Research Opportunities in Immunology—BS/MS

Pfizer Central Research has several immediate openings for research assistants within our expanding Department of Immunology and Infectious Diseases. You will join multidisciplinary project teams engaged in research to discover novel therapies for a variety of inflammatory, pulmonary and autoimmune diseases. All positions require a BS or MS degree or the equivalent, plus relevant experience.

Molecular Immunologist

You will study drug therapy for immunological disorders by conducting *in vitro* analyses of drug action on the expression of genes in immune cells. Experience with Northern and basic recombinant DNA techniques as well as cell culture is required. Ability to work independently and to summarize and communicate results effectively is also expected.

Inflammation Scientist

You will develop and apply new *in vivo* models in the discovery of new treatments for inflammatory diseases such as rheumatoid arthritis. Familiarity with eicosanoid and cytokine biology, as well as strong written and oral communications skills and computer experience desired.

Immunologist

Using both *in vivo* and *in vitro* techniques, you will study the immune response to infectious agents. The successful candidate will have experience in one or more of the following areas: tissue culture, molecular immunology, lymphokine assays, antibody purification and lymphocyte functional assays.

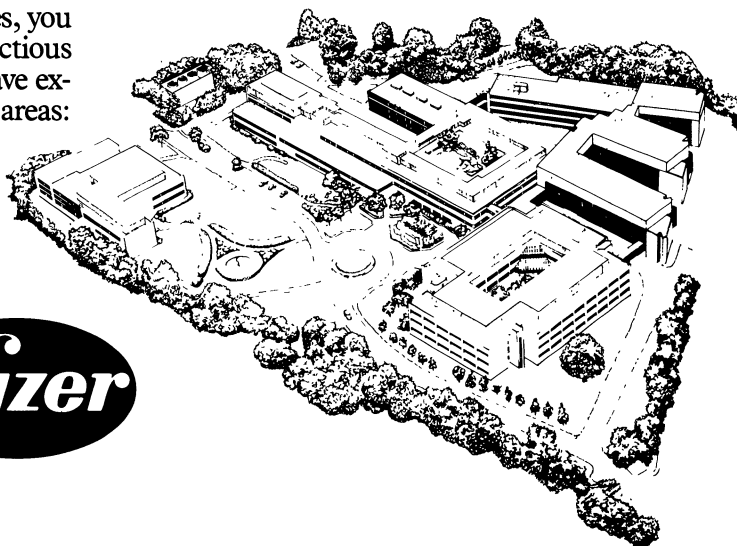
Pulmonary Biologist

You will participate in a project designed to evaluate the efficacy of novel compounds on pulmonary diseases, using *in vivo* techniques. Experience developing aerosol drug delivery systems and measuring the mechanics of respiration would be helpful.

Inflammation Cell Biologist

You will be involved with a team investigating the mechanisms of recruitment and activation of inflammatory cells in pulmonary diseases. Relevant experience with *in vivo* models, tissue culture or immunologic methods is desired.

Pfizer's stimulating research environment provides the opportunity to interact with scientists from several disciplines. In addition, Pfizer offers a competitive compensation/benefit package and provides generous relocation assistance to our southeastern Connecticut shoreline community. Please send a resume indicating position of interest, a description of your research experience, and names of three references to: Mrs. Lorraine C. Corr, Personnel Supervisor, Pfizer Central Research, Eastern Point Road, Groton, CT 06340. An equal opportunity employer.



POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR. One long-term tenure-track faculty position. Begin late August 1990. Ph.D. required, some teaching experience in anatomy/physiology. Expected to teach upper and lower division courses, conduct research with undergraduate biology majors, and develop innovative nonscience courses. Liberal arts environment. Some possibilities of graduate teaching. Letter stating interests, complete résumé, transcripts, and three letters of reference due prior to 21 April 1990 to: **Sister John Karen Frei, Associate Vice President, Academic Health Science Center, Barry University, Miami Shores, FL 33161.**

ASSISTANT PROFESSOR RESEARCH TRACK

Physiology and Biophysics, University of Southern California (USC) Medical School in Los Angeles. Requires Ph.D. and/or M.D. Individual with broad experience in metabolism to join group studying regulation of metabolic function at various levels of organization from population studies to cellular level. Experience with computer modeling essential; candidates with experience in gerontology will be preferred. Two years of postdoctoral experience required. Send curriculum vitae and names of three individuals from whom references may be obtained to: **Dr. Richard N. Bergman, Department of Physiology and Biophysics, USC Medical School, 1333 San Pablo Street, Los Angeles, CA 90033.** Application deadline: 1 April 1990. USC is an Equal Opportunity Employer.

The Department of Biology at Morehouse College invites applications for a tenure-track position at the **ASSISTANT/ASSOCIATE PROFESSOR** level for an anatomist/developmental biologist to begin in September 1990. Applicants must hold a Ph.D. degree in either anatomy, developmental biology, or cell biology and must be proficient in the use of the electron microscope. Teaching responsibilities will include an invertebrate and vertebrate anatomy course for sophomores and an embryology course for juniors and seniors. Faculty members are expected to maintain active research programs which involve undergraduate and graduate students. Closing date: 12 May 1990 or until suitable candidates are found. Applicants should submit their curriculum vitae, graduate school academic transcript, and a statement of teaching and research goals, and arrange to have three letters of recommendation sent to: **Dr. J. K. Haynes, Chairman, Department of Biology, Morehouse College, 830 Westview Drive, S.W., Atlanta, GA 30314.** An Equal Opportunity/Affirmative Action Employer.

CELL BIOLOGIST/ GENETICIST/BIOCHEMIST

New faculty position, Natural Science and Mathematics (NSM) Department, Trinity College of Vermont, fall of 1990. Teaching duties: 12 contact hours per week in upper and lower division courses (including new courses). Advising, committee work, research encouraged. Trinity uses long-term contracts instead of tenure. Salary depends on rank and qualifications; Ph.D. required. Applications (curriculum vitae, graduate transcript, reference letter addressing teaching, and names, addresses, and telephone numbers of two to three references) should be submitted to: **John F. Heinbokel, Chair, NSM Department, Trinity College, 208 Colchester Avenue, Burlington, VT 05401.** Applications accepted until position filled. *Women and minority candidates are especially encouraged to apply. Affirmative Action/Equal Opportunity Employer.*

CONSERVATION BIOLOGIST. The Department of Biological Sciences at Florida Institute of Technology invites applications from individuals with strong research credentials in ecological systems and dynamics with emphasis on biodiversity or experience in remote sensing. The candidate will be expected to develop an active research program with demonstrated potential for extramural funding, direct M.S. and Ph.D. students, participate in teaching, and cooperate with faculty in related areas of conservation biology. Ph.D. and 2 years of postdoctoral experience essential. Position is available for fall of 1990, pending approval. Rank is open and salary will be commensurate with qualifications and experience. Send curriculum vitae, a concise plan for future research, and names of three references to: **Dr. G. N. Wells, Head, Department of Biological Sciences, 150 West University Boulevard, Melbourne, FL 32901-6988.** Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

CHAIR, DEPARTMENT OF PHYSIOLOGY

The Kirksville College of Osteopathic Medicine is seeking application or nomination of an established investigator to fill the position of chairperson of the Department of Physiology. The candidate should have a Ph.D., a record of research in physiology which is currently active and funded, leadership qualities, and an interest in the education of medical students. Please submit curriculum vitae and names and addresses of three references to: **Dr. Lex Towns, Chairman, Physiology Search Committee, Kirksville College of Osteopathic Medicine, Kirksville, MO 63501.** Candidates should apply by 15 April 1990. *Equal Opportunity Employer.*

CHAIR, DEPARTMENT OF PSYCHIATRY AND HEALTH BEHAVIOR. The School of Medicine, Medical College of Georgia, is seeking a chair for the Department of Psychiatry and Health Behavior. The department has a research orientation with 64 faculty and seven affiliated facilities. The department is currently undergoing expansion, and recruitment of new faculty will be a major function of the new chair. Candidates must possess demonstrated skills in research teaching, patient care, and administration. Please send nominations and inquiries by 30 April 1990 to: **Don W. King, M.D., Department of Neurology, Medical College of Georgia, Augusta, GA 30912.** *Equal Opportunity/Affirmative Action Employer.*

CHAIRPERSON DEPARTMENT OF MICROBIOLOGY

State University of New York (SUNY) at Buffalo announces the search for the chair of the Department of Microbiology in the School of Medicine and Biomedical Sciences. The department has 20 full-time faculty positions and occupies over 30,000 square feet of space in the medical school campus. The department offers courses in microbiology and immunology for students of medicine and dentistry as well as for graduate and undergraduate students. The research program of the department is diverse and excels in many areas of immunology, host-pathogen interactions, and molecular biology. The department offers unique opportunities for growth and development. The candidate should possess an outstanding national and international reputation as an investigator in microbiology, immunology, or molecular biology and should be experienced in teaching and administration. Persons interested in this position should send curriculum vitae, a description of research activities and administrative experience, and the names of three references to the Chairman of the Search Committee: **Pearay L. Ogra, M.D., Department of Pediatrics, Children's Hospital, 219 Bryant Street, Buffalo, NY 14222.** Telephone: 716-878-7587. FAX: 716-878-7631. All materials should be received by 30 June 1990. SUNY is an Equal Opportunity/Affirmative Action Employer.

DIRECTOR COOPERATIVE INSTITUTE FOR MARINE AND ATMOSPHERIC STUDIES

The University of Miami's Rosenstiel School of Marine and Atmospheric Science seeks a director for the Cooperative Institute of Marine and Atmospheric Studies (CIMAS). CIMAS was established in 1977 to provide a formal mechanism for scientific collaboration between the Rosenstiel School and the National Oceanographic and Atmospheric Administration (NOAA), particularly the Atlantic Oceanographic and Meteorological Laboratories and the Southeast Fisheries Center. It is currently focused on aspects of ocean physics which impact on climatic processes and systems and on the large-scale marine ecology of fish and crustaceans. Increasing emphasis will be placed on the physical and biological components of "Global Change." The CIMAS director is a tenured faculty member of the University of Miami's Rosenstiel School. Applicants should have a distinguished record of research in an oceanographic/atmospheric speciality and experience in scientific project management and be qualified for full professor rank in their speciality.

Applications should be sent to: **Dr. Bruce R. Rosen-dahl, Dean and Weeks Chair, Rosenstiel School of Marine and Atmospheric Science, 4600 Rickenbacker Causeway, Miami, FL 33149.**

The University of Miami is an Equal Opportunity Employer.

POSITIONS OPEN

The Texas College of Osteopathic Medicine is now accepting applications for **CHAIRMAN OF THE DEPARTMENT OF ANATOMY AND CELL BIOLOGY.** The department currently has 12 faculty members whose research covers a wide variety of areas. Viable candidates should have an established research program, teaching experience (preferably medical), and demonstrated managerial skills. Applications must be received by 1 June 1990, and accompanied by curriculum vitae and a list of three individuals who may be contacted as references. Applications should be sent to:

**Dr. Paul F. Cook
Chairman, Anatomy Search Committee
Department of Microbiology and Immunology
Texas College of Osteopathic Medicine
3500 Camp Bowie Boulevard
Fort Worth, TX 76107-2690**

Texas College of Osteopathic Medicine is an Equal Opportunity/Affirmative Action Employer.

DIRECTOR OF FACULTY DEVELOPMENT

Biomedical scientist with strong interest and experience in teaching to set up and conduct a faculty development program for both basic science and clinical faculty. Faculty appointment available in Division of Education and Medical Humanities with possible joint appointment in appropriate basic science department. Formal credentials in faculty development not mandatory but outstanding teaching and interpersonal skills essential. Inquiries or applications with curriculum vitae should be directed to: **Clinton H. Toewe II, M.D., Associate Dean for Educational Affairs, Eastern Virginia Medical School, P.O. Box 1980, Norfolk, VA 23501.**

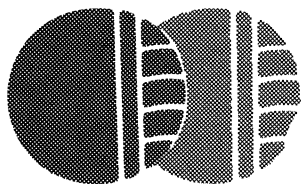
EVOLUTIONARY/ECOLOGICAL/ POPULATION BIOLOGIST

A temporary position starting fall of 1990 in the Biology Department of the University of Rochester. A Ph.D. is required. Participate in undergraduate and graduate teaching in one or more of the above areas. The appointment will either be for 1 year with full-time teaching responsibilities, or 2 years with half-time teaching and half-time research responsibilities. The latter option depends upon the successful negotiation of half-time postdoctoral support from one of the following faculty: J. Jaenike, J. Werren, or C.-I. Wu. Please send by 9 April 1990 curriculum vitae, a letter detailing teaching experience and/or areas of expertise, research interests, and the names of three referees to: **Barry G. Hall, Department of Biology, Hutchison Hall, University of Rochester, Rochester, NY 14627.** *The University of Rochester is an Equal Opportunity/Affirmative Action Employer.*

EXTENSION AGRICULTURAL ENGINEER ASSISTANT PROFESSOR EXTENSION/RESEARCH DEPARTMENT OF AGRICULTURAL ENGINEERING UNIVERSITY OF MINNESOTA

The Department of Agricultural Engineering, University of Minnesota, is seeking candidates for an assistant professor, extension/research (12-month, tenure-track) position. Responsibilities include leadership and coordination of programs in livestock housing (primarily dairy) education for the Minnesota Extension Service. This position will include an applied research component. Required: Ph.D. in agricultural engineering or related engineering field at date of appointment. Desired: education in some of the following areas related to livestock housing: environmental control of livestock systems, waste collection and storage, structural design and building material selection, farmstead layout, feed handling and milking systems, neutral-to-ground voltage, animal comfort and behavior, and safety of people and animals. Demonstrated effective teaching, speaking, and writing skills. Experience in livestock housing and extension education. Send letter of application, including curriculum vitae; a one-page summary of career goals in the context of the position; college transcripts; and names, addresses, and telephone numbers of three professional references by 30 April 1990 to: **Dr. G. R. Foster, Department of Agricultural Engineering, University of Minnesota, St. Paul, MN 55108.**

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



ImmunoLogic is a growing company with laboratories in Cambridge, Massachusetts and Palo Alto, California, dedicated to the creation of novel therapeutic and diagnostic products to modulate and monitor the human immune system. We employ state-of-the-art techniques and proprietary knowledge in immunology, biochemistry and molecular biology to develop products in the vaccine, allergy and autoimmune disease areas. We collaborate with world leaders in the pharmaceutical industry and in academic institutions and are already recognized as a leading force among companies focusing in immunology. We are currently adding to the outstanding scientific team at our research facility in **Palo Alto, California.**

IMMUNOLOGIST FOR AUTOIMMUNE DISEASES RESEARCH

Will investigate cellular immune responses associated with autoimmune disorders concentrating on the isolation and study of T cell populations involved in specific diseases. Strong background in cellular immunology is required, preferably with experience in the human T cell area. Interest in study of the consequences of T cell activation (e.g., cytokine profile) will be advantageous. 2-6 years' postdoctoral experience with strong record of achievement is required.

BIOCHEMIST FOR AUTOIMMUNE DISEASES RESEARCH

Will investigate the interaction between HLA proteins and antigenic peptides and develop assay systems to monitor this interaction and investigate the structural requirements for binding. Biochemistry/Chemistry background and research experience with cell surface receptors and/or ligand binding desired. Understanding of relationship between protein structure and function and 2-6 years' postdoctoral experience with strong record of achievement is required.

CHEMIST FOR AUTOIMMUNE DISEASES RESEARCH

Will investigate the structural requirements for HLA protein-antigenic peptide binding via the synthesis/design of peptides and peptidomimetic drugs which interact with HLA proteins. Involves both peptide and medicinal chemistry techniques. Requires experience with computer-assisted drug design/molecular modeling technologies. Medicinal chemistry background, including experience with peptide synthesis/design, and 2-6 years' postdoctoral experience with strong record of achievement also required.

RESEARCH ASSISTANTS/ ASSOCIATES IN PEPTIDE/ PROTEIN CHEMISTRY

Individuals with experience in peptide synthesis and design, protein purification or ligand binding assays are required for several positions. A minimum of a Bachelor's degree plus two years of relevant laboratory experience are required, although more senior individuals are strongly encouraged to apply. These positions offer strong career opportunities with growing independence and responsibility for well-trained and experienced scientists.

ImmunoLogic provides an outstanding working environment and state-of-the-art laboratory facilities. We have a first-rate support network of academic advisors and collaborators, an active postdoctoral program, and we support and encourage the publication of important research findings. ImmunoLogic offers competitive salaries and benefits as well as equity participation through an incentive stock option program.

Please send curriculum vitae and list of publications to: **ImmunoLogic Pharmaceutical Corporation, 855 California Avenue, Palo Alto, California 94304, ATTN: Human Resources Department.**

IMMULOGIC 
Pharmaceutical Corporation

Equal Opportunity Employer.

Bone Physiologist

Syntex earned its worldwide reputation as a superior, forward-looking health care and pharmaceutical company through years of applied research and progressive development. As we continue to grow, we offer the following outstanding opportunity for a motivated staff-level scientist at our San Francisco Bay Area research headquarters.

The ideal candidate will be responsible for designing and conducting in vivo models of osteoporosis and bone degradative disease to support on-going and planned synthetic peptide programs. This would involve supervising technical staff. You will also conduct basic studies to explore the endogenous mediators of bone growth/resorption.

Requirements include a PhD in Physiology or equivalent, and 4+ years of full-time post PhD research. Experience with techniques of bone assessment such as histomorphometry are necessary. Dual photon densitometry experience is desirable.

Syntex offers a competitive salary and benefits package in a pleasant campus environment. For immediate consideration, please send your resume to: Syntex, Professional Staffing, Dept. KH/SM-R, 3401 Hillview Avenue, Palo Alto, CA 94304. Syntex is an equal opportunity employer.



Research Microbiologist/ Biochemist

An opening is available in the Microbial Physiology Department of the Infectious Disease Research Section at Lederle Laboratories for a Research Microbiologist/Biochemist with a Ph.D. and 2-5 years' postdoctoral experience.

The successful candidate will join an exciting multidisciplinary group involved in the search for novel bioactive natural products. The ideal candidate should have a thorough education and training in microbial physiology and biochemistry with experience in intermediary metabolism and/or biosynthesis of secondary metabolites. Research will involve microbial fermentation exploiting current technology to generate new biosynthetic products with pharmaceutical application.

Lederle Laboratories is located on a 580-acre campus in Rockland County, which is 25 miles north of New York City. We offer a competitive starting salary and excellent benefits. For immediate consideration, send your resume with salary requirements to: Professional Employment Office, Dept. MG., Lederle Laboratories, N. Middletown Road, Pearl River, NY 10965. An Equal Opportunity Employer m/f.



POSITION AVAILABLE DIRECTOR, MEDICATIONS DEVELOPMENT DIVISION NATIONAL INSTITUTE ON DRUG ABUSE ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION PUBLIC HEALTH SERVICE DEPARTMENT OF HEALTH AND HUMAN SERVICES

The Alcohol, Drug Abuse, and Mental Health Administration invites nominations and applications for the position of Director, Medications Development Division, National Institute on Drug Abuse.

This is a Senior Executive Service position in the career civil service, with an annual salary range of \$71,200 to \$79,200. Physicians may also be eligible for a Physicians' Comparability Allowance of up to \$20,000 per year. The position is located in Rockville, Maryland.

The Director, Medications Development Division provides programmatic, administrative, and general management of the five branches of the Division: the Biometrics Research Branch, the Clinical Trials Branch, the Regulatory Affairs Branch, the Chemistry and Pharmaceuticals Research Branch, and the Pharmacology and Toxicology Branch. The Director is also responsible for coordinating the activities and medications development requirements of the three ADAMHA Institutes into the scientific and management activities of the Division and maintains close contact with designated medications development staff at the National Institute on Alcoholism and Alcohol Abuse and the National Institute of Mental Health.

The Director is also responsible for maintaining close working relationships with senior staff at the Food and Drug Administration on matters relating to operational and scientific procedures involved in medications development as well as the development of policy affecting ADAMHA's programs. Additionally, the Director provides authoritative advice and consultation to senior agency officials on a wide range of matters pertaining to the treatment of brain and behavior disorders and the pharmacological evaluation of new treatment agents.

Minimum qualifications requirements include a degree of Doctor of Medicine, Doctor of Osteopathy, or a bachelor's degree or higher degree in an academic field related to the health sciences pertinent to the work of the position. Candidates must demonstrate evidence of progressively responsible experience in managing large, complex science/research programs in the biomedical/behavioral areas; supervising or collaborating with senior-level scientists in academia, private industry, or the Federal Government; extensive current knowledge of research methodology in the biomedical, behavioral, pharmacological, or clinical sciences in areas relevant to drug abuse.

Further information about the position and qualifications requirements may be obtained by contacting Ms. Leslie Everheart at (301) 443-5030. An SF 171 (Application for Federal Employment) accompanied by a current curriculum vitae and bibliography should be submitted to Ms. Everheart at the Division of Personnel Management, Alcohol, Drug Abuse, and Mental Health Administration, 5600 Fishers Lane, Room 15C-26, Rockville, Maryland 20857. Complete Application material (including the SF 171) must be postmarked by the closing date of April 30, 1990. *Resumes are not acceptable for entrance into the Senior Executive Service.*

Applications from women and minority group members are encouraged.

THE ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION IS AN EQUAL OPPORTUNITY EMPLOYER

**Dean of the College of Medicine
State University of New York
Health Science Center at Brooklyn**

The Health Science Center at Brooklyn (formerly Downstate Medical Center) is seeking nominations and applications for the position of Dean of the College of Medicine. The Dean has the primary responsibility for the direction and development of the College's academic programs, for the development of its faculty resources, and for the maintenance of standards of excellence in research, teaching, and service.

The College of Medicine has a full time faculty of 460 and a student body of approximately 870 medical students and 750 residents and fellows. The faculty maintains an active research program which is supported by growing external funding. The financial resources available to the Center, the College of Medicine, and its faculty, exceed \$200 million.

The College is located on the Health Science Center campus in central Brooklyn, in close proximity to the Center's 372-bed teaching hospital, the University Hospital of Brooklyn, and to Kings County Hospital Center, New York City's largest public hospital. The College also maintains major affiliations with seven local voluntary teaching hospitals. The Health Science Center has embarked on a major capital program, with a new Health Science Education Building scheduled to open next year and a multi-year program for a complete renovation of faculty laboratories and offices about to begin.

The College seeks a dynamic and visionary academic leader with a commitment to excellence in education, research, and patient care. Candidates must possess an M.D. or Ph.D. and be qualified for the rank of Professor, and should have a record of significant accomplishment in scholarly activity and academic administration.

Applications and nominations should include a curriculum vitae and at least three references, and may be submitted for confidential review by the Search Committee to: **Eugene B. Feigelson, M.D., Professor and Chairman, Department of Psychiatry, Chair, Search Committee, Box #1203, SUNY Health Science Center at Brooklyn, 450 Clarkson Avenue, Brooklyn, New York 11203.**



**State University of New York
HEALTH SCIENCE CENTER AT BROOKLYN**

EO/AA Employer

DMC#C0320

Roche

In our NMR - labs at the Central Research Units of Hoffmann - La Roche & Co., Ltd., at Basel, Switzerland, a permanent position is available for an

NMR expert

A suitable candidate should have state of the art training in high resolution 2D NMR and preferably also some experience in working with macromolecules. The successful applicant will have the opportunity to work on a Bruker AM 500 spectrometer and to engage in computer assisted molecular modeling. The major activities are the structural elucidation of bio-macromolecules and the further development/implementation of novel multipulse NMR technology. The scientific environment offers collaboration possibilities with the groups for X-ray Crystallography, Biophysics, Molecular Modeling and Molecular Biology.

Interested candidates are invited to send their application with a curriculum vitae to our Personnel Department quoting reference Science 19/90/WA.

F. Hoffmann-La Roche Ltd, CH-4002 Basle



PRESIDENT

The Board of Trustees of The Ohio State University invites nominations and applications for the position of President.

The University seeks a President who can lead it toward its goal of enhancing its position as a preeminent public university with land-grant missions of research, teaching, and service. The President must be able to provide innovative and creative leadership in the development and implementation of a strategic plan for the University and to communicate this vision persuasively to the University community, government leaders, and the people of Ohio and the nation.

The President of the University must hold an earned doctorate or its equivalent, be respected by the academic community as a nationally recognized leader, and have an outstanding record of scholarly achievement. The successful candidate must be cognizant of and sensitive to the aspirations and interests of all members of a multicultural university community and be dedicated to, and preferably have a record of achievement in, an effective program for affirmative action. The President must be able to delegate responsibility and to work effectively with a strong and vital system of shared governance. She or he should foster an environment in which students, scholars, staff, and administrators of distinction can be attracted to the University. In addition, the President must be able to establish and promote favorable relationships with other constituencies including alumni, business, industry, and government. Above all, the President must exhibit the highest standards of intellectual, personal, and professional integrity.

The Ohio State University is a comprehensive and diverse academic institution with more than 58,000 students, 4,000 faculty, 10,000 staff members, and an operating budget in excess of one billion dollars. It is committed to its land-grant tradition and to excellence in all of its endeavors. The University provides instruction at undergraduate, graduate, and professional levels and reaches out to the broader community through its colleges, comprehensive medical complex, multidisciplinary research centers and institutes, and extension services.

The University is committed to a forceful affirmative action plan for faculty, staff, and students; is implementing a campus-wide undergraduate curriculum revision emphasizing a strong general education component; and is completing a highly successful fundraising campaign.

In sum, The University will select a decisive and vigorous individual to lead The Ohio State University into the era of global interdependence. The Search Committee will begin the screening of candidates on **April 2, 1990**, although nominations and expressions of interest will continue to be received until the position is filled. Please send nominations and application materials to:

**The Ohio State University Presidential Search
William J. Bowen
Heidrick and Struggles, Inc.
125 South Wacker Drive
Suite 2800
Chicago, IL 60606-4590**

*The Ohio State University is an Equal Opportunity,
Affirmative Action Employer.*

POSITIONS OPEN

ADMINISTRATIVE OFFICER. The Department of Chemistry at Washington University in St. Louis seeks an experienced individual for a major administrative position with fiscal planning and oversight responsibilities, management of a 26-member support staff, and administrative support of undergraduate and graduate programs. Demonstrated administrative skills essential. Advanced degree in chemistry or related area required, doctorate preferred. *Women and minority candidates are encouraged to apply.* Send résumé and have three letters of reference sent directly to: **Professor Joseph J. H. Ackerman, Chair, Department of Chemistry, Campus Box 1134, Washington University, One Brookings Drive, St. Louis, MO 63130-4899.**

Applications should be received by 16 April 1990 to ensure full consideration. *Washington University is an Equal Opportunity/Affirmative Action Employer. Employment Eligibility Verification required upon hire.*

MACARTHUR FOUNDATION

PROGRAM OFFICER. The MacArthur Foundation invites applications for the position of program officer in its health program. The program supports collaborative research on mental health and human development and activities which strengthen the policy process, facilitate knowledge dissemination, and foster collaboration. A program officer participates in the planning, development, and oversight of all program activities. Applicants must have a doctorate (Ph.D., M.D.), 10 years of professional experience, and a track record of research related to mental health and/or human development. Selection criteria include breadth of knowledge and perspective, interest in the application of research results, and demonstrated capacity to work collaboratively. Telephone inquiries will not be accepted. Applicants should send curriculum vitae and letter of interest by 27 March 1990 to: **Coordinator, Search Committee, Health Program, MacArthur Foundation, 140 South Dearborn Street, Suite 700, Chicago, IL 60603.**

The John D. and Catherine T. MacArthur Foundation is an Equal Opportunity Employer.

TENURE-TRACK FACULTY POSITION COASTAL PLANT ECOLOGIST

Tenure-track position in coastal plant ecology for **ASSOCIATE PROFESSOR/PROFESSOR** beginning fall of 1990, pending final approval. Experience in vegetation at the land-sea margin (estuaries, marine-influenced wetlands) and a history of successful interdisciplinary collaboration in heterogeneous and landscape-scale systems is desirable. Candidates should have prior teaching experience, nationally recognized research, and success generating grants and contracts. Teaching responsibilities include a graduate level course in their specialty and another in coastal management issues. Will work cooperatively with 15 other faculty with interests in coastal ecology, flooded soils, fisheries, and biological oceanography. The appointment will be joint with the Coastal Ecology Institute. Salary commensurate with national standards for rank and experience. Applications should be received by 15 April 1990, but will remain open until suitable candidate is found. Submit application letter, names of three references, résumé, and copies of five recent reprints to: **R. Eugene Turner, Chairman, Department of Marine Sciences, Center for Wetland Resources, Louisiana State University (LSU), Baton Rouge, LA 70803.** *LSU is an Equal Opportunity Employer.*

JUNIOR FACULTY POSITION MATERIALS DEPARTMENT UNIVERSITY OF CALIFORNIA SANTA BARBARA MACROMOLECULAR MATERIALS

A tenure-track position is offered in the general area of the science and engineering of macromolecular materials. A Ph.D. or equivalent degree, along with a strong background in the physics and/or chemistry of polymers, surfactants, or colloids is required. Applications should be received before 1 May 1990 and addressed to:

**Professor Philip Pincus, Head of Search Committee
Materials Department
Engineering II, Room 1361
University of California, Santa Barbara
Santa Barbara, CA 93106**

The University of California is an Equal Opportunity/Affirmative Action Employer. Proof of U.S. citizenship or eligibility for U.S. employment will be required prior to employment (Immigration Reform and Control Act of 1986).

POSITIONS OPEN

BIOLOGY FACULTY POSITIONS FROSTBURG STATE UNIVERSITY (FSU)

• **BOTANIST.** One-year, full-time, contract position (without benefits). Teach two plant morphology courses (covering algae, fungi, bryophytes, vascular plants) and introductory biology course, coordinate introductory labs, including weekly meetings, and supervise graduate assistants. Ph.D. and evidence of ability to supervise graduate student teaching in laboratories preferred. Inquiries to: **Dr. James Perry, 301-689-4173.**

• **PLANT TAXONOMIST.** Full-time, tenure-track, assistant professor (pending expected vacancy). Teach plant taxonomy, dendrology, and participate in introductory biology. Ph.D. and knowledge of eastern North American flora required. Knowledge of tropical flora desirable. Broad background in botany preferred. Research encouraged. Inquiries to: **Dr. Wayne Yoder, 301-689-4177.**

• **VERTEBRATE BIOLOGIST.** Full-time, tenure-track, assistant professor. Teach courses in ornithology, wildlife techniques, and general ecology. May participate in other vertebrate zoology courses. Ph.D. required. Participation in International Institute for Renewable Natural Resources (emphasis southern Africa/Central America) desirable. Research encouraged. Broad training in vertebrate zoology preferred. Inquiries to: **Dr. Ron Barry, 301-689-4167.**

FSU is part of the University of Maryland System and offers B.S. and M.S. in biology, wildlife, and fisheries management for approximately 250 majors; new M.S. in conservation biology is being developed.

For each position above, send letter of interest, curriculum vitae, graduate and undergraduate transcripts, and names, addresses, and telephone numbers of three references by 23 March 1990 to: **Mr. C. Douglas Schmidt, Director of Personnel Services, Frostburg State University, Frostburg, MD 21532.** *Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION. Available immediately. Applications are sought for an **ASSISTANT PROFESSOR** to join a research program in one of the following NK cell areas: cellular receptors and stimulus/transduction mechanisms, regulation by cytokines, ontogenic development. Applicants must have a demonstrated ability to conduct high-quality research and have at least 3 years of experience. Curriculum vitae, bibliography, and the names of three references should be sent to: **Chief, Section of Natural Immunity, Box 18, The University of Texas, M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.** *We are an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION, PHARMACOLOGY AND TOXICOLOGY. The Department of Pharmacology and Toxicology at the University of Mississippi Medical Center invites applicants for a tenure-track position as **ASSISTANT OR ASSOCIATE PROFESSOR** in pharmacology and toxicology. A Ph.D. or M.D. with postdoctoral research experience is required. The successful candidate will be expected to develop or have an independent, competitively funded research program. Applicants with experience in all areas of pharmacology and/or toxicology are urged to apply; however, special consideration will be given to those with experience in one of the following areas: drug metabolism (molecular biology), renal pharmacology/toxicology, teratology, morphology/immuno-histochemistry, and endocrine pharmacology. Applications including curriculum vitae, outline of future research plans, and the names and addresses of three references should be sent to: **Dr. I. K. Ho, Professor and Chairman, Department of Pharmacology and Toxicology, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505.** *The University of Mississippi Medical Center is an Equal Opportunity Employer, M/F/H/V.*

GENETICIST

Wabash College, a private liberal arts college for men, invites applications for a one-semester position in genetics. Teaching responsibilities include team-teaching a sophomore genetics course and a seminar course in an area of the candidate's choice. Applicants who have completed the Ph.D. or Ph.D. candidates will be considered. Salary is competitive. Applicants should submit a résumé and three letters of recommendation to: **David T. Krohne, Department of Biology, Wabash College, Crawfordsville, IN 47933** by 23 March 1990. *Women and minorities are especially encouraged to apply. Wabash College is an Equal Opportunity Employer.*

POSITIONS OPEN

BIOCHEMISTRY/MOLECULAR BIOLOGY MEHARRY MEDICAL COLLEGE

FACULTY POSITIONS are available in 1990 in the Department of Biochemistry at the level of assistant or associate professor for well-trained or experienced candidates in the following areas: (i) molecular biology of eukaryotic systems, (ii) membrane biochemistry or molecular biology of signal transduction, and (iii) regulatory aspects of cellular and/or metabolic biochemistry. Successful applicants will be expected to develop and/or maintain a funded research program of high quality, to participate in the graduate and professional (medical, dental, and allied health) school teaching programs of the Department, and to interact with institutional programs in neuroscience and cell/molecular biology. Applicants should send curriculum vitae, names of four individuals who may be contacted for reference, and a summary of potential research projects to: **Ifeanyi J. Arinze, Ph.D., Chairman, Department of Biochemistry, Meharry Medical College, Nashville, TN 37208.** *Meharry Medical College is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS SECTION OF IMMUNOBIOLOGY YALE UNIVERSITY

The Section of Immunobiology is building a multidisciplinary group working on basic problems in immunobiology and seeks applicants for several faculty positions at the level of **ASSISTANT PROFESSOR**. Qualified applicants in all areas of mammalian gene expression and signal transduction are invited to apply. We are particularly interested in candidates in the areas of transcriptional regulation and transmembrane signal transduction. Candidates would be expected to develop an independent research program and to participate in departmental teaching. Candidates should submit curriculum vitae with a summary of present and future research interests, and request that three letters of recommendation be sent. Applications should be received at the address below no later than 15 April 1990.

**Dr. Richard Flavell
Chairman, Section of Immunobiology
Yale University School of Medicine
310 Cedar Street, 424 FMB
P.O. Box 3333
New Haven, CT 06510**

*An Equal Opportunity/Affirmative Action Employer.
Women and minority candidates are encouraged to apply.*

FACULTY POSITION IN PHARMACOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

Applications are invited for a tenured or tenure-track position in pharmacology. Qualifications include an outstanding record of research accomplishment in an area of pharmacology with long-term growth potential, commitment to teaching, and a Ph.D. (or M.D., or both) in pharmacology or related field. Level of appointment and salary will be commensurate with achievement and experience. Curriculum vitae, references, and a summary of research interests should be sent by 30 April 1990 to: **Dr. Larry Stein, Chairman, Department of Pharmacology, College of Medicine, University of California, Irvine, CA 92717.** *An Affirmative Action/Equal Opportunity Employer.*

A **JUNIOR FACULTY POSITION** is available in the Oncology Division of the Beth Israel Hospital, Harvard Medical School, to work on a program studying the mechanism of genetic instability in neoplasia. The specific project is to construct genetically modified vectors that are transcriptionally inert, and insert these vectors into appropriate test systems in which the reported genes are activated by DNA rearrangements.

The successful candidate must have a Ph.D. degree and have a minimum of 2 years of pre- or postdoctoral experience in the molecular analysis of neoplastic cells. He/she must have strong self-motivation and have shown the capability of developing new techniques and/or assay systems as documented by thesis research and/or publications in peer-reviewed scientific journals.

Salary: \$30,000 per annum. Interested applicants should send two copies of résumés to: **Massachusetts Department of Employment and Training, Special Programs, 19 Staniford Street, Boston, MA 02114** and refer to **Job Order #00284.** *Women and minority applicants are encouraged to apply; hospital is an Equal Opportunity Employer.*

Postdoctoral Research Fellowships

The Parke-Davis Pharmaceutical Research Division of Warner-Lambert has initiated a multidisciplinary postdoctoral research program which will provide excellent opportunities to conduct basic studies in areas of potential therapeutic utility. The following Fellowships are currently available:

Fellowship F

Neurotransmitter Release and/or Electrophysiology of Dopamine Systems

The Fellow will be appointed within the Neurosciences Section to investigate the neurochemistry/physiology of dopaminergic neurotransmission. Autoreceptor and peptide regulation of transmission is of major interest, but the Fellow will be given wide latitude in choosing research activities and methodological approaches.

Candidates will be trained as necessary but should have a Ph.D. with background in one or more of the following: electrophysiology, HPLC, in-vitro release, microdialysis or in-vivo voltammetry.

Fellowship G

Endothelin Biology/Cardiovascular Biochemistry

The Fellow will work in the Cellular and Molecular Group of the Cardiovascular Section. This project will involve assessment of cellular/molecular mechanisms underlying the cardiovascular physiology of endothelin. Regulation of endothelin processing in various tissues in normal and pathological models will be explored using conventional (e.g., protein/enzyme purification) and/or molecular techniques (e.g., gene expression).

Applicants should have a Ph.D. in Pharmacology, Physiology or Biochemistry with extensive experience in one or more of the following: prohormone processing, post-translational modification of peptides, protein/enzyme purification and characterization, enzyme/receptor systems, recombinant DNA technologies and tissue culture.

Fellowship H

Atherosclerosis Pharmacology

The Fellow will work in Atherosclerosis Pharmacology to study the role of fatty acid binding protein on the synthesis and secretion of triglyceride-rich lipoproteins. The studies will focus on modulation of expression of hepatic FABP in transfected cells. The successful candidate will possess a Ph.D. in Biochemistry, Cell Biology, Molecular Biology or a relevant field. Experience in fatty acid metabolism, protein isolation or lipoprotein synthesis is required. A knowledge of molecular techniques would be an added advantage.

Fellowship I

Synthesis and Structure-Activity Relationships of Sigma Ligands

See description for Fellowship J

Fellowship J

Exploration of the NMDA Receptor Complex through Molecular Modeling and the Synthesis of Site-Directed Antagonists

Two fellowships in CNS chemistry are immediately available. Using existing computer assisted molecular models of the aforementioned receptor sites, the Fellow will design and synthesize specific ligands as potential CNS agents. An important objective of this research is to enhance the sophistication of the current molecular models to better define the receptors of interest. Biological screens are in place for rapid feedback of in-vitro and in-vivo activity.

Applicants should have a Ph.D. in Organic or Medicinal Chemistry, or related discipline, with a strong synthetic background. Experience with molecular modeling techniques is desirable, but not essential.

Fellowship K

Neurophysiology of Dopaminergic Systems

Using extracellular and intracellular electrophysiological recording techniques in both whole animals and in in-vitro brain slices, the Fellow will investigate the effects of dopamine and dopamine agonists on indices of dopamine autoreceptor and dopamine post-synaptic receptor function.

Applicants should have a Ph.D. in a Neuroscience related area and experience with electrophysiological techniques.

Fellowship L

Regulation of Oxygen Radical Production

This Fellow will work in the Immunopathology Department investigating the regulation of oxygen radical production by phagocytic cells. Research will involve biochemical characterization of signal transduction processes required for this response.

Applicants should have a Ph.D. in Biochemistry, Cell Biology or relative field. Relevant experience is desirable.

Fellowship M

Lymphocyte Subpopulation Functions In-Vitro

The Fellow will work in the Immunopathology Section of the Department of Experimental Therapy. The project is designed to explore the immunological basis for immune deficiency associated with the congenital deficit in the enzyme purine nucleoside phosphorylase (PNP). The fellow will study the effects of PNP inhibitors on histocompatibility antigen expression, cytokine production, and other functional aspects of human and/or murine lymphocyte subpopulations.

Applicants should have a Ph.D. in Immunology and experience working with separated lymphocyte subpopulations.

Fellowship N

Capillary HPLC, Capillary Electrophoresis/Mass Spectrometry

Using mass spectrometric detection, the Fellow will implement modern capillary separation methods (capillary electrophoresis, capillary HPLC). These techniques will be applied to basic neuroscience investigations and to the characterization of synthetic peptides and biosynthetic products.

Applicants should have Ph.D. in Analytical or Bioanalytical Chemistry and experience in HPLC/MS. A background in capillary electrophoresis or microdialysis would be helpful.

All appointments are for one year, renewable for a second year. Compensation includes \$32,000 annual salary with relocation expenses and an attractive benefits package. Our modern research facilities are located adjacent to the University of Michigan in an outstanding living and working environment.

Send letter of application with curriculum vitae and names of three references to **Jack Moyer, Human Resources, Parke-Davis Research Division, Warner-Lambert Company, 2800 Plymouth Road, Ann Arbor, MI 48105**. Please indicate the Fellowship you are applying for. "Smoke-Free Work Environment".



PARKE-DAVIS

"Equal Opportunity In Action"

A DIVISION OF

WARNER LAMBERT

POSITIONS OPEN

MEDICAL FACULTY POSITIONS

Six new positions: **PROFESSOR OF MICROBIOLOGY, ASSISTANT/ASSOCIATE PROFESSOR OF PHARMACOLOGY, ASSISTANT/ASSOCIATE PROFESSOR OF PHYSIOLOGY, ASSISTANT/ASSOCIATE PROFESSOR OF PATHOLOGY, SENIOR RESEARCH SCIENTIST, and ANATOMY.** All except the research scientist are tenure track. The microbiology position is for a medical parasitologist. The anatomy position is for any rank and requires at least 2 years of teaching experience in gross anatomy or neuroanatomy with preference for candidates with research in the areas of ultrastructural histochemistry, cell-extracellular interactions, or neural development. The pharmacology and physiology positions require postdoctoral experience with preference for candidates with medical school teaching and research experience. The pathology position includes general, systemic, and clinical pathology lectures and direction of clinical laboratory with preference for strong background in clinical pathology. The research scientist position is for a biochemical endocrinologist who can run a clinical diagnostic laboratory. Send résumé and names of three references to: **Robert Ritter, Ph.D., Associate Dean for Basic Sciences, College of Osteopathic Medicine of Oklahoma State University (COM-OSU), 1111 West 17th, Tulsa, OK 74107-1898.** Positions will be filled on or after 1 July 1990. Application deadline is 15 April 1990, except for anatomy and pathology, which are 15 May 1990. Please specify which position you are applying for. COM-OSU is an Equal Opportunity/Affirmative Action Employer.

FACULTY APPOINTMENT YALE UNIVERSITY SCHOOL OF MEDICINE

The Department of Anesthesiology invites applications from Ph.D. or M.D. candidates for an appointment at the **ASSISTANT OR ASSOCIATE PROFESSOR** level. Suitably qualified candidates will be eligible for a joint appointment in the Department of Pharmacology, and will be encouraged to develop association with the cardiobiology program of the Yale Center for Molecular Medicine.

Candidates should have specific training in biochemical pharmacology and/or molecular biology as applied to the vascular system. Demonstrated interest in signal transduction mechanisms in the vessel wall or cell-cell communication will be particularly attractive.

Send applications by 15 April 1990 with statement of interests to: **C. Norman Gillis, Ph.D., Professor of Anesthesiology and Pharmacology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.**

Yale University is an Affirmative Action Employer and provides Equal Opportunities to all applicants.

RESEARCH FACULTY MEMBER

The Department of Biological Chemistry at the University of Texas Health Science Center at Houston, Dental Branch, has an opening for a research faculty member (nontenure track) at the **INSTRUCTOR OR ASSISTANT PROFESSOR** level. Duties involve collaborative research on the protein chemistry and/or molecular biology of bone proteins. A Ph.D. or a related field and 2 years of postdoctoral experience in biochemistry are required. Additional qualifications such as a background in protein characterization and recombinant DNA research are helpful. Send curriculum vitae and names and addresses of three references to: **Dr. William T. Butler, Chairman, Department of Biological Chemistry, University of Texas Dental Branch, P.O. Box 20068, Houston, TX 77225.** The University of Texas Health Science Center at Houston is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

HISTOLOGY/ELECTRON MICROSCOPY. Immediate opening for histology technician with skills in electron microscopy in a neuroendocrinology laboratory. Responsibilities include assisting with stereotaxic surgery, perfusing specimens, and running immunocytochemistry for localization of hypothalamic peptides. Experience in transmission electron microscopy with expertise in thin sectioning required. Training in immunocytochemistry will be provided. Please contact: **Ilene Granstein, Human Resources, Tufts University, 200 Harrison Avenue, Boston, MA 02111.** Telephone: 617-956-6600. Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

MOLECULAR BIOLOGIST GYNECOLOGIC ONCOLOGY/CMS BIOLOGY NORTHWESTERN UNIVERSITY MEDICAL SCHOOL

Applications are invited for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level with primary appointment in the Section of Gynecologic Oncology within the Department of Obstetrics and Gynecology (OB/GYN) and secondary appointment in the Department of Cell, Molecular, and Structural (CMS) Biology at the Northwestern University Medical School. Applicants should have a Ph.D. degree and postdoctoral training in molecular biology relating to the study of malignant diseases. We are seeking an individual who will develop an independent, basic molecular biology research program in gynecologic oncology, collaborate with other members of the Department of OB/GYN and CMS Biology and the cancer center on projects investigating human malignancy, and participate in medical student and graduate teaching programs of both departments.

Applicants should send curriculum vitae, a brief description of previous and future research and teaching interests, reprints of significant published work or preprints of manuscripts in press, and at least three letters of recommendation to: **John R. Lurain, M.D., Head, Section of Gynecologic Oncology, Department of Obstetrics and Gynecology, Northwestern University Medical School, 333 East Superior Street, Chicago, IL 60611.**

Northwestern University is an Equal Opportunity/Affirmative Action Employer and invites applications from all qualified individuals.

MOLECULAR GENETICS POSITIONS. An opening is available in our Animal Biology Research Center in Athens, Ohio, for a molecular geneticist experienced in gene construction and mammalian gene expression. Duties include independent research and oversight of a molecular analysis program identifying transgenic animals. A Ph.D. and postdoctoral training are required.

There are also openings for B.S./M.S. level **RESEARCH ASSISTANTS** experienced in mammalian gene transfer and microinjection technology. Please send curriculum vitae and the names of three references to: **Dr. Carl A. Pinkert, Director, Animal Biology Research Center, DNX, One President Street, Athens, OH 45701.**

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

MOLECULAR PARASITOLOGY. Applications are invited for an appointment by 1 July 1990 in the Division of Geographic Medicine, Case Western Reserve University, Cleveland, Ohio, at the level of **RESEARCH ASSOCIATE** with salary dependent on qualifications and prior experience. This position will be part of a large multi-investigator group studying the pathogenic mechanisms and human host immune response to the protozoan *Entamoeba histolytica* with the long-term goal of developing an efficacious subunit vaccine. A successful candidate will have a Ph.D. or M.D. degree, extensive experience with molecular biology techniques, and have completed a relevant postdoctoral fellowship. There is an opportunity for a future tenure-track position dependent on performance. Interested individuals should send curriculum vitae complete with references to: **Jonathan I. Ravdin, M.D., Department of Medicine, University Hospitals of Cleveland, Cleveland, OH 44106.**

POSITIONS OPEN

NEUROBIOLOGY FACULTY POSITION. The Department of Biological Sciences, University of Maryland Baltimore County (UMBC), invites applications from neurobiologists with research interests that employ biochemical/molecular biological approaches to the study of neural systems. Applicants must have a Ph.D. and postdoctoral experience. The position is currently open at the **ASSISTANT PROFESSOR** level, but candidates with exceptional qualifications and prior academic experience will be considered for appointment at a higher rank. We seek individuals capable of developing an independent research program and of contributing to the department's instructional program, teaching at both the undergraduate and graduate levels. Doctoral degrees are offered in biological sciences and in molecular and cell biology. Salaries are competitive, and start-up funds and facilities are excellent. We are particularly interested in candidates who employ contemporary molecular methods to study physiological aspects of nervous system function. Applicants should submit curriculum vitae, summary of current and future research interests, and names, addresses, and telephone numbers of three references. Applications should be submitted by 6 April 1990 to: **Dr. Phillip G. Sokolove, Chair, Neurobiology Search Committee, Department of Biological Sciences, UMBC, Baltimore, MD 21228.** UMBC is an Equal Opportunity Employer.

INVERTEBRATE PHYSIOLOGIST

Harbor Branch Oceanographic Institution (HBOI) is seeking to fill an entry-level position on the resident scientific staff of the Division of Marine Sciences. Strong preference will be given to scientists with interests in the comparative physiology or physiological ecology of marine invertebrates. Applicants should have postdoctoral experience. HBOI offers unique research opportunities using its research vessels and Johnson-Sea Link submersibles. The chosen candidate is expected to aggressively pursue external research funding. Send letter outlining research background and current research interests, together with curriculum vitae and names of three references, to: **K. J. Eckelbarger, Director, Division of Marine Sciences, Harbor Branch Oceanographic Institution, 5600 Old Dixie Highway, Fort Pierce, FL 34946.** Application deadline: 1 May 1990. Harbor Branch Oceanographic Institution is an Equal Opportunity/Affirmative Action Employer.

PHYSIOLOGIST

ASSISTANT OR ASSOCIATE PROFESSOR. Starting during 1990. Requirements: postdoctoral research experience in one or more of the following areas, as applied to respiratory physiology and disease: neurophysiology, growth and adaptation, muscle physiology, or mechanics. Position entails independent research and collaboration with colleagues studying respiration at levels from molecular through organ systems to populations as well as teaching and supervision of graduate students and postdoctoral fellows. Send curriculum vitae, names of three references, and best one or two publications to: **Robert B. Banzett, Ph.D., Department of Environmental Science and Physiology, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115.** We encourage applications from women and minorities.

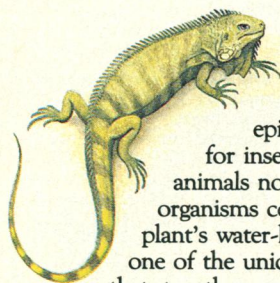
PHYSIOLOGY AND BIOPHYSICS

Applications are invited for two tenure-leading faculty positions at the **ASSISTANT OR ASSOCIATE PROFESSOR** levels in the Department of Physiology and Biophysics. These positions will be available 1 July 1990. Research areas of interest include endothelial cell-smooth muscle interactions, cardiovascular ion channels, and membrane transport. In addition to carrying out an active research program, the candidate will be expected to participate in the teaching programs of the department which include graduate, medical, and allied health students. A competitive salary and set-up funds are available. Interested applicants should send current curriculum vitae and the names of three references by 30 April 1990 to:

**Irving H. Zucker, Ph.D., Chairman
Department of Physiology and Biophysics
University of Nebraska College of Medicine
42nd and Dewey Avenue
Omaha, NE 68105**

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

FROM INDIVIDUAL STRENGTHS COME COLLECTIVE SUCCESS.



The wondrous bromeliad. In a rain forest, this elegant epiphyte provides food for insects and small animals nourished by micro-organisms collected in the plant's water-laden leaves—just one of the unique contributions that, together, maintain the overall strength and well-being of this ecosystem.

Today, this same philosophy is bringing five Johnson & Johnson companies together to form a dynamic new research and development organization—the R.W. Johnson Pharmaceutical Research Institute (PRI).

The reason behind this initiative is simple. For Johnson & Johnson to continue as the world's health care products leader, we must make a firm and focused investment in the areas of drug discovery and development. And we're doing this by pooling the minds and resources of Ortho Pharmaceutical Corporation R&D, Cilag International Research Center, McNeil Pharmaceutical R&D, Ortho Biotech R&D and Johnson & Johnson Biotechnology Center.

Together, we have the strength and mass to meet the challenges of today's competitive research environment. And by meeting these formidable challenges, we will establish PRI as one of the world's leading pharmaceutical R&D companies. To do this, we're continually seeking entry through senior level candidates to join us at one of our several sites in the following fields: pharmacy, biology, biochemistry, toxicology, immunology, chemistry, microbiology, biochemical engineering, pharmacology, pathology, statistics, nursing and medicine. Send your resume to: Selection Dept. SC-309, R.W. Johnson Pharmaceutical Research Institute, P.O. Box 300, Raritan, NJ 08869-0602.

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RESEARCH SCIENTIST CELL BIOLOGY

Amgen has emerged as an industry leader in the discovery and development of human therapeutic products through the application of biotechnology. Our continued growth has created an opportunity for a Ph.D. level scientist to develop programs for the functional analysis of growth factors and receptors. The successful candidate will also participate in collaborative research efforts for the isolation and expression of novel factors with therapeutic potential.

Candidates for this position must have a Ph.D. in mammalian cellular physiology or somatic cell genetics and a minimum of 2 years' post-doctoral experience in cellular regulation by extracellular/intracellular factors and transmembrane signaling mechanisms. Familiarity with cloning, cell sorting and isolation of metabolic and drug resistant mutants in various cell lines is essential. Experience in developing ligand-receptor assays is desirable.

Amgen is committed to maintaining an environment that encourages scientific excellence and creativity. We offer an excellent compensation and benefits package, including equity opportunities. If you share our dedication to the future of biotechnology and would like to be a part of a company that places a high priority on its human resources, please send a C.V., in confidence, to:

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Recruitment, Dept. #514
Amgen Center
Thousand Oaks
CA 91320-1789

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AMGEN

ACTION THEMATIQUE ET INCITATIVE SUR PROGRAMME ET EQUIPE (ATIME)

Call for offers: artificial synthesized RNAs, structure-function and activity on the expression of the genetic message.

Application deadline (20 copies): March 31st 1990

The aim of the present ATIME, proposed by the Life Science CNRS Department, in association with other Scientific Departments (Chemistry, Mathematics, Basic Physics, Applied Physics for the Engineer) are mainly to promote new research groups on the above cited topics.

The goals of the long-term actions (at least three years) are the following:

1. Help post-doctoral investigators wishing to master the concepts and techniques in the concerned scientific fields, with, at the end of the program, the real possibility to be recruited by CNRS.
2. Integrate statutory and non statutory investigators in already established laboratories. In order to achieve the selected programs, the host laboratories will receive specific financial and technical support from CNRS.

The present action is not directed at scientific groups working for a long time on the subject. They are well known by CNRS and already receive or will receive appropriate support.

Scientific topics of the program:

1. Preparation of synthetic RNAs
 - studies of new methodologies to better prepare synthons required for the production of RNA
 - preparation of modified RNAs.
2. Structural and functional studies of the artificial synthesized RNAs.
 - secondary and tertiary structures
 - reactivity
 - catalytic activity
 - stability and biodisponibility
3. Modulation of the genetic expression by synthetic antisense RNAs.
 - replication
 - splicing
 - translation
 - reverse transcription and encapsidation.

Modalities of application:

This action is addressed to post-doctoral Investigators with 1-2 years experience already recruited or not by CNRS, willing to acquire a high level training in one of the concerned topics. They must propose a training-schedule and, if selected, will be supported by ATIME. Their cursus will be followed regularly by the Scientific Committee. At the end of the training program, their recruitment by CNRS will be considered priority, in concertation with CNRS National Committee.

Candidacies, written in french or english, will be sent under the form of a declaration of intent (brief description of scientific background and proposed scientific program). Standard application forms will be available at CNRS: Mrs Ariel Gille, PHONE: 33.1 47.53.10.40 and in the applications should be addressed to **Mrs Ariel Gille: CNRS, 15, Quai Anatole France, 75700 Paris —France).**

Département des Sciences de la Vie du CNRS
15, quai Anatole France. 75700 PARIS-FRANCE
Tél: (1).47.53.15.15

POSITIONS OPEN

POSTDOCTORAL POSITION. To study the molecular mechanism of a virus fusion reaction. Experience in molecular biology, protein biochemistry, and/or virology is desirable. Available spring/fall of 1990. Please send curriculum vitae and names of three references to: **Dr. Margaret Kielian, Department of Cell Biology, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, NY 10461. An Equal Opportunity Employer.**

POSTDOCTORAL POSITION. For 2 years in alcohol research available July 1990. Studies include the hormonal regulation of ethanol metabolism in primary hepatocyte culture and the effects of ethanol on pyridine dinucleotides and ADP-ribosylation in hepatocytes. U.S. citizen or permanent resident. Send letter of application and curriculum vitae to: **Esteban Mezey, M.D. Professor of Medicine, The Johns Hopkins University, Hunt. 415, 725 North Wolfe Street, Baltimore, MD 21205.**

POSTDOCTORAL POSITION. To study the neurophysiology of nucleus accumbens neurons in vivo and in vitro. Projects include regulation of activity by monoamine receptors and the effects of neuroleptics and drugs of abuse on receptor-mediated responses. Experience in intracellular or extracellular recording preferable but other qualified candidates will be considered. Salary competitive and commensurate with experience. Send curriculum vitae and three letters of reference to: **Dr. Francis J. White, Department of Psychiatry, Wayne State University School of Medicine, Lafayette Clinic, 951 East Lafayette, Detroit, MI 48207. Wayne State University is an Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION. In woody plant molecular genetics. Several projects available immediately for individual with molecular genetics background to work with an interdisciplinary team investigating the response of *Populus* genotypes to environmental stresses. Ph.D. and strong background in woody plant molecular biology required; quantitative genetics and stress physiology desirable. U.S citizen; 2-year appointment; salary: \$29,890 per year. Send curriculum vitae and three references to: **W. J. Rietveld, Forestry Sciences Laboratory, East Campus—University of Nebraska at Lincoln, Lincoln, NE 68583-0822.**

POSTDOCTORAL POSITION

Position available for an individual with a Ph.D. in cell biology, biochemistry, or physiology with experience in cell culture. The successful applicant will be involved in research into the molecular mechanisms through which physical forces, generated during cellular deformation, influence cellular biochemistry. Research will focus on the molecular structures involved in regulation of mechanically-sensitive adenylate cyclase and Na⁺/H⁺ antiporter activities during volume expansion and compression, as well as during cell spreading following extracellular matrix attachment.

Competitive salary and fringe benefits are available. Please send CV and three names or letters of reference to:

Dr. Peter A. Watson
Weis Center for Research
Geisinger Clinic
Danville, PA 17822

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Geisinger

POSITIONS OPEN

POSTDOCTORAL POSITION. Available immediately for fibroblast growth factor receptor biochemistry. Analysis of functional epitopes on FGF-R by monoclonal antibodies. FGF-R signal transduction. Coronary angiogenesis. 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 Educator and Employer. Protected group members are encouraged to apply.*

POSTDOCTORAL POSITION. Available immediately to study the mechanism(s) of cytolytic and noncytolytic functions, the receptor structure, and ontogeny of NK cells. Candidates with experience in NK cell area should send curriculum vitae and the names of three references to: **Chief, Section of Natural Immunity, Box 18, The University of Texas, M. D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX 77030.** *We are an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION. To study electrophysiology of serotonin receptor activation in vitro in rat hippocampal slices. Opportunity to interact with other departmental investigators who use a variety of biochemical, anatomical, and molecular approaches to study signal transduction. Experience with intracellular recording desirable. Available immediately. Contact: **Dr. J. Goldfarb, Department of Pharmacology, Box 1215, The Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574.** *An Equal Opportunity Employer.*

POSTDOCTORAL POSITION

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

AQUATIC ECOLOGIST. A 1.5-year **POSTDOCTORAL POSITION** is available in May 1990 to study factors affecting the distribution of fishes in Lake Tahoe, California. SCUBA certification required. Additionally, the individual will teach aquatic ecology for one to two quarters at Utah State University. Send letter, curriculum vitae, and names, addresses, and telephone numbers of three references to: **Dr. W. A. Wurtsbaugh, Department of Fisheries and Wildlife, Utah State University, Logan, UT 84322-5210. Telephone: 801-750-2584.**

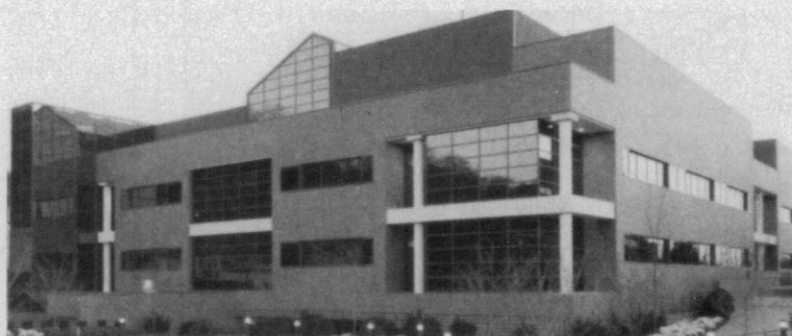
POSTDOCTORAL RESEARCH POSITION. Immediate opening in research laboratory involved in studying cytokine expression in the "wasted" mouse model. Experience in molecular biology or immunology preferred. Send résumé to: **Dr. G. R. Libertin, Loyola University Chicago, 2160 South First Avenue, Maywood, IL 60153.** *Loyola University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS. Two positions available to study angiogenesis in the ovary, utilizing PCR, DNA sequencing, and other modern molecular techniques to analyze the expression of angiogenic factors, both known and novel, by ovarian cells. Training in cellular physiology, biochemistry, or molecular biology desirable. Available 1 May and 1 July 1990. To apply, send curriculum vitae to: **Dr. Robert D. Koos, Department of Physiology, University of Maryland School of Medicine, 655 West Baltimore Street, Baltimore, MD 21201.** Call 301-328-8033 for additional information. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION. Available immediately in protein biochemistry. Research focus on characterization of sperm membrane proteins and investigation of sperm development at the molecular level. Strong emphasis will be placed on isolation of proteins of interest. Candidate should have a Ph.D. or equivalent in protein biochemistry. Cytogam, a rapidly growing biotechnology company, offers competitive salary and benefits, and the opportunity for significant contribution to the organization. Applicants should send a résumé, reprints of publications, and three references to: **Dr. Marc J. Besman, Cytogam, Inc., 3498 North San Marcos Place, Suite 7, Chandler, AZ 85224.** *Equal Opportunity Employer.*

9 MARCH 1990

RESEARCH SCIENTISTS



The Merrell Dow Research Institute

Distinguished Discoveries, Distinctive Careers

Innovative science and drug discovery are the goals of the Merrell Dow Research Institute. In cardiovascular diseases, CNS pharmacology, tumor biology, inflammatory diseases and metabolic diseases, we are advancing the state of the science through Research Discovery, Drug Development and Medical Research. Work with other eminent scientists at Merrell Dow in a creative environment which encourages original research, publications and collaborations. The new facilities are well equipped with state-of-the-art technology. Challenging opportunities are currently available for the following:

PROTEIN PHOSPHORYLATION BIOCHEMIST

We have a challenging career opportunity for a Senior Research Biochemist to conduct research directed toward an understanding of the role of protein phosphorylation and protein kinases in receptor function and cellular processes. The preferred candidate should have a broad background with 5-10 years experience beyond the Ph.D. degree. Familiarity with the isolation and assay of various kinases and the ability to identify specific phosphoprotein substrates and the consequences of phosphorylation on protein functions would be added advantages. The position includes responsibility for a multiple disciplinary research program related to therapeutic targets in the cardiovascular, CNS and cell biochemistry groups. The person should have strong communication skills with a track record of publishing in peer-reviewed journals. (Job Code RLJ)

SENIOR RESEARCH IMMUNOLOGIST— CELLULAR IMMUNOLOGY

This position entails basic mechanistic studies of antitumor and antiviral immune responses, *in vitro* and *in vivo*, with the intention to identify novel targets and therapies. Applicants must have a Ph.D. in immunology with 2-5 years postdoctoral training, excellent communication skills, and a record of accomplishments as evidenced by recent publications. Experience regarding the regulation of lymphocyte surface antigen/receptor expression and function at the molecular or cellular level would be desirable. The successful candidate will be expected to establish an independent and collaborative-type research effort in basic immunology/virology within an existing group of cell biologists. (Job Code TLB)

SENIOR RESEARCH MOLECULAR BIOLOGIST— RECOMBINANT DNA/PROTEIN TECHNOLOGY

We seek an experienced investigator skilled in the design, development and manipulation of various prokaryotic and eukaryotic gene expression systems for research scale recombinant protein production. Expression systems of interest include bacteria, yeast, baculovirus, mammalian cells and oocytes. Specifications require a Ph.D. with a minimum of 2-5 years experience beyond postdoctoral training in gene cloning, sequencing, synthesis and construction of expression vectors. Excellent oral and written communication skills are required. The successful candidate will complement a group of protein and biophysical chemists and must be able to function as an integral team member to solve problems in protein chemistry of therapeutic interest. (Job Code ADC)

SENIOR RESEARCH PHARMACOLOGIST

We have an immediate opening in Pharmacological Sciences for a scientist to conduct research directed toward new therapeutic approaches for different cardiovascular disorders. The individual would be expected to carry out studies in isolated tissues, cultured cells and *in vivo* models, examining endogenous vasoactive agents for their roles in normal and pathological processes and characterizing new pharmacological agents. They would be part of a multidisciplinary research staff where development of the individual scientist and collaboration is encouraged. The individual should have a Ph.D. degree and postdoctoral experience in isolated tissue pharmacology. (Job Code RCD)

We offer excellent compensation, comprehensive benefits including relocation assistance, the opportunity to contribute significantly to our ongoing achievement. To find out more about your advantages with MDRI, please send your resume, indicating position of interest to: Personnel Services Manager.

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Cincinnati, OH 45215

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Research Associate

Genentech, Inc., a leader in the field of biotechnology, has an excellent opportunity for a Research Associate.

In this position, you will be responsible for the daily management, operation and maintenance of a fluorescence activated cell sorting facility. This involves operating both Coulter and BD equipment, performing 1-5 color analysis with either single, dual or triple laser excitation and involvement in the development and application of new technologies. To qualify, you will have 5+ years' experience in flow cytometry and a thorough knowledge of computer technology, electronics/optics (desirable) and cell culture.

Genentech, Inc. offers an excellent salary and benefits package coupled with the opportunity to make a significant contribution to our organization. For consideration, please send your resume to Yvonne Davino, Human Resources Dept. GR, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. We actively support and promote affirmative action and equal employment opportunity. Women and minorities are encouraged to apply.

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NEUROSCIENCE

BAYLOR COLLEGE OF MEDICINE

The Division of Neuroscience at Baylor College of Medicine, a free standing basic science division, is recruiting faculty members with research interests in neural systems, sensory processing and cortical function and development. The goal of our recruiting is to establish a critical mass of independent junior and senior investigators with shared interests. Individuals in this group will be part of the Division of Neuroscience, joining other faculty with research programs taking molecular, biochemical, biophysical, or theoretical approaches to related problems in Neuroscience. Although these new faculty will become part of an active graduate and post-graduate training program and will teach at the graduate level, they will devote the vast majority of their efforts to the execution of a vigorous, independent research program. Applicants should send a curriculum vitae, a statement of research interests, and the names of four references to:

James W. Patrick
Division of Neuroscience,
Baylor College of Medicine,
One Baylor Plaza,
Houston, Texas 77030.

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SENIOR SCIENTIST POSITIONS

Department of Drugs

The American Medical Association, one of the nation's leading advocates of better public health, is currently seeking two Senior Scientists to join our challenging, progressive Department of Drugs.

The successful candidates will review and evaluate pertinent literature, consult with various experts, and organize and present acquired medical knowledge for the AMA's Drug Evaluations. Additional responsibilities will include: serving as an AMA topical resource professional; representing the Department of Drugs at national meetings; and aiding in the development of AMA drug legislation positions.

Candidates for both positions must have an M.D. or Ph.D. in pharmacology (or related biomedical science) or PharmD degree. *Knowledge/training/experience in general pharmacology is essential.* Individuals with a background in cardiovascular/renal pharmacology or metabolic diseases/endocrinology or infectious diseases are of particular interest. Publication and professional experience in academic, governmental, or industrial pharmacology is highly desired.

Qualified candidates should find Senior Scientist positions in the AMA's Department of Drugs to be excellent alternative career opportunities to traditional laboratory research or patient care environments.

In addition to the challenge of these positions, the AMA offers a competitive compensation/benefit package and national visibility. Please send resume and salary history to:

Div. of Placement,
Dept. PP/SDB-1690,
AMERICAN MEDICAL
ASSOCIATION,
535 N. Dearborn Street,
Chicago, IL 60610.

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Cellular Toxicologist

Pharmaceutical Research

The Parke-Davis Pharmaceutical Research Division of Warner-Lambert, a world leader in pharmaceutical development, has an immediate opening in the Toxicology Department for a scientist to conduct cellular toxicology studies to support drugs in development and to explore in-vitro alternatives to animal testing.

Qualifications for the position include a Ph.D. with two or more years of relevant experience. This individual should have broad-based culture experience in one or more areas, (e.g.: primary cell culture, cell line maintenance, human tissue studies, tissue slice/organ culture) coupled with experience in the assessment of cellular toxicity. The ideal candidate would be a self-directed individual who is willing to work in a collaborative environment and who has demonstrated the ability to design and initiate new projects and carry them through to completion.

Join the exciting research and development team at Parke-Davis and enjoy outstanding compensation and environment. Our modern facilities are located adjacent to The University of Michigan. Interested, qualified applicants should send their curriculum vitae and names of three references in confidence to: **Ms. S. Hultquist, Human Resources Department, Parke-Davis, Research Division, Warner-Lambert, 2800 Plymouth Road, P.O. Box 1047, Ann Arbor, MI 48106-1047.** "Smoke-Free Work Environment"

"Equal Opportunity In Action"



PARKE-DAVIS

A DIVISION OF **WARNER-LAMBERT**

ABBOTT LABORATORIES

Abbott Laboratories' Pharmaceutical Products Division is continuing to lead the way in the development and manufacture of anti-infective, cardiovascular and anti-convulsant/neurological products. Supported by a significant investment to R&D, twice the industry standard, we perform renowned clinical studies, and maintain a variety of specialized labs featuring advanced developmental technologies. Our extensive technical resources create a superior environment for those who would like to make a significant personal and professional commitment.

MACROMOLECULAR CRYSTALLOGRAPHY ASSOCIATES

The Computer Assisted Molecular Design group is expanding its protein crystallography laboratory to support Discovery Projects. This group is dedicated to the discovery of potent new pharmaceutical agents by combining x-ray crystallography and molecular graphics with energy and molecular dynamics calculations. Rational drug design also plays a major role in our research strategy and methodology. Your involvement with Abbott's crystallography group will include research into a number of structural targets related to the areas of neurosciences, immunosciences, and inflammatory, cardiovascular, bacterial and viral diseases. The Protein Crystallography Laboratory is equipped with two Rigaku 12 kw rotating anode x-ray generators, a Rigaku high speed diffractometer, and a Nicolet-Xentronics area detector, as well as state-of-the-art computing and graphics facilities.

Postdoctorates—The selected individuals need a Ph.D. in macromolecular crystallography or a related field. Experience in protein biochemistry is desirable.

Research Associates—The ideal candidates will have an M.S. or a B.S. and research experience in protein purification and biochemical characterization. Experience in areas related to protein crystallography, particularly in the areas of crystallization, heavy atom derivative preparation, data collection by film, diffractometry, or area detector methods are desired.

Abbott is located in an attractive suburban area approximately 30 miles north of Chicago. We provide competitive compensation and benefits, including a profit sharing and a stock retirement plan. For immediate consideration, please send your resume with salary requirements to: **Patricia Handy, Corporate Placement, Job #7623, Abbott Laboratories, One Abbott Park Rd., Abbott Park, IL 60064.** Abbott is an Affirmative Action Employer.

ABBOTT LABORATORIES



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POSITIONS OPEN

POSTDOCTORAL POSITION. The Microbial Biochemistry and Genetics Department of the Medical Research Division of American Cyanamid Company has an immediate opening for a postdoctoral researcher to study the tetracycline efflux pump of *E. coli*, which confers resistance to tetracycline. The position is for 2 years, with a possible extension for a third year. Candidates should have a strong background in molecular genetics and/or biochemistry. The Medical Research Division is located at Lederle Laboratories, 25 miles north of New York City. We offer a competitive starting salary and excellent benefits. Interested candidates may submit curriculum vitae and the names of three references to: **Professional Employment Office, Department IC, Lederle Laboratories, North Middletown Road, Pearl River, NY 10965.** An Equal Opportunity Employer, M/F.

POSTDOCTORAL POSITION(S). Available in diabetes-related research to study signal transduction of insulin secretion including intracellular calcium, phospholipid-derived mediators, protein phosphorylation, and cellular mechanisms of cytokines. Experience in biochemistry or cell biology desirable. Salary based on NIH scale. *U.S. citizenship required.* Send curriculum vitae and names of three references to: **Dr. Michael L. McDaniel, Department of Pathology, Box 8118, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, MO 63110.** Telephone: 314-362-7435.

Ph.D. IN BIOCHEMISTRY

A Ph.D. in biochemistry is being recruited to develop a basic research laboratory in the Department of Urology. Preference will be given to applicants who have experience in cancer research. Level of appointment and salary will be commensurate with experience. Interested individuals are invited to submit curriculum vitae and three letters of reference to: **Dr. Jerry Sullivan, Professor and Chairman, Department of Urology, Louisiana State University Medical School, 1542 Tulane Avenue, New Orleans, LA 70112.**

Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION/THEORETICAL BIOPHYSICAL CHEMISTRY. To participate in developing and applying molecular dynamics method in crystallographic refinement of biomolecules, and to study protein-DNA interactions in collaboration with theoretical chemists and experimental molecular biologists in the department. Knowledge in crystallography, molecular dynamics, molecular orbital calculations, FORTRAN programming, and computational work are advantageous, but candidates with different backgrounds will be considered. We are equipped with good computing facilities including CONVEX C-220, Silicon Graphics 4D/240, Silicon Graphics workstations, and access to supercomputers. Please send résumé and two letters of recommendation to: **Dr. Chung F. Wong, Department of Physiology and Biophysics, Box 1218, The Mount Sinai School of Medicine, New York, NY 10029-6574.** Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATES. Available immediately in the areas of protein biochemistry, molecular biology, and cell culture. Candidates should have a B.S. degree with at least 2 years of relevant experience or M.S. degree in life sciences. Demonstrated ability for independent work and effective communication is expected. Cytogam, a rapidly growing biotechnology company, offers competitive salary and benefits, and the opportunity for significant contribution to the organization. Applicants should send a résumé and three references to: **Dr. Marc J. Besman, Cytogam, Inc., 3498 North San Marcos Place, Suite 7, Chandler, AZ 85224.** Equal Opportunity Employer.

CARBOHYDRATE CHEMISTRY OF TUMOR-ASSOCIATED MUCINS, POSTDOCTORAL/RESEARCH ASSOCIATE. To isolate and/or synthesize specific oligosaccharide/glycopeptide structures from mucins for structural characterization and immunochemical correlations. Experience in synthetic organic chemistry and analytic carbohydrate chemistry useful. Please send curriculum vitae and the names of three references to: **Dr. David Gold, Center for Molecular Medicine and Immunology, University of Medicine and Dentistry of New Jersey (UMDNJ), 1 Bruce Street, Newark, NJ 07103.**

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

A position is available at the Biophysics Department, Roswell Park Cancer Institute, for a person with a Ph.D. in peptide chemistry/chemistry. Experience in design and synthesis (by solution and solid-phase method) of α -helical and immunologically active peptides, in their purification (by HPLC) and in their characterization of peptides is essential. Experience in crystallization, x-ray analysis, NMR, and immunological studies is desirable. Salary: \$22,000 per year. Send curriculum vitae to: **Dr. H. Box, Biophysics Department, Roswell Park Cancer Institute, Elm and Carlton Streets, Buffalo, NY 14263.** Roswell Park is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH ASSOCIATE.

Directed mutagenesis study of the role of amino acid residues at an enzyme active site. Candidates for a position in this project should have research experience in enzymology or biophysical chemistry. For recent published work by the group, see *J. Biol. Chem.* **264**, 9391 (1989), and **265**, 2740 (1990). Training will be provided in obtaining rate constants for ligand binding and release, interconversion of conformers, and catalysis. Methods for the study of transient state kinetics as well as steady state kinetics will be included. Starting salary: \$22,000 or higher depending on relevant experience. To apply send curriculum vitae and three references to: **Dr. R. L. Blakley, Department of Biochemical and Clinical Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101.** An Equal Opportunity Employer.

RESEARCH ASSOCIATE. Loyola University Chicago, Department of Pathology, seeks a research associate to work on tissues for research purposes. Required is a familiarity with electron microscopic and immunohistochemical techniques: processing of tissues, cutting of sections (semithin and ultrathin), staining of sections, photography, use of electron microscope, cutting of frozen sections, immunofluorescence labeling. Desired is experience in research and familiarity in handling small laboratory animals. Send curriculum vitae and three references to: **Dr. Maria M. Picken, Department of Pathology, Loyola University Medical Center, 2160 South First Avenue, Maywood, IL 60153.** Loyola University is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE (postdoctoral) in molecular parasitology. The successful candidate will participate in an NIH-funded project studying the molecular basis of antigenic variation in the protozoan parasite, *Giardia lamblia*. Research experience in molecular biology is preferred, but other backgrounds will be considered. Ph.D., M.D., or equivalent degree is required. Salary is commensurate with experience. The review of applications will continue until position is filled. Please respond with curriculum vitae and three references to: **Rodney Adam, M.D., Infectious Disease Section, University of Arizona College of Medicine, 1501 North Campbell, Tucson, AZ 85724.** The University of Arizona is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

RESEARCH INSTRUCTORS, POSTDOCTORAL FELLOWS, AND TECHNICIANS. Available immediately for well-funded new initiative. Genomic project involving novel tumor suppressor and its gene which is especially significant in cancers of blacks; nuclear structure/function, DNA repair, and cell cycle progression. Laboratory is located in pleasant Georgetown environment, considerable interaction with nearby NIH. Cloning experience required. *Applications from minorities are encouraged.* Salaries will be commensurate with experience. **LABORATORY ADMINISTRATOR** also required. Contact: **Dr. Mark Smulson, Department of Biochemistry and Molecular Biology, Georgetown University School of Medicine, Washington, DC 20007.** Telephone 202-687-1718.

ASSISTANT SPECIALIST (annual salary range \$29,136 to \$33,372). Duties are to conduct research on the mechanism of bovine papilloma virus replication, including development of *in vitro* BPV replication; cloning and expression of proteins involved in replication and their regulation; and characterization of the protein factors, etc. Ph.D. in biochemistry. Job site and interview will be at Berkeley, California. Send this ad and your résumé to: **Job #WS 12611, P.O. Box 9560, Sacramento, CA 95823-0560**, no later than 24 March 1990.

POSITIONS OPEN

The Environmental Research Laboratory of the United States Environmental Protection Agency (USEPA) in Gulf Breeze, Florida, invites applications for three positions:

- **SUPERVISORY RESEARCH PATHOBIOLOGIST, GM-14** (\$50,342 to \$65,444), who will serve as chief of the Pathobiology Branch, take an active role in the development of a new center for marine and estuarine disease research, and develop an active research program appropriate to the mission of the branch.

- **RESEARCH MICROBIAL ECOLOGIST, GM-13** (\$42,601 to \$55,381) to GM-14 (\$50,342 to \$65,444), who will serve as matrix manager for the Environmental Protection Agency Biotechnology Risk Assessment Program and conduct research in an area of aquatic microbial ecology.

- **RESEARCH MICROBIOLOGIST, GS-13** (\$42,601 to \$55,381), to conduct research dealing with the degradation of xenobiotic chemicals by microbial communities and the development of biological treatment strategies applicable to the bioremediation of hazardous wastes.

Send all inquiries for application packages by 13 April 1990 to:

USEPA
Human Resources Office
P.O. Box 98516
Las Vegas, NV 89193-8516

Applicants must be United States citizens. The USEPA is an Equal Opportunity Employer.

RESEARCH CHEMIST. To conduct research on lubricant additives for replacement in automotive/industrial oils; design equipment and develop processes to evaluate additives and functions and test possible replacements; design, plan layout, and oversee workers engaged in constructing, controlling, and improving equipment; design equipment to control movement, storage, and packaging of additives; analyze operating procedures, equipment, and machinery functions to reduce processing time and cost; determine most effective arrangement of unit operations accounting for process requirements, economic evaluation, operator effectiveness, and physical and health hazards; perform tests and take measurements throughout production stages to determine degree of control over variables (condensers, kilns, tanks, and boilers); design and plan measurement and control system based on data collected in laboratory experiments; conduct research in Fourier transform infrared spectroscopy and calorimetric analysis. Ph.D. in physical organic chemistry required as well as 2 years of experience in job offered or 2 years of experience as research associate. Must have conducted academic research in energy-related chemical processes as evidenced by publication in a professional journal. Must have completed at least one course each in molecular spectroscopy and polymer stability. Experience with functional title of postdoctoral research associate acceptable. Experience must have included at least 1 year each in Fourier transform infrared spectroscopy and calorimetric analysis; 40 hours per week, 9:00 a.m. to 5:00 p.m., \$45,400 per year. Send résumé to: **Illinois Department of Employment Security, 401 South State-3 South, Chicago, IL 60605, Attention: Joan Sykstus, Reference #1104-S.** Employer-paid ad.

The cancer center of a university in northeastern Ohio is seeking a **RESEARCH INSTRUCTOR** to clone and characterize eukaryotic cell lines deficient in pyridine nucleotide and poly (adenosine diphosphate ribose) metabolism. The individual will also be responsible for conducting research on the physiologic effects of poly (adenosine diphosphate ribose) polymerase deficiency and its relationship to cancer chemotherapy resistance mechanisms. Ph.D. in physics or biophysics is required. No experience required in above duties, but applicants will qualify with 3 years of postdoctoral research experience in mutagenesis, cell biology, mutant cell selection, and techniques required to study pyridine nucleotide and poly (adenosine diphosphate ribose) metabolism; 37½ hours per week (8:30 a.m. to 5:00 p.m.), Monday to Friday, \$25,000 per year. *Must have proof of legal authority to work permanently in the United States.* Send duplicate copies of résumé, list of publications, and three recent reprints (no calls) to: **C. Bussard, JO # 1084516, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

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**National Institutes of Health
Public Health Service
Department of Health and Human Services**

The National Institutes of Health (NIH) invites nominations and applications for the position of **Associate Director for Disease Prevention**. This is a Civil Service position in the Senior Executive Service (SES), with a salary ranging from the ES-1 to ES-4 pay level per annum. The person selected may be eligible for Physician's Comparability Allowance ranging \$5,000 to \$20,000 per year. A one year probationary period must be served by the individual selected if not currently in the Senior Executive Service.

The Associate Director for Disease Prevention provides leadership and coordination of biomedical programs that seek to improve the Nation's health through research, research training, and the exchange of knowledge as these activities relate to disease prevention, effects of nutrition on health and progression of disease, and medical applications of biomedical research.

For more information, contact Dr. Paul Thibault at (301) 496-6521. The following forms are required: Application for Federal Employment (SF-171) accompanied by a current curriculum vitae and bibliography. These must be submitted to:

**Dr. Paul Thibault
National Institutes of Health
Office of the Director Personnel
Building 31, Room 1C-23
9000 Rockville Pike
Bethesda, Maryland 20892**



Applications must be postmarked no later than April 9, 1990.

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

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Lipid Biochemist

Sphinx Biotechnologies is a young and rapidly growing company whose mission is to help sick people through discovery, development, manufacturing and marketing of pharmaceuticals targeted towards signal transduction systems involving lipid second messengers.

We are seeking a lipid biochemist to integrate with our discovery and development programs. The successful candidate should have a Ph.D. in biochemistry or related scientific field and at least three years of postdoctoral experience in studies involving cell-cell communication or mechanisms of signal transduction. Research experience on enzymes of phospholipid metabolism would be desirable. The candidate should demonstrate a strong ability to work with a multidisciplinary research team.

Sphinx Biotechnologies offers excellent compensation and benefits as well as an attractive relocation policy. We are located in the Research Triangle area of North Carolina which offers excellent living conditions and outstanding schools. **For confidential consideration, please forward your curriculum vitae, list of publications and names of three references to: Sphinx Biotechnologies Corporation, Position 115, Post Office Box 52330, Durham, NC 27717.** We are an Equal Opportunity Employer.

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IMMUNOLOGISTS

Ph.D.

SangStat Medical is a dynamic and growing company in the field of organ transplantation diagnostics and therapeutics, located south of San Francisco. Current openings exist as follows:

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This is a unique opportunity for outstanding individuals to grow quickly with a young company. SangStat Medical offers an excellent compensation and benefits package, including significant equity participation through stock options.

Please send a c.v. including references, in confidence, to: **SangStat Medical, Human Resources, 3603 Haven Ave., Suite D, Menlo Park, CA 94025.**



SangStat Medical

POSITIONS OPEN

RESEARCH COORDINATOR. A position is available to participate in a research program to investigate visibility degradation throughout the national park system. Primary duties will revolve around data analysis, exercising and developing deterministic and receptor models, and graphically depicting model results. Development of analytical and graphic computer procedures are a necessary component of these responsibilities. Qualifications: a minimum of a master of science in physical science discipline with a strong mathematical and statistical background are required. A demonstrated knowledge of VAX/VMS, VAX Fortran, MSDOS and statistical packages such as SAS and SPSS are highly desirable. Preference will be given to candidates with work experience in the tasks identified in the description section. Application deadline: 30 March 1990. Salary commensurate with qualifications. Submit letter of applications and résumé to: **Professor Thomas H. Vonderhaar, Director, Cooperative Institute for Research in the Atmosphere (CIRA), Foothills Campus, Ft. Collins, CO 80523. Telephone: 303-491-8448.**

RESEARCH SCIENTIST

An opening exists for a Ph.D. with a minimum of 2 years of laboratory experience in the development of lyophilized products. Experience in designing formulations for optimal lyophilization of antibody-based radiopharmaceuticals required as well as experience with novel analytical methodologies for characterizing product behavior during lyophilization. Salary is \$42,000 per year. State-of-the-art research and development facilities provided. Send your curriculum vitae with a list of publications to: **The Philadelphia Job Bank, 444 North 3rd Street, 3rd Floor, Philadelphia, PA 19123. Responses must include Job Order Number #4304914. We are an Equal Opportunity/Affirmative Action Employer.**

RESEARCH SCIENTIST. Available immediately in protein biochemistry. Research emphasis on characterization of membrane proteins. Multidisciplinary approach to investigation of sperm biochemistry is required. Candidate should have a Ph.D. with 2 years of postdoctoral experience and a strong research background in protein biochemistry. Excellent communication skills and demonstrated problem-solving abilities are required. Cytogam, a rapidly growing biotechnology company developing applications in the field of reproductive biology, offers competitive salary and benefits, and the opportunity for significant contribution to the organization. Applicants should send curriculum vitae, reprints of publications, and three references to: **Dr. Marc J. Besman, Cytogam, Inc., 3498 North San Marcos Place, Suite 7, Chandler, AZ 85224. Equal Opportunity Employer.**

SENIOR SCIENTIST MOLECULAR BIOLOGIST

Ph.D. in molecular biology, immunology, or biochemistry with 2 to 3 years of postdoctoral experience. Experience in cDNA library construction and screening, protein structure, function studies, and receptor cloning/characterization.

For immediate consideration, send your résumé indicating salary history and position to:

**Director
Institute of Primate Research
P.O. Box 24481, Karen
Nairobi
Kenya**

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TOXICOLOGIST. Technical Assessment Systems, Inc. (TAS), a scientific consulting firm specializing in risk assessment of chemicals in food, water, and the environment, offers opportunities for highly motivated, self-starting toxicologists with industrial and/or regulatory experience. The position involves management of toxicology and risk assessment projects, monitoring studies, and providing regulatory compliance assistance to international clients. Successful candidates will have an advanced degree and a proven record of accomplishment in the field of toxicology. Excellent communication and organizational skills required. Familiarity with GLP's and FIFRA guidelines and regulations desirable. TAS offers a competitive salary and benefits package. Please send résumé and salary history to: **Alan Katz, Technical Assessment Systems, Inc., The Flour Mill, 1000 Potomac Street, N.W., Washington, DC 20007. We are an Equal Opportunity Employer.**

FELLOWSHIPS

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 FELLOW. Three-year position available 1 May 1990 to do structure-function analyses for an enzyme which confers bacterial drug resistance. Prefer individual with background in protein biochemistry and expertise in standard molecular biological techniques. Previous experience with site-directed mutagenesis useful but not required. Send curriculum vitae and three letters of reference to: **Dr. Michael H. Perlín, Department of Biology, University of Louisville, Louisville, KY 40292. The University of Louisville is an Equal Opportunity Employer.**

POSTDOCTORAL FELLOWSHIP. The Reingold ECG Center, Cardiology Section, at Northwestern University Medical School is seeking a candidate who will study the effects of inotropic agents on cardiac cellular electrophysiology and intracellular calcium transients (using indo-1 fluorescence). M.D. and/or Ph.D. required; experience with cellular electrophysiological techniques preferred. Send curriculum vitae and three letters of reference to: **Dr. J. Andrew Wasserstrom, Reingold ECG Center, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, IL 60611. An Equal Opportunity/Affirmative Action Employer. Employment eligibility verification required upon hire.**

POSTDOCTORAL FELLOWSHIP. Molecular neurobiology in the Departments of Neurology and Biological Chemistry to study S100 β gene expression, glial:neuronal differentiation, and control of glial-specific gene expression. Candidates for this NIH-funded, 3-year position should have a Ph.D. and experience with molecular biological techniques, preferably including DNase footprinting and DNA/protein interaction assays. Position available spring of 1990. Send résumé to: **Dana Hilt, Department of Neurology, University of Maryland School of Medicine, 22 South Greene Street, Baltimore, MD 21201. The University of Maryland is an Equal Opportunity Employer.**

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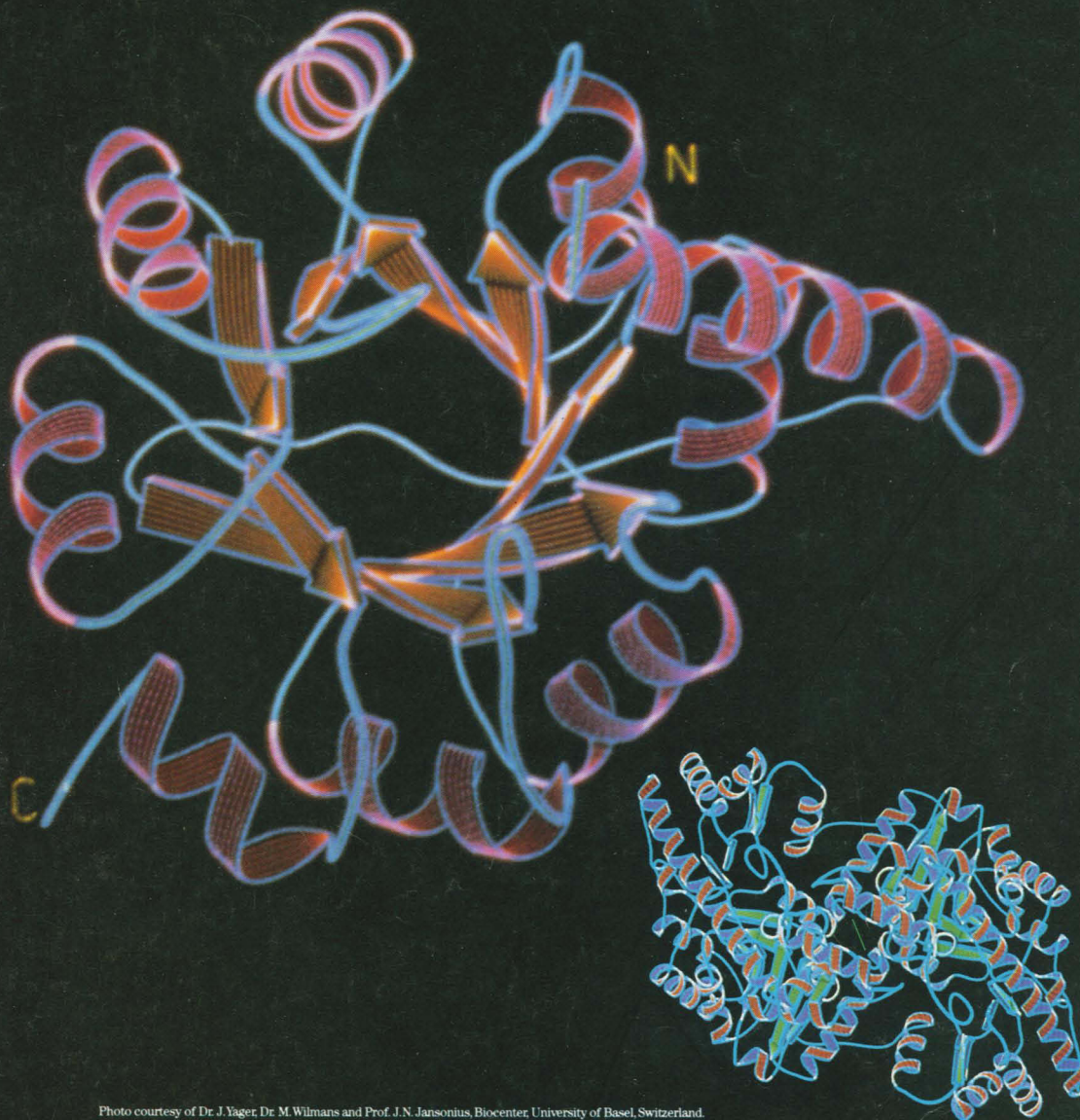


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